



Years of Potential Life Lost due to Drug Poisoning Deaths versus Select Causes of Death Montgomery County, 2010-2011, 2012-2013, & 2014-2015

Objective:

The purpose of this report is to quantify the burden of drug poisoning deaths in Montgomery County compared to other, more common causes of death.

Definition:

Years of potential life lost (YPLL) is a method of measuring the impact of premature death on a specific population. Rather than calculating the rate of death from a certain disease, the YPLL, measures the number of years of life that are lost due to early deaths of a specific cause. This method is utilized to demonstrate that certain causes of death have a greater impact on a population in comparison to others. For this report, the endpoint of interest is 65 years of age. The interpretation of the YPLL₆₅ is the total number of years that are potentially lost due to deaths occurring to individuals before the age of 65 years. The YPLL₆₅ is employed in this report because it places more emphasis on deaths that occur at early ages compared to a YPLL based on remaining life expectancy (YPLL_{LE}). Deaths occurring at early ages are of interest for this report because drug poisoning deaths tend to happen at a younger age than other causes of death (average age at death in Montgomery County 2014-2015 for drug poisonings = 41.5 years; heart disease = 75.6 years). The YPLL₆₅ rate represents the years of potential life lost per 1,000 population below the age of 65 years.

Methods:

Comparing the number of deaths to the YPLL shows how deaths that occur at younger ages impact a population more significantly than deaths that occur in old age. Aside from motor vehicle accidents, the select causes of death used for comparison in this report have been identified among the top ten causes of death in Montgomery County. Deaths caused by motor vehicle accidents tend to occur at younger ages but take place less frequently than drug poisonings. Comparing drug poisoning deaths to motor vehicle deaths highlights the pervasiveness of Montgomery County's drug epidemic.

Source:

Ohio Department of Health Vital Statistics, death files, 2010-2015

Number of Deaths and Years of Potential Life Lost

Number of Deaths, Montgomery County, 2010-2015

Cause of Death*	2010-2011	2012-2013	2014-2015	Average Age at Death (years) [†]
Drug Poisonings[‡]	266	383	528	41.5
Heart Disease	2,374	2,496	2,677	75.6
Cancer	2,559	2,469	2,468	71.6
Diabetes	433	412	363	71.2
Stroke	537	543	639	79.7
CLRD [§]	665	719	688	76.3
Motor Vehicle Accidents	119	112	105	45.2

*Deaths are classified using the International Classification of Diseases, Tenth Revision (ICD-10).

[†]Average age at death, Montgomery County, 2014-2015.

[‡]Drug poisoning deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14.

[§]Chronic Lower Respiratory Disease

 **Indicates Greatest Number of Deaths**

- Five times as many heart disease deaths (2,677 deaths) compared to drug poisoning deaths (528 deaths) occurred in 2014-2015.
- The average age at death is lowest for drug poisonings (41.5 years).

Years of Potential Life Lost, Montgomery County, 2010-2015

Cause of Death*	2010-2011	2012-2013	2014-2015
Drug Poisonings[†]	5,810 years	8,258 years	12,210 years
Heart Disease	6,533 years	7,063 years	7,175 years
Cancer	7,370 years	6,888 years	6,785 years
Diabetes	1,495 years	1,155 years	1,030 years
Stroke	1,150 years	925 years	980 years
CLRD [‡]	980 years	1,045 years	880 years
Motor Vehicle Accidents	2,658 years	2,230 years	2,240 years

*Deaths are classified using the International Classification of Diseases, Tenth Revision (ICD-10).

