

# **Stroke in Muskegon County**

## **---- Key Findings and Implications**

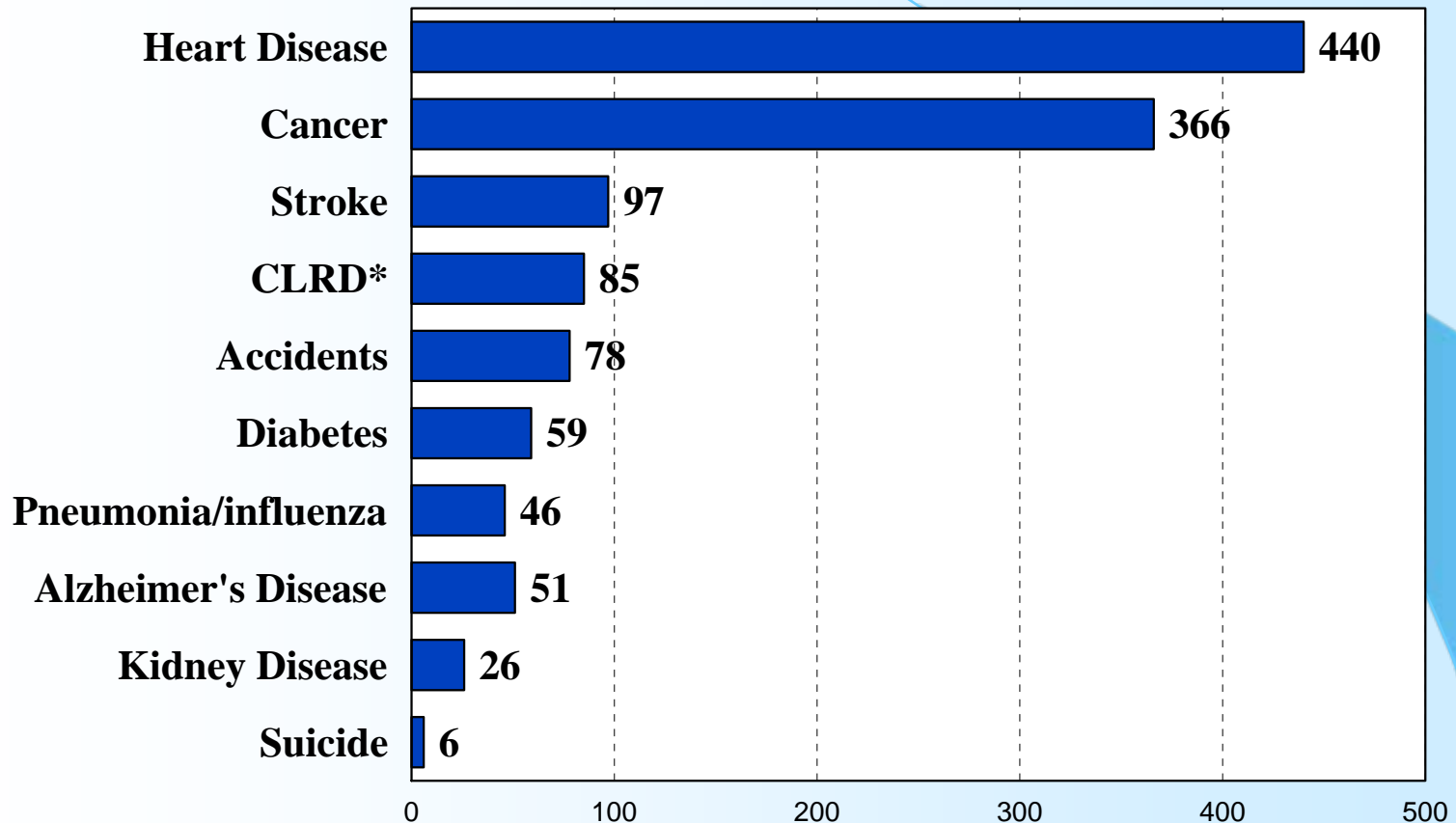
**Muskegon County Health Department**

**May 2004**

# Stroke Mortality

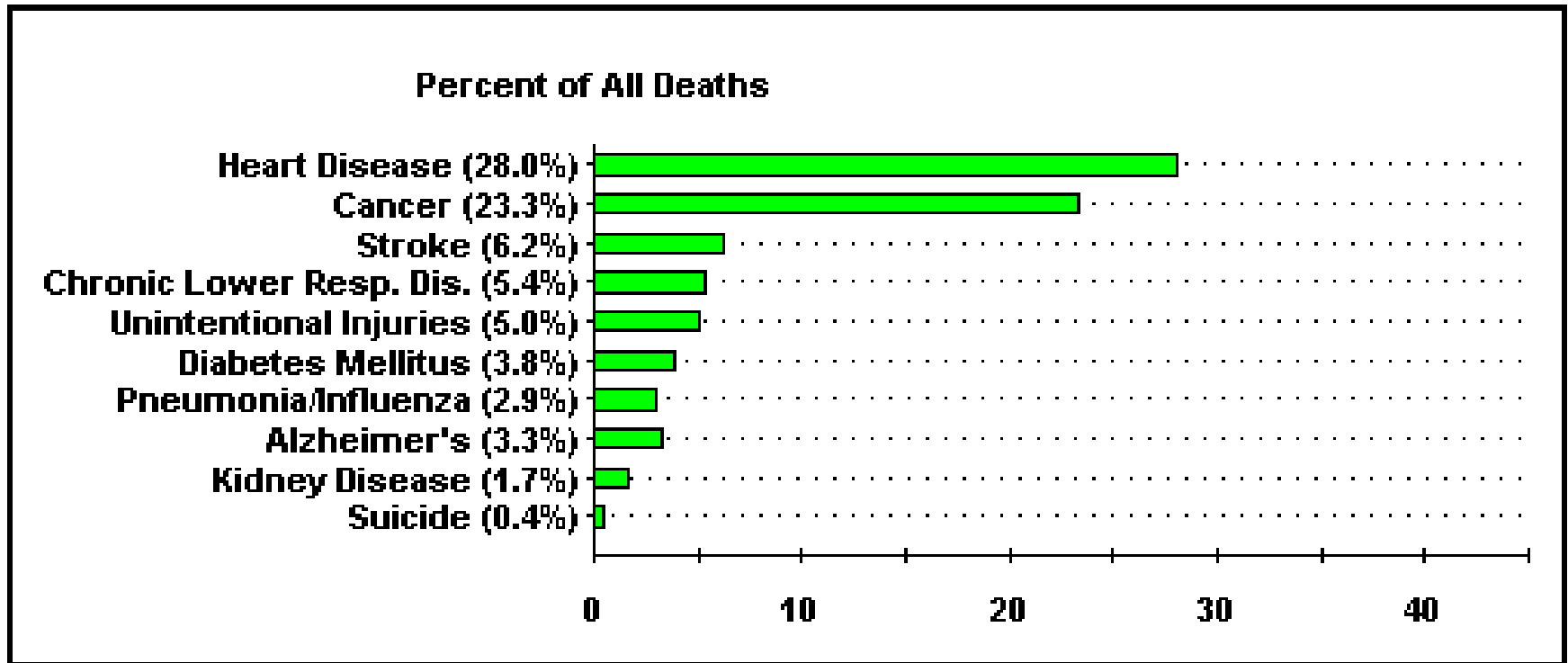
- In 2002, stroke was the third most common cause of death in Muskegon County and a major cause of hospitalization and disability.
- Twenty percent of stroke victims don't survive, and 55% of stroke survivors have a disability.
- In 2002, stroke was responsible for 97 or 6.2% of all deaths.

# 2002 Number of Leading Causes of Death (All Causes of Death in Muskegon County: N=1,569)



\*Chronic Lower Respiratory Disease  
(Data Source: Michigan Dept. of Community Health)

