



This Report is dedicated
to all those who have died
in Columbiana County, Ohio in the year 2011
to their families, their loved ones
and their friends

William A. Graham, Jr., M.D., F.C.A.P, M.B.A.
Columbiana County Coroner

Brandi Phillips F- A.B.M.D.I.
Chief Forensic Investigator

Sunny Bowers
B.S. Human Development and Family Studies
Assistant Forensic Investigator

Shalyn N. Russell
Candidate BACHELOR OF SCIENCE IN APPLIED SCIENCE (August 2012)
Major: FORENSIC SCIENCE

Mission Statement:

This office is committed to represent those who can no longer represent themselves.

Goals:

To continue to bring the best skills of medical science to coroner investigations.
Continue to serve the needs of law and justice as well as the citizens of
Columbiana County

Annual Report 2011

Office of the Coroner

Columbiana County
8473 County Home Road
Lisbon, Ohio 44432

This publication marks the tenth annual report of the Office of the Coroner for Columbiana County. The report will take a somewhat different approach to reporting the statistics for the year 2011. Currently there are 9529 cases entered in the database partially representing known data from the years 1934 through 2011.

We will first present a short synopsis of general information about the coroner's duties and how those duties may involve you. We will next report and graph data generated in 2011. We will next compare this data to that data collected from 1989 thru 2011.

For those readers unfamiliar with the mechanics of statistics, namely **Normal Distribution** and **Standard Deviation (SD)**, we provide a quick review in Appendix A.

General Information:

When to Report a Death

When a person dies under any of the below circumstances, the death must be reported to the local Office of the Coroner.

Accidental Deaths

If the death occurs when in apparent good health or in any suspicious or unusual manner including:

- Asphyxiation by gagging on foreign substance, including food in airway; compression of the airway or chest by hand, material, or ligature; drowning; handling cyanide; exclusion of oxygen; carbon monoxide; and/or other gasses causing suffocation.
- Blows or other forms of mechanical violence
- Burns from fire, liquid, chemical, radiation or electricity Carbon monoxide poisoning. (Resulting from natural gas, automobile exhaust or other.)
- Cutting, stabbing or gunshot wounds.
- Death from electrocution.
- Drowning (actual or suspected).
- Drug overdose from medication, chemical or poison ingestion, (actual or suspected). This includes any medical substance, narcotic or alcoholic beverage, whether sudden, short or long term survival has occurred.
- Electrical shock
- Explosion
- Falls, including hip fractures or other injury.
- Firearm injuries
- Stillborn or newborn infant death where there is a recent or past traumatic event involving the mother, such as vehicular accident, homicide, suicide attempt, or drug ingestion that may have precipitated delivery or had a detrimental effect to the newborn.
- Vehicular accidents, including auto, bus, train, motorcycle, bicycle, watercraft, snowmobile or aircraft, including driver, passenger, or related non-passenger, (e.g. such as being struck by parts flying or thrown from a vehicle).
- Weather related death (e.g. lightning, heat exhaustion, hypothermia or tornado).

Homicidal Deaths

- By any means, suspected or known.

Suicidal Deaths

- By any means, suspected or known.

Occupational Deaths

- Instances in which the environment of present or past employment may have caused or contributed to death by trauma or disease. Deaths in this classification include caisson disease (bends), industrial infections, pneumoconiosis, present or past exposure to toxic waste or product (e.g. nuclear products, asbestos or coal dust), fractures, burns or any other injury received during employment or as a result of past employment, which may have contributed to death.

Sudden Deaths

If the death occurs when in apparent good health or in any suspicious or unusual manner including:

- DOA: Any person pronounced dead on arrival at any hospital, emergency room of a hospital or doctor's office shall be reported.
- Infants and young children: Any infant or young child found dead shall be reported, including Sudden Infant Death Syndrome (SIDS) or Crib Death.
- All stillborn infants where there is suspected or actual injury to the mother.
- All deaths occurring within 24 hours of admission to a hospital unless the patient has been under the continuous care of a physician.
- Deaths occurring while in any jail, confinement or custody.
- All deaths occurring within 24 hours of admission to a hospital unless the patient has been under the continuous care of a physician.
- Deaths under unknown circumstances whenever there are no witnesses or where little or no information can be elicited concerning the deceased person.
- Sudden death on the street, at home, in a public place, or at place of employment.
- Alcoholism.
- Drug abuse, habitual use of drugs or drug addiction.

Special Circumstances

Any death involving allegations of suspicious medical malpractice or possibly poor medical/surgical care.

- Any maternal or infant death where there is suspicious or illegal interference by unethical or unqualified persons or self-induction.
- "Delayed death," an unusual type of case, where the immediate cause of death may actually be from natural disease. However, injury may have occurred days, weeks, months, or even years before death and is responsible for initiating the sequence of medical conditions or events leading to death. This would be considered a Coroner's case and is therefore reportable. The most common examples of this type of case are 1) past traffic accidents with debilitating injury and long-term care in a nursing home and 2) hip fractures of the elderly where there is a downward course of condition after the injury.

Therapeutic Deaths

- Death occurring under the influence of anesthesia, during the anesthetic induction, during the post-anesthetic period without the patient regaining consciousness (including death following long-term survival if the original incident is thought to be related to the surgical procedure and/or anesthetic agent).
- Death during or following any diagnostic or therapeutic procedure, whether medical or surgical, if death is thought to be directly related to the procedure or complications from said procedure.
- Death due to the administration of a drug, serum, vaccine, or any other substance for any diagnostic, therapeutic or immunological purpose.

Any death where there is a doubt, question or suspicion. Not all reported cases fall into the above noted categories. After the investigation is completed, many will be returned to the jurisdiction or institution where the death certificate will be signed by the attending physician as a natural death.

Only the Coroner can legally sign a death certificate of a person who has died as a direct or indirect result of any cause listed in the previously noted reportable deaths.

How to Report a Death

In order to report a death, call the Office of your respective County Coroner, day or night, and state "I wish to report a death."

It is requested that the following information, if known, be provided:

- Name and address of the deceased
- Age and date of birth
- Sex and race
- Social Security number
- Marital status
- Next-of-kin, name, address, phone number
- Place and manner of occurrence
- Date and time of occurrence
- Date and time of death
- Name of person pronouncing death
- Name of person reporting death
- Any other information which may be helpful
- Location of the body
- Name of funeral home

Laws / Attorney General Opinion

- Click on the link below to view the entire Ohio Revised Code Coroner Chapter.

[Ohio Revised Code](#)

- The following selected sections of the Ohio Revised Code (ORC) are listed so that the responsible individual may fully understand that providing information to the Coroner is to comply with the law and that failure to do so would place that person in jeopardy of prosecution.

[ORC 313.01 ELECTED; TERM](#)

[ORC 313.02 QUALIFICATIONS FOR CORONER; CONTINUING EDUCATION](#)

[ORC 313.14 NOTICE TO RELATIVES; DISPOSITION OF PROPERTY](#)

ORC 313.01 ELECTED; TERM

- A coroner shall be elected quadrennially in each county, who shall hold his office for a term of four years, beginning on the first Monday of January next after his election. As used in the Revised Code, unless the context otherwise requires, "coroner" means the coroner of the county in which death occurs or the dead human body is found.

ORC 313.02 QUALIFICATIONS FOR CORONER; CONTINUING EDUCATION

- (A) No person shall be eligible to the office of coroner except a physician who has been licensed to practice as a physician in this state for a period of at least two years immediately preceding election or appointment as a coroner, and who is in good standing in the person's profession, or is a person who was serving as coroner on October 12, 1945.
- (B)(1) Beginning in calendar year 2000 and in each fourth year thereafter, each newly elected coroner, after the general election but prior to commencing the term of office to which elected, shall attend and successfully complete sixteen hours of continuing education at programs sponsored by the Ohio state coroners association. Within ninety days after appointment to the office of coroner under section 305.02 of the Revised Code, the newly appointed coroner shall attend and successfully complete sixteen hours of continuing education at programs sponsored by the association. Hours of continuing education completed under the requirement described in division (B)(1) of this section shall not be counted toward fulfilling the continuing education requirement described in division (B)(2) of this section.

- As used in division (B)(1) of this section, "newly elected coroner" means a person who did not hold the office of coroner on the date the person was elected coroner.
- (2) Except as otherwise provided in division (B)(2) of this section, beginning in calendar year 2001, each coroner, during the coroner's four-year term, shall attend and successfully complete thirty-two hours of continuing education at programs sponsored by the Ohio state coroners association. Except as otherwise provided in division (B)(2) of this section, each coroner shall attend and successfully complete twenty-four of these thirty-two hours at statewide meetings, and eight of these thirty-two hours at regional meetings, sponsored by the association. The association may approve attendance at continuing education programs it does not sponsor but, if attendance is approved, successful completion of hours at these programs shall be counted toward fulfilling only the twenty-four-hour requirement described in division (B)(2) of this section.
- (3) Upon successful completion of a continuing education program required by division (B)(1) or (2) of this section, the person who successfully completes the program shall receive from the association or the sponsoring organization a certificate indicating that the person successfully completed the program.

