

MORTALITY

Large Loss-Of-Life Events Arranged by

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 -- 736 such entries noted as of

March 6, 2024

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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)¹

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

¹ 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:

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

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

Disease:	99	
Tuberculosis	27	(Sampling)
Influenza/Pneumonia	24	(Sampling)
Diphtheria	9	
Typhoid Fever	8	
HIV/AIDS	6	
Cholera	5	
Coronavirus	4	
Croup	4	
Malarial Fever	3	
Scarlet Fever	3	
Small Pox	3	
Whooping Cough	3	
Yellow Fever	3	
Diarrhea & Dysentery	2	
Measles (1 cross-listed)	2	
Unknown	2	
Meningococcal Meningitis	1	
Syphilis	1	
Other Than Disease		
Hurricanes:	1	

Top Ten – (All are Epidemics and Disease):

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

Top Ten **Non-Disease**:

1. 1900 -- Sep 9, **Hurricane**, Galveston and southeast coastal area, TX --7,200-12,000
2. 1540 -- Oct 18, Spanish (de Soto) **battle/massacre**, with Atahachi, Mabila, AL 2,500-6,000
3. 1936 -- July-Aug (esp.), **Heat**, esp. MN/772, MO/644, IL/634, MI/617, WI/500 --4,678-5418
4. 1906 -- April 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA --3,000-5,000
5. 1901 -- June-July, **Heat waves**, except Pacific NW, esp. Northeast, June 27-July 6 --4,012
6. 1838 -- May-Mar 1839, **Cherokee Relocation**, NE AL/NW GA/SE TN/NW NC to OK² ~4,000
7. 1899 -- Aug 8-19, San Ciriaco **Hurricane** esp. Puerto Rico/3433 & NC/73, Aug 17/18 --3,507
8. 1889 -- May 31, South Fork **Dam Fails**, Flash Flood, Fire, Johnstown PA --2,100-3,188
9. 2001 -- Sep 11, **Violence, 9/11 Terrorist Attacks** --~3,064
10. 1928 -- Sep 6-20, Great Okeechobee **Hurricane**/Flood, Southeast FL --1,800-3,000

“Natural” Top Ten (excluding Disease):

1. 1900 -- Sep 9, **Hurricane**, Galveston and southeast coastal area, TX --7,200-12,000
2. 1936 -- July-Aug (esp.), **Heat**, esp. MN/772, MO/644, IL/634, MI/617, WI/500 --4,678-5418
3. 1906 -- April 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA --3,000-5,000
4. 1901 -- June-July, **Heat waves**, except Pacific NW, esp. Northeast, June 27-July 6 --4,012
5. 1899 -- Aug 8-19, San Ciriaco **Hurricane** esp. Puerto Rico/3433 & NC/73, Aug 17/18- 3,507
6. 1928 -- Sep 6-20, **Great Okeechobee Hurricane**/Flood, Southeast FL --1,800-3,000
7. 2017 -- Sep 20, **Hurricane Maria**, Puerto Rico (2,975), US Virgin Isl. (2), NJ (3) --2,980
8. 1966 -- July, **Heat Wave** and “excess deaths,” esp. IL, NYC, St. Louis, MO ~2,582-2,954
9. 1931 -- June-Sep, **Heat Waves**/excessive heat, West, Midwest, NE, esp. IL, IA, WI --2,768
10. 1871 -- Oct 8-9, **Wildfire/Firestorm**, Peshtigo/NE WI vic.; Birch Creek MI³ --1,228-2,400

² 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.

³ 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, **Hurricane**, Galveston and southeast coastal area, TX --7,200-12,000
2. 1906 -- Apr 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA 3,000-5,000
3. 1899 -- Aug 8-19, San Ciriaco **Hurricane** esp. Puerto Rico/3433 & NC/73, Aug 17/18- 3,507
4. 1928 -- Sep 6-20, **Great Okeechobee Hurricane/Flood**, Southeast FL 1,800-3,000
5. 2017 -- Sep 20, **Hurricane Maria**, Puerto Rico (2,975), US Virgin Isl. (2), NJ (3) --2,980
6. 1871 -- Oct 8-9, **Wildfire/Firestorm**, Peshtigo/NE WI vic.; Birch Creek MI⁴ 1,228-2,400
7. 1893 -- Aug 27-28, **Sea Islands Hurricane**, “Great Storm of 1893,” GA/SC 1,000-2,500
8. 1893 -- Oct 1-2, **Hurricane Cheniere Caminanda**, Gulf Coast esp. LA, MS, AL 1,700-2,000
9. 2005 -- Aug 25-31, **Hurricane Katrina**, FL, LA, esp. NOLA & MS⁵ ≥1,833-1,836
10. 1553 -- **Hurricane**, 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) **battle/massacre**, with Atahachi, Mabila, AL 2,500-6,000
2. 1838 -- May-Mar 1839, **Cherokee Relocation**, NE AL/NW GA/SE TN/NW NC to OK⁶ ~4,000
3. 1889 -- May 31, South Fork **Dam Fails**, Flash Flood, Fire, Johnstown PA 2,100-3,188
4. 2001 -- Sep 11, **Violence, 9/11 Terrorist Attacks** 3,064
5. 1941 -- Dec 07, **Violence, Attack** by Japanese on Pearl Harbor, HI 2,402
6. 1865 -- Apr 27, Steamer **Sultana** explodes/burns, Miss. Riv., Redman Point, AR-1,547-1,947
7. 2005 -- Aug 29, **Hurricane Katrina Levee/floodwall failures/overtopping**, NOLA⁷ ~1,300
8. 1675 -- Dec 19, English Colonists **Massacre** Narragansetts, Great Swamp, RI --365-1,100
9. 1904 -- June 15, **General Slocum excursion steamer fire**, East River, NYC, NY --957-1,031
10. 1915 -- July 24, crowded **SS Steamer Eastland** rolls-over at dock, Chicago, IL --812-844

