



Opioid Misuse in Windsor and Essex County

This report provides an overview of emergency department (ED) visits and admissions to acute care from emergency (hospitalizations), with one or more opioid-related diagnoses for Windsor-Essex County (WEC) residents in WEC hospitals. Local statistics are also reported for opioid-related deaths and opioid-related claims through the Ontario Drug Benefit (ODB) program. Opioids include codeine, fentanyl, heroin, hydromorphone, methadone, morphine, and oxycodone.

Key Findings

- Opioids were dispensed to 27,984 individuals in WEC in 2015 under the ODB program.
- The total rate of opioid users in WEC was 18.9% greater than the provincial rate of opioid users; when compared to 49 other regions in Ontario, WEC has the 7th highest rate of opioid users.
- There were 382 opioid-related ED visits in WEC in 2015 which is 3.6-times greater than 2003.
- Males aged 20-44 accounted for nearly half (48.2%) of all opioid-related ED visits in WEC in 2015.
- The rate of opioid-related ED visits was 2.8-times greater in Windsor compared to Essex County.
- The greatest density of opioid-related ED visits came from residents of the downtown cores of Windsor and Leamington.
- There were 53 opioid-related hospitalizations in WEC in 2015 which is 4.1-times greater than 2003.
- There were 24 opioid-related deaths in WEC in 2015; 19 deaths were in the city of Windsor.
- The 2015 rate of opioid-related deaths in the city of Windsor (8.8 per 100,000 population) was 1.7-times greater than the provincial rate (5.3 per 100,000 population).
- Based on the morbidity and mortality data in this report, the burden of illness for opioid misuse is disproportionately greater among the working-age (20-64 years-old) population (primarily males) in the city of Windsor.

Data Sources

The data presented in this report were sourced from the National Ambulatory Care Reporting System and the Discharge Abstract Database (Ontario Ministry of Health and Long-Term Care IntelliHEALTH ONTARIO; Extracted January 16, 2017) and from the Office of the Chief Coroner of Ontario (Received June 2, 2017). The International Classification of Disease (ICD10-CA) codes used for rates of ED visits and hospitalizations were F110-119 (mental and behavioural disorders due to the use of opioids) and T402 (poisoning by other opioids). Additional data related to the ODB program were sourced from the Ontario Drug Policy Resource Network's 2016 report: Opioid Use and Related Adverse Events in Ontario.

Opioid Users covered by the Ontario Drug Benefit (ODB) Program

- Ontario health card holders are eligible for the ODB program if they are ≥65 years-old or if they meet one of the following criteria: low socio-economic status, receiving disability or home-care support, have high drug costs relative to household income, or reside in a long-term care home^[1]. Individuals who were dispensed opioids that were covered by the ODB program are referred to as opioid users.
- There were 114,549 WEC residents eligible for ODB in 2015^[1]. The number and rate of opioid users in 2015 is reported in **Table 1** for the populations of WEC and Ontario.
- According to the ODB database, opioids were dispensed to 27,984 individuals in WEC in 2015; 10,618 of these individuals were under 65 years-old and 17,366 were 65 years-old or older^[1].
- Long-acting oxycodone (i.e., oxycontin and oxyneo) was dispensed to 298 WEC residents in 2015 and long-acting fentanyl was dispensed to 1,260 WEC residents in 2015^[1].
- The total rate of opioid users in WEC was 18.9% greater than the provincial rate of opioid users; when compared to 49 other regions in Ontario, WEC has the 7th highest rate of opioid users^[1].
- The number of opioid users in WEC has remained relatively consistent since 2011 with a 5-year average (2011-2015) of 27,897 opioid users (SD=259; range=27,433–28,181)^[1].
- Opioid maintenance therapy (OMT) is used in the treatment of opioid addiction (includes therapeutic use of methadone or buprenorphine/naloxone). In 2015, there were 1,315 individuals in WEC who received OMT covered by the ODB program. The rate of OMT users in WEC has steadily increased by 47.1% since 2011^[1].

[1] Ontario Drug Policy Resource Network. [Opioid Use and Related Adverse Events in Ontario](#). Nov 2016.

Table 1. Opioids users covered by the Ontario Drug Benefit (ODB) program, Windsor-Essex County (2015).