ORC 313.14 NOTICE TO RELATIVES; DISPOSITION OF PROPERTY

- The coroner shall notify any known relatives of a deceased person who meets death in the manner described by section 313.12 of the Revised Code by letter or otherwise. The next of kin, other relatives, or friends of the deceased person, in the order named, shall have prior right as to disposition of the body of such deceased person. If relatives of the deceased are unknown, the coroner shall make a diligent effort to ascertain the next of kin, other relatives, or friends of the deceased person. The coroner shall take charge and possession of all moneys, clothing, and other valuable personal effects of such deceased person, found in connection with or pertaining to such body, and shall store such possessions in the county coroner's office or such other suitable place as is provided for such storage by the board of county commissioners. If the coroner considers it advisable, he may[,] after taking adequate precautions for the security of such possessions, store the possessions where he finds them until other storage space becomes available. After using such of the clothing as is necessary in the burial of the body, in case the cost of the burial is paid by the county, the coroner shall sell at public auction the valuable personal effects of such deceased persons, found in connection with or pertaining to the unclaimed dead body, except firearms, which shall be disposed of as provided by section 313.141 [313.14.1] of the Revised Code, and he shall make a verified inventory of such effects. Such effects shall be sold within eighteen months after burial, or after delivery of such body in accordance with section 1713.34 of the Revised Code. All moneys derived from such sale shall be deposited in the county treasury. A notice of such sale shall be given in one newspaper of general circulation in the county, for five days in succession, and the sale shall be held immediately thereafter. The cost of such advertisement and notices shall be paid by the board upon the submission of a verified statement therefor, certified to the coroner. This section does not invalidate section 1713.34 of the Revised Code.

Frequently Asked Questions

How long does it take for a death ruling to be made?

- This procedure is handled differently by various Counties. However, in most cases, a signed death certificate accompanies the body when it is released by the Coroner. When there is insufficient information available to complete the death certificate, pending Findings, Fact and Verdict death certificate is issued that accompanies the body. This death certificate enables the funeral services and burial to take place while additional chemical, microscopic slide preparation and examination, and investigation continues. At the culmination of these tests and investigation, the ruling is made based on all available information. A supplemental death certificate is then issued with the cause of death and ruling which supersedes the pending death certificate.

When will the autopsy report be completed?

- The autopsy report, also called the protocol, usually takes about four weeks to be completed after the autopsy. If microscopic and chemical tests are performed, this time period can lengthen to six to eight weeks.

Where may the clothing of the deceased be located?

- Usually, the clothing of the deceased is released to the funeral director for disposal or use as the family requests. In cases of homicide, various suicides, or vehicular deaths, the clothing may be held by the Coroner or the investigating law enforcement agency for use as evidence.

How is a funeral director selected?

- Most often, the next-of-kin discusses the selection of the funeral director with the other family members, clergy or friends. The Office of the Coroner is prohibited from recommending a funeral director. A listing of funeral directors is available in the telephone book as well as other sources.

What is an autopsy and is there a charge for it?

- An autopsy is a systematic examination by a qualified physician of the body of a deceased person for the purpose of determining the cause of death. A record is made of the findings of the autopsy, including microscopic and toxicological laboratory tests. These laboratory tests are conducted before the release of the body to the next-of-kin for burial. There is no charge to the next-of-kin for an autopsy, nor for any of the tests that may be conducted by the Coroner.

Does the Coroner need permission from the next-of-kin for an autopsy?

- Ohio Law (ORC 2108-52) provides that the Coroner does not need permission for an autopsy. The Office of the Coroner will attempt to comply with the wishes of the next-of-kin, provided this does not conflict with the duties of the Coroner as charged by Ohio Law including due regard for the deceased's religious persuasion.

When is an autopsy performed?

- Not all persons brought to the Coroner's Office are autopsied. Certain cases are not autopsied where no foul play is suspected and evidence of a natural death is present. In other cases where the possibility of legal proceedings may arise as a result of a homicide, accident, suicide, etc., an autopsy will be performed. In these cases, both positive and negative information ordinarily is found which substantiates the ruling and cause of death as signed by the Coroner. Under a recent change in the Ohio Revised Code, any child under the age of two years that is referred to the Coroner's Office with no known potentially lethal disease shall be autopsied unless contrary to the parents' religious beliefs. (ORC 313.131)

Why is a body brought to the Coroner's Office?

- The remains of deceased persons are brought to the Coroner's Office because Ohio Law requires that the Coroner investigate deaths of persons dying from criminal violence, by accident, by suicide, suddenly, when unattended by a physician for a reasonable period of time, in detention, or in any suspicious or unusual manner. Another reason that a body may be brought to the Coroner's Office is that the identity of the deceased or the next-of-kin is unknown.

How can the deceased's personal effects and other valuables be obtained?

- By Ohio Law (ORC 313.14), the Office of the Coroner will take possession of monies and other personal effects of the deceased. These items are inventoried and released to the next-of-kin. (Money over \$100.00 may only be released with a release From Probate Order from the court or a letter of Appointment naming an executor of the estate of the deceased.)

How do I make arrangements for a body to be released from the Office of the County Coroner?

- Routinely, the Coroner releases the body to a licensed funeral director. The next-of-kin of the deceased person should notify a funeral director who, in turn, will arrange transportation for the deceased to the funeral home and obtain the necessary documents for burial or cremation.

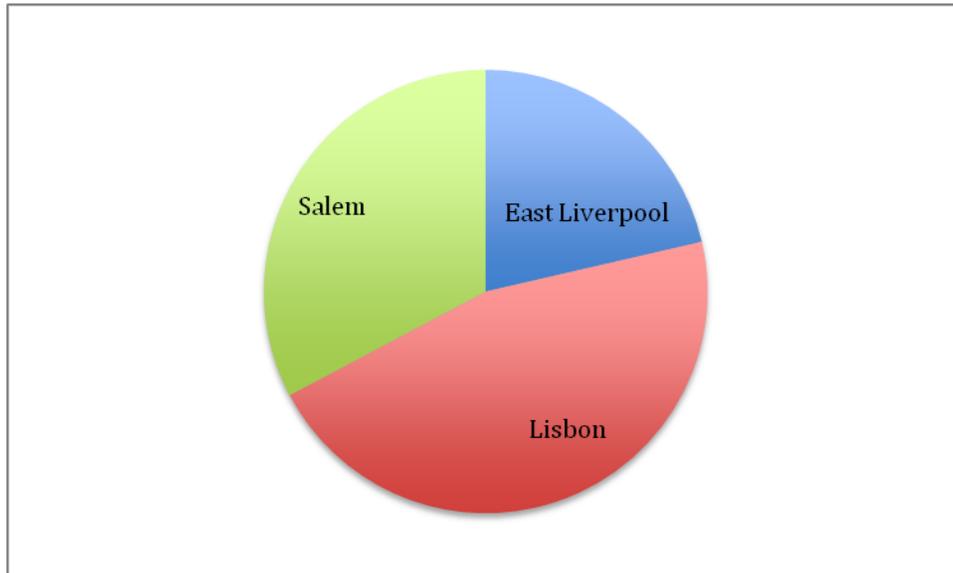
Where can copies of the death certificate be obtained?

- Certified copies of death certificates can be obtained only from the Bureau of Vital Statistics of each respective county.

How can I obtain records, including a Coroner's report, autopsy report, and/or toxicology report, pertaining to a death on a case that was referred to the Coroner?

- This procedure differs from County to County. To obtain this information, contact your County Coroner

Total Deaths Reported Across the County in 2011

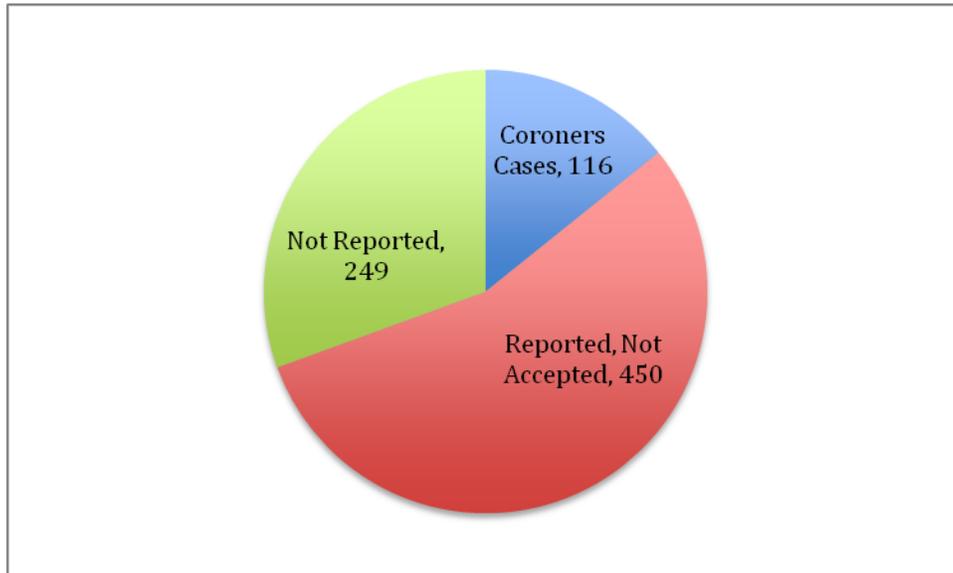


The number of deaths reported from January 1, 2011 to December 31, 2011 in the county totaled 815. This was a slight decrease as compared with the last year total of 965. The values displayed were acquired from Lisbon, Salem and East Liverpool health departments. Each reported the following deaths:

Health Department Data

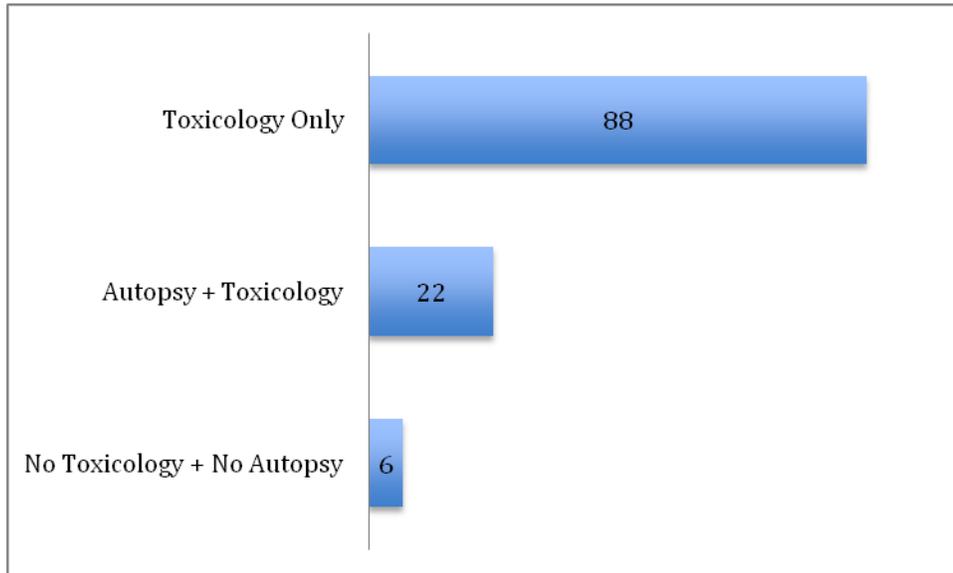
East Liverpool	215
Lisbon	461
Salem	329
Total	815

Death Management for Reported Deaths



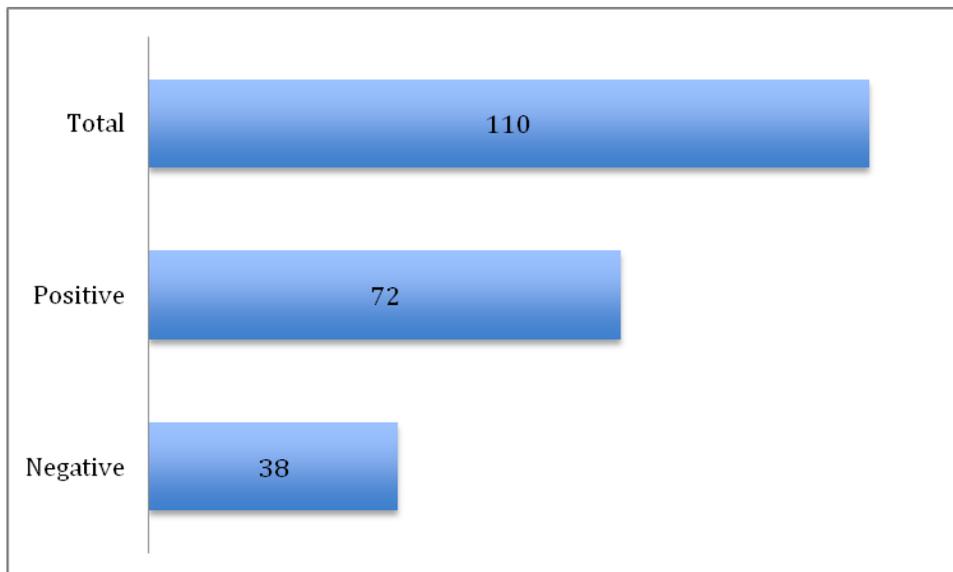
Not all of the cases reported to the coroner are accepted. Some cases do not meet the criteria of a coroner's case, therefore they are recorded as reported to the coroner but do not get investigated by the coroner. However, there are many cases that become coroner cases and for those a full investigation and final determination are rendered. This year there were 116 cases accepted by the coroner, 450 reported but not accepted by the coroner and the rest of the 249 deaths were not reported.

Disposition of Cases Taken by the Coroner



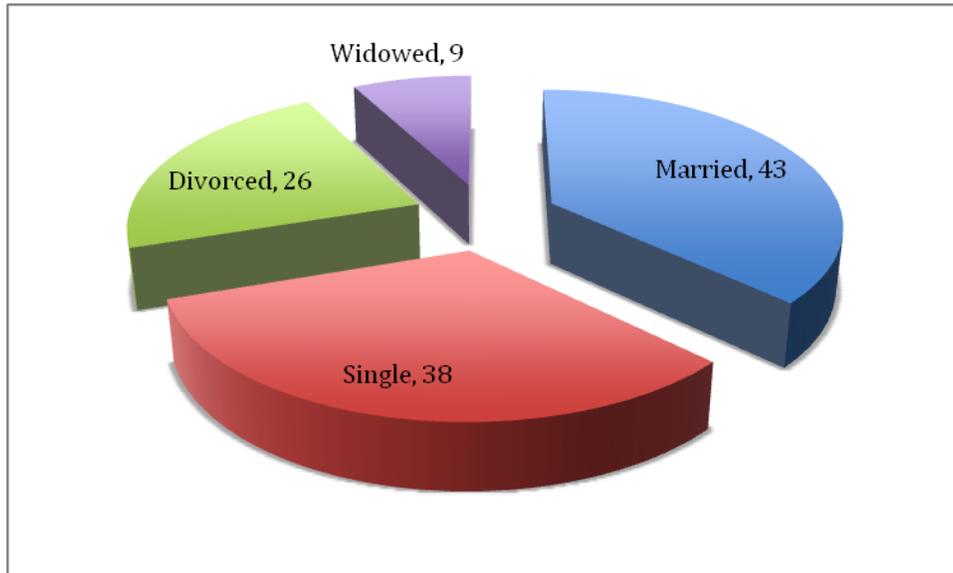
The coroner determines whether or not to run toxicology or do an autopsy on a decedent. Of the 116 coroner cases, 88 had toxicology testing only, 22 were autopsied and had toxicology done, as part of the autopsy, and the remaining 6 cases had no toxicology or autopsy performed.

Toxicological Results of Decedents of 2011



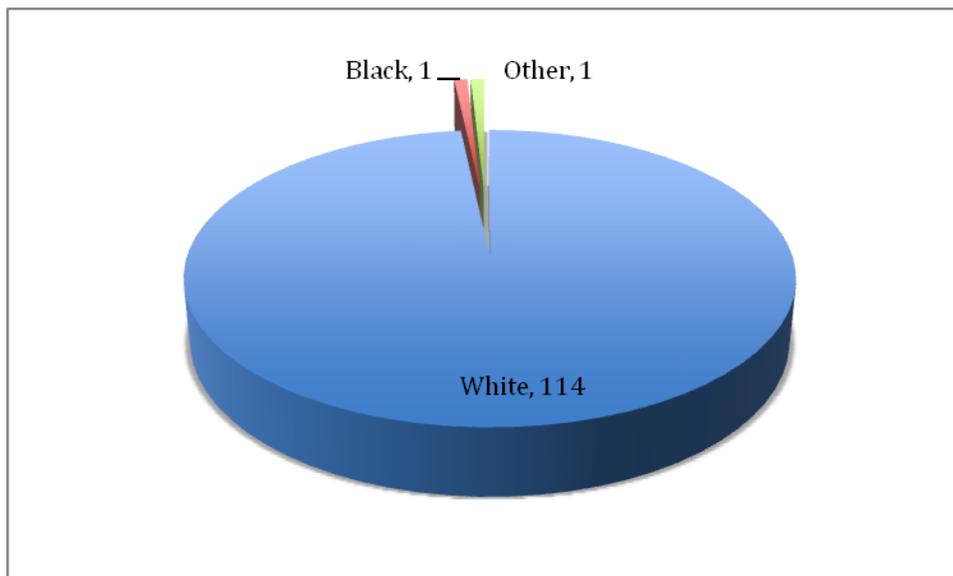
Of the 110 toxicology tests, 72 were positive and 38 were negative.

Distribution of Decedents by Marital Status



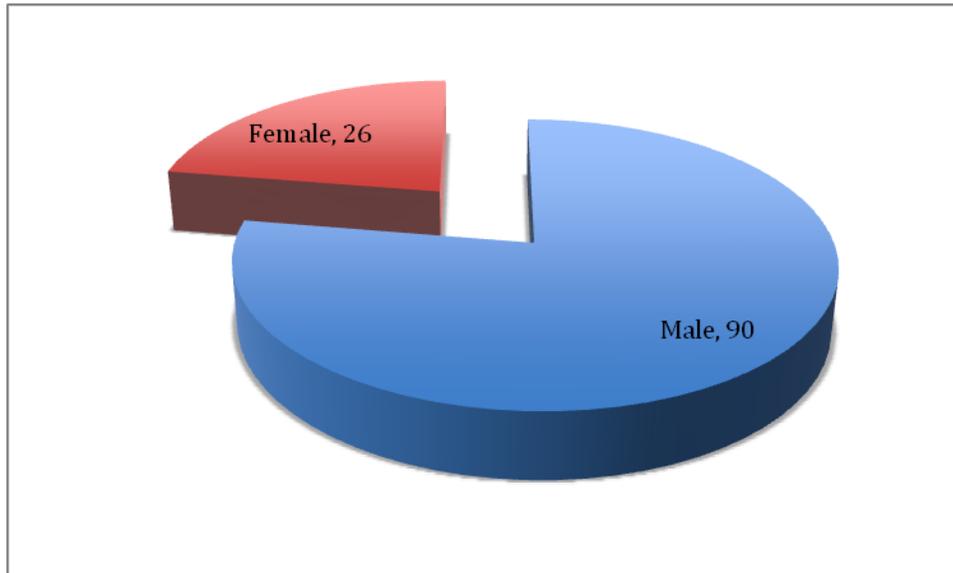
There were 43 people married, 38 single, 26 divorced and 9 widowed.