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

1. 1889 -- May 31, South Fork **Dam Fails**, Flash Flood, Fire, Johnstown PA 2,100-3,188
2. 1865 -- Apr 27, Steam **Sultana** explodes/burns, Miss. Riv., Redman Point, AR --1,547-1,947
3. 2005 -- Aug 29, **Hurricane Katrina Levee/floodwall failures/overtopping**, NOLA⁸ ~1,300
4. 1904 -- June 15, **General Slocum excursion steamer fire**, East River, NYC, NY --957-1,204
5. 1915 -- July 24, Crowded **SS Steamer Eastland** rolls-over at dock, Chicago, IL --812-844
6. 1903 -- Dec 30, **Fire, Suffocation, Trampling**, Iroquois Theater, Chicago, IL -- 602
7. 1928 -- March 12, **St. Francis Dam failure**, Ventura County, CA --400-600
8. 1947 -- Apr 16-17, **Grandcamp ammonium nitrate explosion**, Texas City, TX --581-600
9. 1854 -- Sep 27, **US Mail Steamer Arctic hit by Vesta**, Fog, Cape Race, NFLD --318-562
10. 1865 -- March 31, **Steam Transport General Lyon** Burns, Cape Hatteras, NC --400-500

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

⁵ 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.

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

⁷ 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.

⁸ 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)⁹ >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):¹⁰

1. 1906 -- Apr 18, Earthquake, Fire, Landslides, San Francisco & vicinity, CA¹¹ --3,000-5,000
2. 2001 -- Sep 11, World Trade Center Terrorist Attack and Fires, NYC, NY¹² --2,666
3. 1871 -- Oct 8-9, Wildfire/Firestorm, Peshtigo/NE WI vic.; Birch Creek MI¹³ --1,228-2,400
4. 1865 -- Apr 27, Steamer *Sultana* explodes/burns, MS. Riv., Redman Point, AR¹⁴-1,547-1,947
5. 1904 -- Jun 15, Fire, *General Slocum* Excursion Steamer, East Riv., NYC, NY -- 957-1,200
6. 1903 -- Dec 30, Iroquois Theater Fire, Chicago, IL¹⁵ -- 602
7. 1947 -- Apr 16, Ammonium Nitrate Explos., Fire, *Grandcamp*, Texas City, TX¹⁶ --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, MA¹⁷ -- 492

⁹ 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).

¹⁰ 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.)

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

¹² Cross-listed in Violence-Terrorism section.

¹³ 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).

¹⁴ 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.

¹⁵ Cross-listed in Violence-Crushing, Trampling, Suffocation.

¹⁶ Cross-listed in Explosions and in Maritime.