Age Group (Years)	Opioid Users in WEC	Rate of Opioid Users in WEC*	Rate of Opioid Users in Ontario*
0 – 24	1,134	814	625
25 – 44	3,339	2,642	1,956
45 – 64	6,145	2,795	2,379
65+	17,366	2,585	2,173
Total	27,984	2,443	2,054

*Rate per 10,000 ODB eligible individuals

Note: opioid users are individuals who were dispensed opioids that were covered by the ODB program.

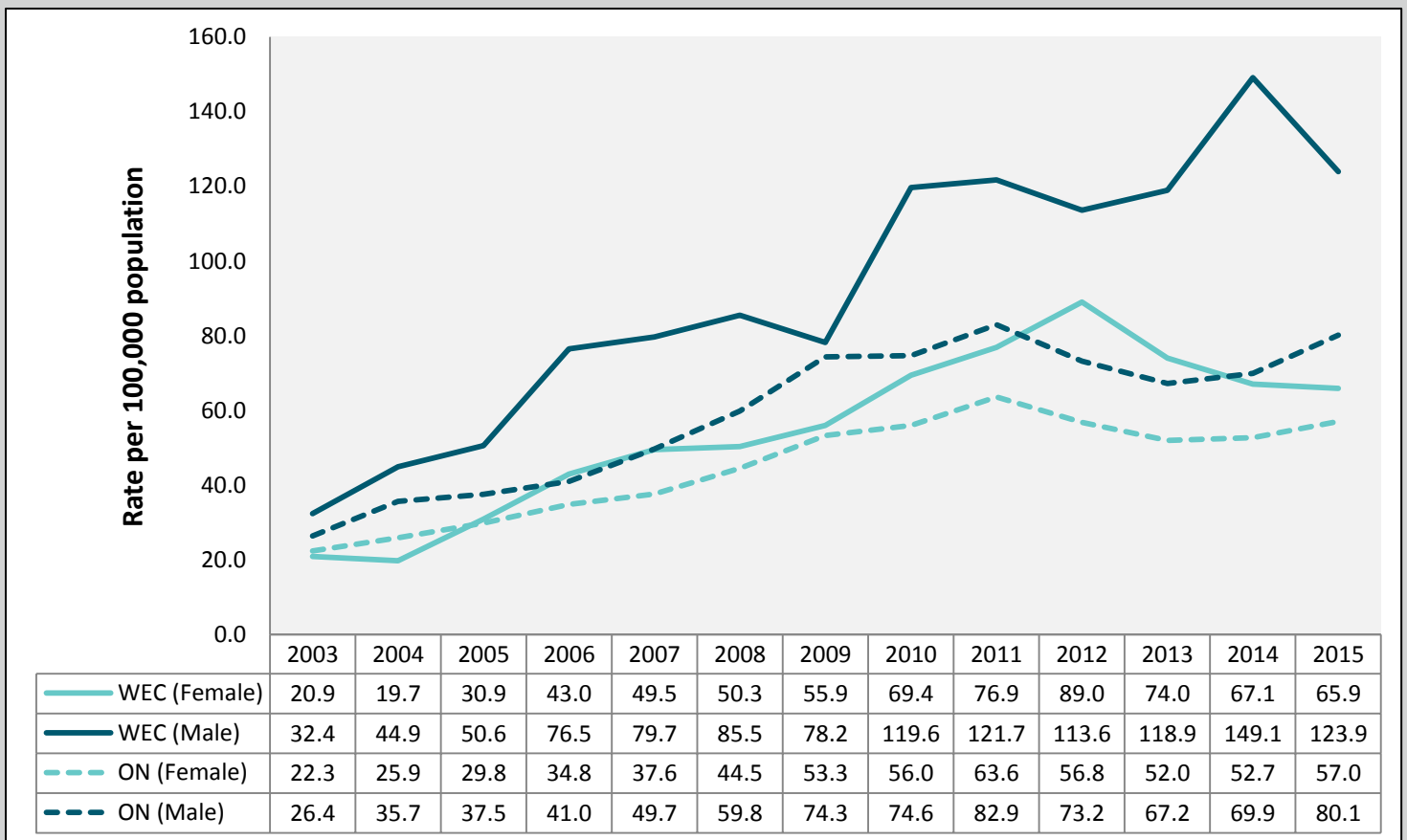
Source: Ontario Drug Policy Resource Network. Opioid Use and Related Adverse Events in Ontario (November 2016).