Distribution of Decedents Based on Ethnic Background



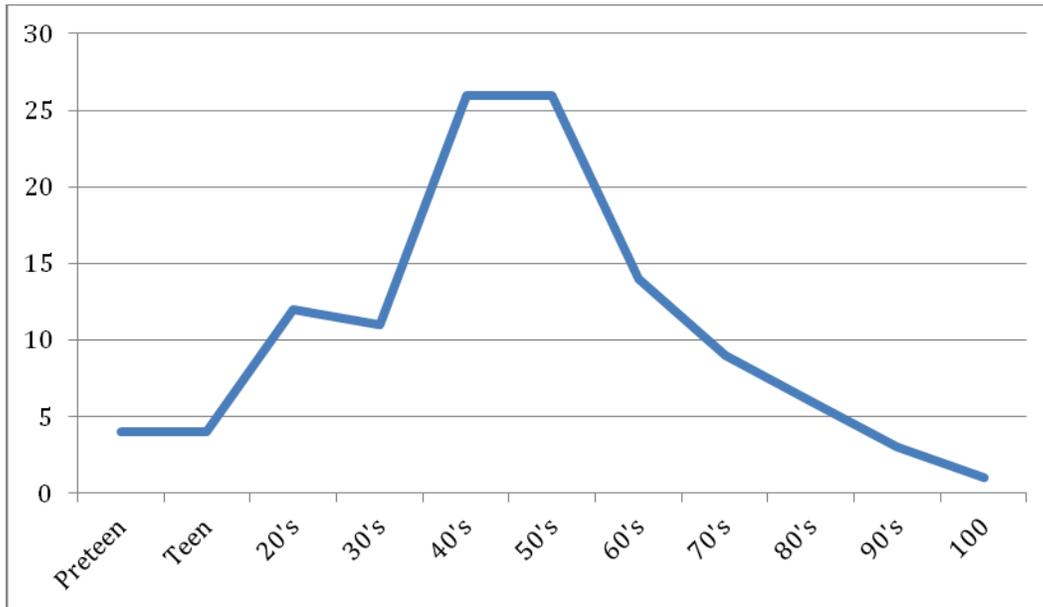
There were mostly white decedents this year with a total of 114. The two remaining decedents were one each Black and Other.

Distribution of Decedents by Sex



In 2011, of the 116 cases accepted by the coroner's office 90 were males, while only 26 were females.

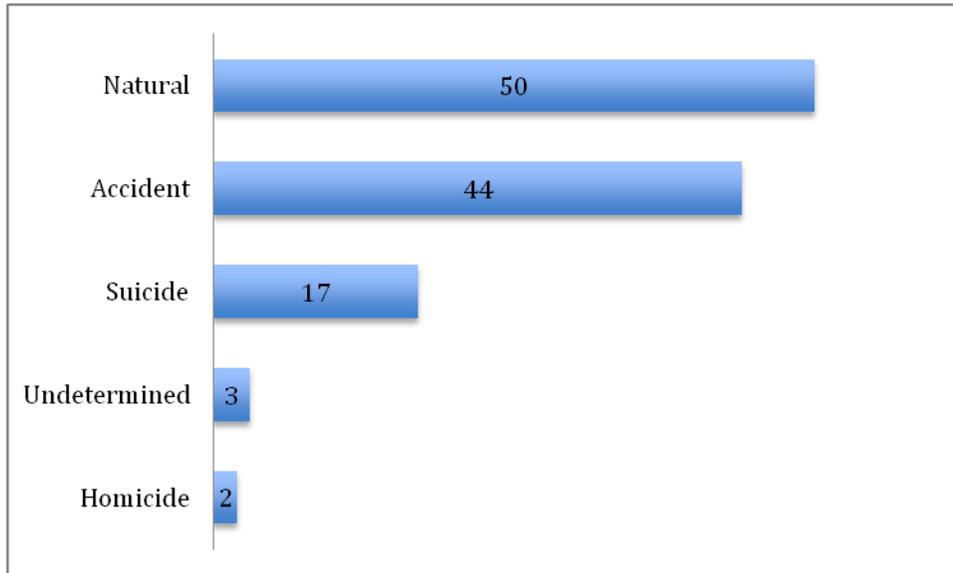
Distribution of the Decedents by Age



The decedent's age ranged from as young as 2 months and 2 days old up to 100 years of age. There were especially high values in the 40-69 age range and a peak from 40-59. The exact values of each range are as follows:

Age Range	Number of Deaths
0-9	4
10-19	4
20-29	12
30-39	11
40-49	26
50-59	26
60-69	14
70-79	9
80-89	6
90-99	3
100	1

Distribution for Manner of Death Determined by Coroner



For each of the 116 cases, the coroner had to make a determination as to manner of the decedent's death. In all he came to a conclusion and a final decision was rendered. For the year there were 50 Natural Deaths, 44 Accidents, 17 Suicides, 2 Homicides and 3 Undetermined.

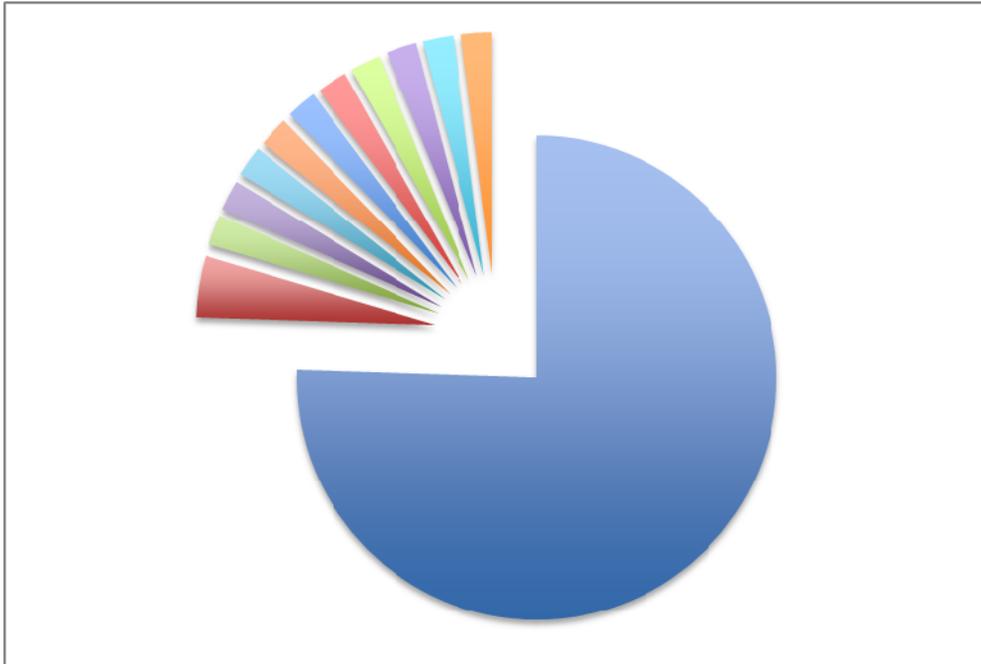
Distribution of the Manner of Death when Compared with Age

Age	Natural	Accident	Suicide	Homicide	Undetermined	Totals
0-9	0	3	0	0	1	4
10-19	2	2	0	0	0	4
20-29	0	8	3	1	0	12
30-39	1	6	4	0	0	11
40-49	12	10	3	0	1	26
50-59	16	4	5	0	1	26
60-69	10	3	1	0	0	14
70-79	6	1	1	1	0	9
80-89	3	3	0	0	0	6
90-99	0	3	0	0	0	3
100+	0	1	0	0	0	1
Totals	50	44	17	2	3	116

Distribution of the Manner of Death when compared to Sex

Sex	Natural	Accident	Suicide	Homicide	Undetermined	Totals
Female	7	15	12	1	1	90
Male	43	29	15	1	2	26
Totals	50	44	17	2	3	116

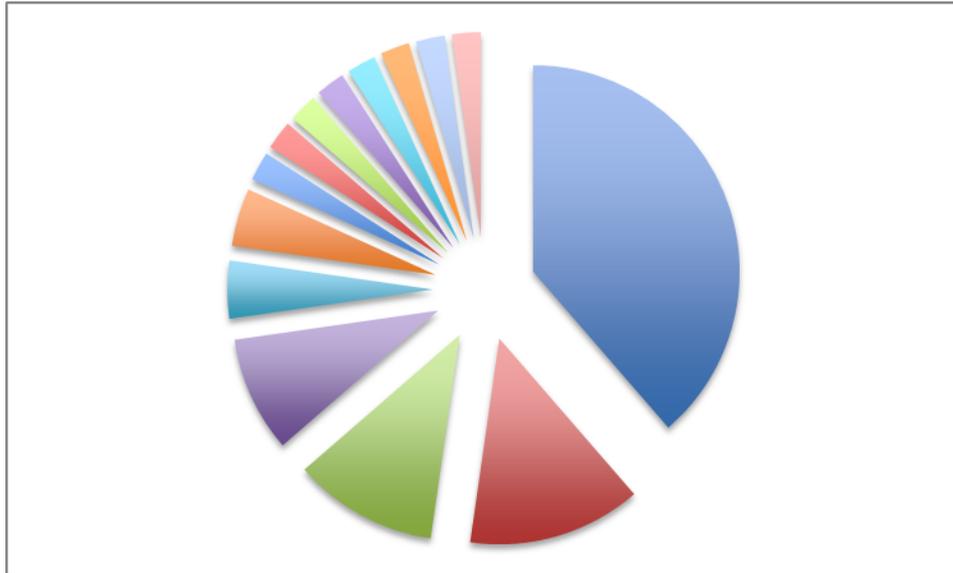
Natural Death Distribution



Each death that is determined to be natural the coroner gives a cause of death. Above are the distributions of the various causes of Natural Deaths for this year and the numbers are as follows:

Myocardial Infarction	37
Hypertensive Cardiovascular Disease with Cardiomegaly	2
Acute Coronary Arterial Thrombosis	1
Adenocarcinoma of Esophagus with Lung Metastasis	1
Atherosclerotic Cardiovascular Disease with Cardiomegaly	1
Carcinoma of Esophagus with Metastases	1
Cortical Adenoma of Left Adrenal Gland	1
Gastrointestinal Hemorrhage	1
Hypertensive Atherosclerotic Cardiovascular Disease with Organizing Intracerebral Infarct	1
Hypertensive Cardiomyopathy with Cardiomegaly	1
Myocarditis	1
Seizure	1