¹⁷ 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 diseases	~2,800,000
2.	1918 -- Influenza and Pneumonia epidemic	430,000-543,482
3.	2021 -- COVID-19 (coronavirus), US deaths per 1M pop., ~2.6K per million	--437,984
4.	2020 -- Feb 29-Dec 31, Coronavirus , U.S. deaths per 1M population, 1,070	--354,215
5.	1920 -- Influenza and Pneumonia (1918-1920 subset)	141,609-220,798
6.	2022 -- COVID-19 /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 -- Influenza and Pneumonia epidemic	--101,851-185,440
8.	1931 -- Influenza (31,701) and Pneumonia , all forms (96,974), especially PA	128,675
9.	1957-58, esp. Fall-Spring -- H2N2 “Asian” Influenza and Pneumonia Pandemic	~116,000
10.	1917 -- Influenza /12,974; Bronchitis /12,311; Pneumonia /74,874	100,159-115,526
11.	1900 -- Tuberculosis , esp. CA, IL, IN, KY, MA, MO, NJ, NY, OH, PA, TN	109,750
12.	1920 -- Tuberculosis , esp. Denver, San Antonio, Nashville, New Orleans	99,916
13.	1939 -- Influenza (21,464) & Pneumonia , esp. CA, IL, MI MO, NY, OH, PA, TX	99,097
14.	1861-65--Apr-June, Dysentery , Civil War, apparently Union & Confederate forces	~95,000
15.	1940 -- Influenza and Pneumonia , esp. CA, IL, MO, NY, OH, PA, TN, TX	92,525
16.	1879 -- June-May 1880, Tuberculosis , esp., NY, PA, OH, IL, IN, TN, KY, MA	91,270
17.	1925 -- Tuberculosis , esp. NY/10,282, PA/7,300, CA/5,934, IL/5,537, OH/4,819	89,268
18.	1775-82 -- Smallpox epidemic North America	~84,000
19.	1931 -- Tuberculosis , esp. PA/10,857, NY/8,618, CA/5,308, OH/4,253, TN/2,962	81,395
20.	1907 -- Tuberculosis , esp. CA/Chicago, IN/MA/NY (esp. NYC)/PA (esp. Philly)	76,650
21.	2023 -- COVID (354K deaths/2020; 438K/2021; 217K/2022; 1.19M 2020-2023)	--71,691
22.	1870 -- Tuberculosis (Consumption), nationwide	69,896
23.	1861-65--Apr 12-June 30; Typhoid Fever , Civil War, Confederate/Union forces	~65,000
24.	1939 -- Tuberculosis , nationwide, esp. CA, IL, NY, OH, PA, TN, TX	--61,609
25.	1905 -- Tuberculosis (10 registration states, DC, 134 non-registration cities), esp. NY-56,770	
26.	1940 -- Tuberculosis , nationwide, especially CA, IL, NY, OH, PA and TX	55,576
27.	1944 -- Tuberculosis , nationwide, esp. CA, IL, MI, NJ, NY, OH, PA, TN, TX	54,731
28.	1849 -- Cholera , esp. OH (>7K); NY (>6K); Gold Rushers (~5K); Natives (~6K) ¹⁸ >45K-	51,428
29.	1928-29 -- Winter, Influenza and Pneumonia epidemic	~50,000
30.	1860 -- Tuberculosis (consumption), nationwide	49,082
31.	1946 -- Tuberculosis , respiratory, code 13 (all forms including respiratory, 50,911)	--46,939
32.	1947 -- Tuberculosis , respiratory, code 13 (all forms including respiratory were 48,064)	44,462
33.	1948 -- Tuberculosis , respiratory, code 13 (all forms including respiratory were 43,833)	40,420
34.	1870 -- Pneumonia , esp. AL, GA, IL, IN, KY, MA, MO, NY, OH, PA, TN, TX, VA	40,012
35.	1879 -- June-May 1880, Diphtheria , esp. PA/4.6K; IL/3.7K; NY/2.3K; IA/2.3K, ME/MI/WI--38,143	
36.	1949 -- Tuberculosis , respiratory (all forms including respiratory were 39,100)	--35,988
37.	1900 -- Typhoid , esp. AL, AR, GA, IN, KY, MS, MO, NY, NC, OH, PA, TN, TX	35,379
38.	1968-69 -- Sep-March, A2 “Hong Kong” Influenza (and Pneumonia) Epidemic	33,800

¹⁸ 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).

Top Fifty (continued) -- all are Diseases:

39.	1850 --	Tuberculosis	(consumption), esp. NY/6,691, PA/3,520, MA/3,426, OH/2,558	--33,516
40.	1931 --	Influenza	(additionally pneumonia, all forms was 96,974), esp. PA	--31,701
41.	1951 --	Tuberculosis	(respiratory), esp. NY/3.5K, PA/2.5K, CA/2.2K, TX/2K, IL/1.8K	--31,163
42.	1870 --	Diarrhoea, Dysentery, Enteritis	, esp. NY/4641, PA/2633, IL/2551, MO/2270	-->31,153
43.	1925 --	Influenza	--esp. PA/2,068, OH/2,100, IL/1,558, IN/1,485, MO/1,464	30,538
44.	1829-1833/esp. 1833--	Malaria?	epidemic, West Coast Natives; CA/20K, OR-WA/10K	--30,000
45.	1950 --	Tuberculosis	, pulmonary. Code 002, Sixth Rev. of International Lists, 1948	--29,228
46.	1889-90, June-May,	Diphtheria	, 48 States & DC, esp. NY/4K, PA/2.9K, IL/2.6K	27,815
47.	1889-90, June-May,	Typhoid	(Enteric) Fever, esp. PA, 2.8K, NY/1.7K, IL/1.7K, OH/1.6K	27,058
48.	1860 --	Scarlatina (Scarlet Fever)	, 38 Census "Registration" States and DC	26,402
49.	1910 --	Typhoid	, avg. death rate 23.5; esp. NC, 57.7, CO/41.9, MD/40.7, MT/39.9	25,000
50.	1879 --	June-May 1880, Typhoid	("Enteric") Fever, especially IL, IN, MO, OH, TX	23,339