Opioid-Related Emergency Department (ED) Visits

- There were 382 opioid-related ED visits in WEC in 2015 which is 3.6-times greater than the 107 opioid-related ED visits in WEC in 2003.
- The historical rates of opioid-related ED visits for WEC and Ontario (2003-2014) are reported by sex in **Figure 1**.
- From 2003 to 2015 the rate of opioid-related ED visits increased steadily among both males and females from Ontario and WEC; in particular, the rate among WEC males increased by 282.4% from 2003 to 2015.
- In 2015, the ED rate for WEC males was 1.9-times greater than the rate for WEC females.
- Both males and females from WEC had greater ED rates compared to their provincial equivalents.

Figure 1. The rate of opioid-related emergency department visits in Windsor-Essex County (WEC) and Ontario (ON), by sex (2003-2015).



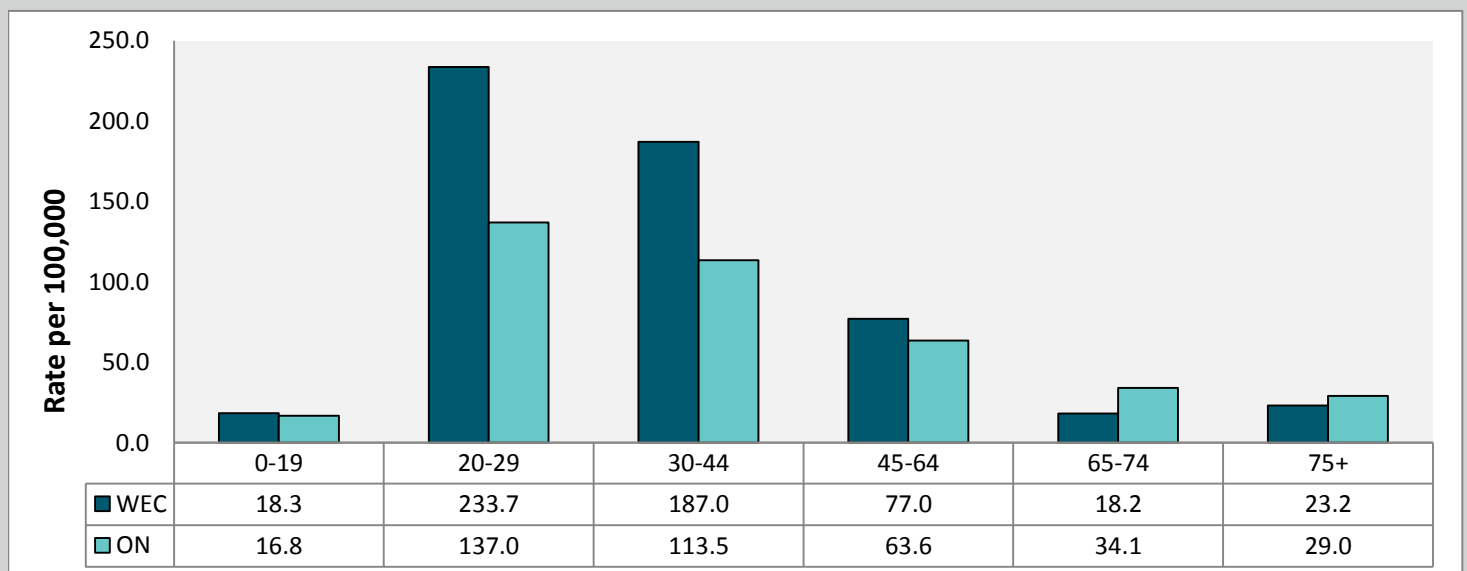
Source: Ambulatory All Visit Problem Dx and External Cause (CIHI), MOHLTC, IntelliHEALTH ONTARIO, extracted Jan 16, 2017.



