

## **MORTALITY**

**(Large Loss-Of-Life Events Arranged by Mortality – highest to 500)**

### **DEADLIEST AMERICAN DISASTERS AND LARGE LOSS-OF-LIFE EVENTS**

**A Catalog of, and Notes on, Natural and Man-Made Events Causing Ten or More Fatalities  
In America/The United States and its Territories Since 1527**

**Homepage: <http://www.usdeadlyevents.com/>**

**(Down to and including 500 deaths – 853 such entries noted as of**

**January 21, 2025**

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**Chronology**

**Event Typology** (e.g. aviation, epidemics, explosions, fires heat, mining, hurricanes, violence).

**Breakout of Events by States, District of Columbia and Territories.**

**Rank-ordering within Types by State.**

**Spreadsheet.**

**Contents below are:**

Top Ten – (All are Epidemics and Disease)

Top Ten Non-Disease:

“Natural” Top Ten (excluding Disease)

“Natural” Top Ten (excluding Disease and Heat)

“Natural” Top Ten (excluding Disease and Heat)

“Man-Made” Top Ten – non-natural (though “nature” may be contributing factor)

“Technological” Top Ten (thus excluding intentional man-made violence)

Multiple-Death Fires (All Types --Top Ten)<sup>1</sup>

All Large Loss-of-Life Events by Mortality (from highest down to 500)

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<sup>1</sup> Includes Forest/wildfires, fires from maritime events, structural fires and 911 terrorism event. Have used death toll for all types of death in the 1906 San Francisco earthquake, given uncertainty over range of deaths attributable solely to fire (burns, however, were the leading cause of death -- see 1906 SF Earthquake document.)

**Breakout of Events taking 500 or more lives, which have thus far been noted, by Type:**

- 702 Diseases (especially infectious / contagious / communicable)
  - 15 Cholera
  - 5 COVID (Coronavirus-19)
  - 6 Croup
  - 9 Diarrhoea and Gastroenteritis of Infectious Origin
  - 41 Diphtheria (sometimes includes croup)
  - 28 Dysentery
  - 6 Encephalitis, acute infectious and epidemic encephalitis
  - 12 Hepatitis (Viral/Infectious)
  - 15 HIV/AIDS
  - 117 Influenza (sometimes, though rarely. including pneumonia)
  - 21 Malaria
  - 44 Measles
  - 26 Meningococcal infections, especially Meningitis (including cerebrospinal)
  - 46 Polio
  - 1 Rubella (German measles)
  - 28 Scarlet Fever
  - 55 Smallpox
  - 2 Syphilis (two years noted – 19,006 in 1940; 2,381 in 1967)
  - 106 Tuberculosis
  - 40 Typhoid Fever
  - 5 Typhus (in NYC typhus and typhoid were reported together several years)
  - 30 Whooping Cough
  - 46 Yellow Fever
  - 3 Unknown (1) and Multiple (2)
- 62 Heat (exposure to excessive natural heat as well as effects of heat and light)
- 38 Winter Weather (snow storms, blizzards, excessive natural cold, hypothermia)
- 18 Hurricanes (includes one Northeast maritime gale)
- 15 Violence
- 6 Pellagra (Vitamin B3 deficiency/malnutrition)
- 5 Flooding
- 5 Maritime (ship/boat losses on fresh and salt water)
- 4 Wildfires/Forest Fires
- 3 Tornadoes
- 2 Earthquakes
- 2 Scurvy
- 2 Structural Failures (Dams)
- 1 Explosion
- 1 Fire

**Top 100** Deadly Loss-of-Life Events noted below (actual numbers – not population adjusted):

Disease:	100
Tuberculosis	32 (Sampling)
Influenza/Pneumonia	30 (Sampling)
Diphtheria	7
Cholera	5
Coronavirus-19	5
HIV/AIDS	5
Typhoid Fever	5
Malarial Fever	4
Scarlet Fever	3
Whooping Cough	3
Yellow Fever	3
Croup	2
Diarrhea & Dysentery	2
Small Pox	2
Unknown	2
Measles (1 cross-listed)	1
Meningococcal Meningitis	1
Syphilis	1
Other Than Disease	
Hurricanes:	1

Other – not in top 100

Epidemic Encephalitis  
Pellagra

### Top Ten – (All are Epidemics and Disease):

1.	1492-1800 – North American Native Population Decline, esp. due to <b>diseases</b>	~2,800,000
2.	1918 – <b>Influenza and Pneumonia</b> Epidemic	--430,000-543,482
	1918-1919, <b>Influenza and Pneumonia</b> Epidemic	531,851-728,922
3.	2021 -- <b>COVID-19</b> (coronavirus) US deaths per 1M pop., ~2.6K per million	--437,984
4.	2020 -- Feb 29-Dec 31, <b>COVID-19/Coronavirus</b> , US deaths per 1M pop./1,070	--354,215
5.	1920 -- <b>Influenza and Pneumonia</b> (1918-1920 subset)	--141,609-220,798
6.	2022 -- <b>COVID-19</b> /US death rate 6.5; esp. MO/9.9., FL/9.8, OH/9.8, IN/9.6, PA/9.5--217,370	
7.	1919 -- <b>Influenza and Pneumonia</b> epidemic	--101,851-185,440
8.	1957-58, esp. Fall-Spring -- <b>H2N2 “Asian” Influenza and Pneumonia</b> Pandemic	~116,000
9.	1917 -- <b>Influenza</b> /12,974; <b>Bronchitis</b> /12,311; <b>Pneumonia</b> /74,874	100,159-115,526
10.	1900 -- <b>Tuberculosis</b> , esp. CA, IL, IN, KY, MA, MO, NJ, NY, OH, PA, TN	109,750

### Top Ten Non-Disease:

1.	1900 -- Sep 9, <b>Hurricane</b> , Galveston and southeast coastal area, TX	--7,200-12,000
2.	1540 -- Oct 18, Spanish (de Soto) <b>battle/massacre</b> , with Atahachi, Mabila, AL	2,500-6,000
3.	1936 -- July-Aug (esp.), <b>Heat</b> , esp. MN/772, MO/644, IL/634, MI/617, WI/500	--4,678-5418
4.	1906 -- April 18, <b>Earthquake, Fires, Landslides</b> , San Francisco & vic., CA	--3,000-5,000
5.	1901 -- June-July, <b>Heat waves</b> , except Pacific NW, esp. Northeast, June 27-July 6	--4,012
6.	1838 -- May-Mar 1839, <b>Cherokee Relocation</b> , NE AL/NW GA/SE TN/NW NC to OK <sup>2</sup>	~4,000
7.	1899 -- Aug 8-19, San Ciriaco <b>Hurricane</b> esp. Puerto Rico/3433 & NC/73, Aug 17/18	--3,507
8.	1889 -- May 31, South Fork <b>Dam Fails</b> , Flash Flood, Fire, Johnstown PA	--2,100-3,188
9.	2001 -- Sep 11, <b>Violence, 9/11 Terrorist Attacks</b>	---3,064
10.	1928 -- Sep 6-20, Great Okeechobee <b>Hurricane</b> /Flood, Southeast FL	--1,800-3,000

### “Natural” Top Ten (excluding Disease):

1.	1900 -- Sep 9, <b>Hurricane</b> , Galveston and southeast coastal area, TX	--7,200-12,000
2.	1936 -- July-Aug (esp.), <b>Heat</b> , esp. MN/772, MO/644, IL/634, MI/617, WI/500	--4,678-5418
3.	1906 -- April 18, <b>Earthquake, Fires, Landslides</b> , San Francisco & vic., CA	--3,000-5,000
4.	1901 -- June-July, <b>Heat waves</b> , except Pacific NW, esp. Northeast, June 27-July 6	--4,012
5.	1899 -- Aug 8-19, San Ciriaco <b>Hurricane</b> esp. Puerto Rico/3433 & NC/73, Aug 17/18	-3,507
6.	1928 -- Sep 6-20, <b>Great Okeechobee Hurricane</b> /Flood, Southeast FL	--1,800-3,000
7.	2017 -- Sep 20, <b>Hurricane Maria</b> , Puerto Rico (2,975), US Virgin Isl. (2), NJ (3)	--2,980
8.	1966 -- July, <b>Heat Wave</b> and “excess deaths,” esp. IL, NYC, St. Louis, MO	~2,582-2,954
9.	1931 -- June-Sep, <b>Heat Waves</b> /excessive heat, West, Midwest, NE, esp. IL, IA, WI	--2,768
10.	1871 -- Oct 8-9, <b>Wildfire/Firestorm</b> , Peshtigo/NE WI vic.; Birch Creek MI <sup>3</sup>	--1,228-2,400

<sup>2</sup> Also referred to as Cherokee Trail of Tears as well as a “forced-march” relocation. Geographic area of coverage comes from sources in Narrative document and map in Thornton (1990) from Morris, Goins and McReynolds ([1965] 1986:20), entitled “The Trail of Tears.” Shows two Cherokee relocation routes from area encompassing north/northwest GA, southwest NC, southeast TN and northeast AL. One route is northwest through TN into KY, westward to southern IL, then down into southeastern MO, into northern Ark. and then westward into OK. Second route was westward through TN and AR to OK.

<sup>3</sup> Many sources put fatality high-range at 1,500. Several sources put death toll at 2,200, 2,400, or 2,500.

**“Natural” Top Ten (excluding Disease and Heat):**

- |     |  |                |
|-----|--|----------------|
| 1.  | 1900 -- Sep 9, <b>Hurricane</b> , Galveston and southeast coastal area, TX                     | --7,200-12,000 |
| 2.  | 1906 -- Apr 18, <b>Earthquake, Fires, Landslides</b> , San Francisco & vic., CA                | 3,000-5,000    |
| 3.  | 1899 -- Aug 8-19, San Ciriaco <b>Hurricane</b> esp. Puerto Rico/3433 & NC/73, Aug 17/18- 3,507 |                |
| 4.  | 1928 -- Sep 6-20, <b>Great Okeechobee Hurricane/Flood</b> , Southeast FL                       | 1,800-3,000    |
| 5.  | 2017 -- Sep 20, <b>Hurricane Maria</b> , Puerto Rico (2,975), US Virgin Isl. (2), NJ (3)       | --2,980        |
| 6.  | 1871 -- Oct 8-9, <b>Wildfire/Firestorm</b> , Peshtigo/NE WI vic.; Birch Creek MI <sup>4</sup>  | 1,228-2,400    |
| 7.  | 1893 -- Aug 27-28, <b>Sea Islands Hurricane</b> , “Great Storm of 1893,” GA/SC                 | 1,000-2,500    |
| 8.  | 1893 -- Oct 1-2, <b>Hurricane Cheniere Caminanda</b> , Gulf Coast esp. LA, MS, AL              | 1,700-2,000    |
| 9.  | 2005 -- Aug 25-31, <b>Hurricane Katrina</b> , FL, LA, esp. NOLA & MS <sup>5</sup>              | ≥1,833-1,836   |
| 10. | 1553 -- <b>Hurricane</b> , Lower Coast of TX   | 1,700          |

**“Man-Made” Top Ten – non-natural (though “nature” may be contributing factor):**

- |     |   |             |
|-----|---|-------------|
| 1.  | 1540 -- Oct 18, Spanish (de Soto) <b>battle/massacre</b> , with Atahachi, Mabila, AL              | 2,500-6,000 |
| 2.  | 1838 -- May-Mar 1839, <b>Cherokee Relocation</b> , NE AL/NW GA/SE TN/NW NC to OK <sup>6</sup>     | ~4,000      |
| 3.  | 1889 -- May 31, South Fork <b>Dam Fails</b> , Flash Flood, Fire, Johnstown PA                     | 2,100-3,188 |
| 4.  | 2001 -- Sep 11, <b>Violence, 9/11 Terrorist Attacks</b>   | 3,064       |
| 5.  | 1941 -- Dec 07, <b>Violence, Attack</b> by Japanese on Pearl Harbor, HI                           | 2,402       |
| 6.  | 1865 -- Apr 27, Steamer <b>Sultana</b> explodes/burns, Miss. Riv., Redman Point, AR-1,547-1,947   |             |
| 7.  | 2005 -- Aug 29, <b>Hurricane Katrina Levee/floodwall failures/overtopping</b> , NOLA <sup>7</sup> | ~1,300      |
| 8.  | 1675 -- Dec 19, English Colonists <b>Massacre</b> Narragansetts, Great Swamp, RI                  | --365-1,100 |
| 9.  | 1904 -- June 15, <b>General Slocum</b> excursion steamer <b>fire</b> , East River, NYC, NY        | --957-1,031 |
| 10. | 1915 -- July 24, crowded <b>SS Steamer Eastland</b> rolls-over at dock, Chicago, IL               | --812-844   |

**“Technological” Top Ten (thus excluding intentional man-made violence):**

- |     |   |               |
|-----|---|---------------|
| 1.  | 1889 -- May 31, South Fork <b>Dam Fails</b> , Flash Flood, Fire, Johnstown PA                     | 2,100-3,188   |
| 2.  | 1865 -- Apr 27, Steam <b>Sultana</b> explodes/burns, Miss. Riv., Redman Point, AR                 | --1,547-1,947 |
| 3.  | 2005 -- Aug 29, <b>Hurricane Katrina Levee/floodwall failures/overtopping</b> , NOLA <sup>8</sup> | ~1,300        |
| 4.  | 1904 -- June 15, <b>General Slocum</b> excursion steamer <b>fire</b> , East River, NYC, NY        | --957-1,204   |
| 5.  | 1915 -- July 24, Crowded <b>SS Steamer Eastland</b> rolls-over at dock, Chicago, IL               | --812-844     |
| 6.  | 1903 -- Dec 30, <b>Fire, Suffocation, Trampling</b> , Iroquois Theater, Chicago, IL               | -- 602        |
| 7.  | 1928 -- March 12, <b>St. Francis Dam failure</b> , Ventura County, CA                             | --400-600     |
| 8.  | 1947 -- Apr 16-17, <b>Grandcamp ammonium nitrate explosion</b> , Texas City, TX                   | --581-600     |
| 9.  | 1854 -- Sep 27, <b>US Mail Steamer Arctic hit by Vesta</b> , Fog, Cape Race, NFLD                 | --318-562     |
| 10. | 1865 -- March 31, <b>Steam Transport General Lyon</b> Burns, Cape Hatteras, NC                    | --400-500     |

<sup>4</sup> Many sources put fatality high-range at 1,500. Several sources put the high-range at 2,200, 2,400, or 2,500.

<sup>5</sup> There were 2 deaths in AL and 2 in GA. The numbers reflect those generally reported. We note “≥” (at least) in that there still are over 100 missing and presumed dead, as well as unreported health-related indirect deaths.

<sup>6</sup> Also referred to as Cherokee Trail of Tears as well as a “forced-march” relocation..

<sup>7</sup> We show 1,833-1,836 Hurricane Katrina deaths in FL, GA, AL, LA and MS – though the total number of deaths will never be known. Most deaths in AL and MS were from storm-surge. Most deaths in New Orleans were related to failures of or overtopping of man-made structures.

<sup>8</sup> We show 1,833-1,836 Hurricane Katrina deaths in FL, GA, AL, LA and MS – though the total number of deaths will never be known. Most deaths in AL and MS were from storm-surge. Most deaths in New Orleans related to failures of or overtopping of man-made structures.

## Top Ten Deadly Disease events (other than influenza, COVID-19 and tuberculosis):

1. 1861-65--Apr-June, **Dysentery**, Civil War, apparently Union & Confederate forces ~95,000
2. 1775-82 -- **Smallpox** Epidemic North America ~84,000
3. 1861-65--Apr 12-June 30; **Typhoid Fever**, Civil War, Confederate/Union forces ~65,000
4. 1849 -- **Cholera**, esp. OH (>7K); NY (>6K); Gold Rushers (~5K); Natives (~6K)<sup>9</sup> >45K-51,428
5. 1879-80 -- June-May, **Diphtheria**, esp. PA/4.6K; IL/3.7K; NY/2.3K; IA/2.3K, ME/MI/WI 38,143
6. 1900 -- **Typhoid**, esp. AL, AR, GA, IN, KY, MS, MO, NY, NC, OH, PA, TN, TX 35,379
7. 1870 -- **Diarrhoea, Dysentery, Enteritis**, esp. NY/4641, PA/2633, IL/2551, MO/2270 --≥31,153
8. 1829-1833/esp. 1833--**Malaria?** epidemic, West Coast Natives; CA/20K, OR-WA/10K --30,000
9. 1889-90, June-May, **Diphtheria**, 48 States & DC, esp. NY/4K, PA/2.9K, IL/2.6K 27,815
10. 1889-90, June-May, **Typhoid** (Enteric) Fever, esp. PA, 2.8K, NY/1.7K, IL/1.7K, OH/1.6K-27,058

## Multiple-Death Fires (All Types --Top Ten):<sup>10</sup>

1. 1906 -- Apr 18, Earthquake, Fire, Landslides, San Francisco & vicinity, CA<sup>11</sup> --3,000-5,000
2. 2001 -- Sep 11, World Trade Center Terrorist Attack and Fires, NYC, NY<sup>12</sup> --2,666
3. 1871 -- Oct 8-9, Wildfire/Firestorm, Peshtigo/NE WI vic.; Birch Creek MI<sup>13</sup> --1,228-2,400
4. 1865 -- Apr 27, Steamer *Sultana* explodes/burns, MS. Riv., Redman Point, AR<sup>14</sup>-1,547-1,947
5. 1904 -- Jun 15, Fire, *General Slocum* Excursion Steamer, East Riv., NYC, NY -- 957-1,200
6. 1903 -- Dec 30, Iroquois Theater Fire, Chicago, IL<sup>15</sup> -- 602
7. 1947 -- Apr 16, Ammonium Nitrate Explos., Fire, *Grandcamp*, Texas City, TX<sup>16</sup> --552-600
8. 1918 -- Oct 12, Forest Fires, Cloquet, Moose Lake, many towns, northeast MN --453-559
9. 1881 -- Sep 1-6, Wildfire, "The Thumb Fire," Lower Michigan --169-500
10. 1942 -- Nov 28, Cocoanut Grove Night Club Fire, Boston, MA<sup>17</sup> -- 492

<sup>9</sup> There were outbreaks in other States (see narrative document). We note that our sources could not have had access to all cholera deaths in areas of coverage. Collins and Collins write in *History of Kentucky*, there were many more deaths in the smaller towns and the countryside than they were able to chronicle. This must have been true all up and down routes of river and rail traffic as well as in the wagon trains heading west during the Gold Rush. In addition, part of the explanation for the range has to do with what was called a death by cholera or a death caused by cholera-like symptoms, such as diarrhea or dysentery (interestingly co-incident in epidemic form during a cholera outbreak).