## Leading Causes of Death, 2002 Muskegon County Residents

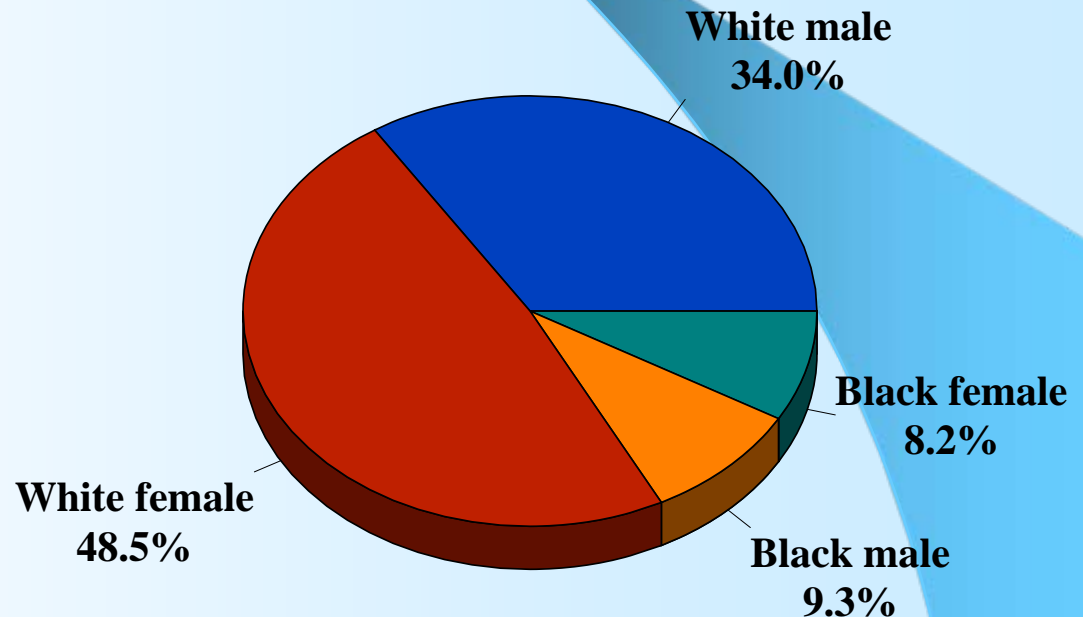


Source: 2002 Michigan Resident Death File,  
Vital Records & Health Data Development Section  
Michigan Department of Community Health.