Opioid-Related Emergency Department (ED) Visits (con't)

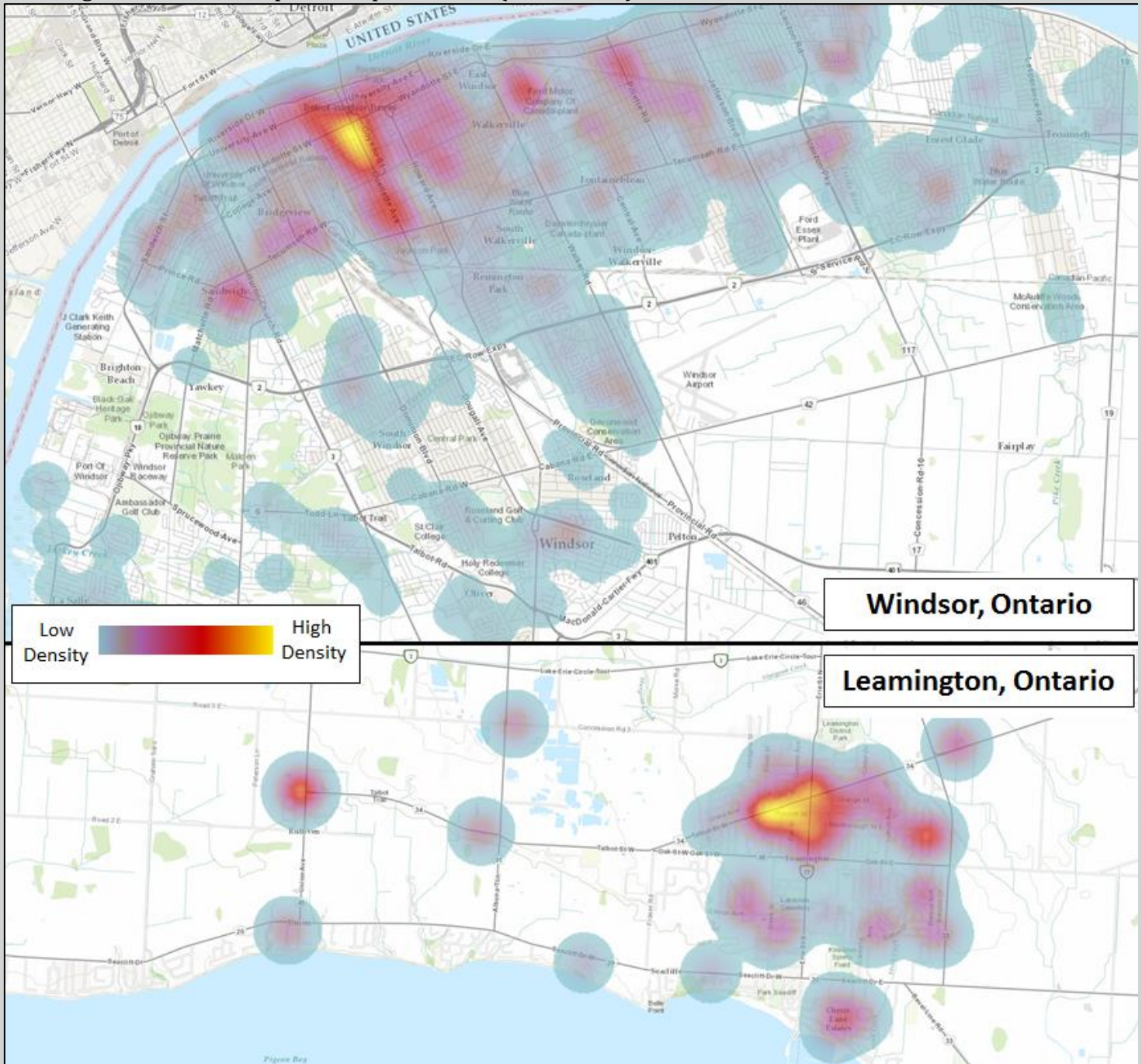
- The 2015 rates of opioid-related ED visits in WEC and Ontario are reported in **Figure 2** by age.
- The rate of opioid-related ED visits was greatest among WEC residents aged 20-29 years; in fact, this age group accounted for one-third (33.0%) of all opioid-related ED visits in WEC.
- The WEC rate for 20-29 and 30-44 year-olds was greater than the Ontario rate for the equivalent age groups.
- Males aged 20-44 accounted for nearly half (48.2%) of all opioid-related ED visits in 2015.
- The rate was lowest among children and youth (0-19 years old) and seniors (65+ years-old); collectively, these age groups accounted for 8.1% of all opioid-related ED visits in WEC.
- The WEC rate for youth and children is similar to Ontario, but the rate for seniors was lower in WEC compared to Ontario.
- To determine the distribution and density of opioid-related ED patients, the postal code of patients' primary residence were used to generate a density map (see **Figure 3**).
- The rate of opioid-related ED visits was 2.8-times greater in Windsor (14.4 ED visits per 10,000 population) compared to Essex County (5.2 visits per 10,000 population) in 2015.
- The greatest density of opioid-related ED visits came from residents of the downtown cores of Windsor and Leamington.
- The 2015 rate of opioid-related ED visits among the population of Windsor's downtown core (35.7 visits per 10,000 population) was 3.5-times greater than the average rate for WEC.