<sup>10</sup> Includes Forest/wildfires, fires from maritime events, structural fires and 911 terrorism event. Have used death toll for all types of death in the 1906 San Francisco earthquake, given uncertainty over range of deaths attributable solely to fire (burns, however, were the leading cause of death -- see 1906 SF Earthquake document.)

<sup>11</sup> Cross-listed in Earthquake and in Landslides, in that there were a small number of deaths due to slides.

<sup>12</sup> Cross-listed in Violence-Terrorism section.

<sup>13</sup> Many sources put fatality high-range at 1,500. Several sources put the high-range at 2,200 (Frank, 2003; Gess and Lutz, 2002, inside front cover), 2,400 (Hipke, 2008), or 2,500 (Gess and Lutz, 2002, p. 211).

<sup>14</sup> We are not implying that these deaths were all attributable to fire -- that is unknown. Many died from the explosion, some from scalding from the released boiler steam, some from drowning and others from hypothermia in the water, as examples. We do know that the boat burned to the waterline and many who could not swim stayed on the boat and burned to death, or burned to death when decks collapsed under or over them.

<sup>15</sup> Cross-listed in Violence-Crushing, Trampling, Suffocation.

<sup>16</sup> Cross-listed in Explosions and in Maritime.

<sup>17</sup> Cross-listed in Violence-Crushing, Trampling, Suffocation.

## Large Loss-of-Life Events by Mortality (Top Fifty)

1.	1492-1800 – North American Native Population Decline, esp. due to <b>diseases</b>	~2,800,000
2.	1918 -- <b>Influenza and Pneumonia</b> epidemic	430,000-543,482
3.	2021 -- <b>COVID-19</b> (coronavirus), US deaths per 1M pop., ~2.6K per million	--437,984
4.	2020 -- Feb 29-Dec 31, <b>Coronavirus</b> , U.S. deaths per 1M population, 1,070	--354,215
5.	1920 -- <b>Influenza</b> and Pneumonia (1918-1920 subset)	141,609-220,798
6.	2022 -- <b>COVID-19</b> /US death rate 6.5; esp. MO/9.9., FL/9.8, OH/9.8, IN/9.6, PA/9.5--217,370	
7.	1919 -- <b>Influenza and Pneumonia</b> epidemic	--101,851-185,440
8.	1957-58, esp. Fall-Spring -- <b>H2N2 “Asian” Influenza and Pneumonia</b> Pandemic	~116,000
9.	1917 -- <b>Influenza</b> /12,974; <b>Bronchitis</b> /12,311; <b>Pneumonia</b> /74,874	100,159-115,526
10.	1900 -- <b>Tuberculosis</b> , esp. CA, IL, IN, KY, MA, MO, NJ, NY, OH, PA, TN	109,750
11.	1920 -- <b>Tuberculosis</b> , esp. Denver, San Antonio, Nashville, New Orleans	99,916
12.	1939 -- <b>Influenza</b> (21,464) & <b>Pneumonia</b> , esp. CA, IL, MI MO, NY, OH, PA, TX	99,097
13.	1861-65--Apr-June, <b>Dysentery</b> , Civil War, apparently Union & Confederate forces	~95,000
14.	1940 -- <b>Influenza and Pneumonia</b> , esp. CA, IL, MO, NY, OH, PA, TN, TX	92,525
15.	1879 -- June-May 1880, <b>Tuberculosis</b> , esp., NY, PA, OH, IL, IN, TN, KY, MA	91,270
16.	1925 -- <b>Tuberculosis</b> , esp. NY/10,282, PA/7,300, CA/5,934, IL/5,537, OH/4,819	89,268
17.	1775-82 -- <b>Smallpox</b> epidemic North America	~84,000
18.	1931 -- <b>Tuberculosis</b> , esp. PA/10,857, NY/8,618, CA/5,308, OH/4,253, TN/2,962	81,395
19.	1907 -- <b>Tuberculosis</b> , esp. CA/Chicago, IN/MA/NY (esp. NYC)/PA (esp. Philly)	76,650
20.	2023 -- <b>COVID</b> (354K deaths/2020; 438K/2021; 217K/2022; 1.19M 2020-2023)	71,691
21.	1870 -- <b>Tuberculosis</b> (consumption), nationwide	69,896
22.	1932 -- <b>Tuberculosis</b> (respiratory), international list #23, <i>Mortality Statistics 1932</i>	67,789
23.	1933 -- <b>Tuberculosis</b> (respiratory system), int. list #23, <i>Mortality Statistics 1933</i>	67,422
24.	1936 -- <b>Tuberculosis</b> (respiratory system), int. list #23, <i>Mortality Statistics 1936</i>	65,043
25.	1861-65--Apr 12-June 30; <b>Typhoid Fever</b> , Civil War, Confederate/Union forces	~65,000
26.	1934 -- <b>Tuberculosis</b> (respiratory system), int. list #23, <i>Mortality Statistics 1934</i>	64,706
27.	1937 -- <b>Tuberculosis</b> (respiratory system), international list #23, <i>Vital Statistics Pt. I</i>	63,330
28.	1939 -- <b>Tuberculosis</b> , nationwide, esp. CA, IL, NY, OH, PA, TN, TX	61,609
29.	1941 -- <b>Tuberculosis</b> (all forms)	59,251
30.	1938 -- <b>Tuberculosis</b> (respiratory system), international list #23, <i>Vital Statistics Pt. I</i>	58,027
31.	1942 -- <b>Tuberculosis</b> ; Census Bureau. <i>Vital Statistics of US 1942 -- II...Mortality.</i>	57,690
32.	1943 -- <b>Tuberculosis</b> , all forms codes 13-22 (respiratory, code 13 was 52,407)	57,005
33.	1905 -- <b>Tuberculosis</b> (10 registration states, DC, 134 non-registration cities), esp. NY-56,770	
34.	1940 -- <b>Tuberculosis</b> , nationwide, especially CA, IL, NY, OH, PA and TX	55,576
35.	1944 -- <b>Tuberculosis</b> , nationwide, esp. CA, IL, MI, NJ, NY, OH, PA, TN, TX	54,731
36.	1849 -- <b>Cholera</b> , esp. OH (>7K); NY (>6K); Gold Rushers (~5K); Natives (~6K) <sup>18</sup> >45K- 51,428	
37.	1928-29 -- Winter, <b>Influenza and Pneumonia</b> epidemic	~50,000
38.	1860 -- <b>Tuberculosis</b> (consumption), nationwide	49,082

<sup>18</sup> There were outbreaks in other States (see narrative document). We note that our sources could not have had access to all cholera deaths in areas of coverage. Collins and Collins write in *History of Kentucky*, there were many more deaths in the smaller towns and the countryside than they were able to chronicle. This must have been true all up and down routes of river and rail traffic as well as in the wagon trains heading west during the Gold Rush. In addition, part of the explanation for the range has to do with what was called a death by cholera or a death caused by cholera-like symptoms, such as diarrhea or dysentery (interestingly co-incident in epidemic form during a cholera outbreak).

39. 1946 --	<b>Tuberculosis</b> , respiratory, code 13 (all forms including respiratory, 50,911)	46,939
40. 2024 --	<b>COVID-19</b> deaths (code U07,1) as of 12-21-2024	45,447
41. 1947 --	<b>Tuberculosis</b> , respiratory, code 13 (all forms including respiratory were 48,064)	44,462
42. 1948 --	<b>Tuberculosis</b> , respiratory, code 13 (all forms including respiratory were 43,833)	40,420
43. 1870 --	<b>Pneumonia</b> , esp. AL, GA, IL, IN, KY, MA, MO, NY, OH, PA, TN, TX, VA	40,012
44. 1879 -- June-May 1880,	<b>Diphtheria</b> , esp. PA/4.6K; IL/3.7K; NY/2.3K; IA/2.3K, ME/MI/WI	38,143
45. 1937 --	<b>Influenza</b> , international list #11, US Census Bureau, <i>Vital Statistics, Part I</i>	38,005
46. 1932 --	<b>Influenza</b> , international list #11, US Census Bureau, <i>Mortality Statistics 1932</i>	37,066
47. 1949 --	<b>Tuberculosis</b> , respiratory (all forms including respiratory were 39,100)	35,988
48. 1900 --	<b>Typhoid</b> , esp. AL, AR, GA, IN, KY, MS, MO, NY, NC, OH, PA, TN, TX	35,379
49. 1936 --	<b>Influenza</b> , international list #11, Census Bureau. <i>Mortality Statistics 1936</i>	33,811
50. 1968-69 -- Sep-March, A2 "Hong Kong" <b>Influenza (and Pneumonia)</b> Epidemic		33,800

### Large Loss-of-Life Events by Mortality (Top Fifty-One to Top One Hundred):

51. 1850 --	<b>Tuberculosis</b> (consumption), esp. NY/6,691, PA/3,520, MA/3,426, OH/2,558	33,516
52. 1933 --	<b>Influenza</b> , int. list #11, US Census Bureau, <i>Mortality Statistics 1933</i>	33,193
53. 1931 --	<b>Influenza</b> (additionally pneumonia, all forms was 96,974), esp. PA	31,701
54. 1951 --	<b>Tuberculosis</b> (respiratory), esp. NY/3.5K, PA/2.5K, CA/2.2K, TX/2K, IL/1.8K	31,163
55. 1870 --	<b>Diarrhoea, Dysentery, Enteritis</b> , esp. NY/4641, PA/2633, IL/2551, MO/2270	≥31,153
56. 1925 --	<b>Influenza</b> --esp. PA/2,068, OH/2,100, IL/1,558, IN/1,485, MO/1,464	30,538
57. 1829-1833/esp. 1833--	<b>Malaria</b> ? epidemic, West Coast Natives; CA/20K, OR-WA/10K	30,000
58. 1861-65--Apr-June,	<b>Malaria</b> , Civil War, Union/10K & Confederate/20K forces	~30,000
59. 1950 --	<b>Tuberculosis</b> , pulmonary. Code 002, Sixth Rev. of International Lists, 1948	29,228
60. 1935 --	influenza, international list #11, Census Bureau. <i>Mortality Statistics 1935</i>	28,230
61. 1889-90, June-May,	<b>Diphtheria</b> , 48 States & DC, esp. NY/4K, PA/2.9K, IL/2.6K	27,815
62. 1889-90, June-May,	<b>Typhoid</b> (Enteric) Fever, esp. PA, 2.8K, NY/1.7K, IL/1.7K, OH/1.6K-27,058	
63. 1860 --	<b>Scarlatina (Scarlet Fever)</b> , 38 Census "Registration" States and DC	26,402
64. 1910 --	<b>Typhoid</b> , avg. death rate 23.5; esp. NC, 57.7, CO/41.9, MD/40.7, MT/39.9	25,000
65. 1879 -- June-May 1880,	<b>Typhoid</b> ("Enteric") Fever, especially IL, IN, MO, OH, TX	23,339
66. 1930 --	<b>Influenza</b> , 48 States and District of Columbia (pneumonia was 88,770)	23,066
67. 1952 --	<b>Tuberculosis</b> (respiratory), esp. NY/2462, CA/1678, PA/1662, IL/1385, TX/12K	22,700
68. 2012-2013 (winter) --	Estimated Excess <b>Influenza &amp; Pneumonia Deaths</b>	18,066-22,434
69. 1870 --	<b>Typhoid Fever</b> , nationwide, esp. IL, IN, MA, MO, NY, OH, PA	22,187
70. 1989 --	<b>HIV AIDS</b> , US death rate 8.9, DC/55.7, NY/25.6, NJ/19.6, FL/16.1, CA/15.	22,082
71. 1934 --	<b>Influenza</b> , international list #11, US Census Bureau, <i>Mortality Statistics 1934</i>	21,868
72. 1915 -- Dec-Jan 1916,	<b>Influenza &amp; Pneumonia</b> , esp. IL, MD, NY, OH, PA, WI	21,102
73. 1850 --	<b>Dysentery</b> , esp. NY/3691, PA/2683, OH/2568, MA/2437, IN/1270, CT/965	20,556
74. 1870 --	<b>Scarlet Fever</b> , esp. IL, MO, NY, PA, WI	20,339
75. 1879 -- June-May 1880, "Malarial Fever,"	esp. AL, AR, GA, IL, MS and MO	20,231
76. 1837-38--	<b>Smallpox</b> epidemic, Upper Mid-West Native American Tribes	~20,000
77. 1878 -- June-Dec,	<b>Yellow Fever</b> , esp. LA (esp. New Orleans), MS, TN (esp. Memphis)	~20,000
78. 1853 -- May-Dec,	<b>Yellow Fever</b> , esp. AL/1293, LA/~15K, MS/1311 TX/871--18,770-19,533	
79. 1900 --	<b>Meningitis</b> , esp. NY/2602, PA/1613, IL/1318, MA/1206, OH/1189, NJ/909	--19,423
80. 1860 --	<b>Typhoid Fever</b> , Census "Registration" States	19,236
81. 1940 --	<b>Syphilis</b> , US death rate 14.4 per 100K pop, esp. FL DC AZ DE MS MD AL	19,006