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

51.	1930 --	Influenza	, 48 States and District of Columbia (pneumonia was 88,770)	--23,066
52.	1952 --	Tuberculosis	(respiratory), esp. NY/2462, CA/1678, PA/1662, IL/1385, TX/12K	--22,700
53.	2012-2013 (winter) --	Estimated Excess Influenza & Pneumonia Deaths		18,066-22,434
54.	1870 --	Typhoid Fever	, nationwide, esp. IL, IN, MA, MO, NY, OH, PA	22,187
55.	1989 --	HIV AIDS	, US death rate 8.9, DC/55.7, NY/25.6, NJ/19.6, FL/16.1, CA/15.	22,082
56.	1915 --	Dec-Jan 1916, Influenza & Pneumonia	, esp. IL, MD, NY, OH, PA, WI	21,102
57.	1850 --	Dysentery	, esp. NY/3691, PA/2683, OH/2568, MA/2437, IN/1270, CT/965	20,556
58.	1870 --	Scarlet Fever	, esp. IL, MO, NY, PA, WI	20,339
59.	1879 --	June-May 1880, " Malarial Fever ,"	esp. AL, AR, GA, IL, MS and MO	20,231
60.	1837-38--	Smallpox epidemic	, Upper Mid-West Native American Tribes	~20,000
61.	1878 --	June-Dec, Yellow Fever	, esp. LA (esp. New Orleans), MS, TN (esp. Memphis)	~20,000
62.	1853 --	May-Dec, Yellow Fever	, esp. AL/1293, LA/~15K, MS/1311 TX/871	--18,770-19,533
63.	1900 --	Meningitis	, esp. NY/2602, PA/1613, IL/1318, MA/1206, OH/1189, NJ/909	--19,423
64.	1860 --	Typhoid Fever	, Census "Registration" States	19,236
65.	1940 --	Syphilis	, US death rate 14.4 per 100K pop, esp. FL DC AZ DE MS MD AL	19,006
66.	1916 --	Influenza		18,886
67.	1832 --	June-Dec 16, Cholera	Epidemics, esp. DC, LA, MD, NY, PA, VA	--16,781-18,491
68.	1879 --	June-May, 1880 --	Croup , especially Oct-Dec, especially IL, PA and TN	17,966
69.	1953 --	Tuberculosis /respiratory,	esp. NY/1983, PA/1428, CA/1383, IL/1235, TX/948	--17,954
70.	1890 --	Jan-March ¹⁹ Influenza	(La Grippe/Russian Flu), esp. NY/IL/CT/OH/PA	--16,295-17,807
71.	1866 --	May-Dec, Cholera	, esp. Cincinnati/New Orleans/NYC/St. Louis/TN/Philly/Army---	16K-17,742
72.	1912 --	Tuberculosis	, Jan 1-Jun 8, CA, IL, IN, MA, MO, NJ, NYC, PA, TX, WI	17,463
73.	1944 --	Influenza	, especially Jan-Apr & Dec, Nationwide, especially OH, PA, TX	17,320
74.	1916 --	Diphtheria		17,000

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

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

75.	1900 --	Influenza , esp. MA/1130, TN/1019, PA/978, NC/799, AL/778, VA/754, GA/667	16,645
76.	1988 --	HIV AIDS , US death rate 6.8, DC/39.0, NY/22.2, NJ/14.9, FL/11.7, CA/11.1	16,602
77.	1900 --	Diphtheria , esp. PA/2805, NY/2673, IL/1504, MA/1072, OH/698, NJ/678	16,475
78.	1880 --	Scarlet Fever , especially children, nationwide, especially IN, NY and PA	16,388
79.	2010 --	HIV/AIDS , U.S., nationally	15,525
80.	2010-11 (Winter)--	Estimated Excess Influenza & Pneumonia Deaths (95%CI)-12,111-15,372	
81.	1860 --	Croup (contagious upper airway viral infection), nationwide	15,188
82.	1954 --	Tuberculosis (respiratory), esp. NY/1667, CA/1108, PA/1100, IL/939, TX/843	--15,146
83.	1900 --	Malarial Fever , esp. AR/1730, TX/1331, LA/1030, AL/1005, GA/1001	14,874
84.	1850 --	Cholera , esp. Sac. & SF, CA, IL, IN, KY, LA, MO, OH, TN, WI ²⁰	--14,158-14,637
85.	1894 --	Diphtheria , NY/6.6K, esp. NYC/2785, MA/1.5K, Chicago, 1.4K, Philly, NJ	14,606
86.	1887 --	Diphtheria , esp. NY/6490 (NYC/4509), Chicago/1405, St. Louis/1112, Philly	14,507
87.	1861-65--	Apr-June, Tuberculosis , Civil War, Union/6,946 deaths, Confederate/?	~14,000
88.	1889-90, June-May --	Croup , 48 States & DC, esp. NY/1.5K, PA/1.4K, IL/957, MO	13,862
89.	1955 --	Tuberculosis (respiratory), esp. NY/1642, PA/1239, CA/1076, IL/797, TX/736	--13,676
90.	1987 --	HIV Infection/AIDS , death rate 5.55, esp. DC/28.1, NY/19.1, NJ/13.7, CA/9.5	13,468
91.	1920 --	Diphtheria , esp. Detroit, Fall River, MA, Bridgeport, CT, St. Louis	13,395
92.	1835 --	Nov-Spring 1838, Smallpox , Sitka, Gulf of AK, Kodiak, Aleutian Isl. natives, AK	13,105
93.	1850 --	Typhoid Fever , 31 States, Washington, DC, four Territories	13,099
94.	1900 --	Measles , esp. TX/1,412, AR/1,274, NY/1,174, MS/950, PA/815 & TN/974	12,866
95.	1907 --	Typhoid , esp. PA/3,538, NY/1,702, IN/948, MI/594 CA/545 OH/523 MD/520	--12,670
96.	1900 --	Croup (Upper airway viral infection), esp. PA/1064, TN/958, KY/768, GA/686	12,484
97.	1891 --	March-May, Influenza & Pneumonia , esp. Chicago/6,800, NY/5,572	12,472
98.	2009 --	Apr 12-Apr 10, 2010, H1N1 "Swine Flu" Pandemic (U.S.)	12,469
99.	1957 --	Tuberculosis (respiratory), esp. NY/1493, PA/959, CA/833, TX/733, IL/673	--12,384
100.	1958 --	Tuberculosis , esp. NY/1,380, PA/1013, CA/872, IL/725, TX/721, OH/550	12,361
101.	1986 --	HIV AIDS , New York City (2,650), U.S.	12,053
102.	1900 --	Sep 9, Hurricane , Galveston and southeast coastal area, TX	7,200-12,000
103.	1900 --	Dysentery , esp. AL/861 TX/794 GA/781 NY/676 TN/663 SC/578 AR/541	11,710
104.	1738-39 --	Smallpox , Catawba (NC/SC) and Cherokee Natives (NC)	--7,700-11,700
105.	1959 --	Tuberculosis , esp. NY/1,316, PA/981, CA/815, IL/643, TX,633, OH/527	--11,456
106.	2018 --	Influenza , ICD-10 codes J09-11.8, death rate 3.4 per 100K pop., esp. WV/6.6	--11,164
107.	1879 --	June-May 1880, Whooping Cough , nationwide, esp. IN, GA, NC, TX, AL	11,064
108.	1920 --	Whooping Cough , esp. Atlanta, Nashville, Kansas City, KS, Omaha	10,968
109.	1911 --	Tuberculosis , Aug-Dec, NYC, NY, IL, CA, IN, MA, NJ, PA, TX	10,926
110.	1881 --	Diphtheria , esp. NY/3.7K (NYC/2249, Brooklyn/1143), MI/2K, MA/1K, NJ/972	10,886