Figure 2. The rate of opioid-related emergency department visits in Windsor-Essex County (WEC) and Ontario (ON), by age groups (2015).



Source: Ambulatory All Visit Problem Dx and External Cause (CIHI), MOHLTC, IntelliHEALTH ONTARIO, extracted Jan 16, 2017.

Figure 3. Distribution and density of opioid-related emergency department visits in Windsor and Leamington based on the patient's postal code (2013-2015).



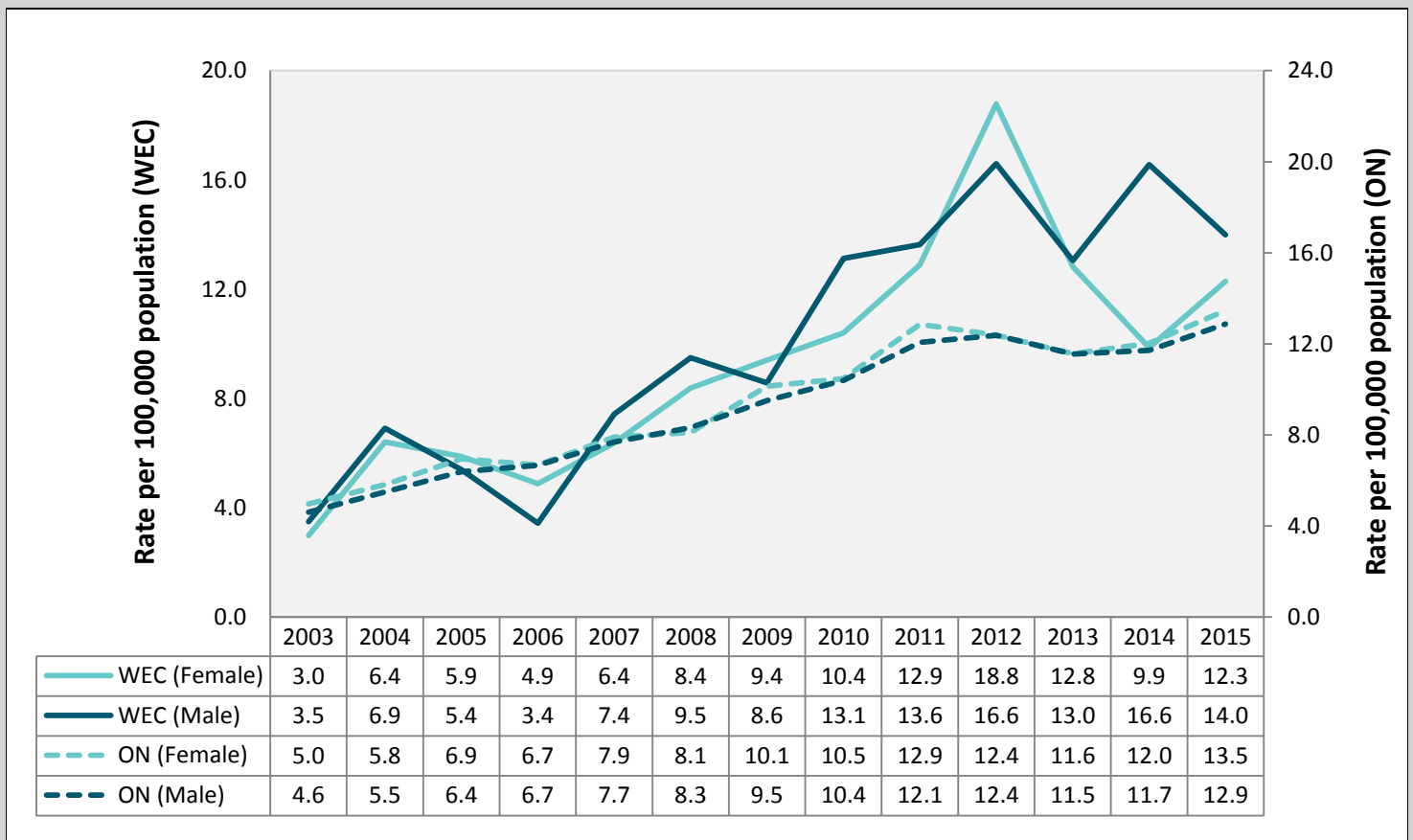
Source: Ambulatory All Visit Problem Dx and External Cause (CIHI), MOHLTC, IntelliHEALTH ONTARIO, extracted Jan 16, 2017.