## Large Loss-of-Life Events by Mortality (Top Fifty-One to Top One Hundred, cont.):

82. 1916 -- <b>Influenza</b>	18,886
83. 1832 -- June–Dec 16, <b>Cholera</b> Epidemics, esp. DC, LA, MD, NY, PA, VA	--16,781-18,491
84. 1879 -- June-May, 1880 -- <b>Croup</b> , especially Oct-Dec, especially IL, PA and TN	17,966
85. 1953 -- <b>Tuberculosis</b> /respiratory, esp. NY/1983, PA/1428, CA/1383, IL/1235, TX/948	--17,954
86. 1890 -- Jan-March <sup>19</sup> <b>Influenza</b> (La Grippe/Russian Flu), esp. NY/IL/CT/OH/PA	--16,295-17,807
87. 1866 -- May-Dec, <b>Cholera</b> , esp. Cincinnati/New Orleans/NYC/St. Louis/Philly/Army--~16K-17,742	
88. 1912 -- <b>Tuberculosis</b> , Jan 1-Jun 8, CA, IL, IN, MA, MO, NJ, NYC, PA, TX, WI	17,463
89. 1944 -- <b>Influenza</b> , especially Jan-Apr & Dec, nationwide, especially OH, PA, TX	17,320
90. 1938 -- <b>Influenza</b> , international list #11, US Census Bureau, <i>Vital Statistics 1938 Pt. I</i>	--16,520
91. 1900 -- <b>Influenza</b> , esp. MA/1130, TN/1019, PA/978, NC/799, AL/778, VA/754, GA/667	16,645
92. 1988 -- <b>HIV AIDS</b> , US death rate 6.8, DC/39.0, NY/22.2, NJ/14.9, FL/11.7, CA/11.1	16,602
93. 1900 -- <b>Diphtheria</b> , esp. PA/2805, NY/2673, IL/1504, MA/1072, OH/698, NJ/678	16,475
94. 1880 -- <b>Scarlet Fever</b> , especially children, nationwide, especially IN, NY and PA	16,388
95. 2010 -- <b>HIV/AIDS</b> , U.S., nationally	15,525
96. 2010-11 (Winter)--Estimated Excess <b>Influenza &amp; Pneumonia</b> Deaths (95%CI)-12,111-15,372	
97. 1860 -- <b>Croup</b> (contagious upper airway viral infection), nationwide	15,188
98. 1954 -- <b>Tuberculosis</b> (respiratory), esp. NY/1667, CA/1108, PA/1100, IL/939, TX/843	--15,146
99. 1900 -- <b>Malarial Fever</b> , esp. AR/1730, TX/1331, LA/1030, AL/1005, GA/1001	14,874
100. 1850 -- <b>Cholera</b> , esp. Sac. & SF, CA, IL, IN, KY, LA, MO, OH, TN, WI <sup>20</sup> --14,158-14,637	
101. 1894 -- <b>Diphtheria</b> , NY/6.6K, esp. NYC/2785, MA/1.5K, Chicago, 1.4K, Philly, NJ	14,606
102. 1887 -- <b>Diphtheria</b> , esp. NY/6490 (NYC/4509), Chicago/1405, St. Louis/1112, Philly	14,507
103. 1861-65--Apr-June, <b>Tuberculosis</b> , Civil War, Union/6,946 deaths, Confederate/?	~14,000
104. 1889-90, June-May -- <b>Croup</b> , 48 States & DC, esp. NY/1.5K, PA/1.4K, IL/957	13,862
105. 1955 -- <b>Tuberculosis</b> (respiratory), esp. NY/1642, PA/1239, CA/1076, IL/797, TX/736	13,676
106. 1987 -- <b>HIV Infection/AIDS</b> , death rate 5.55, esp. DC/28.1, NY/19.1, NJ/13.7, CA/9.5	13,468
107. 1920 -- <b>Diphtheria</b> , esp. Detroit, Fall River, MA, Bridgeport, CT, St. Louis	13,395
108. 1941 -- <b>Influenza</b> , with respiratory complications specified; <i>Vital Statistics 1941</i>	13,188
109. 1835 -- Nov-Spring 1838, <b>Smallpox</b> , Sitka, Gulf of AK, Kodiak, Aleutian Isl. natives, AK	13,105
110. 1850 -- <b>Typhoid Fever</b> , 31 States, Washington, DC, four Territories	13,099
111. 1900 -- <b>Measles</b> , esp. TX/1,412, AR/1,274, NY/1,174, MS/950, PA/815, TN/974	12,866
112. 1907 -- <b>Typhoid</b> , esp. PA/3,538, NY/1702 IN/948 MI/594 CA/545 OH/523 MD/520-12,670	
113. 1900 -- <b>Croup</b> (Upper airway viral infection), esp. PA/1064, TN/958, KY/768 GA/686	12,484
114. 1891 -- March-May, <b>Influenza &amp; Pneumonia</b> , esp. Chicago/6,800, NY/5,572	12,472
115. 2009 -- Apr 12-Apr 10, 2010, <b>H1N1 “Swine Flu” Pandemic</b> (U.S.)	12,469
116. 1957 -- <b>Tuberculosis</b> (respiratory), esp. NY/1493, PA/959, CA/833, TX/733, IL/673-12,384	

<sup>19</sup> Technically, what became the flu epidemic of early 1890 began in late December 1889.

<sup>20</sup> This reflects zero Plains Native American deaths, whereas the range of cholera deaths amongst Plains natives in 1849 was 5,600-6,500. We believe that there must have significant loss of life, but have just not located sources.

117.	1958 --	<b>Tuberculosis</b> , esp. NY/1,380, PA/1013, CA/872, IL/725, TX/721, OH/550	12,361
118.	1986 --	<b>HIV AIDS</b> , New York City (2,650), U.S.	12,053
119.	1900 -- Sep 9,	<b>Hurricane</b> , Galveston and southeast coastal area, TX	7,200-12,000

### Large Loss-of-Life Events by Mortality (continued):

120.	1900 --	<b>Dysentery</b> , esp. AL/861 TX/794 GA/781 NY/676 TN/663 SC/578 AR/541	11,710
121.	1738-39 --	<b>Smallpox</b> , Catawba (NC/SC) and Cherokee Natives (NC)	--7,700-11,700
122.	1959 --	<b>Tuberculosis</b> , esp. NY/1,316, PA/981, CA/815, IL/643, TX/633, OH/527	--11,456
123.	2018 --	<b>Influenza</b> , ICD-10 codes J09-11.8, death rate 3.4 per 100K pop., esp. WV/6.6	--11,164
124.	1879 -- June-May 1880,	<b>Whooping Cough</b> , nationwide, esp. IN, GA, NC, TX, AL	11,064
125.	1920 --	<b>Whooping Cough</b> , esp. Atlanta, Nashville, Kansas City, KS, Omaha	10,968
126.	1911 --	<b>Tuberculosis</b> , Aug-Dec, NYC, NY, IL, CA, IN, MA, NJ, PA, TX	10,926
127.	1942 --	<b>Influenza</b> . Census Bureau. <i>Vital Statistics US 1942 -- Part II...Mortality</i>	--10,902
128.	1881 --	<b>Diphtheria</b> , esp. NY/3.7K (NYC/2249, Brooklyn/1143), MI/2K, MA/1K, NJ/972	10,886
129.	1960 --	<b>Tuberculosis</b> , death rate 6.1 per 100K; esp. AZ/12.1, DC/11.8, KY/10.7	--10,866
130.	1885 --	<b>Diphtheria &amp; Croup</b> , localities in 16 states; esp. NY/4508, MI/1552, NJ/1496	10,788
131.	1850 --	<b>Croup</b> (contagious upper airway viral infection), nationwide	10,706
132.	1870 --	<b>Croup</b> (contagious upper airway viral infection) nationwide	10,692
133.	1914 --	<b>Influenza and Pneumonia</b> , The Year, NYC, NY	10,500
134.	1854 --	<b>Cholera</b> , esp. NYC/2.5K, St. Louis/1.5K, Chicago, Detroit, Boston--10,275-10,467	
135.	1916 --	<b>Diphtheria</b> , especially children, esp. PA/1,653, NY/1,518, MI/486, NJ/444	--10,367
136.	1907 --	<b>Diphtheria</b> and Croup, Nationwide, esp. NY and PA (esp. Philadelphia)	10,154
137.	1907 --	<b>Influenza</b> , Census "Registration States and Localities"	≥10,066
138.	1867 -- Jul-Dec,	<b>Yellow Fever</b> , esp. New Orleans, Galveston/Houston; also AL/FL/MS/TN	10,012
139.	1659 --	<b>Measles</b> Epidemic, Native Americans, FL	10,000
140.	1798 --	<b>Yellow Fever epidemic</b> , East Coast Port Cities, esp. Philly and NYC	10,000
141.	1837 --	<b>Smallpox</b> epidemic, California Native Americans <sup>21</sup>	2,000-10,000
142.	1848 -- Sep-early '49,	<b>Measles/Whooping Cough/Dysentery/Influenza</b> Epidemics, HI	10,000
143.	1849-50 --	<b>Scurvy</b> , <sup>22</sup> California Gold Rush Immigrants	~10,000
144.	1988 --	<b>Heat Wave</b> , Summer, Central/eastern U.S	~5,000-10,000
145.	1980 -- June-Sep,	<b>Heat</b> , esp. Midwest & So. Plains, esp. MO/TN/AR/TX	>2,000-~10,000
146.	1900 --	<b>Whooping Cough</b> , esp. NY/988, PA/702, TX/576, IL/497, AL/494, TN/425--9,958	
147.	1961 --	<b>Tuberculosis</b> , US death rate 5.4 per 100K; esp. DC/12. KY/10, AR/10.6, AZ/9.4	--9,938
148.	1872 --	<b>Smallpox</b> , esp. Philly/2591, NYC/1666, St. Louis/1.6K, Baltimore/1217, Boston/1K->9,742	
149.	1861 -- May 1-June 30, 1866,	<b>smallpox</b> , Union soldiers and Confederate prisoners <sup>23</sup>	--9,682
150.	1850 --	<b>scarlet fever</b> , esp. PA/1,974, OH/1,301, NY/1,028, MA/571, MD/561, VA/523	--9,584
151.	1962 --	<b>tuberculosis</b> , death rate 5.1 per 100K; esp. DC/11.9, KY/9.8, AZ&AR/9.7	--9,508
152.	1953 --	<b>influenza</b> , esp. TX/716 OH/532 MO/484 PA/460 GA/427 TN/414 AL/393	--9,500

<sup>21</sup> As noted in the narrative description section, Shelburne Friend Cook in his *The Conflict Between the California Indian and White Civilization*, Part 4, 1976, p. 213, writes that the accounts he has before him giving estimates of 100,000, and 200,000 to 300,000, are "obviously wild guesses." His own guestimate (p. 214) is 2,000. We simply recognize the range. In another book in 1978 he writes that "the mortality may have reached 10,000."

<sup>22</sup> Severe vitamin C deficiency which can lead to death. GARD (Genetic and Rare Diseases Information Center).

<sup>23</sup> There is overlap with our 1863 entry (1,078 deaths) which includes Fort Delaware, Camp Chase, MD, and VA.

153. 1853 -- **smallpox**, esp. natives, HI, Nevada City vic., CA, OR/WA; also NYC--7,450-9,450  
 154. 1963 -- **tuberculosis**, US death rate 4.9; esp. DC/12.3, AZ/9.7, WV/8.6, KY/8.7 WV/8.6 --9,311  
 155. 1889-90, June-May, **measles**, esp. NY/757, PA/676, KY/513, MO/513 OH/714 AL --9,256  
 156. 1870 -- **Measles**, nationwide --9,237  
 157. 1897 -- **typhoid** (enteric) fever, esp. NY/1.5K, OH/1.2K, MA/1.1K, IN/655, PA -->9,192  
 158. 1919 -- **diphtheria**, 31 reporting states, DC & PR, esp. CT, DC, IL/MI/NJ/NY/OH --9,160  
 159. 1918 -- **typhoid fever**, 33 Registration States, DC and Puerto Rico, esp. TX/1,057 --9,100  
 160. 1801-02 -- **smallpox**, Natives, esp. Chinook, Omaha, Osage, esp. Central, Northwest->9,090  
 161. 1870 -- **whooping or “hooping” cough**, nationwide, esp. NY, IL, IN, OH, PA --9,008

#### Large Loss-of-Life Events by Mortality (continued):

162. 1875 -- **Tuberculosis**/consumption; data on Chicago/880, MI/1419, NYC/4172, Philly/2359--8,830  
 163. 1946 -- **Influenza**, infectious and parasitic diseases International List code 33 --8,783  
 164. 1900 -- **Smallpox**, esp. MS/782, LA/708, NM/287, VA/263, AL/224 AR/195 TX/146 8,484  
 165. 1860 -- **Whooping Cough**, nationwide, especially, NY, NC, OH, PA, and VA --8,408  
 166. 1964 -- **Tuberculosis**, US death rate 4.3; esp. DC/12, AZ/9, AL/7.4, WV/7.2, TN/7.0 --8,303  
 167. 1925 -- **Typhoid & paratyphoid Fever**, 48 States, esp. KY/668, TN/653, LA/649 --8,287  
 168. 1880 -- **Measles**, nationwide, especially GA, IL, IN, KS and MO --8,254  
 169. 2013 -- **Viral Hepatitis**, ICD-10 code B-15-B19, esp. OR/6.0 death rate, DC/5.9 --8,157  
 170. 1913 -- **Measles**, US “registration area” (65.1%), esp. PA/1,578, NY/1,120, OH/679 --8,108  
 171. 2014 -- **Viral Hepatitis**, ICD-10 code B-15-B19, esp. DC, OR (5.3 death rate per 100,000) --8,081  
 172. 2012 -- **Viral Hepatitis**, ICD-10 code B-15-B19, esp. NM/99, AZ/291, CA/1,387 --8,062  
 173. 1925 -- **Diphtheria**, esp. NY/1,006, PA/973, IL/409, OH/392, MI/360, NJ/337 --8,058
174. 1965 -- **Tuberculosis**, US death rate 4.1 per 100K; DC/12.7, AL/7.5, AZ/7.5, NM/6.6 --7,934  
 175. 1960 -- **Influenza**,<sup>24</sup> US death rate 4.4 per 100K; esp. AL/11.5, SC/11.2, MS/10.9 --7,872  
 176. 1976 -- **Influenza**, ICD-8 codes 470-474, death rate 3.6 per 100K, esp. NE/12.9 --7,877  
 177. 2011 -- **Viral Hepatitis**, ICD-10 code B-15-19 (death rate 2.5 per 100K), esp. DC (7.1) --7,850  
 178. 1920 -- **Measles** --7,712  
 179. 1947 -- **Influenza**, infectious and parasitic diseases code 33 --7,664  
 180. 1966 -- **Tuberculosis**, esp. NY/844, PA/589, CA/537, IL/410, TX/404, OH/340 --7,625  
 181. 2010 -- **Viral Hepatitis**, ICD-10 code B-15-19 (death rate 2.4 per 100K), esp. OK (4.9) --7,564  
 182. 1934 -- **Whooping cough**, international list #9, Census Bureau. *Mortality Statistics 1934* --7,518  
 183. 1879 -- June-May 1880, **Meningitis**, especially KY, NY, PA, MO and TN --7,481  
 184. 1957 -- **Influenza**, especially PA/476, NY/471, TX/459, OH/437. GA/341, NC/318 --7,463  
 185. 2015 -- **Viral Hepatitis**, ICD-10 code B15-B19, esp. DC (death rate 6.4 per 100,000) --7,461  
 186. 1963 -- **Influenza**,<sup>25</sup> US death rate 3.8; SC/11.9, KY/11.6, WV/11., MS/10.9 TN/9.3--7,083  
 187. 1968 -- **Influenza**, ICD-8 codes 470-474/death rate 3.5 per 100K, esp. VE/15.0, NE/9.1 --7,062  
 188. 1882 -- **Smallpox**, esp. Chicago/1292, Cincinnati/1249, PA/1111, Baltimore/551 -->7,056  
 189. 1916 -- **Polio**, esp. July-Sep, esp. NYC/NY (3,331), NJ (1,180), PA (414) --6,745->7,000
190. 1934 -- **Measles**, international list #7, Census Bureau. *Mortality Statistics 1934* --6,986  
 191. 1925 -- **Whooping Cough**, esp. PA/648, NY/523, CA/481, OH/374, IL/315, MA/279--6,948

<sup>24</sup> Distinct from the 58,931 pneumonia deaths (codes 490493) noted in the Table 1-V, p. 1-42.

<sup>25</sup> Distinct from the 63,678 pneumonia deaths noted in the next column in Table 1-12.

192.	1985 --	<b>HIV AIDS</b> , New York City (1,663), U.S.	--6,903
193.	1967 --	<b>Tuberculosis</b>	--6,901
194.	1920 --	<b>Typhoid Fever</b>	--6,805
195.	1873 -- Feb-Sep,	<b>Cholera</b> , esp. TN/>2K esp. Nashville/~1K, KY/~1K, St. Louis	--5,814-6,519
196.	2017 --	<b>influenza</b> ; death rate 2.0 per 100K pop.; esp. ME/5.2, MT/5.1, OR/4.9 WA/4.2--6,515	
197.	1858 -- Jun-Dec,	<b>Yellow Fever</b> , esp. Charleston SC; Galveston & Indianola; New Orleans/4855-6,490	
198.	2016 --	<b>Viral Hepatitis</b> , ICD-10 code B15-B19, esp. DC (death rate 4.8 per 100K; US 2.0) --6,421	
199.	1812 -- Oct-Jun 1813 (esp.), Peripneumony/ <b>Lung Fever</b> (pneumonia), VT, esp. Burlington-4350-6,400		
200.	1833 -- May-Aug (esp.),	<b>Cholera</b> , esp. KY/~2000, NOLA/1000, WV/OH/IN/TN/IL -6308-6,353	
201.	1900 --	<b>Scarlet Fever</b> , esp. PA/894, NY/812, TX/707, IL/643, MA/384, OH/334	--6,333
202.	1870 --	<b>Diphtheria</b> , nationwide	--6,303
203.	1968 --	<b>Tuberculosis</b> , US death rate 3.2 per 100K, esp. DC/10.9 AZ/6.2 AL/6. WV/6. --6,292	
204.	2016 --	<b>HIV AIDS</b> , US death rate 1.9, DC/12.0, FL/4.2, LA/3.9 GA/3.4 MD/3.2	--6,160
205.	1540 -- Oct 18, Spanish (de Soto)	<b>Battle/massacre</b> , with Atahachi, Mabila, AL 2,500-6,000	