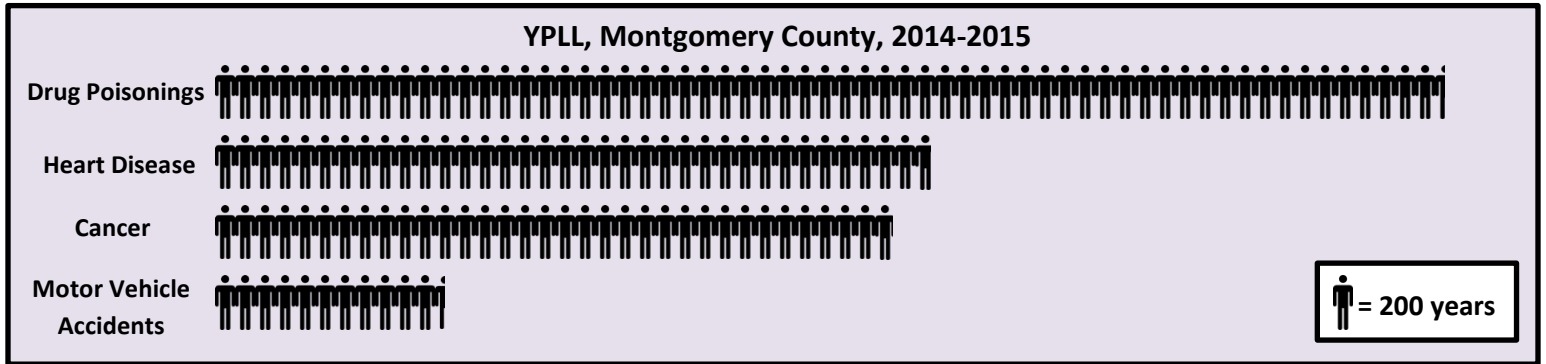
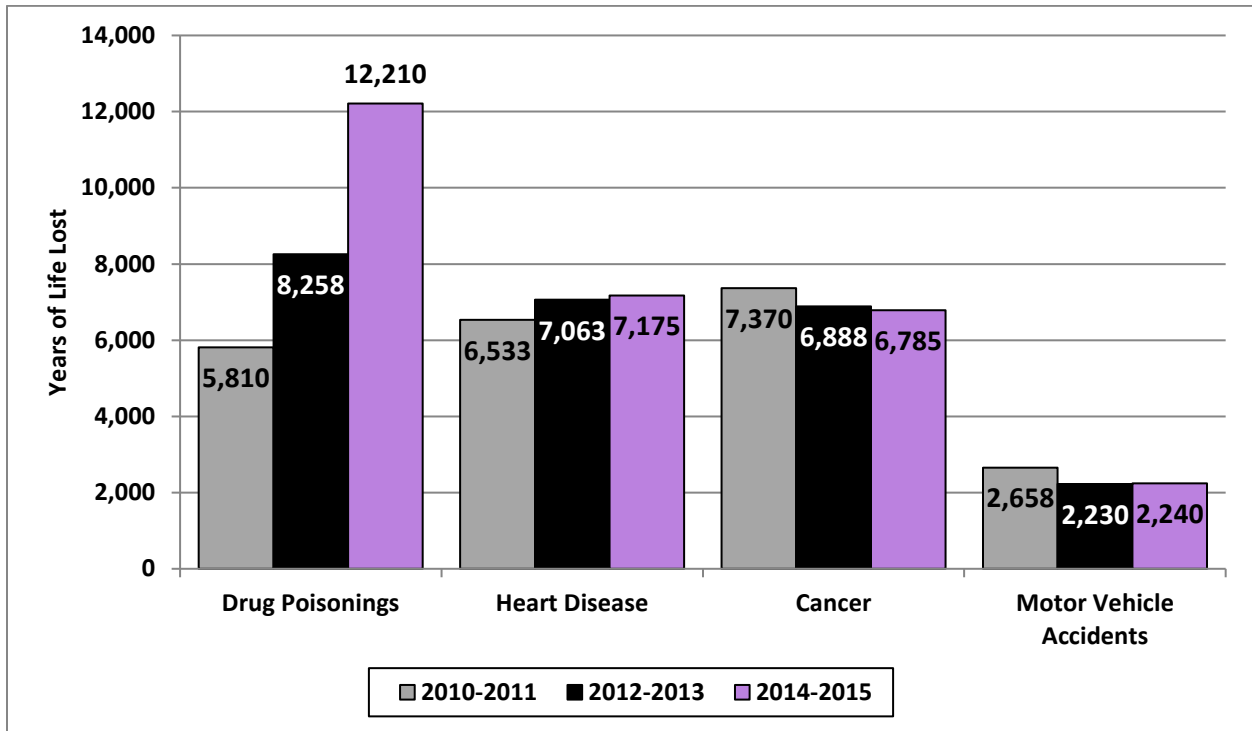
[†]Drug poisoning deaths are identified using underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14.

[‡]Chronic Lower Respiratory Disease

 **Indicates Greatest YPLL**

- The YPLL from drug poisonings (12,210 years) was 1.7 times higher than the YPLL from heart disease (7,175 years); 5,035 more years of life were lost due to drug poisonings than due to heart disease (leading cause of death in Montgomery County) in 2014-2015.

**Years of Potential Life Lost due to Drug Poisonings vs. Select Causes of Death
Montgomery County, 2010-2015**



Percent Change in Number of Deaths and YPLL due to Drug Poisonings, Montgomery County		
	2010-2011 → 2012-2013	2012-2013 → 2014-2015
Number of Deaths	44.0% ↑	37.9% ↑
YPLL	42.1% ↑	47.9% ↑

Key Points:

- The YPLL for drug poisoning deaths increased by 48% from 8,258 years in 2012-2013 to 12,210 years in 2014-2015 and remained the highest YPLL. This means that Montgomery County residents lost nearly 4,000 more years of life due to drugs in 2014-2015 than in 2012-2013.
- The number of deaths attributed to drug poisonings increased by 38% from 383 deaths in 2012-2013 to 528 deaths in 2014-2015.