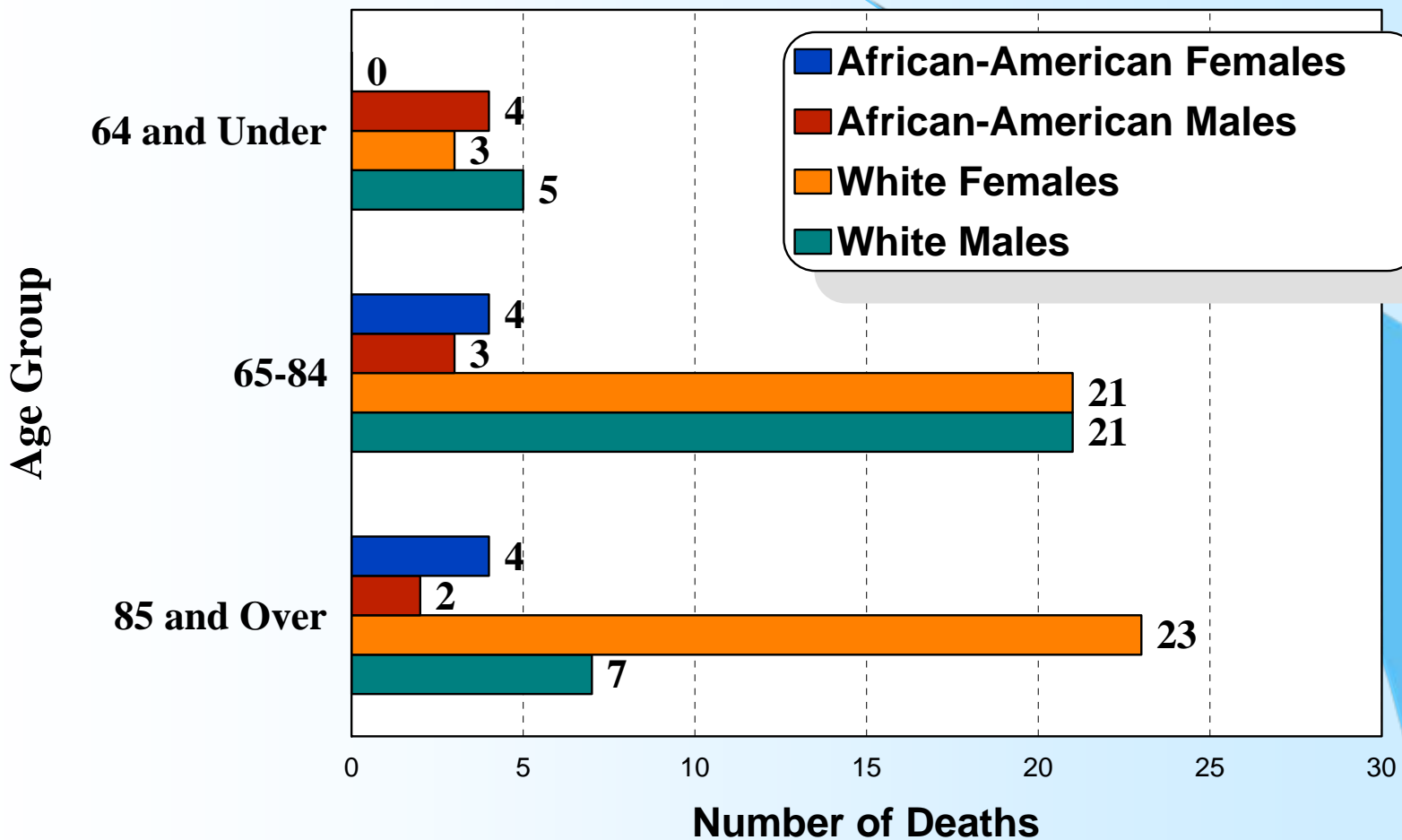
# 2002 Stroke Deaths by Race and Gender

- Stroke is more common in men than in women. More men than women will have a stroke in a given year.
- However, women account for more than half of all stroke deaths because women live to older ages when stroke is most common.
- Eighty-two percent of those deaths from stroke were whites and 18% were blacks.

**Stroke Deaths by Race and Sex  
Muskegon County Residents (N=97)**



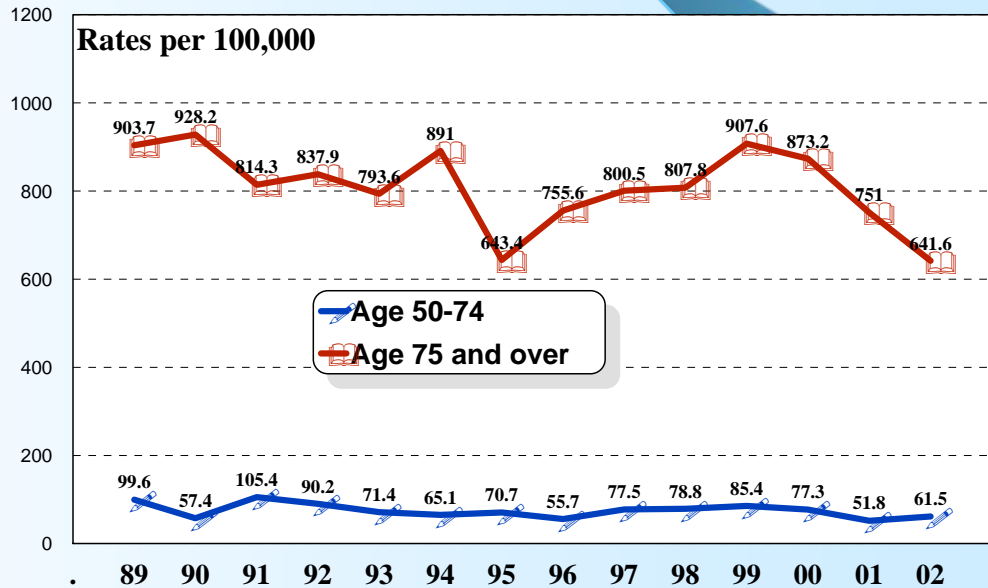
# Number of Stroke Deaths, Muskegon County, 2002 By Age, Race, and Gender