#### Large Loss-of-Life Events by Mortality (continued):

206.	1969 --	<b>Influenza</b> , ICD-8 codes 470-474/death rate 2.96 per 100K, esp. KS/7., SC/6., MT/6. --5,971	
207.	2020 --	<b>Influenza</b> (distinct from 47,601 pneumonia deaths); death rate 1.8 per 100K --5,943	
208.	1855 --	<b>Yellow Fever epidemic</b> , Montgomery AL, New Orleans, MS, Memphis, VA 5,938	
209.	2019 --	<b>Influenza</b> , esp. CA/560 TX/396 NY/336 lives lost; VT/4.3 OR/3.7 NE/3.3 death rate-5,902	
210.	1891 --	<b>Typhoid Fever</b> , esp. Chicago/2K, NY/1926, Philadelphia/683, NJ/695, DC --5,840	
211.	1931 --	<b>Diphtheria</b> , especially children, especially AR, IL, KY and PA --5,738	
212.	2017 --	<b>HIV</b> , US death rate 1.75 per 100K, esp. DC/9.8, MS/3.8, FL/3.6, LA/3.5 --5,698	
213.	1952 --	<b>Influenza</b> , esp. TX/433 PA/377 OH/335 AL/283 NC/248 VA/239 MO/226 --5,649	
214.	1864 -- Feb 24-Apr 17, 1865,	<b>Diarrhea &amp; Dysentery</b> , Union POW's, Andersonville, GA-5,605	
215.	1969 --	<b>Tuberculosis</b> , US death rate 2.76 per 100K, esp. DC/9.6, AZ/6.0, AL/5.9 --5,567	
216.	2018 --	<b>HIV</b> ; US death rate 1.66 per 100K, esp. DC/9.25, MS/4.15, LA/3.4 FL/3.3 --5,425	
217.	1932 --	<b>Diphtheria</b> , international list #10, Census Bureau. <i>Mortality Statistics 1932</i> --5,418	
218.	1936 -- July-Aug (esp.),	<b>Heat</b> , esp. MN/772, MO/644, IL/634 MI/617 WI/500--4,678-5418	
219.	1932 --	<b>Whooping Cough</b> , international list #9, Census Bureau. <i>Mortality Statistics 1932</i> --5,364	
220.	1931 --	<b>Typhoid</b> , international list #1, Census Bureau. <i>Mortality Statistics 1931</i> --5,298	
221.	1850 --	<b>Whooping Cough</b> , esp. NY/649, OH/450, GA/385, AL/305, PA/288, SC/269--5,280	
222.	1881 --	<b>Smallpox</b> , esp. Philly/1336, Chicago/1180, NYC/503, Pittsburgh/448, HI/282--5,275	
223.	2015 --	<b>Influenza</b> (ICD-10 codes J09, J10.0, J10.1, J10.8, J11.0, J11.1, J11.8) --5,251	
224.	1970 --	<b>Tuberculosis</b> , US death rate 2.56 per 100K, esp. DC/6.8 AL/5.0 WV/4.5 KY/4.3--5,217	
225.	2020 --	<b>HIV</b> , US death rate 1.55, esp. DC/9.4, FL/3.1, MS/3.34, GA/3.1, MD/2.96 --5,155	
226.	1973 --	<b>Influenza</b> , ICD-8 codes 470-74/death rate 2.4 per 100K, esp. ID/7.4 WY/7.4 WA/7.2 --5,131	
227.	1905 --	<b>Cerebrospinal Meningitis</b> Epidemic, esp. NYC/1511-2025; also CT/NH/NJ/MA-5,114	
228.	1931 --	<b>Pellagra</b> (vitamin B3/niacin malnutrition); international list #62, Census Bur. --5,091	
229.	1906 --	<b>Measles</b> , nationwide, especially children --5,087	
230.	1948 --	<b>Influenza</b> , 1948 ICD infectious and parasitic diseases code 33 --5,068	
231.	2019 --	<b>HIV/AIDS</b> , US death rate 1.54 per 100K pop.; DC/10.0, FL/3.2, MD, 3.0 --5,044	
232.	1735-41 --	<b>Diphtheria ("Throat Distemper")</b> <sup>26</sup> (esp. 1735-37), esp. CT/ME/MA/NH-5,000	

<sup>26</sup> Referred to as throat distemper, and other names at the time, descriptions point to what was later named diphtheria. Scarlet fever occurred as well, with deaths, but sources indicate the major epidemic was diphtheria.

233. 1793 -- **Yellow Fever** epidemic, Aug-Nov, Philadelphia, PA --4,041-5,000  
 234. 1906 -- Apr 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA --3,000-5,000

### Large Loss-of-Life Events by Mortality (continued):

235. 1972 -- **Influenza**, ICD-8 codes 470-474/death rate 2.38 per 100K, esp. SD/8.9 ME/8.7 --4,986  
 236. 1937 -- **Whooping Cough**, international list #9, Census Bureau. *Vital Statistics Pt. I*--4,981  
 237. 2021 -- **HIV**, US death rate 1.50, esp. DC/7.45, FL/2.89, GA/2.76, MS/2.71, LA/2.7--4,977  
 238. 1933 -- **Diphtheria**, international list #10, Census Bureau. *Mortality Statistics 1933* --4,937
239. 1907 -- **Whooping Cough**), Census Registration States and localities --4,856  
 240. 1938 -- **Whooping Cough**, international list #9, Census Bureau. *Vital Statistics Part I*--4,778  
 241. 1935 -- **Whooping Cough**, international list #9, Census Bureau. *Mortality Statistics 1935*--4,753  
 242. 2011-2012 (Winter) -- estimated excess **Influenza & Pneumonia** Deaths -- 3,691-4,747  
 243. 1852 -- **Cholera**, esp. NY/1.3K, IL/1.2-1.3K, New Orleans/1K-1.3K, MO/~1K --4,381-4,736  
 244. 1933 -- **Malaria**, international list #38, Census Bureau. *Mortality Statistics 1933* --4,678  
 245. 1921 -- **Measles**, especially children, nationwide --4,667  
 246. 1898 -- June-Dec, esp., **Typhoid**, esp. Spanish War Army Camps, esp. Southeast -->4,627  
 247. 1931 -- **Whooping Cough**, esp. children, esp., by death rate, NM/11.7, ID/11.4 --4,619  
 248. 2014 -- **Influenza** (ICD-10 codes J09, J10, J11), especially CA (457), TX (418) --4,605  
 249. 1949 -- **Influenza** (codes 480-483); pneumonia (codes 490-493) was 40,038) --4,602  
 250. 1870 -- **Smallpox**, nationwide --4,597  
 251. 1934 -- **Malaria**, international list #38, Census Bureau. *Mortality Statistics 1934* --4,520  
 252. 1871 -- **Smallpox**, esp. Philadelphia/1,879, Cincinnati/1,179, NYC/805, Chicago/MI/NJ--4,505  
 253. 1971 -- **Tuberculosis**, US death rate 2.18 per 100K, esp. DC/5.8 AL/4.1 TN/3.5 AZ/3 --4,501  
 254. 1933 -- **Whooping Cough**, int. list #9, Census Bureau. *Mortality Statistics 1933* --4,463  
 255. 1914 -- **Measles**; US state and local “registration area” (66.8% of pop.), esp. DE/AL --4,461  
 256. 1958 -- **Influenza**, esp. TX/415, AL/275, OH/260, TN/230, GA/206, MS/199, PA/199--4,442  
 257. 1935 -- **Malaria**, international list #38, Census Bureau. *Mortality Statistics 1935* --4,435  
 258. 1933 -- **Typhoid**, international list #1, Census Bureau. *Mortality Statistics 1933* --4,389  
 259. 1972 -- **Tuberculosis**, US death rate 2.09 per 100K, esp. DC/4.8 DE/4.2 AL/3.9 NM/3.9--4,376  
 260. 1932 -- **Typhoid**, international list #1, Census Bureau. *Mortality Statistics 1932* --4,363  
 261. 1912 -- **Pneumonia**, Mar 24-Jun 8, Chicago, IL, NYC, NY --4,342  
 262. 1854 -- Jun-Dec, **Yellow Fever**, esp. Jacksonville, Charleston, Galveston, NOLA, Savannah--4,313  
 263. 1907 -- **Scarlet Fever**, nationwide --4,309  
 264. 1907 -- **Measles**, especially children, nationwide --4,302  
 265. 1975 -- **Influenza**, ICD-8 codes 470-474, death rate 1.986 pre 100K, esp. KS/6.317 --4,277  
 266. 1912 -- **Measles**, US “registration area” (~65% population), NYC (671) --4,240  
 267. 1934 -- **Typhoid**, international list #1, Census Bureau. *Mortality Statistics 1934* --4,162  
 268. 1934 -- **Diphtheria**, international list #10, Census Bureau. *Mortality Statistics 1934* --4,159  
 269. 1978 -- **Influenza**, ICD-8 codes 470-474, US death rate 1.8 per 100K, esp. ME/5.0, KS/4.7 --4,052  
 270. 1901 -- June-July, **Heat waves**, except Pacific NW, esp. Northeast, June 27-July 6 --4,012  
 271. 1920 -- **Scarlet Fever**, esp. Akron, OH, Wilmington, DE, Springfield, MA --4,004  
 272. 1815-16, winter -- **Smallpox epidemic**, Comanche Nation<sup>27</sup> -->4,000

<sup>27</sup> We note “greater than” 4,000 in that 4,000 is the estimated Comanche loss, whereas it has been written that the Kiowa, for example, lost to smallpox numbers in a ratio comparable to the Comanche.

273. 1838 -- May-Mar 1839, **Cherokee Relocation**, NE AL/NW GA/SE TN/NW NC to OK<sup>28</sup> ~4,000

#### Large Loss-of-Life Events by Mortality (continued):

274. 1874 -- **Scarlet Fever**, esp. NYC/879, Cincinnati/687, Brooklyn/479, Philly/461, VT--3,996  
275. 1933 -- **Pellagra** (vitamin B3/niacin malnutrition); international list #62, Census Bur. --3,955  
276. 1936 -- **Malaria**, international list #38, Census Bureau. *Mortality Statistics 1936* --3,943  
277. 1935 -- **Measles**, international list #7, Census Bureau. *Mortality Statistics 1935* --3,907  
278. 1935 -- **Diphtheria**, international list #10, Census Bureau. *Mortality Statistics 1935* --3,901  
279. 1860 -- **Measles**, especially NY, OH, MO and PA --3,809-3,900
280. 1973 -- **Tuberculosis**, US death rate 1.84 per 100K, esp. DC/5.0 TN/2.9 AL/2.8 WV/2.8 --3,875  
281. 1941 -- **Whooping Cough**, Census Bureau. *Vital Statistics, Part I, Mortality*, p. 350--3,785  
282. 1906 -- **Tuberculosis**, The Year, Philadelphia, PA --3,742  
283. 1936 -- **Pellagra** (vitamin B3/niacin malnutrition); int. list #62, Census Bureau --3,740  
284. 1970 -- **Influenza**, ICD-8 codes 470-474/death rate 1.82 per 100K, esp. VT/7.6, ME/5.6, MS/5.2 --3,707  
285. 2013 -- **Influenza**, ICD-10 codes J09-11, esp. SD (3.6) MT (3.5) ME (3.2) death rates --3,697  
286. 1932 -- **Pellagra** (vitamin B3/niacin malnutrition); international list #62, Census Bur. --3,694  
287. 1864 -- Feb-April 1865, **Scurvy**, Union POW's, Camp Sumter, Andersonville, GA --3,614  
288. 1934 -- **Pellagra** (vitamin B3/niacin malnutrition); int. list #62, Census Bureau --3,602  
289. 1873 -- July-Dec, **Yellow Fever**, esp. Memphis, AL, Pensacola, Louisville, LA, TX-3542-3584  
290. 1984 -- **HIV AIDS**, New York City (952) --3,578  
291. 1931 -- **Measles**, especially children, especially IL and PA --3,576  
292. 1920 -- **Dysentery**, 33 registration states --3,574  
293. 1930 -- **Malaria**, nationwide, esp. AL, AR, FL, GA, LA, MS, OK, SC, TN, TX --3,572  
294. 1935 -- **Pellagra** (vitamin B3/niacin malnutrition); int. list #62, Census Bureau --3,543  
295. 1974 -- **Tuberculosis**, US death rate 1.65 per 100K, esp. DC/5.1, KY/2.8, TN/2.6 --3,513  
296. 1899 -- Aug 8-19, San Ciriaco **Hurricane** esp. Puerto Rico/3433 & NC/73, Aug 17/18-3,507  
297. 1841 -- **Yellow Fever**, esp. FL & LA, esp. New Orleans, also Vicksburg, Charleston-3,498  
298. 1909 -- **Tuberculosis**, Philadelphia, PA --3,496  
299. 1908 -- **Tuberculosis**, Philadelphia, PA --3,490  
300. 1935 -- **Typhoid**, international list #1, Census Bureau. *Mortality Statistics 1935* --3,442  
301. 1962 -- **Influenza**,<sup>29</sup> US death rate 1.8 per 100K; esp. NE/5, TN/5, MS/4.2, SC/4 --3,431  
302. 1847 -- **Yellow Fever**, esp. NOLA, also Galveston/Mobile/Pensacola/Vicksburg<sup>30</sup> -->3,400  
303. 1934 -- **Dysentery**, international list #13, Bureau of Census. *Mortality Statistics 1934* --3,373  
304. 1943 -- **Whooping Cough**, especially children, nationwide --3,368  
305. 1975 -- **Tuberculosis**, US death rate 1.55 per 100K, esp. DC/3.8, KY/2.74, TN/2.72--3,333  
306. 1851 -- June-Aug esp., **Cholera**, esp. St. Louis, IL, New Orl., Cincinnati, SD Sioux--3314-3,322  
307. 1952 -- **Polio**, esp. IL/258, TX/>240, MI/218, CA/217, MN/200, IA/163 KY/132, NE/115 --3,300

<sup>28</sup> Also referred to as Cherokee Trail of Tears as well as a “forced-march” relocation. Geographic area of coverage from sources in Narrative document and map in Thornton (1990). Shows two Cherokee relocation routes from area encompassing north/northwest GA, southwest NC, southeast TN and northeast AL. One route is northwest through TN into KY, westward to southern IL, then down into southeastern MO, into northern Ark. and then westward into OK. Second route was westward through TN and AR to OK.

<sup>29</sup> Distinct from the 56,564 pneumonia deaths noted in the next column in Table 1-12, p. 1-20..

<sup>30</sup> Was in at least 10 Louisiana locations other than New Orleans; also in six known locations other than Vicksburg in Mississippi; was in Memphis, TN, and Brazos, Houston and Matamoras, Texas. Mostly late Summer and Fall.

308. 1938 -- **Measles**, international list #7, Census Bureau. *Vital Statistics 1938*, Part I --3,296  
 309. 1904 -- **Cerebrospinal Meningitis**, esp. NYC/1,083-1,403, Hartford, CT/108, NJ/245 --3,284  
 310. 1906 -- **Epidemic Cerebro-spinal Meningitis**, esp. NY/1,117 (NYC/600), PA/385 --3,258  
 311. 1925 -- **Dysentery**, esp. KY/297, WV/213, LA/211, SC/211, TN/207, VA/196 --3,257  
 312. 1934 -- summer, esp. mid-July-mid-Aug **Heat**, esp. Midwest, esp. MO, IL, KS, OH --3,250  
 313. 1910 -- **Tuberculosis**, the Year, Philadelphia, PA --3,190  
 314. 1889 -- May 31, South Fork **Dam Failure**, Flash Flood, Fire, Johnstown PA --2,209-3,188  
 315. 1896 -- **Measles**, esp. NYC/714, Brooklyn/333, Philadelphia/191, Cincinnati/100, CT --3,178  
 316. 1920 -- **Malaria**, esp. MS/683, LA/586, SC/487FL/344, NC/210 and TN/183<sup>31</sup> --3,136  
 317. 1976 -- **Tuberculosis**, US death rate 1.44 per 100K, esp. DC/4.0, NM/2.8, AL/2.6 --3,130  
 318. 1936 -- **Dysentery**, international list #13, Census Bureau. *Mortality Statistics 1936* --3,122  
 319. 1936 -- **Typhoid Fever**, international list #1, Census Bureau. *Mortality Statistics 1936*--3,098  
 320. 1936 -- **Diphtheria**, international list #10, Census Bureau. *Mortality Statistics 1936*--3,065  
 321. 2001 -- Sep 11, **Violence, 9/11 Terrorist Attacks** --3,064  
 322. 1939 -- **Whooping Cough**, nationally, esp. AL, GA, IL, MS, NY, NC, PA, TX, VA--3,026  
 323. 1936 -- **Epidemic Cerebrospinal Meningitis**, int. list #18, Census Bur. *Mortality Statistics*- 3,020  
 324. 1819 -- **Yellow Fever**, esp. Charleston, Mobile, Natchez; most esp. New Orleans-2871-3019  
 325. 1981 -- **Influenza**, US death rate 1.31 per 100K, esp. SD/4.2, IA/3.5, UT/3.3, VT/3.3 --3,006  
 326. 1804 -- **Epidemic, Possibly Cholera** (or Typhoid or Plague) Natives, Oahu, HI >3,000  
 327. 1928 -- Sep 6-20, Great Okeechobee **Hurricane**/Flood, Southeast FL --1,800-3,000

#### Large Loss-of-Life Events by Mortality (continued):

328. 1850 -- **Measles**, especially NY/505, OH/363, PA/316, VA/222, MO/189, IN/163 --2,988  
 329. 2017 -- Sep 20, **Hurricane Maria**, Puerto Rico (2,975), US Virgin Isl. (2), NJ (3) --2,980  
 330. 1937 -- **Dysentery**, international list #13, Bureau of Census. *Vital Statistics Part I* --2,974  
 331. 1977 -- **Tuberculosis**, US death rate 1.35 per 100K, esp. DC/4.24, TN/2.8, KY/2.2 --2,968  
 332. 1966 -- July, **Heat Wave** and “excess deaths,” esp. IL, NYC, St. Louis, MO ~2,582-2,954  
 333. 1938 -- **Dysentery**, international list #13, Census Bureau. *Vital Statistics 1938 Part I* --2,933  
 334. 1940 -- **Whooping Cough**, nationwide, especially TX and KY --2,926  
 335. 1978 -- **Tuberculosis**, ICD-8 codes 010-019, esp. NY/283, CA/217, PA/185, IL/165 --2,914  
 336. 2016 -- **Influenza** (ICD-10 codes J09, J10.0, J10.1, J10.8, J11.0, J11.1, J11.8) --2,905  
 337. 1883 -- **Smallpox**, esp. New Orleans/834 Baltimore/633 Cincinnati/189 Chattanooga/103 --2,868  
 338. 1950 -- **Influenza**; separate from influenza with pneumonia/3,492 and pneumonia/40,523 --2,857  
 339. 1959 -- **Influenza**<sup>32</sup>, esp. TX/191, TN/133, OH/126, NY/126 IN/119 MI/108 GA/104 CA--2,845  
 340. 1931 -- “Epidemic **Cerebrospinal Meningitis**,”<sup>33</sup> U.S., especially IL, NY and PA --2,832  
 341. 1966 -- **Influenza** (pneumonia deaths were 63,615), esp. CA/636, WA/154, OR/134 --2,830  
 342. 1933 -- **Dysentery**, international list #13, Census Bureau. *Mortality Statistics 1933* --2,815  
 343. 1933 -- **Measles**, international list #7, Census Bureau. *Mortality Statistics 1933* --2,813  
 344. 1944 -- **Cerebrospinal Meningitis**, nationwide, esp. CA, IL, MI, NJ, NY, OH, PA --2,812

<sup>31</sup> Based on death certificate data from 34 “registration states” as well as 17 cites in non-registration states of AL, GA, ND, OK, TX and WV, with an estimated population of 87,45,921 or 82.3% of total estimated U.S. and Hawaii territory population. AK was not a State. Other non-reporting states were AZ, AR, ID, IA, MN, NM, SD, and WY.