²⁰ 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.

111.	1960 --	Tuberculosis , death rate 6.1 per 100K; esp. AZ/12.1, DC/11.8, KY/10.7	--10,866
112.	1885 --	Diphtheria & Croup , localities in 16 states; esp. NY/4508, MI/1552, NJ/1496	10,788
113.	1850 --	Croup (contagious upper airway viral infection), nationwide	10,706
114.	1870 --	Croup (contagious upper airway viral infection) nationwide	10,692
115.	1914 --	Influenza and Pneumonia , The Year, NYC, NY	10,500
116.	1854 --	Cholera , esp. NYC/2.5K, St. Louis/1.5K, Chicago, Detroit, Boston--	10,275-10,467
117.	1907 --	Diphtheria and Croup, Nationwide, esp. NY and PA (esp. Philadelphia)	10,154
118.	1907 --	Influenza , Census "Registration States and Localities"	≥10,066
119.	1867 --	Jul-Dec, Yellow Fever , esp. New Orleans, Galveston/Houston; also AL/FL/MS/TN	10,012
120.	1659 --	Measles Epidemic, Native Americans, FL	10,000
121.	1798 --	Yellow Fever epidemic, East Coast Port Cities, esp. Philly and NYC	10,000
122.	1837 --	Smallpox epidemic, California Native Americans ²¹	2,000-10,000
123.	1848 --	Sep-early '49, Measles/Whooping Cough/Dysentery/Influenza Epidemics, HI	10,000
124.	1849-50 --	Scurvy , ²² California Gold Rush Immigrants	~10,000
125.	1988 --	Heat Wave , Summer, Central/eastern U.S	~5,000-10,000
126.	1980 --	June-Sep, Heat , esp. Midwest & So. Plains, esp. MO/TN/AR/TX	>2,000~10,000

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

127.	1900 --	Whooping Cough , esp. NY/988, PA/702, TX/576, IL/497, AL/494, TN/425--	9,958
128.	1961 --	Tuberculosis , US death rate 5.4 per 100K; esp. DC/12. KY/10, AR/10.6, AZ/9.4	--9,938
129.	1872 --	Smallpox , esp. Philly/2591, NYC/1666, St. Louis/1.6K, Baltimore/1217, Boston/1K--	>9,742
130.	1861 --	May 1-June 30, 1866, smallpox , Union soldiers and Confederate prisoners ²³ --	9,682
131.	1850 --	scarlet fever , esp. PA/1,974, OH/1,301, NY/1,028, MA/571, MD/561, VA/523	--9,584
132.	1962 --	tuberculosis , death rate 5.1 per 100K; esp. DC/11.9, KY/9.8, AZ&AR/9.7	--9,508
133.	1953 --	influenza , esp. TX/716 OH/532 MO/484 PA/460 GA/427 TN/414 AL/393	--9,500
134.	1853 --	smallpox , esp. natives, HI, Nevada City vic., CA, OR/WA; also NYC--	7,450-9,450
135.	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
136.	1889-90,	June-May, measles , esp. NY/757, PA/676, KY/513, MO/513 OH/714 AL	--9,256
137.	1870 --	Measles , nationwide	--9,237
138.	1897 --	typhoid (enteric) fever, esp. NY/1.5K, OH/1.2K, MA/1.1K, IN/655, PA	--≥9,192
139.	1919 --	diphtheria , 31 reporting states, DC & PR, esp. CT, DC, IL/MI/NJ/NY/OH	--9,160
140.	1918 --	typhoid fever , 33 Registration States, DC and Puerto Rico, esp. TX/1,057	--9,100
141.	1801-02 --	smallpox , Natives, esp. Chinook, Omaha, Osage, esp. Central, Northwest--	>9,090
142.	1870 --	whooping or "hooping" cough , nationwide, esp. NY, IL, IN, OH, PA	--9,008
143.	1875 --	Tuberculosis /consumption; data on Chicago/880, MI/1419, NYC/4172, Philly/2359--	8,830
144.	1946 --	Influenza , infectious and parasitic diseases International List code 33	--8,783
145.	1900 --	Smallpox , esp. MS/782, LA/708, NM/287, VA/263, AL/224 AR/195 TX/146	8,484
146.	1860 --	Whooping Cough , nationwide, especially, NY, NC, OH, PA, and VA	--8,408
147.	1964 --	Tuberculosis , US death rate 4.3; esp. DC/12, AZ/9, AL/7.4, WV/7.2, TN/7.0--	8,303

²¹ 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."