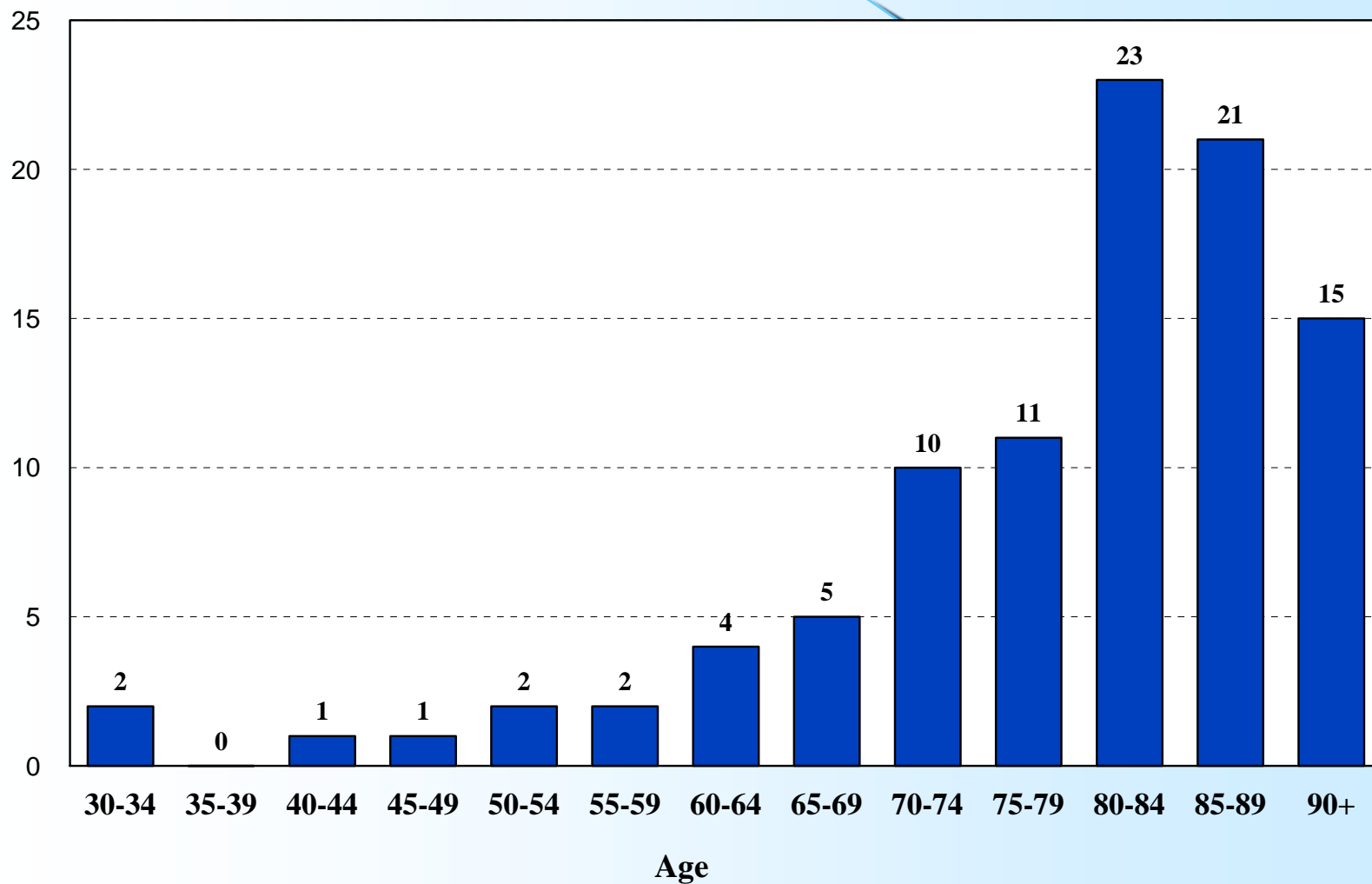
# Age-Specific Rates

- Stroke death rates increase with age.
- In 2002, 7 in 10 stroke deaths occurred to individuals who were age 75 and over.
- Less than one-third of stroke deaths occurred in individuals age 74 and under.