<sup>32</sup> Distinct from the 52,195 pneumonia deaths (codes 490-493) noted in the Table 78, p. 406.

<sup>33</sup> “Epidemic Cerebrospinal Meningitis,” is the name used for this malady in U.S. Census, *Mortality Statistics 1931*.

345. 1875 -- **Smallpox**, esp. New York City (1,899), Cincinnati (745), Philadelphia (54) --2,770  
 346. 1931 -- June-Sep, **Heat Waves**/excessive heat, West, Midwest, NE, esp. IL, IA, WI --2,768  
 347. 1839 -- Jun-Oct, **Yellow Fever**, SC, FL, GA, TX, esp. Mobile, Natchez, New Orleans ~2,764  
 348. 1925 -- **Scarlet Fever**, esp. PA/343, IL/279, OH/252, MI/216, NY/191, MO/169 --2,762  
 349. 2009 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,756  
 350. 1955 -- **Influenza**, esp. OH/187 AL/183 GA/181 TX/169 PA/154 TN/136 MS/106 --2,755  
 351. 2011 -- **Diarrhoea & Gastroenteritis of Infections Origin** (ICD-10 code A09), esp. NJ --2,743  
 352. 1822 -- **Yellow Fev.**, esp. late Sum-Fall, esp. NOLA/Marietta OH/NYC/Pensacola<sup>34</sup>-1519-2,741  
 353. 2010 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,741  
 354. 1937 -- **Malaria**, international list #38, Census Bureau. *Vital Statistics, Part I* --2,729  
 355. 1949 -- July-Nov esp., **Polio**, esp., NY/320, IL246, MI/210, TX/183 NJ/180 CA/236--2,720  
 356. 1935 -- **Scarlet Fever**, international list #8, Census Bureau. *Mortality Statistics 1935* --2,718  
 357. 1871 -- **Scarlet Fever**, esp. NYC/791, Baltimore/625, MI/696, MN/335, Philly/262 --2,709  
 358. 1980 -- **Influenza**, US death rate 1.19 per 100K, esp. ND/4.3, MA/3.4, ME/3.3, MT/3 --2,702

#### Large Loss-of-Life Events by Mortality (continued):

359. 1954 -- **Influenza**, esp. TX/228 AL/180 GA/162 PA/154 OH/143 TN/120 M0/104 --2,696  
 360. 2009-2010 (Winter) -- **Influenza** deaths (out of 1,595,870 US deaths) --2,691  
 361. 2013 -- **Diarrhoea and gastroenteritis of infections origin** (ICD-10 code A09) --2,669  
 362. 1936 -- **Whooping Cough**, international list #9, Census Bureau. *Mortality Statistics* --2,666  
 363. 1937 -- **Typhoid**, international list #1, Census Bureau. *Vital Statistics 1938, Pt. I* --2,659  
 364. 1935 -- **Epidemic Cerebrospinal Meningitis**, int. list #18, Census. *Mortality Statistics* --2,657  
 365. 1931 -- **Scarlet Fever**, especially children, especially IL --2,651  
 366. 1937 -- **Diphtheria**, international list #10, Census Bureau. *Vital Statistics Part I* --2,637  
 367. 2012 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,610
368. 1932 -- **Scarlet Fever**, international list #8, Census Bureau. *Mortality Statistics 1932* --2,577  
 369. 1932 -- **Malaria**, international list #38, Census Bureau. *Mortality Statistics 1932* --2,568  
 370. 1938 -- **Diphtheria**, international list #10, Census Bureau. *Vital Statistics Part I* --2,556  
 371. 1933 -- **Scarlet Fever**, international list #8, Census Bur. *Mortality Statistics 1933* --2,546  
 372. 1931 -- **Malaria**, esp. AL, AR, FL, GA, LA, MS, MO, SC, TN --2,536  
 373. 1942 -- **Whooping Cough**. Census Bureau. *Vital Statistics ...1942...Mortality* --2,536  
 374. 1934 -- **Scarlet Fever**, international list #8, Census Bureau. *Mortality Statistics 1934* --2,524  
 375. 1865 -- **Smallpox**, esp. NYC/≤664, Philly/524, SC/GA/FL Sea Islands/~800<sup>35</sup> -2,500-2,510  
 376. 1797 -- **Yellow Fever epidemic**, New Design, MO, NYC, Philly, Providence, RI --2,502  
 377. 1876 -- **Smallpox**, 10 data-points, esp. Cincinnati/~930, SF CA/482, Philly/407, NYC/315-~2500  
 378. 1893 -- Aug 27-28, **Hurricane**, Sea Islands "Great Storm of 1893," GA/SC --1,000-2,500  
 379. 1900 -- June-Dec, **Measles** and **Influenza**, Native Alaskans, esp. west AK ~2,000-2,500
380. 1936 -- **Scarlet Fever**, international list #8, Census Bureau. *Mortality Statistics 1936* --2,493  
 381. 1863 -- **Smallpox**, esp. DC/700, Camp Chase OH, Fort Delaware DE, Baltimore/IL/PA-2.3K--2,490  
 382. 2015 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,456  
 383. 1910 -- sum-fall esp., **Polio**, esp. IA/161, MA/122, MN/97, NY/170, PA/269 --1459-2,449

<sup>34</sup> Also includes 101 fatalities on the U.S. Frigate *Macedonian*, sailing in the Caribbean late Spring to mid Summer.

<sup>35</sup> This does not take into account hundreds of smallpox fatalities in military ranks and especially military prisons.

384. 1931 -- **Dysentery**, international list #13, Bureau of Census. *Mortality Statistics 1931* --2,441  
 385. 1935 -- **Dysentery**, international list #13, Bureau of Census. *Mortality Statistics 1935* --2,436  
 386. 1864 -- **Yellow Fever**, esp. New Bern NC/1,359, Charleston, SC/700, Galveston, NOLA--2,414  
 387. 2014 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,405  
 388. 1925 -- **Measles**, 40 Registration states, esp. PA/503, MA/349, NY/323, IL/217, NJ/124 --2,404  
 389. 1941 -- Dec 07, **Violence, Attack** by Japanese on Pearl Harbor, HI --2,402  
 390. 1871 -- Oct 8-9, **Wildfire/Firestorm**, Peshtigo/NE WI vic.; Birch Creek MI --1,228-2,400

#### Large Loss-of-Life Events by Mortality (continued):

391. 1967 -- **Syphilis** --2,381  
 392. 1938 -- **Malaria**, international list #38, Census Bureau. *Vital Statistics, Part I* --2,378  
 393. 2016 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,361  
 394. 1850 -- **Smallpox**, esp. OH/551, NY/276, MA/232, PA/208, KY/150, MD/144, IN/140- 2,352  
 395. 1956 -- **Influenza**, esp. PA/139, TX/153, OH/134, AL/130, GA/109, MS/100, TN/96 --2,323  
 396. 1880 -- **Diphtheria**, NY, esp. children, esp. NYC & Brooklyn; elsewhere NY--1,805-2,303
397. 1965 -- **Influenza**<sup>36</sup>, death rate 1.2 per 100K, esp. ME/5.0, KS/4.0, NE/3.6, VE/3.3 --2,295  
 398. 1941 -- **Measles**, esp. children, esp. VA (170), GA (160), KY (158), SC (138), TN (133) --2,279  
 399. 1864 -- **Typhoid**, Chicago/192, Philadelphia/648; **Typhus/Typhoid**, NYC/1,425 --2,265  
 400. 1937 -- **Epidemic cerebrospinal meningitis**, int. list #18, Census. *Vital Statistics, Pt. I* --2,208  
 401. 1873 -- **Smallpox**, esp. Boston/668, Baltimore/631, Chicago/515, NYC/117, Charleston/106--2,201  
 402. 1974 -- **Influenza**, ICD-8 codes 470-474, death rate 1.30 per 100K, esp. KS/3.48 --2,201  
 403. 1893 -- Dec-Jan 1894, epidemic **Influenza**, NY --2,200
404. 1911 -- **Heat waves**/excessive heat deaths, esp. June 4-23, July 1-13, esp. MW, NE ~2,190  
 405. 2022 -- excessive **natural heat**, esp. AZ (1,030) esp. Maricopa County/425, TX/203--2,159  
 406. 2023 -- excessive **natural heat**, esp. AZ (867), TX (440), NV (208), LA/82, FL/81 --2,155  
 407. 1867 -- June-Dec, **Cholera**, esp. St. Louis, New Orleans, KS/OK/Chicago, US Army-2,145  
 408. 1931 -- **Polio**, esp. July-Oct (Aug peak), esp. NY, NJ, MI, MA, IL, CT, PA --2,139-2,144  
 409. 1961 -- **influenza**<sup>37</sup>, US death rate 1.2 per 100K; esp. AK/3.3, KS/ME/NE at 2.7 --2,137  
 410. 1925 -- **Malaria**, esp. MS/426, FL/338, AL/306, LA/256, MO/189, SC/183, TN/155--2,132  
 411. 1902 -- **Smallpox**, esp. NJ/432, NYC/310, MA/283, Cleveland/233, Philly PA/231 --2,111  
 412. 1964-65 -- **Rubella (German measles)**, last major US epidemic, especially newborn--2,100
413. 1990 -- **Influenza**, US death rate 0.84 per 100K; esp. NE//3.5; IA/3.1; ID/2.3; SD/2.3 --2,098  
 414. 1932 -- **Dysentery**, international list #13, Bureau of Census. *Mortality Statistics 1932* --2,083  
 415. 1985 -- **Influenza**, death rate 0.86 per 100K, esp. NE/4.1, MT/2.8, IA/2.6, KS/2.4, WY/2.2 --2,054  
 416. 1863 -- Sep-June 1865, **Diarrhea & Dysentery**, Confederate POWs, Point Lookout MD-2,050  
 417. 1865 -- **Typhus/Typhoid** NYC/1,075; Typhoid/Chicago/190 and Philadelphia/773 --2,038  
 418. 1896 -- Aug 1-14~, **Heat**, esp., NY/891, IL/277, PA/226, NJ/168, MO/81, WI/77 --2,038  
 419. 1927 -- **Polio (Acute)**, especially late Summer and Fall, especially children --2,013  
 420. 1834 -- ~July-Nov, **Cholera**, esp. Baltimore, Cleveland, Detroit, Goliad TX, NYC-->2,010  
 421. 1979 -- **Tuberculosis**, US death rate 0.89 per 100K, esp. DC/2.7, KY/1.7, MS/1.6 --2,007

<sup>36</sup> Distinct from the 61,903 pneumonia deaths noted in the next USPHS 1965 Mortality Data column in Table 1-14.

<sup>37</sup> Distinct from the 53,038 pneumonia deaths noted in the next column in Table 1-P, p. 1-32.

422. 1634-35, **Smallpox** epidemic, Five Nations, especially Mohawks, Upper NY<sup>38</sup> -->2,000  
 423. 1709-10, **Smallpox** epidemic, Native Americans, lower CA -->2,000  
 424. 1893 -- Oct 1-2, **Hurricane**, Cheniere Caminanda, Gulf Coast esp. LA, MS, AL 1700-2000

#### Large Loss-of-Life Events by Mortality (continued):

425. 1616 -- **Unknown Epidemic**, Natives, especially ~coasts of MA, ME, RI --thousands  
 426. 1939 -- **Diphtheria**, esp. Jan-Mar, Sep-Dec, Nationwide, esp. GA, IL, NC, TX, VA --1,997  
 427. 1980 -- **Tuberculosis**, US death rate 0.87 per 100K, esp. DC/4.21, SC, 1.79, AL/1.74 --1,978  
 428. 1989 -- **Tuberculosis**, US death rate 0.80 per 100K, esp. DC/2.55; NY/1.63; LA/1.34 --1,970  
 429. 1947 -- **Whooping Cough**, Int. List No. 9 --1,954  
 430. 1865 -- Apr 27, Steam **Sultana** explodes/burns, Miss. Riv., Redman Point, AR-1,547-1,947  
 431. 1988 -- **Influenza**, US death rate 0.79 per 100K; esp. ID/3.7, IA/2.5, MT/2.6, SD/3.3 --1,943  
 432. 1932 -- **Measles**, international list #7, Census Bureau. *Mortality Statistics 1932* --1,941  
 433. 1981 -- **Tuberculosis**, US death rate 0.84 per 100K, esp. AL/1.96, DC/1.57, FL/1.43 --1,937  
 434. 1837 -- Aug-Nov, **Yellow Fever** epidemics, Mobile AL; New Orleans LA; Natchez MS--1550-1930  
 435. 1944 -- **Measles**, especially Jan-June, Nationwide, esp. CA, GA, OH, PA, TX --1,923  
 436. 2021 -- **excessive natural heat**, esp. AZ/854, WA/170, NV/166, CA/140, OR/133 --1,923  
 437. 1939 -- **Typhoid**, international list #1, Census Bureau. *Vital Statistics 1939*, Part I --1,922  
 438. 1988 -- **Tuberculosis**, US death rate 0.78 per 100K, esp. DC/2.05, NY/1.61, HI/1.48 --1,921  
 439. 1943 -- **Dysentery**, Bureau of Census. *Vital Statistics...1943...II...Mortality*, p.192 --1,909  
 440. 1950 -- **Polio**, esp. Jul-Nov (1,611 deaths), esp. CA, IL, MI, NY, OH, PA, TX --1,904  
 441. 1980 -- June-Sep, **Heat**, esp. Midwest & So. Plains, esp. MO/TN/AR/TX/MS<sup>39</sup>--1,863-1,904  
 442. 1948 -- **Polio**, especially CA, MN, NC, OH, SD, TX and WI --1,895  
 443. 1944 -- **Whooping Cough**, Nationwide, especially NC, VA, TX, SC, KY, MS --1,878  
 444. 1942 -- **Dysentery**, Census Bureau. *Vital Statistics...US 1942 -- Part II...Mortality* --1,877  
 445. 1855 -- May-Aug, **Cholera**, IL/KS/KY/MO/OH/WI, esp. New Orleans/883 --1,797-1,869  
 446. 1946 -- Especially July-Nov, **Polio**, nationwide, esp. IL, MN and TX --1,845  
 447. 1986 -- **Influenza**, US death rate 0.76 per 100K, esp. VT/3.9 ME/3.59 MN/3.2 ND/2.84 --1,838  
 448. 2005 -- Aug 25-31, **Hurricane Katrina**, FL, LA, esp. NOLA & MS<sup>40</sup> -->1,833-1,836  
 449. 1868 -- June-Dec, **Smallpox**, esp. San Francisco/960, Cincinnati/649, Chicago/150-->1,825  
 450. 1937 -- **Scarlet Fever**, international list #8, Census Bureau. *Vital Statistics 1938, Pt. I*--1,824  
 451. 2005 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.613 per 100K; esp. SD (4.513) --1,812  
 452. 1990 -- **Tuberculosis**, US death rate 0.73 per 100K, esp. DC/1.97; NY/1.63; MS/1.48 --1,810  
 453. 1982 -- **Tuberculosis**, US death rate 0.78 per 100K, esp. DC/2.83, AL/1.63, TN/1.4--1,807  
 454. 1800 -- **Yellow Fever**, esp. Baltimore, Charleston SC, Norfolk, Philly, Providence RI --1,806

<sup>38</sup> We are assuming that if thousands died, then at least 2,000 must have died.