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

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

148. 1925 -- **Typhoid & paratyphoid Fever**, 48 States, esp. KY/668, TN/653, LA/649 --8,287
 149. 1880 -- **Measles**, nationwide, especially GA, IL, IN, KS and MO --8,254
 150. 2013 -- **Viral Hepatitis**, ICD-10 code B-15-B19, esp. OR/6.0 death rate, DC/5.9 --8,157
 151. 1913 -- **Measles**, US “registration area” (65.1%), esp. PA/1,578, NY/1,120, OH/679 --8,108
 152. 2014 -- **Viral Hepatitis**, ICD-10 code B-15-B19, esp. DC, OR (5.3 death rate per 100,000) --8,081
 153. 2012 -- **Viral Hepatitis**, ICD-10 code B-15-B19, esp. NM/99, AZ/291, CA/1,387 --8,062
 154. 1925 -- **Diphtheria**, esp. NY/1,006, PA/973, IL/409, OH/392, MI/360, NJ/337 --8,058

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

155. 1965 -- **Tuberculosis**, US death rate 4.1 per 100K; DC/12.7, AL/7.5, AZ/7.5, NM/6.6 --7,934
 156. 1960 -- **Influenza**,²⁴ US death rate 4.4 per 100K; esp. AL/11.5, SC/11.2, MS/10.9 --7,872
 157. 1976 -- **Influenza**, ICD-8 codes 470-474, death rate 3.6 per 100K, esp. NE/12.9 --7,877
 158. 2011 -- **Viral Hepatitis**, ICD-10 code B-15-19 (death rate 2.5 per 100K), esp. DC (7.1) --7,850
 159. 1920 -- **Measles** --7,712
 160. 1947 -- **Influenza**, infectious and parasitic diseases code 33 --7,664
 161. 1966 -- **Tuberculosis**, esp. NY/844, PA/589, CA/537, IL/410, TX/404, OH/340 --7,625
 162. 2010 -- **Viral Hepatitis**, ICD-10 code B-15-19 (death rate 2.4 per 100K), esp. OK (4.9) --7,564
 163. 1879 -- June-May 1880, **Meningitis**, especially KY, NY, PA, MO and TN --7,481
 164. 1957 -- **Influenza**, especially PA/476, NY/471, TX/459, OH/437. GA/341, NC/318 --7,463
 165. 2015 -- **Viral Hepatitis**, ICD-10 code B15-B19, esp. DC (death rate 6.4 per 100,000) --7,461
 166. 1963 -- **Influenza**,²⁵ US death rate 3.8; SC/11.9, KY/11.6, WV/11., MS/10.9 TN/9.3--7,083
 167. 1968 -- **Influenza**, ICD-8 codes 470-474/death rate 3.5 per 100K, esp. VE/15.0, NE/9.1 --7,062
 168. 1882 -- **Smallpox**, esp. Chicago/1292, Cincinnati/1249, PA/1111, Baltimore/551 --≥7,056
 169. 1916 -- **Polio**, esp. July-Sep, esp. NYC/NY (3,331), NJ (1,180), PA (414) --6,745->7,000
170. 1925 -- **Whooping Cough**, esp. PA/648, NY/523, CA/481, OH/374, IL/315, MA/279--6,948
 171. 1985 -- **HIV AIDS**, New York City (1,663), U.S. --6,903
 172. 1967 -- **Tuberculosis** --6,901
 173. 1920 -- **Typhoid Fever** --6,805
 174. 1873 -- Feb-Sep, **Cholera**, esp. TN/>2K esp. Nashville/~1K, KY/~1K, St. Louis--5814-6519
 175. 2017 -- **influenza**; death rate 2.0 per 100K pop.; esp. ME/5.2, MT/5.1, OR/4.9 WA/4.2--6,515
 176. 1858 -- Jun-Dec, **Yellow Fever**, esp. Charleston SC; Galveston & Indianola; New Orleans/4855-6,490
 177. 2016 -- **Viral Hepatitis**, ICD-10 code B15-B19, esp. DC (death rate 4.8 per 100K; US 2.0) --6,421
 178. 1812 -- Oct-Jun 1813 (esp.), Peripneumony/**Lung Fever** (pneumonia), VT, esp. Burlington-4350-6,400
 179. 1833 -- May-Aug (esp.), **Cholera**, esp. KY/~2000, NOLA/1000, WV/OH/IN/TN/IL -6308-6,353
 180. 1900 -- **Scarlet Fever**, esp. PA/894, NY/812, TX/707, IL/643, MA/384, OH/334 --6,333
 181. 1870 -- **Diphtheria**, nationwide --6,303
 182. 1968 -- **Tuberculosis**, US death rate 3.2 per 100K, esp. DC/10.9 AZ/6.2 AL/6. WV/6. --6,292
 183. 2016 -- **HIV AIDS**, US death rate 1.9, DC/12.0, FL/4.2, LA/3.9 GA/3.4 MD/3.2 --6,160
 184. 1540 -- Oct 18, Spanish (de Soto) **Battle/massacre**, with Atahachi, Mabila, AL 2,500-6,000
185. 1969 -- **Influenza**, ICD-8 codes 470-474/death rate 2.96 per 100K, esp. KS/7., SC/6., MT/6. --5,971
 186. 2020 -- **Influenza** (distinct from 47,601 pneumonia deaths); death rate 1.8 per 100K --5,943

