

Vital Statistics Indicator Rankings

Identifying key opportunities to improve the health of Michigan’s residents is aided by an assessment of mortality statistics collected via the death certificate. Two statistics, Leading Causes of Death and Years of Potential Life Lost (YPLL), provide important information to policy makers about interventions and initiatives directed at reducing the number of premature or preventable deaths.

Leading causes of death

Deaths due to the 10 leading causes account for approximately 80 percent of all deaths in Michigan. The rankings listed below are based on the number of deaths to Michigan residents. It may also be informative to look at the age-adjusted rate for the causes of death. Age-adjusting standardizes the population base in order to improve the comparability of rates between different populations. This allows comparison of Michigan data with other states, or within the state over time, so as to reflect true differences in death rates, as opposed to differences in the population’s age distribution.

Leading Causes of Death Michigan Residents, 2001			
Rank	Cause of Death	Number	Age-adjusted Rate¹
1	Diseases of the Heart	26,766	280.3
2	Cancer	19,608	203.2
3	Stroke	5,666	59.5
4	Chronic Lower Respiratory Disease	4,133	43.0
5	Unintentional Injuries	3,248	33.3
6	Diabetes (Underlying Cause of Death)	2,640	27.4
7	Pneumonia and Influenza	2,064	21.7
8	Kidney Disease	1,538	16.1
9	Chronic Liver Disease and Cirrhosis	1,054	10.8
10	Suicide	1,045	10.6
Source: Division for Vital Records and Health Statistics, MDCH ¹ Rate per 100,000 population (Age-adjusted to the 2000 US Census population)			

Leading causes of Years of Potential Life Lost below age 75

Years of Potential Life Lost is a measure designed to emphasize mortality that is prevalent among persons under age 75. The number of years of potential life lost is calculated as the number of years

between the age at death and 75 years of age for persons dying before their 75th year. For example, YPLL for an individual who dies of cancer at age 50 is 25 years whereas YPLL for the same disease is five years if the person died at age 70. The total number of YPLL per cause of death is presented in the third column in the following table and is the basis for the rank ordering.

Additionally, YPLL is informative when an average YPLL per person for each particular cause of death is calculated. This reveals, for example, that homicides represent the highest average YPLL per person while ranking fourth on total overall YPLL. Thus preventing a single homicide reduces the YPLL by almost 10 times as many years as preventing a death from heart disease.

Years of Potential Life Lost Below Age 75 Michigan Residents, 2001				
Rank	Cause of Death	Number of YPLL	Rate¹	Average YPLL/Person
1	Cancer	153,390	1555.1	7.8
2	Diseases of the Heart	130,626	1324.3	4.9
3	Unintentional Injuries	86,458	876.5	26.6
4	Homicide	31,550	319.9	46.1
5	Suicide	30,531	309.5	29.2
6	Stroke	19,988	202.6	3.5
7	Chronic Lower Respiratory Disease	18,602	188.6	4.5
8	Chronic Liver Disease and Cirrhosis	17,152	173.9	16.3
9	Diabetes (Underlying Cause of Death)	16,556	167.8	2.1
10	Pneumonia and Influenza	8,930	90.5	4.3

Source: Division for Vital Records and Health Statistics, MDCH
¹Rate per 100,000 population below the age of 75

In sum, Leading Causes of Death and YPLL are important measures for identifying targets for health improvements. Together they provide a comprehensive look at mortality in Michigan to support policymaking and program planning.

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