Opioid-Related Hospitalizations

- There were 53 opioid-related hospitalizations in WEC in 2015 which is 4.1-times greater than the 13 opioid-related hospitalizations in WEC in 2003.
- The historical rates of opioid-related hospitalizations for WEC and Ontario (2003-2015) are reported by sex in **Figure 4**.
- Both WEC and Ontario have experienced a steady increase in opioid-related hospitalizations since 2003; in fact, the rate of opioid-related hospitalizations has increased 4.1-times and 4.0-times among WEC females and WEC males, respectively.
- The 2015 rate of hospitalizations was slightly greater among males compared to females in WEC.
- In 2015, the WEC rates and Ontario rates for opioid-related hospitalizations were similar.

Figure 4. The rate of opioid-related hospitalizations in Windsor-Essex County (WEC) and Ontario (ON), by sex (2003-2015).

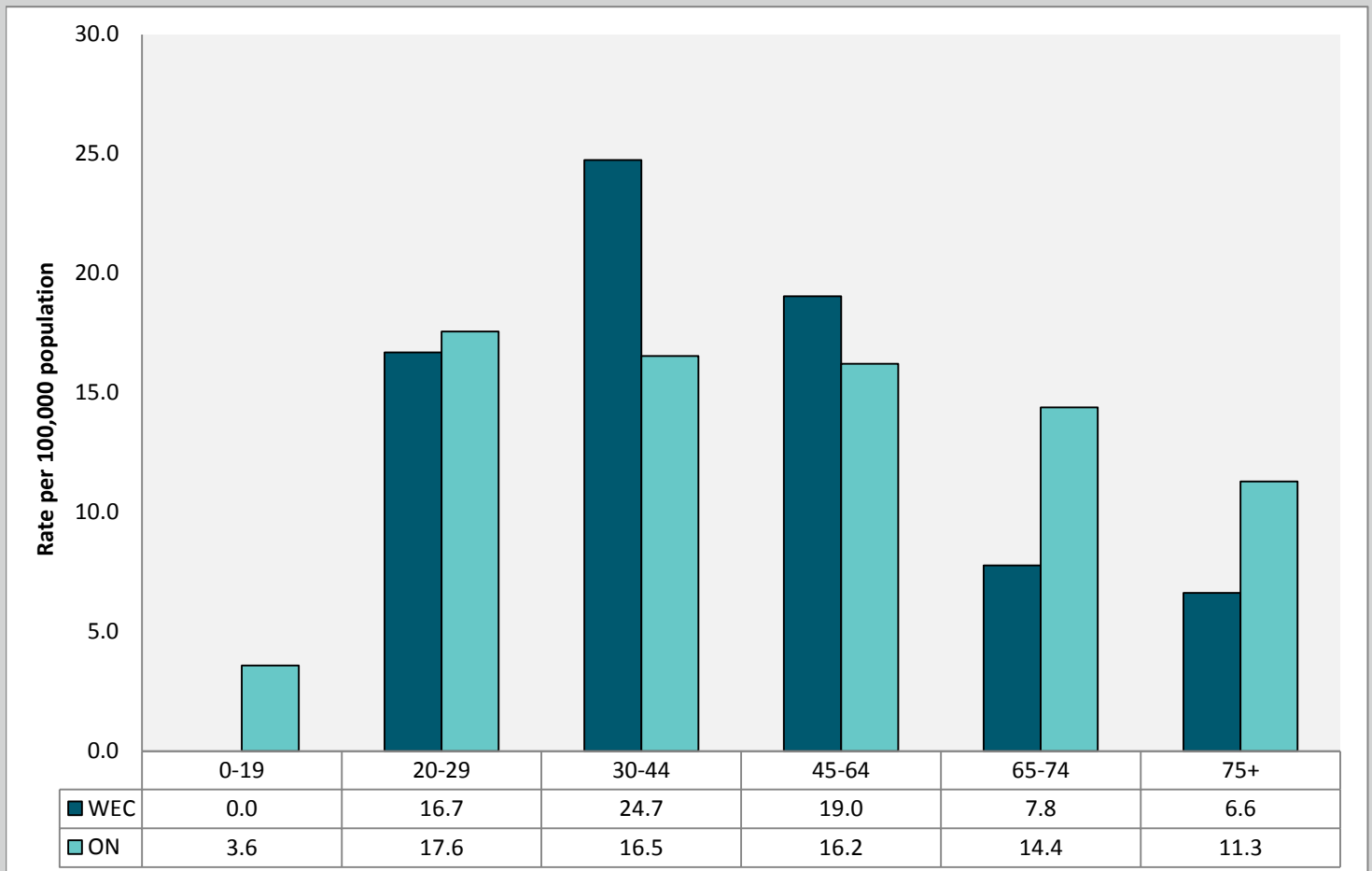


Source: Ambulatory All Visit Problem Dx and External Cause (CIHI), MOHLTC, IntelliHEALTH ONTARIO, extracted Jan 16, 2017.

Opioid-Related Hospitalizations (con't)

- The 2015 rate of opioid-related hospitalizations in WEC and Ontario is reported by age in **Figure 5**.
- The rate of opioid-related hospitalizations in WEC was highest among individuals aged 30-44 years and this rate was higher than the Ontario rate for the same age group. This rate was also high among WEC residents aged 20-29 and 45-64, relative to other age groups.
- Among senior populations (65+ years old), the WEC rate was notably lower than the provincial rate for the equivalent age groups.
- There were no reported opioid-related hospitalizations among children or youth in WEC in 2015.

Figure 5. The rate of opioid-related hospitalization in Windsor-Essex County (WEC) and Ontario (ON), by age groups (2015).