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

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

187. 1855 -- **Yellow Fever** epidemic, Montgomery AL, New Orleans, MS, Memphis, VA 5,938
 188. 2019 -- **Influenza**, esp. CA/560 TX/396 NY/336 lives lost; VT/4.3 OR/3.7 NE/3.3 death rate-5,902
 189. 1891 -- **Typhoid Fever**, esp. Chicago/2K, NY/1926, Philadelphia/683, NJ/695, DC --5,840
 190. 1931 -- **Diphtheria**, especially children, especially AR, IL, KY and PA --5,738
 191. 2017 -- **HIV**, US death rate 1.75 per 100K, esp. DC/9.8, MS/3.8, FL/3.6, LA/3.5 --5,698
 192. 1952 -- **Influenza**, esp. TX/433 PA/377 OH/335 AL/283 NC/248 VA/239 MO/226 --5,649
 193. 1864 -- Feb 24-Apr 17, 1865, **Diarrhea & Dysentery**, Union POW's, Andersonville, GA-5,605
 194. 1969 -- **Tuberculosis**, US death rate 2.76 per 100K, esp. DC/9.6, AZ/6.0, AL/5.9 --5,567
 195. 2018 -- **HIV**; US death rate 1.66 per 100K, esp. DC/9.25, MS/4.15, LA/3.4 FL/3.3 --5,425
 196. 1936 -- July-Aug (esp.), **Heat**, esp. MN/772, MO/644, IL/634 MI/617 WI/500--4,678-5418
 197. 1850 -- **Whooping Cough**, esp. NY/649, OH/450, GA/385, AL/305, PA/288, SC/269 --5,280
 198. 1881 -- **Smallpox**, esp. Philly/1336, Chicago/1180, NYC/503, Pittsburgh/448, HI/282 --5,275
 199. 2015 -- **Influenza** (ICD-10 codes J09, J10.0, J10.1, J10.8, J11.0, J11.1, J11.8) --5,251
 200. 1970 -- **Tuberculosis**, US death rate 2.56 per 100K, esp. DC/6.8 AL/5.0 WV/4.5 KY/4.3 --5,217
 201. 2020 -- **HIV**, US death rate 1.55, esp. DC/9.4, FL/3.1, MS/3.34, GA/3.1, MD/2.96 --5,155
 202. 1973 -- **Influenza**, ICD-8 codes 470-74/death rate 2.4 per 100K, esp. ID/7.4 WY/7.4 WA/7.2 --5,131
 203. 1905 -- **Cerebrospinal Meningitis** Epidemic, esp. NYC/1511-2025; also CT/NH/NJ/MA-5,114
 204. 1906 -- **Measles**, nationwide, especially children --5,087
 205. 1948 -- **Influenza**, 1948 ICD infectious and parasitic diseases code 33 --5,068
 206. 2019 -- **HIV/AIDS**, US death rate 1.54 per 100K pop.; DC/10.0, FL/3.2, MD, 3.0 --5,044
 207. 1735-41 -- **Diphtheria** ("Throat Distemper")²⁶ (esp. 1735-37), esp. CT/ME/MA/NH-5,000
 208. 1793 -- **Yellow Fever** epidemic, Aug-Nov, Philadelphia, PA --4,041-5,000
 209. 1906 -- Apr 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA --3,000-5,000

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

210. 1972 -- **Influenza**, ICD-8 codes 470-474/death rate 2.38 per 100K, esp. SD/8.9 ME/8.7 --4,986
 211. 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
 212. 1907 -- **Whooping Cough**), Census Registration States and localities --4,856
 213. 2011-2012 (Winter) -- Estimated Excess **Influenza & Pneumonia** Deaths -- 3,691-4,747
 214. 1852 -- **Cholera**, esp. NY/1.3K, IL/1.2-1.3K, New Orleans/1K-1.3K, MO/~1K --4,381-4,736
 215. 1921 -- **Measles**, especially children, nationwide --4,667
 216. 1898 -- June-Dec, esp., **Typhoid**, esp. Spanish War Army Camps, esp. Southeast -->4,627
 217. 1931 -- **Whooping Cough**, esp. children, esp., by death rate, NM/11.7, ID/11.4 --4,619
 218. 2014 -- **Influenza** (ICD-10 codes J09, J10, J11), especially CA (457), TX (418) --4,605
 219. 1949 -- **Influenza** (codes 480-483); pneumonia (codes 490-493) was 40,038) --4,602
 220. 1870 -- **Smallpox**, Nationwide --4,597
 221. 1871 -- **smallpox**, esp. Philadelphia/1,879, Cincinnati/1,179, NYC/805, Chicago/MI/NJ--4,505
 222. 1971 -- **Tuberculosis**, US death rate 2.18 per 100K, esp. DC/5.8 AL/4.1 TN/3.5 AZ/3 --4,501
 223. 1914 -- **Measles**; US state and local "registration area" (66.8% of pop.), esp. DE/AL--4,461
 224. 1958 -- **Influenza**, esp. TX/415, AL/275, OH/260, TN/230, GA/206, MS/199, PA/199--4,442
 225. 1972 -- **Tuberculosis**, US death rate 2.09 per 100K, esp. DC/4.8 DE/4.2 AL/3.9 NM/3.9 --4,376
 226. 1912 -- **Pneumonia**, Mar 24-Jun 8, Chicago, IL, NYC, NY --4,342
 227. 1854 -- Jun-Dec, **Yellow Fever**, esp. Jacksonville, Charleston, Galveston, NOLA, Savannah--4,313