Distribution of Accidental Deaths



Accidental deaths are graphed above and listed below:

Mixed Drug Overdose	17
Moving Vehicle vs. Tree	6
Fall	5
Moving Vehicle Accident	4
House Fire	2
Motorcycle Accident	2
Choked on Food	1
Exsanguination	1
Failure to Thrive	1
Moving Vehicle vs. Pedestrian	1
Myocardial Infarction	1
Off Road Vehicle Accident	1
Suffocation	1
Two Car Collision	1

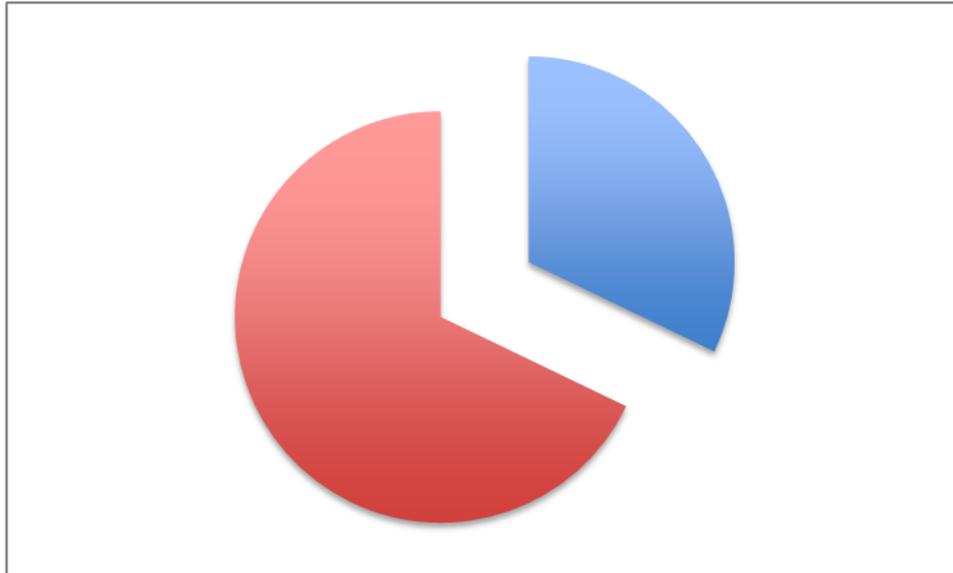
Distribution of Suicidal Deaths



The causes of death of the 17 suicides were also determined by the coroner and they are as follows:

Suicidal Hanging	7
Gunshot Wound	6
Carbon Monoxide Poisoning	1
Drug Overdose	1
Jump	1
Train vs. Pedestrian	1

Distribution of Asphyxial Deaths



For the 28 asphyxial deaths for 2011 the following manner of death was determined:

Accident	19
Suicide	9

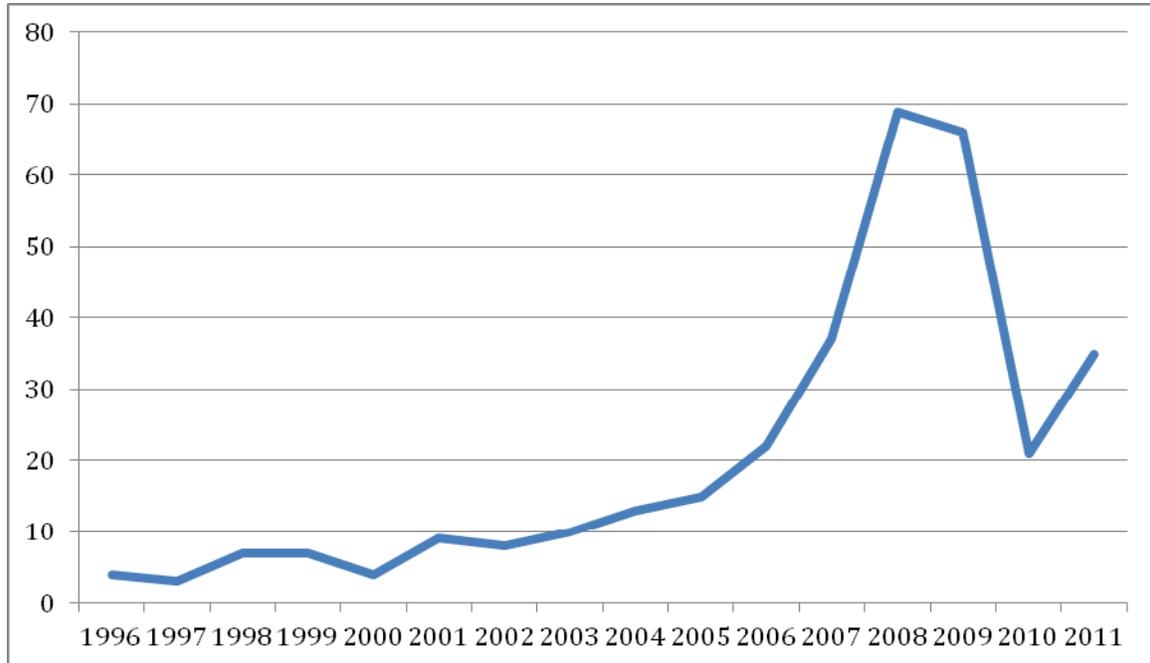
Distribution of Deaths by Town

Town	Natural	Accident	Suicide	Homicide	Undetermined	Pending	Total
Akron	0	1	0	0	0	0	1
Alliance	1	0	2	0	0	0	3
Ambridge, PA	0	1	0	0	0	0	1
Beloit	1	0	0	0	0	0	1
Calcutta	0	0	1	0	0	0	1
Canfield	1	0	0	0	0	0	1
Cannonsburg, PA	0	1	0	0	0	0	1
Chagrin Falls	0	1	0	0	0	0	1
Chester, W. VA	0	1	0	0	0	0	1
Columbiana	2	2	2	0	0	0	6
East Liverpool	12	8	4	1	0	0	25
East Palestine	3	1	2	0	0	0	6
Elkton	1	1	0	0	0	0	2
Hannoverton	1	0	1	0	0	0	2
Homeworth	0	1	0	0	0	0	1
Hubbard	0	1	0	0	0	0	1
Kensington	0	1	0	0	0	0	1
Leetonia	4	0	0	0	1	0	5
Lisbon	6	3	1	1	0	0	11
Louisville	1	0	0	0	0	0	1
Loweville	1	0	0	0	0	0	1
Minerva	0	0	1	0	0	0	1
Negley	1	3	0	0	1	0	5
Pittsburgh, PA	0	1	0	0	0	0	1
Rogers	0	1	0	0	0	0	1
Salem	11	11	3	0	1	0	26
Salineville	2	1	0	0	0	0	3
Wellsville	2	3	0	0	0	0	5
Wooster	0	1	0	0	0	0	1
Totals	50	44	17	2	3	0	116

Distribution of Deaths by Zip Code

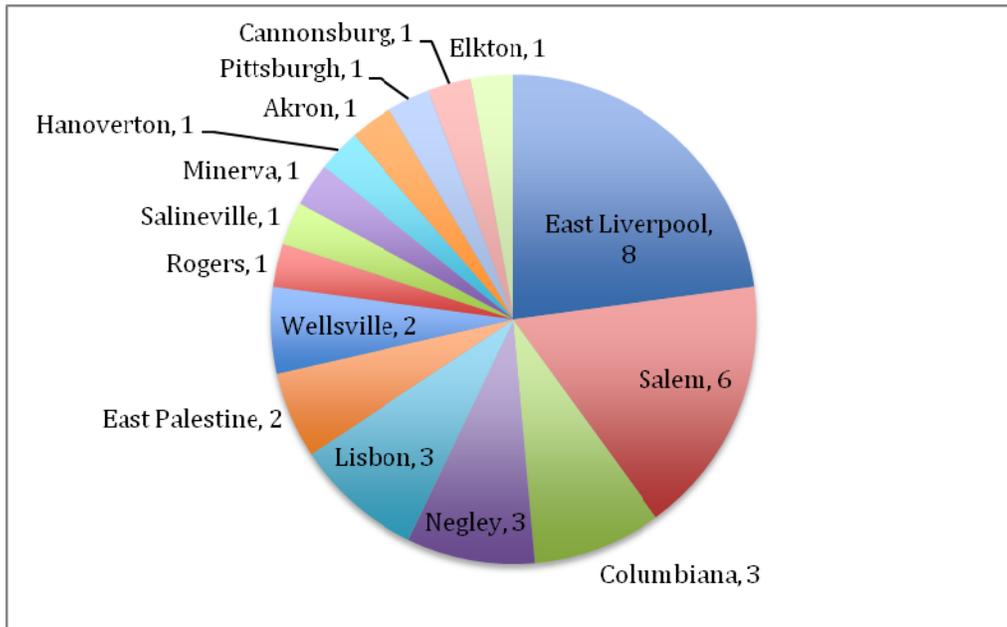
Zip Code	Natural	Accident	Suicide	Homicide	Undetermined	Pending	Total
13517	0	1	0	0	0	0	1
15003	0	1	0	0	0	0	1
15219	0	1	0	0	0	0	1
26034	0	1	0	0	0	0	1
43920	12	8	5	1	0	0	26
43945	2	1	0	0	0	0	3
43968	2	3	0	0	0	0	5
44022	0	1	0	0	0	0	1
44312	0	1	0	0	0	0	1
44406	1	0	0	0	0	0	1
44408	2	2	2	0	0	0	6
44413	3	1	2	0	0	0	6
44415	1	1	0	0	0	0	2
44423	1	0	1	0	0	0	2
44425	0	1	0	0	0	0	1
44427	0	1	0	0	0	0	1
44431	4	0	0	0	1	0	5
44432	6	3	1	1	0	0	11
44436	1	0	0	0	0	0	1
44441	1	3	0	0	1	0	5
44455	0	1	0	0	0	0	1
44460	11	11	3	0	1	0	26
44601	1	0	2	0	0	0	3
44609	1	0	0	0	0	0	1
44634	0	1	0	0	0	0	1
44641	1	0	0	0	0	0	1
44657	0	0	1	0	0	0	1
44691	0	1	0	0	0	0	1
Totals	50	44	17	2	3	0	116