<sup>39</sup> Our range is based on a State by State tally using best available sources which actually counted deaths. There are "estimates" for 1980 of 2,000-10,000 deaths, for which we find no explanation of how the estimates were made. We suspect they were based on looking at spikes in deaths during high heat, and attributing a percentage of the spikes to heat, at least as a contributing or aggravating factor. No doubt it is true that spikes in deaths during high heat can be associated with the heat. However, we seek to provide tallies based on counting, as opposed to estimating.

<sup>40</sup> There were 2 deaths in AL and 2 in GA. The numbers reflect those generally reported. We note ">" (at least) in that there still are over 100 missing and presumed dead, as well as unreported health-related indirect deaths.

455. 2003 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.618 per 100K; esp. ND (2.661) --1,792  
 456. 1986 -- **Tuberculosis**, US death rate 0.74 per 100K, esp. DC/1.72, DE/1.43, NY/1.34-1,782  
 457. 1983 -- **Tuberculosis**, US death rate 0.76 per 100K, esp. DC/3.63, AL/1.6, LA/1.2 --1,779  
 458. 2008 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.57 per 100K; esp. SD (2.13) --1,772  
 459. 1870 -- **Typhus**, nationwide, especially IL, IN, NY, and PA --1,770  
 460. 2000 -- **Influenza**, ICD-10 codes J09-11.8; US death rate 0.63 per 100K; esp. SD (3.05) --1,765  
 461. 1939 -- **Malaria**, esp. May-Nov, especially AL, AR, FL, GA, LA, MS, SC, TX --1,761  
 462. 1987 -- **Tuberculosis**, US death rate 0.72 per 100K, esp. DC/2.82, AL/1.54, NY/1.5 --1,755  
 463. 1894 -- **Smallpox**, esp. Chicago/1033, WI/325, esp. Milwaukee/244; NY/147 --1,752  
 464. 1945 -- **Whooping Cough**, communicable disease No. 9 International List --1,752  
 465. 1985 -- **Tuberculosis**, US death rate 0.74 per 100K, esp. DC/3.46, GA/1.34, AL/1.23 --1,752  
 466. 1984 -- **Tuberculosis**, US death rate 0.73 per 100K, esp. DC/3.62, AL/1.57, NY/1.21 --1,729  
 467. 1945 -- **cerebrospinal** (meningococcus) **meningitis** (code 6 communicable disease) --1,728  
 468. 1998 -- **Influenza**, ICD-9 code 487.0; US death rate 0.62 per 100K; esp. MT (6.72) --1,724  
 469. 1911 -- **Typhoid Fever**, PA --1,716  
 470. 1991 -- **Tuberculosis**, US death rate 0.68 per 100K, esp. DC/2.32. NY/1.62; AR/1.17 --1,713  
 471. 1992 -- **Tuberculosis**, US death rate 0.66 per 100K, esp. NY, 1.38; MS, 1.33 --1,705  
 472. 1553 -- **Hurricane**, lower coast of TX --1,700

#### Large Loss-of-Life Events by Mortality (continued):

473. 1964 -- **influenza**<sup>41</sup>, US death rate 0.9 per 100K, esp. MT/4.0 WA/3.8 NE/3.6 ND/3.1 --1,687  
 474. 1862 -- **Yellow Fever**, esp. Wilmington NC/>653; TX coast/>328; Key West--1,131-1,679  
 475. 1932 -- **Epidemic Cerebrospinal Meningitis**, int. list #18, Census. *Mortality Statistics* --1,677  
 476. 1999 -- **Influenza**, ICD-10 codes J09-11.8; US death rate 0.597 per 100K; esp. SD/4.913 --1,665  
 477. 1993 -- **Tuberculosis** (US death rate 0.63 per 100K), esp. DC/2.51 and NY/1.16 --1,631  
 478. 1995 -- June-Aug, esp. July 12-17, **Heat**, esp. IL/>700 WI/154 PA/146 MO/58 1,563-1,601
479. 1921 -- **Polio** (acute), esp. late Summer-Fall, esp. children, esp. NY, IL, WA, MI --1,597  
 480. 1989 -- **Influenza**, US death rate 0.64 per 100K; esp. IA/2.38, MT/2.1, ND/2.17, OR/2.0 --1,593  
 481. 1925 -- **Excessive Heat**, esp. NY (439), PA (299), NJ (112), CA (69), MA (65) --1,587  
 482. 2009 -- **Influenza (avian)**, ICD-10 code J09 (US death rate 0.5 per 100K) esp. MT (1.3) --1,557  
 483. 1951 -- **Polio**, especially July-Nov, especially CA, IL, TX --1,551-1,555  
 484. 1847 -- **Typhoid** and **Typhus**, New York City (1,396), Typhus, New Orleans (154) --1,550  
 485. 2011 -- **Influenza**, ICD-10 codes J09-11 (US death rate 0.5), esp. SD (2.3 per 100K) --1,532  
 486. 1848 -- **Typhus** and **Typhoid**, New Orleans, LA/372, NYC/953, South Philly/205 --1,530  
 487. 1925 -- **Polio**, esp. late Sum.-Fall, esp. children, esp. NY/208, CA/149, MN/140 --1,519  
 488. 1971 -- **Influenza**, ICD-8 codes 470-474/death rate 0.73 per 100K, esp. ME/2.9, NE & WA/1.9-1,504  
 489. 1937 -- **Measles**, international list #7, Census Bureau. *Vital Statistics 1938*, Part I --1,501  
 490. 1689-1690 -- **Smallpox epidemics**, New England and NY, settlers and natives->820-1,500  
 491. 1983 -- **HIV AIDS**, New York City (425), U.S. --1,500
492. 1877 -- **Smallpox**, 7 data pts., esp. New Orleans/1.1K; Philadelphia/155; Cincinnati/56 --1,496  
 493. 1914 -- **Diphtheria and Croup**, the Year, NYC, NY --1,489  
 494. 1933 -- **Epidemic Cerebrospinal Meningitis**, int. list #18, *Mortality Statistics 1933* --1,482

<sup>41</sup> Distinct from the 51,764 pneumonia deaths noted in the next column in Table 1-14.

495. 1843 -- July-Nov, **Yellow Fever**, esp. Mobile AL (240-750), New Orleans (487-700)--758-1,481  
 496. 1994 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.56 per 100K, esp. DC, 1.86 --1,478  
 497. 1967 -- **Influenza** --1,475  
 498. 1937 -- **Polio** (Acute), especially late Summer and Fall, especially children --1,461  
 499. 1940 -- **Diphtheria**, Census Bureau. *Vital Statistics Part II, 1940, Mortality*, p. 210 --1,457  
 500. 1953 -- **Polio** (acute), especially CA, IL, MI, and NY --1,450  
 501. 1940 -- **typhoid fever**, Census Bureau. *Vital Statistics, Part II, 1940, Mortality*, p.210--1,443  
 502. 1940 -- **Malaria**, especially AL, AR, GA, MS, SC and TX --1,442  
 503. 1949 -- **Dysentery**, infectious, all forms (codes 045-048) --1,440  
 504. 1983 -- **Influenza**, US death rate 0.61 per 100K, esp. ME/3.9, MT/3.2, MN/2.7 --1,431  
 505. 1803 -- July 18-Oct, **Yellow Fever**, Charleston SC, New York, VA, Philadelphia --1,403  
 506. 1952 -- **Heat**, excessive natural, Sixth Revision of International Lists, 1948, code E931 --1,401
507. 1864 -- July-June 1865, **Diarrhea and Dysentery**, Confederate POWs. Elmira, NY --1,394  
 508. 1954 -- **Polio**, acute; esp. TX/138 & CA/119; 33 other states double digit deaths --1,389  
 509. 1928 -- **Polio** acute, especially late Summer and Fall, especially children --1,381  
 510. 1944 -- **Polio**, especially July-Nov (1,070 deaths), esp. NY, OH and PA --1,381  
 511. 1930 -- **Polio**, especially late summer through fall --1,370  
 512. 1933 -- **Epidemic Encephalitis**, international list code #17, Census Bureau 1933 --1,357  
 513. 1799 -- **Yellow Fever**, Charleston, SC, NYC, Philadelphia, USS *General Greene* --1,356  
 514. 1851 -- **Typhus/Typhoid**, NYC/1,103, New Orleans/Typhus/228, Chicago/Typhoid/10 --1,341  
 515. 1995 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.5 per 100K, esp. DC, 1.89 --1,336  
 516. 1820 -- May-Dec, **Yellow Fever**, Savannah GA/New Orleans/NYC/Philadelphia --1,335  
 517. 1913 -- **Diphtheria and Croup**, the Year, NYC, NY --1,333  
 518. 1972 -- **Excessive heat**; heat as contributing factor, esp. July 12-25 NYC/891, MD/269 --1,324  
 519. 1912 -- **Typhoid Fever**, Pennsylvania --1,310  
 520. 1946 -- **Measles**, International List infectious and parasitic diseases code 35 --1,310  
 521. 1863 -- **Diphtheria**, Vermont -->1,300  
 522. 1977 -- **Influenza**, ICD-8 codes 470-474, US death rate 0.59 per 100K, esp. AL/1.98 --1,304  
 523. 1942 -- **Measles**. Census Bureau. *Vital Statistics of US 1942 -- Part II...Mortality* --1,302  
 524. 1943 -- **Measles**, especially children --1,301

#### Large Loss-of-Life Events by Mortality (continued):

525. 1862 -- Feb-Jun '65 (41 mo.), **pneumonia/pleurisy**, Confederate POWs, Camp Douglas IL- 1,296  
 526. 1876 -- **Yellow Fever**, Savannah (also Brunswick), GA; also New Orleans & Baltimore --1,293  
 527. 1941 -- **Diphtheria**, Census Bureau. *Vital Statistics, Part I, Mortality*, p. 150 --1,293  
 528. 1880 -- **Smallpox**, esp. TX/517, Philadelphia/429, Camden NJ/47 Chicago/43, NY --1,281  
 529. 1911 -- **Diphtheria**, especially NYC, Chicago, Philadelphia, MA --1,281  
 530. 1915 -- **Diphtheria and Croup**, The Year, NYC, NY --1,278  
 531. 1942 -- **Diphtheria** --1,273  
 532. 1934 -- **Epidemic Cerebrospinal Meningitis**, int. list #18, *Mortality Statistics* --1,272  
 533. 1860 -- **Smallpox** epidemics, especially MA and NY 1,263-1,271  
 534. 1936 -- **Measles**, international list #7, Census Bureau. *Mortality Statistics 1936* --1,267  
 535. 1900 -- July-Aug (esp.) **Heat**, esp. NY/361, NJ/119, Chicago/102, St. Louis/90, PA/90-1,266  
 536. 1946 -- **Diphtheria**, infectious diseases International List No. 10 --1,259  
 537. 1946 -- **Cerebrospinal (meningococcus) meningitis** infections (Int. List No. 6) --1,257

538. 1946 -- **Whooping Cough**, International List No. 9 --1,241  
 539. 1817 -- June-Dec, **Yellow Fever**, esp. Charleston SC, Natchez MS, New Orleans-1208-1,233  
 540. 1994 -- **Influenza**, US death rate 0.47 per 100K; esp. SD/2.6; MT/1.7; IA/ 1.5; NE/1.22--1,229  
 541. 1913 -- **Heat**, esp. June 25-July 1, esp. PA/237, OH/178, MO/114, IL/92, NY/80 --1,226  
 542. 1938 -- **Scarlet Fever**, international list #8, Census Bureau. *Vital Statistics 1939*, Pt. I --1,206  
 543. 1996 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.45 per 100K, esp. DC, 1.92 --1,202
544. 1943 -- **Diphtheria**, infectious diseases International List No. 10 --1,196  
 545. 1945 -- Jan-Dec, **Polio**, especially July-Nov (Sept. peak) --1,186  
 546. 2020 -- excessive **heat**, natural sources; esp. AZ/522, CA/137, Clark Co., NV/124 --1,184  
 547. 1917 -- **Polio**, Census area (27 States/DC/43 cities), esp. Chicago/177 OH/128 VA/69, VT $\geq$ 1,182  
 548. 2021 -- exposure to excessive **natural cold**/ICD-10 code X31, esp. AK/NM/IA/CO --1,179  
 549. 1941 -- **Malaria**. Census Bureau. *Vital Statistics, Part I, Mortality*, p. 150 --1,178  
 550. 1939 -- **Measles**, international list #35, Census Bureau. *Vital Statistics 1939*, Pt. I --1,174  
 551. 1997 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.43 per 100K, esp. HI, 0.99 --1,166  
 552. 1848 -- Dec, **Cholera**, New Orleans, also MS Riv., Paducah KY, NYC, Port Lavaca TX--1,159  
 553. 1943 -- **Polio**, especially late Summer and Fall, especially children --1,151  
 554. 1829 -- **Yellow Fever**, esp. FL, Mobile AL/130; Natchez MS/90; New Orleans LA/900-1,146  
 555. 1948 -- **Whooping Cough** --1,146  
 556. 1991 -- **Influenza**, US death rate 0.45 per 100K; esp. NE/2.38, ND/1.73, IA/1.54 --1,137  
 557. 1905 -- May 21-Nov, **Yellow Fever**, esp. LA (esp. New Orleans/455), Pensacola, MS-1,131  
 558. 1919 -- Sep 10-14, **Hurricane**, Florida Keys, Gulf & Corpus Christi area, TX 500-1,131  
 559. 1912 -- **Diphtheria**, NYC, NY --1,125  
 560. 1950 -- **Whooping Cough**, code 056 of 6<sup>th</sup> rev. of international lists, 1948 (US PHS)--1,118  
 561. 2019 -- Exposure to excessive natural **cold/hypothermia**, esp. MI/70 NY/65 PA/61 --1,115  
 562. 1998 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.40 per 100K, esp. LA, 0.72 --1,112  
 563. 2012 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.4; SD, 2.5 per 100K --1,106  
 564. 2006 -- **excessive natural heat**, esp. CA/194, AZ/169, NY/148, TX/106, IL/51, PA/50--1,104  
 565. 1675 -- Dec 19, English Colonists **Massacre** Narragansetts, Great Swamp, RI --365-1,100  
 566. 2004 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.376 per 100K; esp. ME (1.827) --1,100

#### Large Loss-of-Life Events by Mortality (continued):

567. 1984 -- **Influenza**, US death rate 0.46 per 100K, esp. MT, 2.3, OR/1.7, WA/1.4, AR/1.3 --1,096  
 568. 1925 -- **Meningococcus meningitis**, esp. NY/148, PA/79, IL/56, OH/53, MA/51 --1,095  
 569. 1872 -- **Cerebral Spinal Meningitis**, MA (esp. Boston), NYC, PA (esp. Philly) --1,090  
 570. 1901 -- **Smallpox**, esp. NY/436 (Bronx/312), PA/202 (Philly/178), NJ/139 (Newark/71)--1,085  
 571. 1912 -- **Polio**, acute anterior, code 63; Census "registration area" was 63.2% of pop.--1,081  
 572. 1772 -- **Measles** epidemics, Charleston, SC (800-900), Philadelphia, PA (180) --980-1,080  
 573. 1924 -- **Polio** (acute), especially late summer and fall, especially children --1,079  
 574. 1948 -- **Dysentery**, infectious and parasitic diseases ICD code 27 --1,078  
 575. 1939 -- June-Sep, **Heat**, esp. Sep 15-23, Los Angeles (546), TX (42), MO (37)<sup>42</sup>-527-1,073  
 576. 2011 -- excessive **natural heat**, esp. TX/183, AZ/177, PA/57, MO/52 IL/50 NY/45 --1,060  
 577. 1911 -- **Polio**, US registration area (63.1%), esp. OH/137, NY/101, PA/93, IN/69, KY/61--1,060

<sup>42</sup> Low-end of range is from Census Bureau and reflects death certificates listing heat as primary cause of death. High-end of range reflects results of Dept. of Public Health funded study of late Sep heat wave deaths in So. CA, in which 546 excess deaths above the norm were reported during 9-day "hot spell."

