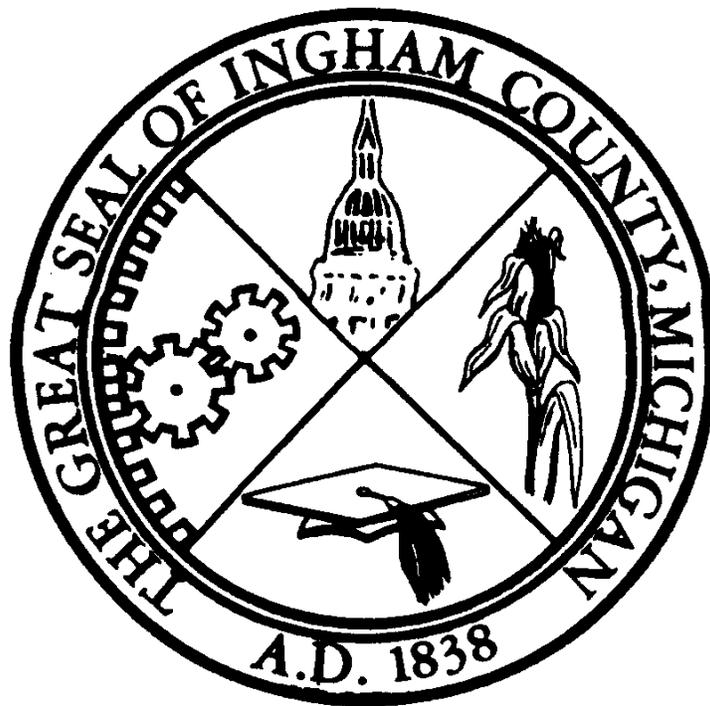


Ingham County Medical Examiner



2008 Annual Report

*Dean G. Sienko, MD, MS
Chief Medical Examiner*

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Ingham County Health Department

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To the Ingham County Board of Commissioners, and the Citizens of Ingham County:

Michigan law mandates that the Ingham County Medical Examiner establish the cause and manner of death in all persons who die suddenly, unexpectedly, violently, as a result of any suspicious circumstances, while imprisoned in a county or city jail, or in persons without medical attendance 48 hours prior to the time of death. An additional responsibility of the Medical Examiner is to establish the cause and manner of death when there is no other physician available or none willing to sign the Death Certificate.

During 2008, the Medical Examiner's office investigated 545 deaths in Ingham County. Among these deaths, autopsies were ordered on 145. The number of accidental deaths in Ingham County for 2008 was 83. Homicides in Ingham County decreased to a total of 11 (down from 12 in 2006 to 18 in 2007). Suicide cases dropped to a total of 21 (down from 30 in 2006 to 29 in 2007).

Ongoing collaboration with the Medical Examiner, the Medical Examiner Investigators, the Forensic Pathologists, and a team of community professionals continue to examine cases in the Child Death Review and the Elder Death Review team meetings. Both of these dynamic groups continue to strive to reduce the number of unexpected child deaths, and to prevent deaths due to abuse or neglect in the elder and vulnerable adult population. Since December 2006, the Ingham County Elder Death Review Team has uncovered suspicious deaths (2 homicides) with law enforcement investigations, and revealed circumstances of medication error or deaths related to inadequate staffing in licensed long-term care facilities. The Ingham County E.D.R. is co-chaired by my self and by Sgt. Traci Ruiz of the Lansing Police Department.

It is my pleasure to present the Ingham County Medical Examiner's 2008 annual report.

Sincerely,



Dean G. Sienko, MD, MS
Chief Medical Examiner
Ingham County
/l jy

Mortality Statistics

Manner of Death

Manner of Death is classified into one of five categories: natural, accident, suicide, homicide, and undetermined. Undetermined deaths are those deaths where there is insufficient information about the circumstances surrounding the death to make a ruling. The inability to make a determination as to the manner of death may result from doubt about whether the injury occurred with intent or as a result of an accident, a lack of witnesses or prolonged time between death and discovery, or difficulty in classifying street drug or medication overdose deaths.

Cause of Death

Cause of Death is defined as any injury or disease that produces a physiological derangement in the body that results in the death of an individual. Each *manner* of death includes the categories that describe the cause of death.

Of the Ingham County deaths which were referred to the Medical Examiner for investigation between 2004 and 2008, natural causes was consistently the manner of death for the majority of cases (78%). Accidental deaths rated second in the deaths referred to the M.E. for investigation, which amounted to 16% of the total cases in 2008. The 11 homicide cases reflected only 2% of the cases in 2008, in comparison to the 21 suicide cases (4%).