YPLL Rate (per 1,000 population <65 years), Montgomery County, 2010-2015

Cause of Death*	2010-2011	2012-2013	2014-2015
Drug Poisonings†	6.4	9.2	13.8
Heart Disease	7.2	7.9	8.1
Cancer	8.1	7.7	7.7
Diabetes	1.6	1.3	1.2
Stroke	1.3	1.0	1.1
CLRD‡	1.1	1.2	1.0
Motor Vehicle Accidents	2.9	2.5	2.5

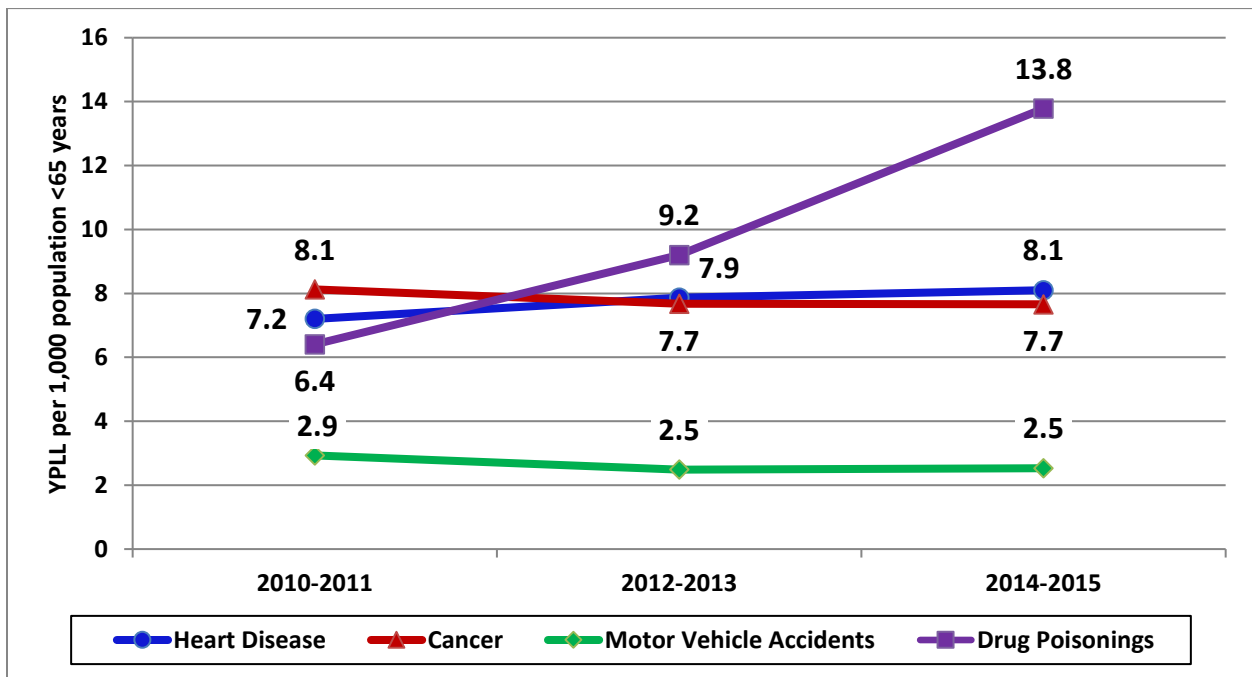
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‡Chronic Lower Respiratory Disease

Indicates Highest Rate

YPLL Rate of Drug Poisoning Deaths vs. Select Causes of Death, Montgomery County, 2010-2015



Key Points:

- Cancer deaths (8.1) had the highest YPLL rate in 2010-2011.
- In 2012-2013 and 2014-2015, deaths caused by drug poisonings had the highest YPLL rate (9.2 and 13.8, respectively).
- The YPLL rate for drug poisonings increased by 44% from 6.4 (2010-2011) to 9.2 (2012-2013), and then it increased by an additional 50% from 9.2 (2012-2013) to 13.8 (2014-2015).
- In 2014-2015, for every 1,000 people under the age of 65 years, 13.8 years of potential life were lost due to drug poisoning deaths.

Conclusion:

Deaths attributed to heart disease and cancer occur five times as often as deaths due to drug poisonings, and yet the burden of drug poisonings is greater in terms of years of life that are lost. As the number of drug poisoning deaths continues to increase, the burden of disease worsens. This growing drug epidemic has been identified as a priority health concern in Montgomery County, and efforts to address it through community collaboration and partnership are ongoing.