Distribution of Drug and Alcohol Deaths by Year



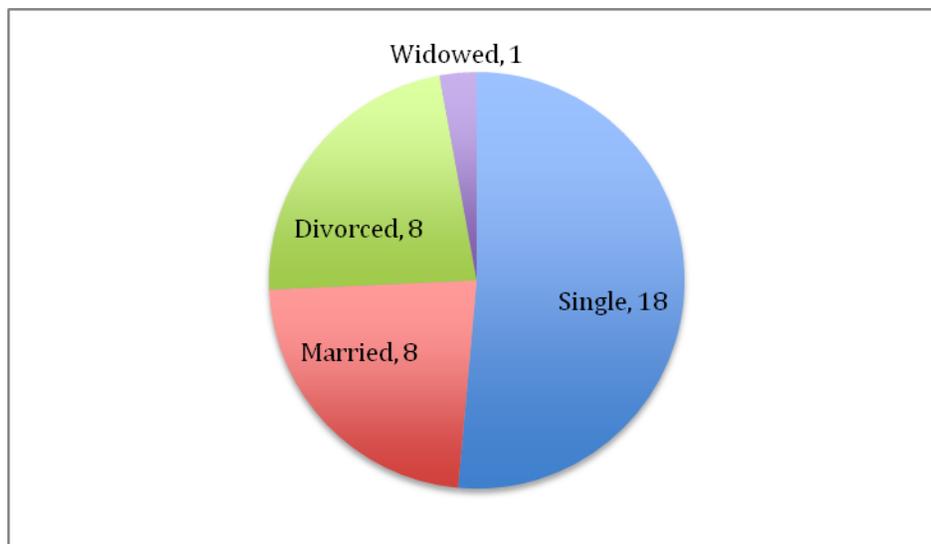
This graph displays the deaths where drug and/or alcohol directly caused the decedents' deaths for the past 16 years and shows an increase from 21 to 35 for this year.

City or Town of Drug Deaths 2011



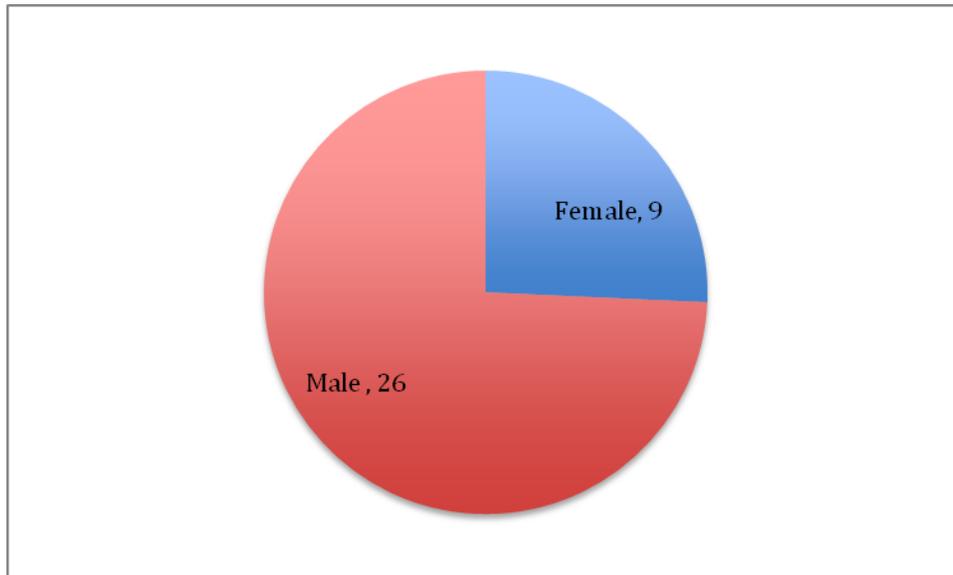
For the drug deaths in 2011 the city where the decedent's died was evaluated and recorded. Of the 35 deaths, East Liverpool had 8, Salem had 6, Columbiana, Lisbon and Negley each had 3, East Palestine and Wellsville each had 2 and the remaining cities had 1.

Marital Status of Decedents in Drug Deaths 2011



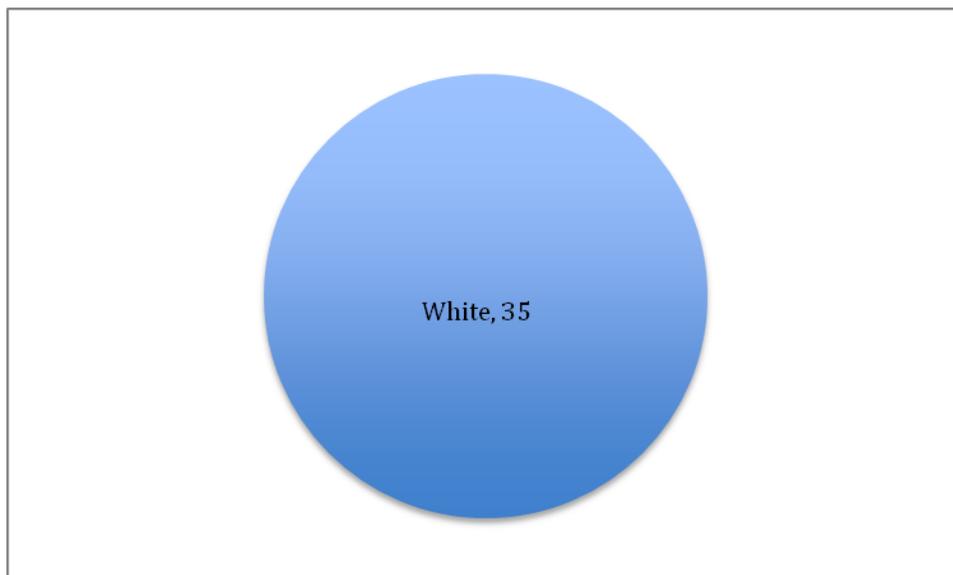
This shows the marital status of the decedents that died in a drug related deaths. Of the 35 decedents, 18 were single, 8 were married, 8 were divorced, and 1 was widowed.

Sex of Decedents in Drug Deaths 2011



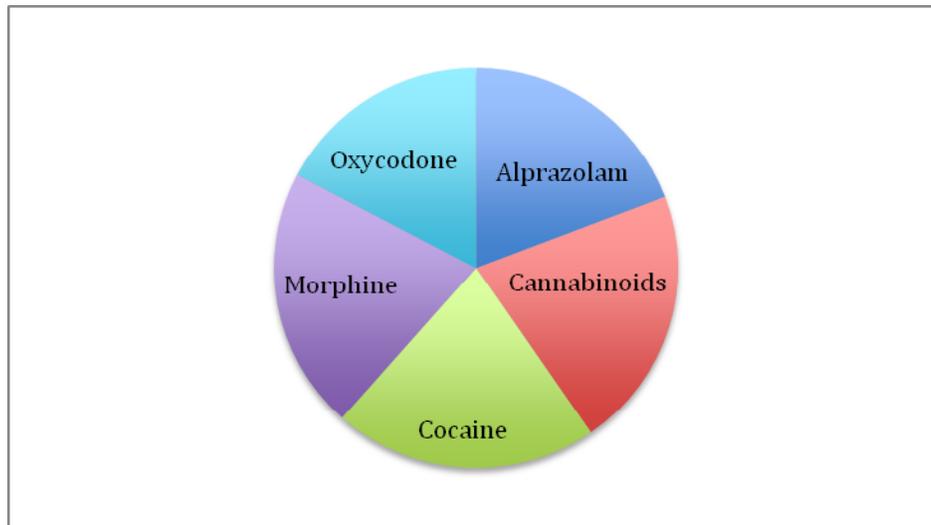
This graph shows the ratio of male to females in drug related deaths. There were 26 males and 9 females of the 35 drug related deaths.

Race of Decedents in Drug Deaths 2011



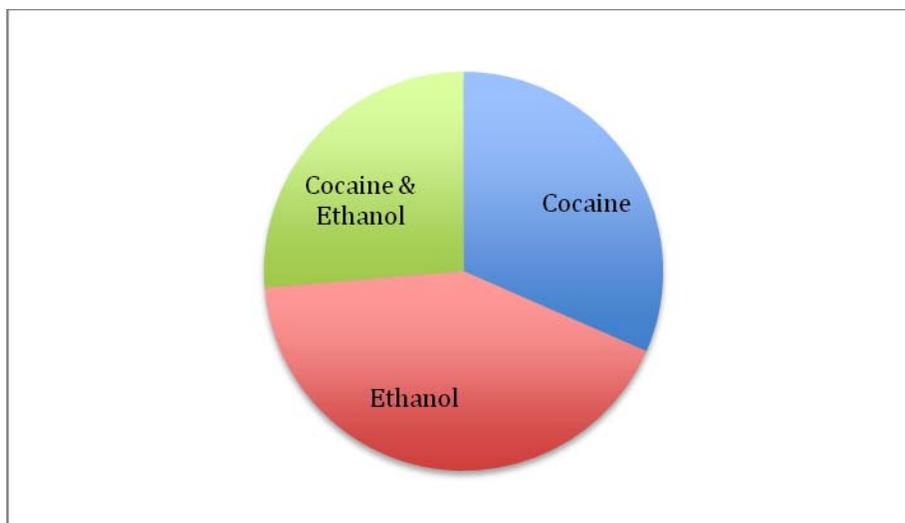
The ethnic background of the decedents was overwhelmingly white. Each of the 35 deaths were all of white descent.