Ingham County Medical Examiner Cases: 2008

Accident	83	15.0 %
Homicide	11	2.0 %
Natural	425	78.0 %
Suicide	21	4.0 %
Undetermined	5	1.0 %
TOTAL	545	

Manner: *NATURAL*

The Ingham County Medical Examiner establishes cause and manner for deaths that are classified as natural due to the sudden and unexpected nature of the death, when there is no other physician available to sign the Death Certificate, or when there are suspicious circumstances surrounding the death.

In 2008, the Ingham County Medical Examiner established cause for 425 deaths attributed to natural causes, representing 78% of the cases investigated. Cardiovascular disease accounted for the greatest proportion of natural deaths.

Deaths Due to Natural Causes Ingham County, 2008

AGE GROUPS	TOTAL	MALE	FEMALE
< 1	1	0	1
1 - 9	0	0	0
10 -14	0	0	0
15 - 19	3	2	1
20 - 29	9	7	2
30 - 44	16	8	8
45 - 64	160	107	53
65 +	236	122	114
ALL AGES	425	246	179

Manner: ACCIDENT

The Ingham County Medical Examiner certifies deaths as accidental when there is no evidence of intent, i.e., unintentional.

The Medical Examiner certified 83 deaths as accidents for the calendar year 2008. The largest group of the accidental deaths were those that resulted from blunt force trauma/injury or fatal head and cervical injuries (50 cases) or 61% of the accidental deaths. The drug and/or alcohol overdose cases (20) ranked the next highest (24%) within the accidental death category.

Deaths Due to Accidents Ingham County, 2008

AGE GROUPS	TOTAL	MALE	FEMALE
< 1	0	0	0
1 - 9	1	1	0
10 -14	1	1	0
15 - 19	1	1	0
20 - 29	20	14	6
30 - 44	12	7	5
45 - 64	22	13	9
65 +	26	13	13
ALL AGES	83	50	33

Manner: *SUICIDE*

Suicides are those deaths caused by self-inflicted injuries with evidence of intent to end one's life. Evidence of intent includes an explicit expression, such as a suicide note or verbal threat, or an act constituting implicit intent, such as deliberately placing a gun to one's head or rigging a vehicle's exhaust. Another indication of suicide is when a person has had severe mental health challenges or personal stresses in his/her life. Suicide is the third leading cause of death investigated by the Medical Examiner in Ingham County.

In 2008, there were 21 suicide deaths investigated by the Medical Examiner. There were no teen suicides in 2008 in Ingham County. All suicides occurred in people age 20 or over. Eighty one percent (81%) of the suicides were male.

Deaths Due to Suicide Ingham County, 2008

AGE GROUPS	TOTAL	MALE	FEMALE
< 1	0	0	0
1 - 9	0	0	0
10 -14	0	0	0
15 - 19	0	0	0
20 - 29	5	4	1
30 - 44	7	6	1
45 - 64	6	5	1
65 +	3	2	1
ALL AGES	21	17	4

Manner: *Homicide*

The Ingham County Medical Examiner classifies a death as a homicide when the death results from intentional injuries inflicted by another person.

During 2008, the Medical Examiner classified 11 deaths as homicide. The number represents 2% of the Medical Examiner death investigations for 2008. Of these 11 homicides deaths, 7 (64%) were the result of gunshot wounds. There was only one homicide among people 19 and under in Ingham County.

Deaths Due to Homicide Ingham County, 2008

AGE GROUPS	TOTAL	MALE	FEMALE
< 1	0	0	0
1 - 9	1	0	1
10 -14	0	0	0
15 - 19	0	0	0
20 - 29	6	6	0
30 - 44	2	2	0
45 - 64	1	1	0
65 +	1	1	0
ALL AGES	11	10	1

Manner: *UNDETERMINED*

The Ingham County Medical Examiner certifies a manner of death as undetermined when available information regarding the circumstances of death is insufficient to classify the death into one of the specific manners of natural, accident, homicide, or suicide.

During 2008, the Ingham County Medical Examiner certified 5 deaths as undetermined (or 1% of the total cases investigated by the Medical Examiner). A sudden infant death case which was declared “undetermined” was related to an unsafe sleep environment.

Undetermined Deaths Ingham County, 2008

AGE GROUPS	TOTAL	MALE	FEMALE
< 1	1	1	0
1 - 9	0	0	0
10 -14	0	0	0
15 - 19	1	1	0
20 - 29	2	1	1
30 - 44	0	0	0
45 - 64	1	1	0
65 +	0	0	0
ALL AGES	5	4	1

AGE

Age groups are divided into youth and adult. The youth groups are infants (newborn to 11 months), toddler/grade school (1 – 9 years), junior (10 – 14 years), and high school (15 – 19 years). Adult age groups are grouped as: 20 – 29 years, 30 – 44 years, and 45 – 64 years. The last group is 65 years old or older.