Source: Ambulatory All Visit Problem Dx and External Cause (CIHI), MOHLTC, IntelliHEALTH ONTARIO, extracted Jan 16, 2017.

Opioid-Related Deaths

- Opioid-related deaths for 2007-2015 are reported in **Table 2** (counts) and **Figure 7** (rates) for WEC and Ontario.
- The 2015 rate of opioid-related deaths was 11.3% greater in WEC (5.9 deaths per 100,000 population) compared to Ontario (5.3 deaths per 100,000 population).
- Of the 24 opioid-related deaths in WEC in 2015, 19 deaths were in Windsor.
- In 2015, the rate of opioid-related deaths in Windsor (8.8 deaths per 100,000 population) was 1.7-times greater than the provincial rate (5.3 deaths per 100,000 population).
- 20 (83.3%) of the 24 deaths in WEC in 2015 were among residents 25-64 years-old.

Note: Windsor-Essex County (WEC) includes the city of Windsor and the other 8 municipalities of Essex County.

Table 2. Number of opioid-related deaths in Windsor-Essex County (WEC) and the city of Windsor, (2007-2015).

Year	WEC	Windsor
2007	22	11
2008	26	13
2009	22	12
2010	25	15
2011	37	31
2012	33	22
2013	28	22
2014	18	14
2015	24	19

Note: 2015 data is preliminary and is subject to change.

Source: Office of the Chief Coroner of Ontario [received June 2, 2017]; Ontario Agency for Health Protection and Promotion (Public Health Ontario), [Interactive Opioid Tool](#). Toronto, ON: Queen's Printer for Ontario; 2017.

Figure 7. The rate of opioid-related deaths in Windsor-Essex County (WEC), the city of Windsor, and Ontario (2007-2015).



Note: For type of opioid present at death, please refer to Public Health Ontario's [Interactive Opioid Tool](#).

Source: Office of the Chief Coroner of Ontario [received June 2, 2017]; Ontario Agency for Health Protection and Promotion (Public Health Ontario), [Interactive Opioid Tool](#). Toronto, ON: Queen's Printer for Ontario; 2017.