**Stroke Deaths Age-Specific Rates  
Muskegon County Residents**



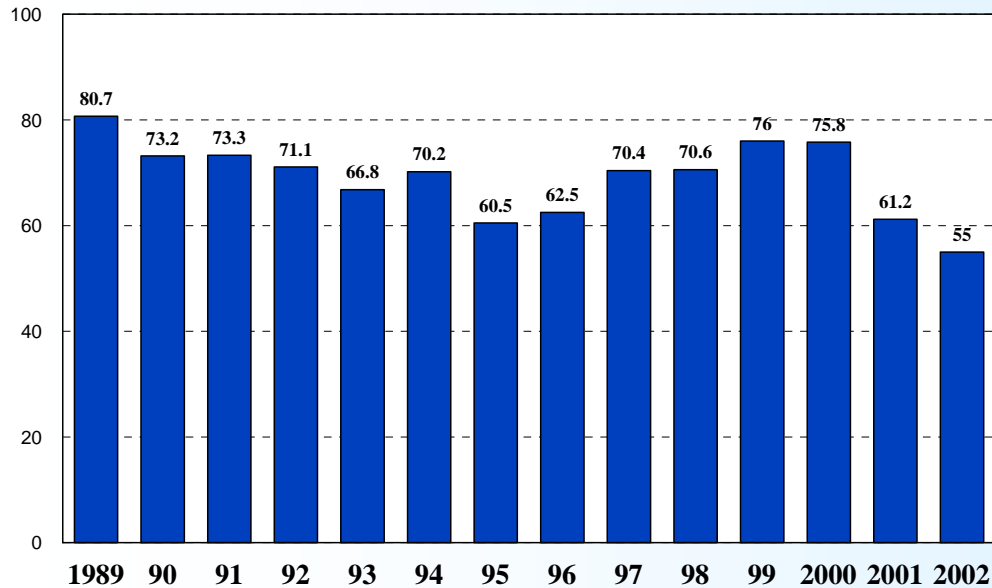
## 2002 Stroke Deaths by Age (N=97) Muskegon County Residents





# Age-Adjusted Mortality

**Stroke Deaths Age-Adjusted Rate\***  
**Muskegon County**

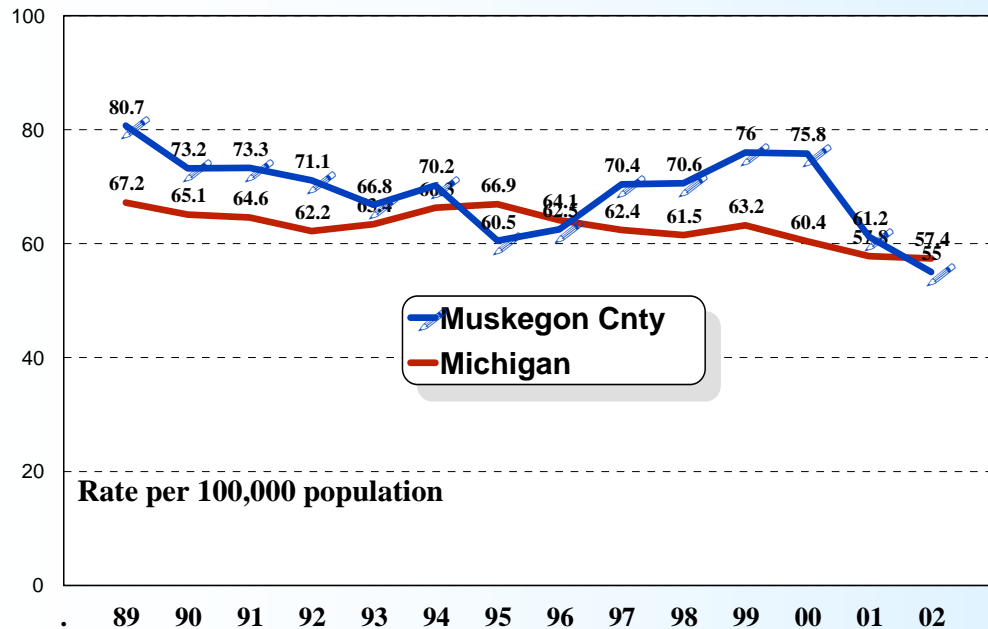


\*Age-adjusted rate per 100,000 population

- Overall age-adjusted stroke mortality rates declined around 25% between 1989 and 1996.
- After 1996, the rates were stable or increased over the next 4 years.
- Since 2001, the rates declined again. Stroke mortality rate for 2002 reached the lowest point in 14 years.