Distribution of the 5 Most Prominent Drugs for Drug Deaths in 2011



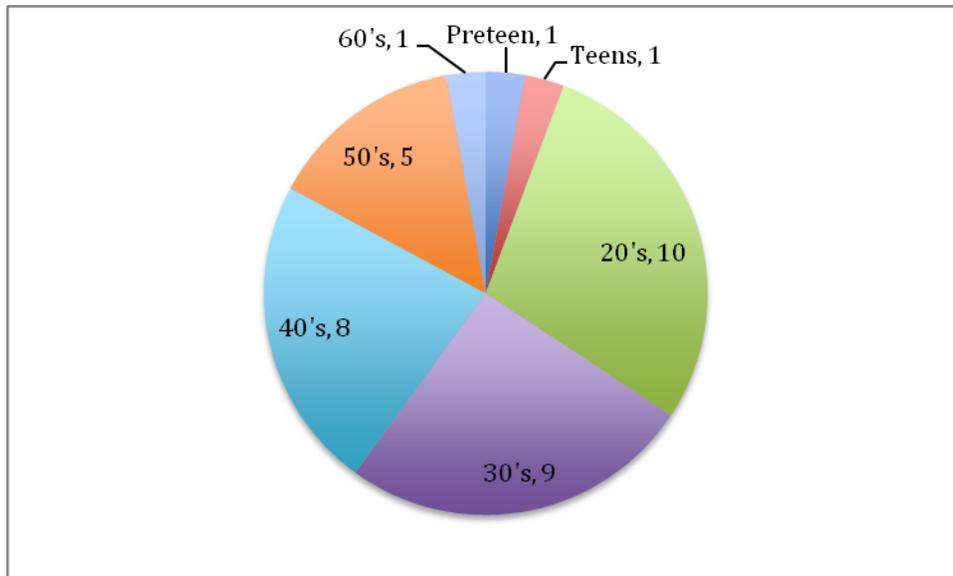
The prominent drugs for 2011 were Alprazolam, Cannabinoids, Cocaine, Morphine and Oxycodone.

Distribution of Ethanol and Cocaine Among the Accidental Drug Deaths in 2011



Of the 35 drug related deaths 27 were accidental. For the 27 accidental deaths there were 8 positive for ethanol, 6 were positive for cocaine and 5 positive for both ethanol and cocaine.

Distribution of Ages of Decedents in Drug Deaths in 2011



The decedents' ages in drug deaths were interesting to consider. Most decedents ranged from 20-49. There was 1 person each in their preteens, teens and 60's, 5 in their 50's, 8 in their 40's and 10 in their 20's.

Having seen the data and the graphs of the year 2011 ... we ask the question, "Was 2011 a 'normal' year?" We will answer this question by comparing it to the previous 22 years of data. We will use the statistical tools of **Normal Distribution** and **Standard Deviation (SD)**. Refer to appendix A for a quick refresher course if needed.

Let's look first at the number of cases for the year 2011:

Year	Total Cases	Male	Female	Ratio
1989	94	69	25	0.73404255
1990	99	76	23	0.76767677
1991	78	51	27	0.65384615
1992	90	60	30	0.66666667
1993	78	64	14	0.82051282
1994	73	50	23	0.68493151
1995	89	68	21	0.76404494
1996	120	95	25	0.79166667
1997	88	66	22	0.75
1998	88	57	31	0.64772727
1999	98	71	27	0.7244898
2000	86	56	30	0.65116279
2001	96	64	32	0.66666667
2002	117	73	44	0.62393162
2003	94	66	28	0.70212766
2004	108	78	30	0.72222222
2005	82	58	24	0.70731707
2006	111	83	28	0.74774775
2007	122	91	31	0.74590164
2008	123	88	35	0.71544715
2009	98	69	29	0.70408163
2010	108	70	38	0.64814815
2011	116	90	26	0.77586207
Sum	2140	1523	617	15.64035951
Mean	97.27272727	69.22727273	28.04545455	0.710925432
SD	14.81692024	12.21993616	6.244824697	0.051918705
- 3 SD	52.82196654	32.56746424	9.310980454	0.555169318
- 2 SD	67.63888678	44.7874004	15.55580515	0.607088023
2011	116	90	26	0.77586207
+ 2 SD	126.9065678	93.66714505	40.53510394	0.814762842
+ 3 SD	141.723488	105.8870812	46.77992864	0.866681546

Looking at the Mean and Standard Deviation for the four categories, this was in total a **Normal** year.

Now let's look at the number of homicides in the year 2011:

Year	Homicide	Male	Female	Ratio
1989	2	0	2	0
1990	2	0	2	0
1991	0	0	0	0
1992	3	1	2	0.33333333
1993	2	1	1	0.5
1994	1	1	0	1
1995	5	3	2	0.6
1996	3	2	1	0.66666667
1997	2	0	2	0
1998	2	1	1	0.5
1999	1	1	0	1
2000	1	0	1	0
2001	2	1	1	0.5
2002	4	2	2	0.5
2003	1	1	0	1
2004	2	1	1	0.5
2005	2	1	1	0.5
2006	2	1	1	0.5
2007	2	1	1	0.5
2008	6	4	2	0.66666667
2009	0	0	0	0
2010	5	2	3	0.4
2011	2	1	1	0.5
Sum	50	24	26	9.66666667
Mean	2.27272727	1.09090909	1.18181818	0.43939394
SD	1.54863437	1.01929438	0.85280287	0.32896123
- 3 SD	-2.3731758	-1.9669741	-1.3765904	-0.5474897
- 2 SD	-0.8245415	-0.9476797	-0.5237875	-0.2185285
2011	2	1	1	0.5
+ 2 SD	5.369996	3.12949786	2.88742391	1.09731639
+ 3 SD	6.91863037	4.14879224	3.74022678	1.42627762

Looking at the Mean and Standard Deviation for the four categories, the number of homicides would be classified as a **Normal** year.

The next data set involves Suicides in the year 2011:

Year	Suicide	Male	Female	Ratio
1989	13	12	1	0.92307692
1990	11	9	2	0.81818182
1991	18	15	3	0.83333333
1992	12	10	2	0.83333333
1993	12	10	2	0.83333333
1994	12	11	1	0.91666667
1995	11	9	2	0.81818182
1996	17	15	2	0.88235294
1997	15	12	3	0.8
1998	17	9	8	0.52941176
1999	8	6	2	0.75
2000	9	9	0	1
2001	13	11	2	0.84615385
2002	12	7	5	0.58333333
2003	16	14	2	0.875
2004	12	9	3	0.75
2005	20	17	3	0.85
2006	15	12	3	0.8
2007	14	13	1	0.92857143
2008	21	18	3	0.85714286
2009	12	8	4	0.66666667
2010	19	14	5	0.73684211
2011	17	15	2	0.88235294
Sum	309	250	59	17.8315822
Mean	14.0454545	11.3636364	2.68181818	0.81052646
SD	3.48434967	3.17048073	1.70115825	0.10999524
- 3 SD	3.59240553	1.85219418	-2.4216566	0.48054073
- 2 SD	7.0767552	5.02267491	-0.7204983	0.59053597
2011	17	15	2	0.88235294
+ 2 SD	21.0141539	17.7045978	6.08413468	1.03051695
+ 3 SD	24.4985036	20.8750786	7.78529293	1.14051219

Looking at the Mean and Standard Deviation for the four categories, for suicides this was in total a **Normal** year.

The next data set involves Accidents in the year 2011:

Year	Accident	Male	Female	Ratio
1989	31	22	9	0.70967742
1990	32	26	6	0.8125
1991	18	10	8	0.55555556
1992	20	17	3	0.85
1993	25	21	4	0.84
1994	22	12	10	0.54545455
1995	22	16	6	0.72727273
1996	28	21	7	0.75
1997	19	16	3	0.84210526
1998	21	14	7	0.66666667
1999	18	10	8	0.55555556
2000	21	13	8	0.61904762
2001	20	15	5	0.75
2002	19	15	4	0.78947368
2003	24	12	12	0.5
2004	24	14	10	0.58333333
2005	21	16	5	0.76190476
2006	30	21	9	0.7
2007	42	31	11	0.73809524
2008	30	21	9	0.7
2009	34	21	13	0.61764706
2010	28	23	5	0.82142857
2011	44	29	15	0.65909091
Sum	549	387	162	15.435718
Mean	24.9545455	17.5909091	7.36363636	0.70162355
SD	6.2142484	5.35998482	2.85432762	0.10744516
- 3 SD	6.31180027	1.51095464	-1.1993465	0.37928806
- 2 SD	12.5260487	6.87093946	1.65498113	0.48673322
2011	44	29	15	0.65909091
+ 2 SD	37.3830422	28.3108787	13.0722916	0.91651387
+ 3 SD	43.5972906	33.6708635	15.9266192	1.02395903

Looking at the Mean and Standard Deviation for the four categories, this was not a **normal year** for accidents. The total number (44) exceeds the + 3SD of 47.35972906.

In addition the male number (29) and the female number (15) exceed the +2SD.

Looking back on the two previous years we find that the number of motor vehicle crashes and drug overdoses combined to make the accidental rate excessive.