578. 1852 -- **Smallpox**, Nevada City, CA natives, NYC (407-516), Philadelphia/427--943-1,052
579. 1999 -- **excessive natural heat**, esp. IL/153, PA/97, MO/92, TX/63, AZ/58, NY/56 --1,050  
 580. 1993 -- **Influenza**, US death rate 0.40 per 100K; esp. ID 2.62; VE 2.42; MT 1.54; OR 1.37 --1,044  
 581. 1955 -- **Polio** (acute); all States, esp. MA/168 (Boston ~200), WI/166, NY/77, TX/76--1,043  
 582. 1935 -- **Polio** (acute), especially late Summer-and Fall, especially children --1,040  
 583. 1870 -- May-Dec, **Yellow Fever**, esp. New Orleans/587 Mobile/173 Brunswick GA--1,038  
 584. 1904 -- June 15, Fire, **General Slocum** excursion steamer, East River, NYC, NY-957-1,031  
 585. 2018 -- exposure to excessive natural **cold/hypothermia**, esp. MN/36 CO/34 IN/35 --1,028  
 586. 1899 -- **Typhoid fever** epidemics/outbreaks, Greensboro, NC; PA, esp. Philadelphia-1,026  
 587. 1940 -- **Polio**, Nationwide, especially IL, IN, IA, KS, MI, OH and WV --1,026  
 588. 1933 -- **excessive heat**, international list #191. Census Bur. *Mortality Statistics 1933* --1,025  
 589. 1938 -- **epidemic cerebrospinal meningitis**, international list #18, *Vital Statistics*, Pt. I--1,024  
 590. 1941 -- **Typhoid Fever**, Census Bureau. *Vital Statistics, Part I, Mortality*, p. 150 --1,022  
 591. 2018 -- **excessive natural heat**, esp. AZ/252, Clark Co., NV/163, CA/106, TX/89 --1,012  
 592. 1992 -- **Influenza**, US death rate 0.39 per 100K; esp. ME/1.94; MT/1.21; WV/1.27 --1,006  
 593. 1633-34 -- **Smallpox epidemic**, New England Natives, Plymouth Colonists, MA >1,000  
 594. 1663 -- **Smallpox**, Fort Orange, NY and Northern "NY" Native American Tribes --1,000  
 595. 1677-78 -- **Smallpox epidemic**, Massachusetts Bay Colony --1,000  
 596. 1818 -- Sep 12-14, **Hurricane**, Galveston, TX <1,000  
 597. 1833 -- early Aug-early Nov, **Yellow Fever epidemic**, New Orleans, LA --1,000  
 598. 1861-62 -- winter-spring, **Flooding**, CA, OR, WA, British Columbia ~1,000  
 599. 1918 -- Oct 12-15, **Forest Fire**, Cloquet-Moose Lake, MN/WI 400-1,000  
 600. 1927 -- Apr-May, rain, MS River **Flood/levee breaks**, MS, AR, LA, KY, MO --246-1,000

#### Large Loss-Of-Life Events By Mortality (continued):

601. 1721-22, Apr-Apr, **Smallpox**, Massachusetts Colony, esp. Boston & Charlestown--944-991  
 602. 1731 -- **Smallpox epidemics**, New York City (548-700) and Philadelphia (288) --836-988  
 603. 1796 -- **Yellow Fever**, esp. Charleston, SC/300, New Orleans/250-400; Wilmington, NC/150--836-986  
 604. 1954 -- **Heat** (esp. July), esp. MO/235, OK/178, KS/139, TX/95, IL/50, GA/39 --978-984  
 605. 1961 -- **Hepatitis**, infectious -- 976  
 606. 1931 -- **Epidemic Encephalitis**, int. list infectious diseases code 17, Census Bur. *1931* -- 972  
 607. 1848 -- **Yellow Fever**, Mobile AL~76, New Orleans/850-872, NY Marine Hosp./12 --937-960  
 608. 1951 -- **whooping cough/pertussis**, esp. TX/110, GA/86, MS/72 NC/52 VA/48 AL/45--960  
 609. 1864 -- Feb-Jun 1865 (17 mo.), **pneumonia/pleurisy**, Confederate POWs, Camp Chase OH--954  
 610. 1946 -- **Dysentery**, infectious and parasitic diseases International List code 27 -- 952  
 611. 1949 -- **Measles** (code 085); PHS, *Vital Statistics...[US] 1949, Part II...Mortality* -- 949  
 612. 1955 -- Aug 31-Sep 9, **Heatwave/excessive deaths**, greater Los Angeles, CA<sup>43</sup> --115-946  
 613. 1887 -- **Yellow Fever**, esp. Fernandina and Tampa, FL and New Orleans, LA -- 941  
 614. 1760 -- **Smallpox epidemic**, Charleston SC (also undocumented Native deaths) --730-940  
 615. 1952 -- **Dysentery**, infectious, all forms (codes 045-048), esp. TX/249 MS/71 KY/61 GA/46--939  
 616. 2005 -- **excessive natural heat**, esp. AZ/244, NYC/~140, TX/111 CA/64, MD/47, NV/43--939

<sup>43</sup> The figure 115 refers to reporting by LA Coroner's Office of deaths directly attributable to the heat. The larger number is undoubtedly a compilation of the daily "above-the-norm" deaths (compared to the previous year) reported by the Coroner. At the beginning of the heatwave it was dozens higher than the previous year. At the end it was hundreds. Some source (which the four sources we cite copy) has apparently compiled those figures to obtain 946.

617.	1960 -- <b>Hepatitis</b> , infectious	-- 938
618.	1876 -- <b>Smallpox epidemic</b> , Cincinnati, OH	-- 934
619.	1999 -- <b>Tuberculosis</b> , ICD-10 code A16-19, death rate 0.333 per 100K, esp. NM, 0.608	-- 930
620.	2014 -- Exposure to excessive natural <b>cold/hypothermia</b> esp. PA IL NY OH MT NM--	930
621.	1988 -- <b>Heat</b> , Summer (esp.); esp. IL/341, MI/121, IN/~44, MO/~44, CA/37	--913-921
622.	2020 -- Exposure to excessive <b>natural cold</b> ; ICD-10 <sup>44</sup> code X31, esp. AK/NM/CO/MN--	919
623.	1947 -- <b>cerebrospinal (meningococcus) meningitis infections</b> (Int. List No. 6)	-- 917
624.	1949 -- <b>Meningococcal infections</b> (code 057) ; <i>Vital Statistics...[US] 1949, Part II</i>	-- 917
625.	1849 -- Aug-Dec, <b>Yellow Fever</b> , Charleston SC, Mobile AL, New Orleans	-- 912
626.	2019 -- Exposure to <b>excessive natural heat</b> , esp. AZ/283, TX/101, NV/88	--911-915
627.	1851 -- <b>Smallpox</b> , esp., NYC/562-586, Philadelphia/316; Augusta GA/7, Chicago/5	--895-909
628.	1875 -- <b>Croup and Diphtheria</b> , MI (374) and Hudson County, NJ (533)	-- 907
629.	1756 -- <b>Smallpox epidemic</b> , Philadelphia	--800-900

#### Large-Loss-of-Life Events by Mortality (continued):

630.	1916 -- June 18-Aug 22, <b>Heat Waves</b> , esp. Chicago, Detroit, Milwaukee, St. Louis	-- ~895
631.	1948 -- <b>Measles</b> , 1948 ICD infectious and parasitic diseases code 35	-- 888
632.	1953 -- <b>Dysentery</b> , infectious, all forms (codes 045-048), esp. TX/268, MS/52, GA/41--	886
633.	2012 -- <b>excessive heat</b> , esp. AZ/209, CA/66, TX/62, IL/54, MO/54, MD/46, VA/24 --	879
634.	1966 -- <b>Meningococcal infections</b> , esp. CA/109, TX/59, OH/50, NY/40, NC/38	-- 876
635.	1932 -- <b>Epidemic Encephalitis</b> , int. list infectious diseases code 17, Census Bur. 1932 --	874
636.	2010 -- <b>excessive natural heat</b> , esp. AZ/228, TX/64, CA/46, NV/46, TN/45, PA/37 --	874
637.	1948 -- <b>Cerebrospinal (meningococcus) meningitis infections</b> (code 6, ICD 1, 1948)--	873
638.	1947 -- <b>Dysentery</b> , infectious and parasitic diseases Int. List code 27	-- 869
639.	1913 -- <b>Polio</b> , acute, esp. June-Sep (Sep peak), US "registration area" (65.1% pop.)	-- 864
640.	1939 -- <b>cerebrospinal meningitis</b> , int. list #6, Census Bureau. <i>Vital Statistics 1939</i> , Pt. I--	863
641.	1850 -- Jan-Oct, <b>Yellow Fever</b> , esp. Jefferson/Orleans Parishes/New Orleans, LA & SC <sup>45</sup> --	862
642.	1942 -- <b>Malaria</b> . Census Bureau. <i>Vital Statistics...1942 -- Part II...Mortality</i>	-- 861
643.	1939 -- <b>Scarlet Fever</b> , international list #8, Census Bureau. <i>Vital Statistics 1939</i> , Pt. I--	853
644.	1934 -- <b>Polio</b> (acute), especially late Summer and Fall, especially children	-- 852
645.	1926 -- <b>Polio</b> (acute), especially late Summer and Fall, especially children	-- 851
646.	1809 -- <b>Yellow Fever</b> , esp. Brooklyn/NYC (42); New Orleans (civilian/military; ~800)	-- 850
647.	1923 -- <b>Polio</b> (acute), especially late Summer and Fall, especially children	-- 850
648.	2006 -- <b>Influenza</b> , ICD-10 codes J09-11; US death rate 0.285 per 100K; esp. VE (1.605)	-- 849
649.	1796 -- <b>Scarlet Fever</b> epidemic (especially children), Marblehead, MA and esp. VT--	681-846
650.	1915 -- July 24, crowded SS steamer <b>Eastland rolls-over</b> at dock, Chicago, IL	--812-844
651.	1967 -- <b>Infectious Hepatitis</b>	-- 844
652.	1947 -- <b>Encephalitis</b> , acute infectious, Int. List infectious diseases code 37	-- 830
653.	1932 -- <b>Polio</b> (acute), especially late summer and fall, especially children	-- 828
654.	1937 -- <b>Excessive Heat</b> , international list #191. Census Bureau. <i>Vital Statistics, Part I</i> --	826
655.	1837 -- <b>Scarlet Fever</b> , Boston, MA, New York City, NY, Philadelphia, PA	-- 823
656.	2017 -- exposure to <b>excessive natural heat</b> , esp. AZ/264, NV/235, CA/93, TX/40	-- ≥817

<sup>44</sup> Tenth revision of International Classification of Diseases.

<sup>45</sup> Seventh Census data supplemented by addition of at least 97 yellow fever deaths in New Orleans Aug-Sep.

657. 2015 -- Exposure to excessive natural **cold/hypothermia**, esp. PA NY OH AK NM -- 815  
 658. 1929 -- **Polio** (acute), especially late summer and fall, especially children -- 812  
 659. 1805 -- **Yellow Fever**, esp. NYC/270-340, Philly/300-400, Providence, RI/10, SC/ $\leq$ 59--750-809  
 660. 1941 -- **Polio**, especially late summer and fall, especially children -- 807  
 661. 2017 -- Exposure to excessive natural **cold/hypothermia**, esp. AK WA MN CA MI -- 804  
 662. 1599 -- Jan 21, Spanish (Oñate) **Massacre** Acoma Natives, punitive expedition, NM-300-800  
 663. 1795 -- July 19–Oct 12, **Yellow Fever** epidemic, NY City, also Providence RI ~745-800  
 664. 1833 -- **Malaria** Epidemic, ConCow Maidu Villages, Butte County, CA vicinity -- ~800  
 665. 1926 -- Sep 16–21, **Great Miami Hurricane**, Cat 4, FL, MS, AL<sup>46</sup> -- ~800

#### Large-Loss-of-Life Events by Mortality (continued):

666. 1947 -- **Diphtheria**, infectious diseases Int. List No. 10 -- 799  
 667. 1933 -- **Polio** (acute), especially late Summer and Fall, especially children -- 797  
 668. 1925 -- Mar 18, **Tornadoes**, esp. Tri-State Tornado (IL/IN/MO) 695; AL/KY/TN --740-792  
 669. 1922 -- **Polio** (acute), especially late Summer and Fall, especially children -- 790  
 670. 1944 -- Dec 18, **three ships capsize**, Navy Task Force 38, typhoon off Philippines -- ~790  
 671. 1940 -- **excessive heat**, international code 191. Census Bureau. Vital Statistics 1940-- 787  
 672. 1879 -- June-Dec, **Yellow Fever**, Forest City, AR, Louisiana, MS, Memphis, TN--682-786  
 673. 2016 -- exposure to **excessive natural heat**, esp. AZ (219), NV (89), CA (70), TX/86-- 786  
 674. 1864 -- **Cerebrospinal Meningitis** epidemic, Carbondale & Philadelphia PA -- 784  
 675. 2002 -- **Tuberculosis**, ICD-10 code A16-19, death rate .273 per 100K, esp. AR, .443-- 784  
 676. 1936 -- **Polio** (acute), especially late Summer and Fall, especially children -- 780  
 677. 1862 -- Aug 17-23 especially, **Dakota "insurrection,"** southcentral MN; also IA --750-779  
 678. 2000 -- **Tuberculosis**, ICD-10 code A16-19; death rate 0.276 per 100K, esp. LA, 0.559 -- 776  
 679. 1864 -- July-June 1865 (12 mo.), **pneumonia/pleurisy**, Confederate POWs, Elmira NY-773  
 680. 1939 -- **Polio**, especially late Summer through Fall, especially children -- 773  
 681. 1920 -- **Polio** (33 “registration states”), especially young children -- 769  
 682. 2001 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.268 per 100K, esp. DC, 1.741 -- 764  
 683. 1861 -- **Smallpox** epidemic, Philadelphia, PA -- 758  
 684. 1854 -- **smallpox**, esp. Charleston SC/59, Chicago/12, Jacksonville FL/~15, NYC/624, Philly/40-- 750
685. 1919 -- **Polio** (acute). Especially late Summer and Fall, especially children -- 747  
 686. 1824 -- **Smallpox epidemics**, NYC, NY, Philadelphia, PA, Sandusky, OH --740-745  
 687. 1852 -- **Yellow Fever epidemics**, Charleston SC, New Orleans, Savannah GA -- 745  
 688. 1996 -- **Influenza**, ICD-9 code 487; US death rate 0.276 per 100K; esp. SD (1.616) -- 745  
 689. 2000 -- exposure to excessive natural **cold/hypothermia**; ICD-10 code X31, esp. PA/48-742  
 690. 1911 -- **Scarlet Fever**, NYC, NY -- 741  
 691. 1911 -- Oct-June 8, 1912, **Cerebrospinal Meningitis** Epidemic, esp. TX , OK, MO -- 740  
 692. 2016 -- Exposure to excessive natural **cold/hypothermia**, esp. AK CA MI MT OH SD-- 731  
 693. 1935 -- **Excessive Heat**, int. list #191. Census Bureau. *Mortality Statistics 1935* -- 728  
 694. 1949 -- **Whooping Cough**, Public Health Service. *Vital Statistics...[US] 1949, Part II*--727  
 695. 1982 -- **Influenza**, US death rate 0.31 per 100K, esp. NE/1.78, SD/1.74, ND/1.34 -- 727  
 696. 2002 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.253 per 100K; esp. SD (2.237)-- 727  
 697. 2013 -- Exposure to excessive natural **cold/hypothermia**, esp. IL NY PA MN AZ WI--725

<sup>46</sup> Includes missing, presumed dead – see Narrative Information and footnotes below.