# Age-Adjusted Rates Muskegon County and Michigan Residents

## Stroke Deaths Age-Adjusted Rate Trend: Muskegon County & MI

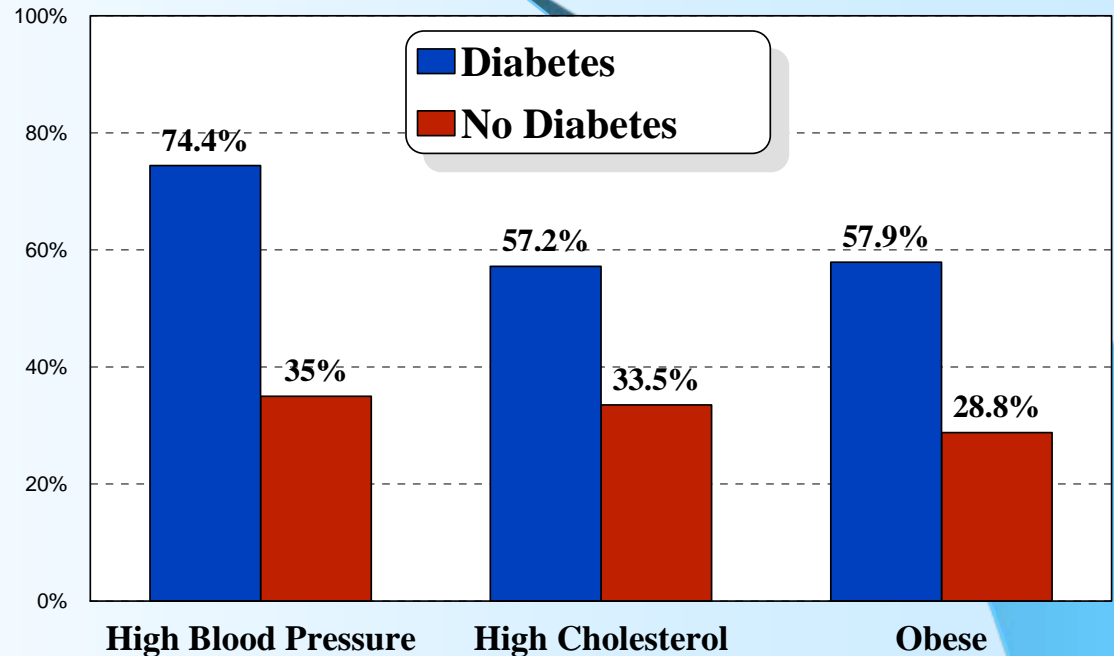


- The 14-year-trend data indicated that the overall age-adjusted stroke death rates for Muskegon County residents were about 17% higher than the state average.

- Risk factors related to lifestyle increase the risk of stroke. Extensive research has identified several factors that increase the risk of stroke. Most of them can be modified, treated, or controlled.
- For example, controlling high blood pressure, high cholesterol, and reducing smoking will have the greatest effects on reducing stroke rates.

## Risk Factors for Stroke Muskegon County BRFSS, 2001

- Having diabetes increases a person's risk of stroke.
- Many people with diabetes also have high blood pressure, high blood cholesterol, and are obese.



# Prevalence of Stroke Risk Factors BRFS, 2001

<b>Risk Factor</b>	<b>Muskegon County</b>	<b>Michigan</b>	<b>U.S.</b>
<b>High Blood Pressure</b>	35%	27.1%	N/A
<b>Cigarette Smoking</b>	27.2%	26.1%	22.9%
<b>Obesity</b>	28.8%	24.7%	21.1%
<b>Diabetes</b>	9.4%	7.2%	6.6%
<b>High Cholesterol</b>	33.5%	N/A	N/A

# Selected Stroke Risk Factors

(High Blood Pressure, Cigarette Smoking, Obesity, Diabetes, High Cholesterol)

## Muskegon County BRFSS, 2001

Risk Factor	Muskegon County
0	25.2%
1	31.1%
2	25.1%
3	13.1%
4	4.3%
5	1.2%

# Conclusion

- Although the overall stroke mortality has declined over the years, the prevalence of risk factors remains high in Muskegon County
- Primary prevention efforts should be even more aggressively pursued to stomp out stroke in Muskegon County

This presentation is available on the  
Muskegon County Health Department  
website:

[www.muskegonhealth.net](http://www.muskegonhealth.net)