The next final set involves Natural Deaths in the year 2011:

Year	Natural	Male	Female	Ratio
1989	47	34	13	0.72340426
1990	51	39	12	0.76470588
1991	42	26	16	0.61904762
1992	55	32	23	0.58181818
1993	38	31	7	0.81578947
1994	38	26	12	0.68421053
1995	51	40	11	0.78431373
1996	69	55	14	0.79710145
1997	52	37	15	0.71153846
1998	48	33	15	0.6875
1999	69	53	16	0.76811594
2000	49	32	17	0.65306122
2001	57	36	21	0.63157895
2002	77	44	33	0.57142857
2003	52	38	14	0.73076923
2004	67	52	15	0.7761194
2005	38	24	14	0.63157895
2006	58	44	14	0.75862069
2007	59	44	15	0.74576271
2008	61	42	19	0.68852459
2009	44	33	11	0.75
2010	50	28	22	0.56
2011	50	43	7	0.86
Sum	1172	823	349	15.4349898
Mean	53.2727273	37.4090909	15.8636364	0.70159045
SD	10.6912595	8.74865481	5.34785631	0.0765078
- 3 SD	21.1989487	11.1631265	-0.1799326	0.47206705
- 2 SD	31.8902082	19.9117813	5.16792375	0.54857485
2011	50	43	7	0.86
+ 2 SD	74.6552463	54.9064005	26.559349	0.85460605
+ 3 SD	85.3465059	63.6550553	31.9072053	0.93111385

Looking at the Mean and Standard Deviation for the four categories, natural deaths were in total a **Normal** year.

Accident, Self-Immolation or Homicide

On a brisk fall day, around 10:00 A.M. in late October of 2010 a member of the Perry Township Police Department found a still burning body of a woman on a closed road off Egypt Road. The body was partially burned, especially severe on the lower parts of her body. Initial impressions were either accidental death, suicidal, or homicidal death

Reviewing the scene of the burning, no metal or plastic safety can for gas or other accelerant was found. Since the degree of the burn was severe it would seem that an accidental death was unlikely.

If this were a case of self-immolation(Burning oneself) it would also seem that a "gas can" should be nearby. However no container would be necessary if this were an assisted suicide. The assistant could have carried the can away from the scene.

If it were a homicide only a forensic autopsy could tell what killed the woman.

Self Immolation or deliberate self-burning (**DSB**) is relatively uncommon in the Western countries.

In a report published in the year 2004 the annual cases of **DSB** in Canada was 16. The annual number of cases in the USA was 20.6, with California registering 8 annually, Florida registering 10.0, Georgia having 5.6 and Pennsylvania coming in at 5 cases annually.

In the Middle East and the Indian Sub-continent a very different picture is seen. The annual cases of **DSB** in India were reported at 398 with new Delhi recorded at 93. Iran, Egypt, and Jordan together recorded 220 annual cases of **DSB**. The markedly increased numbers are influenced by the 3 to 4 times the population density, but that hardly makes the difference comparing 16 for Canada and 20.6 for the USA.

In a paper published in Iran in the year 2010, serious mental disorders were diagnosed. Of the cases of DSB 67% had adjustment disorders(all female), 10% drug and alcohol abuse/dependence, 7% dysthymia, 3% major depression, 3%anorexia nervosa, 3% borderline personality disorder, 7% depressive personality disorder and 3% antisocial disorder.

"Excluding Greece, there was a male predominance among people committing DSB. in European countries and in far-east Asia, with a male: female ratio as high as 2.5 in Spain. In contrast a female predominance was noted in most Middle East countries and in the Indian sub-continent, with a

ratio as low as 0.1 in Iranian Kurdistan. In the USA, no gender clearly dominated.”

“Median age (or most common age group according to the way it was expressed “in the paper) showed that patients burning themselves were in their thirties in Europe and in there twenties in Asia.”

To recap:

- (1) Accidental death of this woman is unlikely because no can or container for an accelerant was found.
- (2) Deliberate self-burning (**DSB**) was unlikely because:
 - a. No can or container for an accelerant was found, but an assisted suicide was possible.
 - b. DSB is very uncommon in the USA and Canada, as compared to European and Middle Eastern Countries.
 - c. Her age(60) was not in the age group for **DSB**
- (3) A forensic autopsy must be relied upon to give us the answer to the question: Accident, Self-immolation, or Homicide?

The Forensic autopsy revealed the following findings:

- (1) Bilateral bulbar and palpebral petechiae.
- (2) Fracture of the hyoid bone.
- (3) Right periorbital ecchymosis.
- (4) Fracture of the cribiform plate of the left ethmoid bone.
- (5) Contusion of the right cheek.

In plain English, the findings were:

- (1) Hemorrhagic spots on the eyelids and brain.
- (2) Fracture of a bone in the neck.
- (3) “Black Eye” of the right eye.
- (4) Fracture of a bone in the left face.
- (5) Bruise of the right cheek.

The first finding is an indicator of asphyxia which might be seen in drug overdose, fire, drowning, hanging, smothering or **strangulation**. The second finding occurs when a person is manually **strangled**. The third, fourth and fifth findings are indicative of badly beaten face.

So the forensic autopsy gave us the answer ... Homicide! The woman was badly beaten, then strangled and then her body was taken to an open field and an attempt was made to get rid of her body by burning it.

SUMMARY

1. The Ohio Revised Code concerning the Office of the Coroner was reviewed. Emphasis was placed on when to report a death, how to report a death, laws/attorney general's opinion, and frequently asked questions.

2. The statistical review showed that the calendar year 2011 was an eventful and busy year. Of the deaths reported in the County, 450 were not reported to the Coroner, 429 were reported to the Coroner, and of those 116 were accepted by the Coroner. Of the 116 accepted by the Coroner, 22 were autopsied and 88 had toxicology only performed, and 6 with neither autopsy nor toxicology. The classifications of these deaths were as follows:

Accident	44
Homicide	2
Natural	50
Suicide	17
Undetermined	3
Total Cases	116

Of the 116, 90 were male and 26 were female. The marital status was as follows:

Divorced	26
Married	43
Single	38
Widowed	9

The ethnic background and age distribution by manner of death are described. As in previous years cardiac disease was the major "natural" killer, and gunshot wounds were the predominant cause of suicidal deaths.

A review of the Drug/Alcohol deaths for 2011 was reported. A slight decrease this year, the rate of deaths is noted over the past 16 years, with 2008 being the largest jump.

Acknowledgements

We must offer our thanks for the help and encouragement given to us by the Trumbull County, Cuyahoga County, and Summit County Coroner offices.

We also acknowledge the help obtained from the website:
<http://bmj.com/collections/statbk/2.shtml> for the statistical primer.

We also acknowledge the help of Jackman S. Vodrey, Lawyer for providing access to the Beaver Kettle Farm. We took 92 pictures which we have used in several of our annual reports.

We also acknowledge the microscopic photographs found in:
Archives of Pathology & Laboratory Medicine., March 2012
“Lymphoproliferative Conditions of the Serosa”, page 269

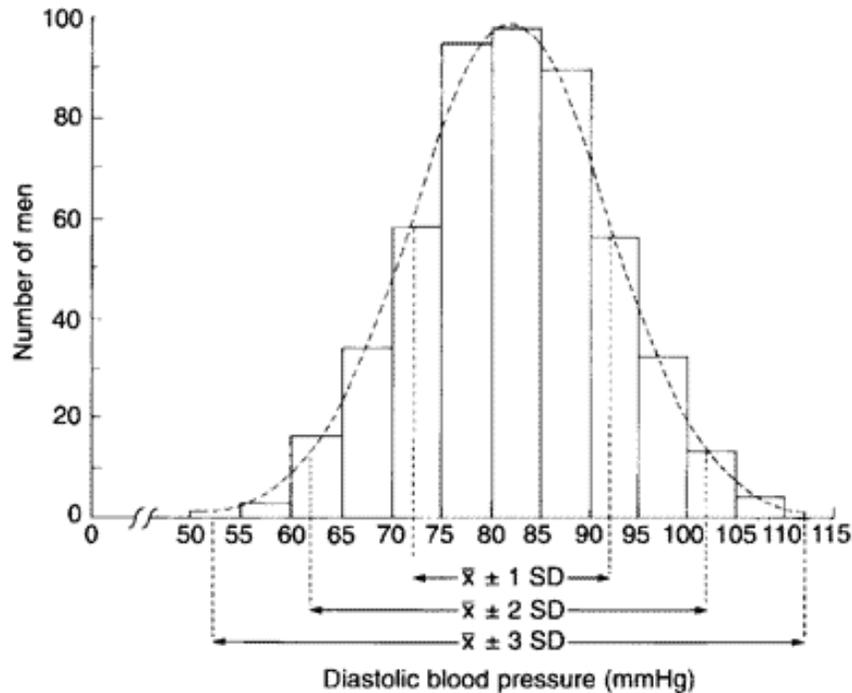
We also acknowledge the background information gleaned from two scientific articles:

(1) **Journal of Forensic Sciences**, March 2010, Volume 55, Number 2,
Pages 447-450, “Psychiatric Disorders (Axis I and Axis II) and Self-
Immolation: A Case-Control Study from Iran”

(2) **Burns** 30 (2004) pages 207-215, “Patterns of deliberate self-burning
in various parts of the world: A review”

Appendix A:

Many biological measurements conform to a **Normal Distribution** – for example, heights of adult men and women, blood pressures in a healthy population, random errors in many types of laboratory measurements, and biochemical data. The figure below shows a Normal curve calculated from the diastolic blood pressures of 500 men, mean 82 mmHg, **Standard Deviation** 10 mmHg. The ranges representing $\pm 1SD$, $\pm 2SD$, and $\pm 3SD$ about the mean are marked.



The reason why **Standard Deviation (SD)** is such a useful measure of the scatter of the observations is this: if the observations follow a **Normal distribution**, a range covered by one standard deviation above the mean and one standard deviation below it includes about 68% of the observations; a range of two standard deviations above and two below about 95% of the observations; and of three standard deviations above and three below about 99.7% of the observations. Thus, when one encounters statistical values greater than 2SD or 3SD, a **significant observation has been found**.