In 2008, there were 545 deaths reported to the Ingham County Medical Examiner by medical and law enforcement personnel. Of these deaths, 266 (49 %) were in the 65 years old or older age group. Eighty-nine percent (89%) of deaths occurring in the 65 years old or older age group were natural deaths while 10% were accidental deaths, the second leading manner of death for all deaths reported to the Ingham County Medical Examiner in 2008. The accidental deaths in the age 65 and older group doubled in 2008, up from 5% in 2007. There were only ten deaths to people age nineteen years and under investigated by the Ingham County Medical Examiner.

Accidental death was the most common cause of death in young adults. Forty-eight percent (48%) of deaths to people 20-29 were accidental.

Deaths by Manner of Death and Age Ingham County, 2008

	<u>ALL AGES</u>	<u><1</u>	<u>1-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-29</u>	<u>30-44</u>	<u>45-64</u>	<u>65+</u>
ACCIDENT	83	0	1	1	1	20	12	22	26
HOMICIDE	11	0	1	0	0	6	2	1	1
NATURAL	425	1	0	0	3	9	16	160	236
SUICIDE	21	0	0	0	0	5	7	6	3
UNDETERMINED	5	1	0	0	1	2	0	1	0
TOTAL	545	2	2	1	5	42	37	190	266

AUTOPSY

Autopsy is a postmortem examination performed to confirm or determine the cause of death. Autopsies by a forensic pathologist were not performed in deaths where scene, circumstances, medical history, and external examination of the body provided sufficient information to certify the death.

In 2008, the cause and manner of 130 deaths were established by autopsy, representing 24% of total deaths established by the Ingham County Medical Examiner. This number was decreased from the 143 autopsies which were authorized by the Ingham County Medical Examiner in 2007. Deaths occurring due to natural causes accounted for 44% of the investigated deaths which were established by autopsy. Deaths due to accidental causes accounted for 35% of the investigated deaths which were established by autopsy.

Medical Examiner Cases with Causes of Death Established by Autopsy Ingham County, 2008

Full Autopsy Totals

	<u>ALL AGES</u>	<u>< 1</u>	<u>1-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-29</u>	<u>30-44</u>	<u>45-64</u>	<u>65+</u>
ACCIDENT	45	0	1	1	0	15	9	13	6
HOMICIDE	11	0	1	0	0	6	2	1	1
NATURAL	57	1	0	0	1	6	5	35	9
SUICIDE	10	0	0	0	0	1	3	4	2
UNDETERMINED	5	1	0	0	1	2	0	1	0
TOTAL	128	2	2	1	2	30	19	54	18

Medical Examiner Cases with Causes of Death Established by Autopsy Ingham County, 2008

External Autopsy Totals

	<u>ALL AGES</u>	<u>< 1</u>	<u>1-9</u>	<u>10-14</u>	<u>15-19</u>	<u>20-29</u>	<u>30-44</u>	<u>45-64</u>	<u>65+</u>
SUICIDE	2	0	0	0	0	1	0	0	1
TOTAL	2	0	0	0	0	1	0	0	1

**Annual Summary of Medical Examiner Cases by Manner of Death
Ingham County, 2004 - 2008**

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
ACCIDENT	111	112	81	74	83
HOMICIDE	17	15	12	18	11
NATURAL	436	418	426	381	425
PENDING	0	0	0	0	0
SIDS	0	0	0	0	0
SUICIDE	27	34	30	29	21
UNDETERMINED	13	11	7	13	5
UNKNOWN	0	0	0	0	0
TOTAL	604	590	556	515	545

Medical Examiner Expenditures and Revenue: 2008

Medical Examiner Revenue and Expenditures

	2007
Adopted Budget	\$364,177
Revenue	
MDCH Grant Revenue	3,200.00
Copies of Autopsies	829.00
Cremation Certificates	11,292.00
Other Reimbursements	87.00
Revenue Transfers	287,007.00
Total	302,415.00
Expenditures	
Travel, Supplies, Communication, etc.	1,727.00
Medical Services	
Medical Examiner Fees	29,932.00
Medical Examiner Investigators	49,195.00
Autopsies	213,399.00
Body Transport	8,162.00
Total	302,415.00

MDCH = Michigan Department of Community Health. The Michigan Department of Community Health is the state governmental department responsible for health policy and management of the state's publicly-funded health service systems.

Medical Examiner Program Staff

CHIEF MEDICAL EXAMINER

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