698. 1914 -- **Polio** (acute anterior), esp. late sum.-fall, esp. children, esp. NY/88, PA/65, VT/54--720  
 699. 1997 -- **Influenza**, ICD-9 code 487.0; US death rate 0.26 per 100K; esp. KS (0.99) -- 720  
 700. 1941 -- **Cerebrospinal Meningitis** -- 713  
 701. 1864 -- **Smallpox**, Fort Alton IL, Chicago/283, Philly/260, Northern VA/112, SC, DC-- 712  
 702. 1938 -- Sep 21, Long Island, NY & New England **Hurricane**, esp. RI, MA, CT --682-712  
 703. 2003 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.25 per 100K, esp. LA, 0.49 -- 711  
 704. 2007 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 X31 code; esp. NY/53-711  
 705. 2010 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31 -- 710  
 706. 1925 -- **Smallpox**, esp. MN/196, WI/134, CA/59, NJ/48, OH/47, IA/42, PA/29, IL/23-- 709  
 707. 1940 -- **Measles**, international code number 35. Census Bureau. *Vital Statistics 1940*-- 706  
 708. 1637 – May 27, **Massacre**, Eng. Colonists Attack Pequot village, Mystic Riv. CT--400-700  
 709. 1644 -- Feb, Dutch / Eng. **Massacre**, Siwanoys, Petuquapaen, ~Cos Cob, CT<sup>47</sup> --500-700  
 710. 1881 -- Aug 27, **Hurricane**, Cat 2, Savannah (Georgia-South Carolina) -- 700  
 711. 2005 -- exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. MI/40-- 700

#### Large-Loss-of-Life Events by Mortality -- ≥500 (continued):

712. 1862 -- Feb-June 1865, **Diarrhea & Dysentery**, Confederate POWs, Camp Douglas, IL- 698  
 713. 1940 -- **cerebrospinal meningitis**, Census Bureau. *Vital Statistics II, 1940, Mortality*, 210--694  
 714. 1881 -- **Typhoid Fever**, Birmingham AL, Washington DC, Minneapolis, NYC -- 692  
 715. 1848 -- **Smallpox**, esp. New York City, NY/585 and Philadelphia, PA/100 -- 691  
 716. 1915 -- **Polio**, esp. late summer-fall, US registration area (67-1% pop.) esp. children-- 691  
 717. 1932 -- **Excessive Heat**, international list #191. Census Bur. *Mortality Statistics 1932*--689  
 718. 1951 -- **Measles**, esp. TX/102, KY/43, OH/39, CA/37, IL/31, MO/30, PA/26, OK/25-- 688  
 719. 1881 -- July 6-16 esp., **heat**/sunstroke, esp. OH/585 (Cincinnati/456), also Pittsburgh -- ≥687  
 720. 1996 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901; esp. PA/43--685  
 721. 2004 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. PA/45--676  
 722. 2011 -- Exposure to excessive natural **cold/hypothermia**; 0.2 death rate; esp. AK, SD-- 672  
 723. 1912 -- **Measles**, New York City, NY -- 671  
 724. 1913 -- March 23-27, Ohio Valley **Flooding**, dam/levee failures, esp. OH, IN --593-670  
 725. 1940 -- **Scarlet Fever**, Census Bureau. *Vital Statistics, Part II, 1940, Mortality*, p.210-- 668  
 726. 1917 -- summer to fall (esp.), **Excessive Heat**, New York City (530), State of NY -- 665  
 727. 1911 -- **Measles**, New York City, NY -- 659  
 728. 2004 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.22 per 100K, esp. KY, 0.36 -- 657  
 729. 1809 -- May-Feb 1810 -- **Disease/Illness**, U.S. Army, MS -- 656  
 730. 1954 -- **Dysentery**, infectious, all forms (codes 045-048), esp. TX/172 and MS/61 -- 655  
 731. 1941 -- **Excessive heat**, International List #191, Census Bureau. *Vital Statistics* -- 654  
 732. 1978 -- Exposure to excessive natural **cold/hypothermia** (ICD-8 E901), esp. OH/39 -- 652  
 733. 2006 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.22 per 100K, esp. AR/.35, LA/.33-- 652  
 734. 2013 -- **Excessive natural heat**, esp. AZ/151, NV/80, CA/67, TX/53, NY/42, IL/23 -- 651  
 735. 1862 -- Aug 17-Sep, **Violence, Sioux "Insurrection,"** Litchfield, elsewhere, MN--300-650
736. 2005 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.22 per 100K, esp. LA, 0.39 -- 648  
 737. 1943 -- **Malaria**, Bureau of Census. *Vital Statistics ...1943, Part II...Mortality*. P. 192-- 646  
 738. 2002 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. PA/47-- 646

<sup>47</sup> Some place massacre in Westchester Co., NY (Dinan. "Historians Sift Clues..." *Greenwich Time*, 3-5-2006.)

739. 1863 -- Aug-Jun 1865, **Diarrhea & Dysentery**, Confederate POWs, Fort Delaware, DE--644  
 740. 1946 -- **Encephalitis**, acute infectious, International List infectious diseases code 37-- 642  
 741. 1993 -- Exposure to excessive natural **cold/hypothermia**; ICD9 E901 code, esp. MI/42-- 641  
 742. 2008 -- exposure to excessive natural **cold/hypothermia**; ICD-10 code X31, esp. MI/45-- 641  
 743. 1967 -- **Meningococcal infections** -- 635  
 744. 1948 -- **Diphtheria**, infectious diseases code 10 -- 634  
 745. 1977 -- **cold/hypothermia**, exposure to excessive natural (ICD-8 E901); esp. OH/43-- 634  
 746. 1994 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901, esp. NY/38--633  
 747. 1987 -- **Influenza**, death rate 0.26 per 100K; esp. NE/1.02 (16), SD/1.29 (9), VE/1.11 (6)-- 632  
 748. 1915 -- **Measles**, New York City, NY -- 630  
 749. 2002 -- **excessive natural heat**, esp. AZ/130, TX/62, PA/56, IL/54, MD/50, CA/44 -- 626  
 750. 1794 -- **Yellow Fever** epidemics, Baltimore, MD, and New Haven, CT -- 624  
 751. 1952 -- **Measles**, 24 states double digits, esp. PA/49, NY/48, AL&TN/40 IN&KY/30 IL/25-- 621  
 752. 2003 -- Exposure to excessive natural **cold/hypothermia**; ICD code X31, esp. PA/46-- 620  
 753. 1982 -- **HIV AIDS**, U.S. -- 618  
 754. 1897 -- July 1-11, **heat**, esp. upper midwest/NE, esp. Chicago/Cincinnati/St. Louis --608-616  
 755. 2009 -- Exposure to excessive natural **cold/hypothermia** (ICD-10 code X31) -- 616  
 756. 1912 -- **Scarlet Fever**, New York City, NY -- 615  
 757. 1955 -- excessive natural **heat** (US Public Health Service code E931) -- 615  
 758. 2021 -- **Influenza** (distinct from 41,309 pneumonia deaths); death rate 0.18, esp. TN/0.60--608  
 759. 1995 -- **Influenza**, ICD-9 code 487.0; US death rate 0.23 per 100K; esp. WV, 1.32 -- 606  
 760. 1979 -- **Influenza**, US death rate 0.27 per 100K, esp. ID/1.18, NE/1.15, KS/.98, WA/.85--604  
 761. 1903 -- Dec 30, **fire, suffocation, trampling**, Iroquois Theater, Chicago, IL -- 602  
 762. 2021 -- **tuberculosis**, ICD-10 codes A16-A19, esp. CA/106, TX/58, FL/36, NY/36 VA/22--602  
 763. 1835 -- Apr-Aug, **Cholera**, esp. Madison, IN; KY, esp. Russellville; New Orleans, TN--590-601  
 764. 1559 -- Sep 19-20, **hurricane**, Spanish ships and colonists, west coast of FL --?-600  
 765. 1759 -- **Smallpox** epidemic, Philadelphia --500-600  
 766. 1853 -- Burnt Ranch **massacre**, Settlers kill Tolowa, Yontocket, Smith Riv., No. CA --450-600  
 767. 1873 -- Aug 14-27, "Nova Scotia" **Hurricane**, off East Coast -->600  
 768. 1928 -- Mar 12, **St. Francis dam failure**, Ventura County, CA --400-600  
 769. 1947 -- Apr 16-17, **Grandcamp ammonium nitrate explosion**, Texas City, TX --581-600  
 770. 2020 -- **Tuberculosis**, ICD-10 codes A16-A19; esp. CA/119, TX/66, NY/36, FL/30-- 600

#### Large-Loss-of-Life Events by Mortality -- $\geq 500$ (continued):

771. 1853 -- **Cholera**, New Orleans (554-585); Choctaw on Arkansas River, OK/14 --568-599  
 772. 2001 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. MI/29-- 599  
 773. 1999 -- exposure to excessive natural **cold/hypothermia**; esp. NY/36, PA/36 -- 598  
 774. 1983 -- July-Aug esp., **heat** (esp. July 15-30) esp. MO/70 KY/57 IL/53 GA/35 TX/35-595-597  
 775. 1990 -- Exposure to excessive **natural cold/hypothermia**; ICD9 code E901; esp. IL/45--596  
 776. 1863 -- Nov 23-Mar 27 1865 (16 mo.), **Dysentery**<sup>48</sup> Union POWs, Prison Hosp., Danville VA-592  
 777. 1844 -- **Yellow Fever** epidemic, Galveston, TX; Mobile, AL; New Orleans, LA -- 590  
 778. 1991 -- Exposure to excessive natural **cold/hypothermia**; ICD9 E901 code, esp. IL/63-- 588  
 779. 2008 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.19; esp. MS (above avg. rate) -- 585  
 780. 2005 -- June-Aug esp., **heat**, esp. AZ/244 TX/112 MD/47 PA/26 MO/25 NV/17 -- 584

<sup>48</sup> "Diarrhoea and Dysentery."

781. 2007 -- **excessive natural heat**, esp. AZ/134, CA/74, TX/43, MO/39, TN/34, SC/26-- 582  
 782. 1823 -- July-Nov 1, **yellow fever** epidemic, Natchez & vicinity, MS, New Orleans -- 581  
 783. 1873 -- **Scarlet Fever**, especially children, MI -- 580  
 784. 1944 -- **Malaria**, infectious and parasitic diseases International List code 28 -- 580  
 785. 1947 -- **Polio** -- 580  
 786. 1936 -- **Excessive Cold**, international list #190. Census Bureau. *Mortality Statistics 1936*--579  
 787. 1953 -- **Heat**, esp. Aug 22-Sep 5, esp. MO/71, NY/43, TX/41, PA/40 -- 576  
 788. 1949 -- **Diphtheria**, code 055 -- 574  
 789. 1702 -- summer to late fall, **yellow fever** epidemic, New York City, NY --500-570  
 790. 1948 -- **Encephalitis**, acute infectious (viral), 1948 ICD infectious diseases code 37 -- 570  
 791. 1752 -- early in year through at least Sum., **smallpox** epidemic, Boston, MA --535-569  
 792. 1909 -- **Polio** (acute), especially MA (74), MN (30), NE (135), and ND (19) -- 569  
 793. 2010 -- **Tuberculosis**, esp. AL, CA, KY, TX (above avg. death rate) -- 569  
 794. 2015 -- exposure to **excessive natural heat**, esp. AZ/139; NV/69, TX/64, CA/51 -- 567  
 795. 1956 -- **Polio**, especially late summer and fall, especially children -- 566  
 796. 1872 -- **scarlet fever**, especially children, MI -- 565  
 797. 1854 -- Sep 27, **US Mail steamer Arctic** hit by *Vesta*, Fog, Cape Race, NFLD --318-562  
 798. 1802 -- **Yellow Fever** epidemics, Wilmington DE, MD, MA, Philadelphia, NH, SC -- 561  
 799. 1942 -- **Polio**, especially late summer and fall, especially children -- 561  
 800. 1949 -- **Hepatitis**, infectious (code 092); PHS. *Vital Statistics...1949...Mortality* -- 560  
 801. 1918 -- Oct 12, **forest fires**, Cloquet, Moose Lake, many towns, northeast MN --453-559  
 802. 1992 -- Exposure to excessive natural **cold/hypothermia** (ICD9 code E901), esp. PA/37--558  
 803. 2009 -- **Excessive natural heat**, esp. AZ/156, TX/79, CA/63, FL/39, IL/21 -- 555  
 804. 2013 -- **Tuberculosis**, ICD-10 Code A16-A19, especially CA (133) and TX (61) -- 555  
 805. 2007 -- **Tuberculosis**, death rate 0.184 per 100K, esp. TN/.389 above avg. -- 554  
 806. 1995 -- Exposure to excessive natural **cold/hypothermia** (ICD9 code E901); esp. IL/41--553  
 807. 1868 -- July 6-18, **excessive heat/sunstroke**, esp. NY/313, St. Louis/45, OH/42 -- 552  
 808. 1950 -- **Hepatitis**, infectious, code 092, 6<sup>th</sup> rev. of International Lists/1948, US PHS-- 552  
 809. 1958 -- **Measles**, esp. TX/50, OH/36, IL/34, NY/NC/PA/28 each, KY, 23, IN/20 -- 552  
 810. 1957 -- June 26-28, **Hurricane Audrey**, SW LA/526; also TX, IL, IN, NY, Can. --545-550

#### Large-Loss-of-Life Events by Mortality -- $\geq 500$ (continued):

811. 1888 -- July-Dec, **Yellow Fever** epidemic, FL esp. Jacksonville/430; Decatur AL/35-- 546  
 812. 2018 -- **Tuberculosis**, ICD-10 codes A16-A19, esp. CA/100, TX/50, NY/39, FL/38 -- 542  
 813. 1947 -- **Heat**, excessive, International list code 191 -- 540  
 814. 2011 -- **Tuberculosis**, ICD-10 Code A16-A19, esp. CA (108), NY, SC (above avg. DR)-- 539  
 815. 2001 -- **excessive natural heat**, esp. AZ/74, TX/59, MO/41, IL/38, FL/30, CA/29, PA/28--538  
 816. 1875 -- **Scarlet Fever**, Michigan and Hudson County, NJ -- 537  
 817. 1936 -- Jan-Feb, **Arctic cold waves, snow, blizzards, snowslides**, flooding<sup>49</sup> --484-536  
 818. 1945 -- **Typhoid Fever** (471), Int. List No. 1; paratyphoid fever (63), Int. List No. 2-- 534  
 819. 1699 -- **Yellow Fever** epidemics, Charleston, SC (170-311); Philadelphia (220) --390-531  
 820. 1956 -- **Measles**, 21 states double digits, esp. IL/41 TX/31 OH/30 NC/29 PA/28 MI/26-- 530  
 821. 2009 -- **Tuberculosis**, ICD-10 code A16-19, esp. CA, LA, OK, TX (above avg. death rate)-- 529  
 822. 1939 -- **Excessive Heat**, international list #191. Census Bureau. *Vital Statistics*, Part 1--527

<sup>49</sup> In our data documents and spreadsheet there are two entries -- one for January and one for February.

823. 2019 -- **Tuberculosis**, ICD-10 codes A16-A19, esp. CA/112, TX/54, NY/37, FL/35 -- 526  
 824. 1954 -- **Measles**, 21 states double digits, esp. NY/36, TX/36, NC/35, PA/34, KY/27 -- 524  
 825. 1989 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901.0; esp. IL/45--524  
 826. 1897 -- Sep-Dec, **Yellow Fever**, esp. Mobile/48, New Orleans/298, MS, Memphis -- ~520  
 827. 1903 -- June-Aug (esp. July 1-11), **Heat**, esp. NY/144, NJ/60, IN/17, Chicago/15, CT/18 -- 520  
 828. 1985 -- Exposure to excessive natural **cold/hypothermia**; ICD9 E901.0; esp. IL/39 -- 519  
 829. 2006 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. MI/37--519  
 830. 2017 -- **Tuberculosis**, IDC-10 code A16-19, esp. CA/108 TX/49 NY/31 PA/22 NJ/21-- 515  
 831. 1915 -- Aug 16-17/19-20, **Hurricane**/trop. storm, Gulf, SE TX coast, remnant, MO--453-510  
 832. 1983 -- Exposure to excessive natural **cold/hypothermia**; ICD9 E901.0; esp. GA/36-- 510  
 833. 2012 -- **Tuberculosis**, ICD-10 Code A16-A19, especially CA (101) and TX (63) -- 510  
 834. 1920 -- **Smallpox**, 34 registration states, esp. LA/167, MS/45, MO/28, NC/28<sup>50</sup> -- 508  
 835. 1913 -- **Scarlet Fever**, NYC, NY -- 507  
 836. 1730 -- **Smallpox** epidemic, Massachusetts Bay Colony, especially Boston -- >502  
 837. 2008 -- **Excessive natural heat**, esp. AZ/112, TX/66, CA/51, PA/36, NV/35, NC/25-- 502  
 838. 1997 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901; esp. IL/36-- 501  
 839. 2012 -- Exposure to excessive natural **cold/hypothermia**; esp. CA/32 NY/31 IL/25 -- 501

#### Large-Loss-of-Life Events by Mortality -- >500 (continued):

840. 1644 -- Apr 18 (or Mar 18), **Powhatans attack** English colonists along James River VA--400-500  
 841. 1690 -- spring-fall, **Smallpox**, Iroquois Native Americans, esp. upper NY ~300-500  
 842. 1793 -- **Influenza** epidemic, VA, 5 counties, 4 weeks -- 500  
 843. 1804 -- GA, SC, NC **Hurricane**, September 7-9 -- 500  
 844. 1811 -- **Yellow Fever** epidemic, New Orleans, LA -- >500  
 845. 1811-12 -- Dec 16-May, **earthquakes**, New Madrid, KY, TN, NE AR, MO --100-500  
 1842 -- June 16, **tornado**, Adams County, MS [do not believe this happened] -- 500  
 846. 1864 --July 30, **Rebels kill wounded/surrendered/trapped black soldiers**, Petersburg, VA~500  
 847. 1864 -- Sep, general **massacre** of Yana Natives, Northern CA -->335-500  
 848. 1865 -- Mar 31, steam transport **General Lyon** burns, Cape Hatteras, NC --400-500  
 849. 1881 -- Sep 01-06, **wildfire**, "The Thumb Fire," Lower Michigan --169-500  
 850. 1888 -- Jan 11-12, Schoolchildren's **Blizzard**, IA/KS/ND/MN/MT/NE/SD/TX --315-500  
 851. 1898 -- Nov 26-27, **Portland Gale**, **SS Portland sinks** (Cape Ann MA), New Eng.<sup>51</sup>-400-500  
 852. 2010 -- **Influenza**, ICD-10 codes J09-J11; US death rate 0.2 per 100K; esp. AK, KS (.4) -- 500

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<sup>50</sup> Based on death certificate data from 34 “registration states” as well as 17 cites in non-registration states of AL, GA, ND, OK, TX and WV, with an estimated population of 87,45,921 or 82.3% of total estimated U.S. and Hawaii territory population. AK was not a State. Other non-reporting states were AZ, AR, ID, IA, MN, NM, SD, and WY.

<sup>51</sup> There were deaths from and sinkings of multiple vessels. The loss of life on the Portland estimated at 127-192.