



BACKGROUND

- ▼ Sudden Cardiac Death of the Young (SCDY) is defined as a cardiac or ill-defined cause of death occurring in the emergency room, out of hospital or dead on arrival to the emergency room in an individual between 1 and 39 years of age¹
- ▼ SCDY is a relatively rare occurrence when compared to sudden cardiac death in older adults
- ▼ SCDY is a potentially preventable condition, due to the heritable nature of certain cardiac disorders
 - ▼ Causes of SCDY are more likely to have genetic determinants than similar conditions in older persons^{2,3}
 - ▼ Family history is the greatest risk factor for SCDY⁴
 - ▼ Individuals with multiple affected family members and/or an affected first degree (parent, sibling, child) relative have the highest risk of SCDY

METHODS

- ▼ The Michigan Department of Community Health (MDCH) Behavioral Risk Factor Surveillance System (BRFSS) and Genomics Programs collaborated to create two questions to determine the proportion of adults with a family history of early sudden cardiac or unexplained death
- ▼ In 2007, using the Michigan BRFSS random digit-dialed telephone survey, 2856 Michigan adults were asked two questions about their family history of SCDY
- ▼ To our knowledge, this is the first population-based estimate of the proportion of adults with a family history of SCDY

RESULTS

- ▼ Overall, the proportion of adults in Michigan with a family history of SCDY was 6.3%
- ▼ Considerable differences in the proportion of families with a significant SCDY history based on racial/ethnic background were found. Blacks had the highest reported rate at 11.2%
- ▼ Adults with lower household incomes and less education more frequently reported having a family history of SCDY
- ▼ Of adults reporting a family history of SCDY, 26.2% had multiple affected family members
- ▼ Of adults reporting a family history of SCDY, 30% reported an immediate relative with SCDY

DISCUSSION/CONCLUSION

- ▼ Collection of family history is a vital first step to identify, screen and manage individuals at greatest risk for SCDY
- ▼ Significant health disparities exist for family history of SCDY based on our presented data
- ▼ Based on the health disparities and potential for screening and treatment of at-risk families, family history of SCDY is an issue of public health significance

REFERENCES

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SURVEY QUESTIONS

2007 Michigan BRFSS Family History of SCDY Survey Questions

Question #1:

Next, I'm going to ask about sudden cardiac death, or sudden unexplained death. This occurs when a young, apparently healthy person dies suddenly from a cardiac arrest or from an unknown cause. How many of your biological family members have had a sudden cardiac death, or sudden unexplained death, between the ages of 1 and 39?

Notes: Do not include spouses or infants less than one year. Do not include drug-related deaths, traumatic deaths (such as car crashes), suicides, homicides, or individuals who had a long illness (cardiac or otherwise). Do include all biological family members (parents, siblings, half-siblings, children, aunts, uncles, cousins, grandparents, grandchildren, great grandparents, great grandchildren, great aunts and uncles, etc.)

Question #2:

What was their relationship to you?

Notes: If respondent reports multiple family members, please code as other and specify. If respondent reports "spouse," go back to Q33.1 and ask again, "Not including your spouse, how many of your biological family members have had a sudden cardiac death, or sudden unexplained death, between the ages of 1 and 39?"

Family History of Sudden Cardiac Death 2007 Michigan BRFSS (N=2856)		
Demographic Characteristics	Have a Family History of Sudden Cardiac Death	
	%	95% Confidence Interval
Total	6.3	(5.2 - 7.7)
Age		
18 - 24	3.8	(1.6 - 8.7)
25 - 34	8.6	(4.9 - 14.6)
35 - 44	4.2	(2.4 - 7.1)
45 - 54	7.7	(5.4 - 10.9)
55 - 64	5.9	(4.1 - 8.5)
65 - 74	8.5	(5.4 - 13.3)
75 +	5.4	(3.5 - 8.2)
Gender		
Male	5.4	(3.9 - 7.4)
Female	7.7	(6.1 - 9.6)
Race/Ethnicity		
White non-Hispanic	5.4	(4.3 - 6.8)
Black non-Hispanic	11.2	(7.7 - 16.0)
Other non-Hispanic	9.4	(3.8 - 21.3)
Hispanic	--	
Education		
Less than high school	10.8	(5.8 - 19.3)
High school graduate	8.8	(6.6 - 11.7)
Some college	4.7	(3.3 - 6.8)
College graduate	4.4	(2.8 - 6.8)
Household Income		
< \$20,000	7.8	(5.1 - 11.7)
\$20,000 - \$34,999	8.4	(5.9 - 11.8)
\$35,000 - \$49,999	8.8	(5.5 - 13.8)
\$50,000 - \$74,999	4.1	(2.1 - 7.9)
\$75,000 +	3.2	(1.9 - 5.2)

^a cell size < 50

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