²⁶ 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.

228.	1907 --	Scarlet Fever , Nationwide	--4,309
229.	1907 --	Measles , especially children, nationwide	--4,302
230.	1975 --	Influenza , ICD-8 codes 470-474, death rate 1.986 pre 100K, esp. KS/6.317	--4,277
231.	1912 --	Measles , US “registration area” (~65% population), NYC (671)	--4,240
232.	1978 --	Influenza , ICD-8 codes 470-474, US death rate 1.8 per 100K, esp. ME/5.0, KS/4.7	--4,052
233.	1901 --	June-July, Heat waves , except Pacific NW, esp. Northeast, June 27-July 6	--4,012
234.	1920 --	Scarlet Fever , esp. Akron, OH, Wilmington, DE, Springfield, MA	--4,004
235.	1815-16, Winter --	Smallpox epidemic , Comanche Nation ²⁷	-->4,000
236.	1838 --	May-Mar 1839, Cherokee Relocation , NE AL/NW GA/SE TN/NW NC to OK ²⁸	~4,000

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

237.	1874 --	Scarlet Fever , esp. NYC/879, Cincinnati/687, Brooklyn/479, Philly/461, VT--	3,996
238.	1860 --	Measles , especially NY, OH, MO and PA	--3,809-3,900
239.	1973 --	Tuberculosis , US death rate 1.84 per 100K, esp. DC/5.0 TN/2.9 AL/2.8 WV/2.8	--3,875
240.	1906 --	Tuberculosis , The Year, Philadelphia, PA	--3,742
241.	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
242.	2013 --	Influenza , ICD-10 codes J09-11, esp. SD (3.6) MT (3.5) ME (3.2) death rates	--3,697
243.	1864 --	Feb-April 1865, Scurvy , Union POW’s, Camp Sumter, Andersonville, GA	--3,614
244.	1873 --	July-Dec, Yellow Fever , esp. Memphis, AL, Pensacola, Louisville, LA, TX-3542-3584	
245.	1984 --	HIV AIDS , New York City (952)	--3,578
246.	1931 --	Measles , especially children, especially IL and PA	--3,576
247.	1920 --	Dysentery , 33 registration states	--3,574
248.	1930 --	Malaria , nationwide, esp. AL, AR, FL, GA, LA, MS, OK, SC, TN, TX	--3,572
249.	1974 --	Tuberculosis , US death rate 1.65 per 100K, esp. DC/5.1, KY/2.8, TN/2.6	--3,513
250.	1899 --	Aug 8-19, San Ciriaco Hurricane esp. Puerto Rico/3433 & NC/73, Aug 17/18-3,507	
251.	1841 --	Yellow Fever , esp. FL & LA, esp. New Orleans, also Vicksburg, Charleston-3,498	
252.	1909 --	Tuberculosis , Philadelphia, PA	--3,496
253.	1908 --	Tuberculosis , Philadelphia, PA	--3,490
254.	1962 --	Influenza , ²⁹ US death rate 1.8 per 100K; esp. NE/5, TN/5, MS/4.2, SC/4	--3,431
255.	1847 --	Yellow Fever , esp. NOLA, also Galveston/Mobile/Pensacola/Vicksburg ³⁰	--≥3,400
256.	1943 --	Jan-Dec, Whooping Cough , especially children, nationwide	--3,368
257.	1975 --	Tuberculosis , US death rate 1.55 per 100K, esp. DC/3.8, KY/2.74, TN/2.72--	3,333
258.	1851 --	June-Aug esp., Cholera , esp. St. Louis, IL, New Or., Cincinnati, SD Sioux--	3314-3,322
259.	1952 --	polio , esp. IL/258, TX/≥240, MI/218, CA/217, MN/200, IA/163 KY/132, NE/115	--3,300
260.	1904 --	Cerebrospinal Meningitis , esp. NYC/1,083-1,403, Hartford, CT/108, NJ/245	--3,284
261.	1906 --	Epidemic Cerebro-spinal Meningitis , esp. NY/1,117 (NYC/600), PA/385	--3,258

²⁷ 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.

²⁸ 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.

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

³⁰ 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 Matamoros, Texas. Mostly late Summer and Fall.

262. 1925 -- **Dysentery**, esp. KY/297, WV/213, LA/211, SC/211, TN/207, VA/196 --3,257
 263. 1934 -- Summer, esp. mid-July-mid-Aug **Heat**, esp. Midwest, esp. MO, IL, KS, OH--3,250
 264. 1910 -- **Tuberculosis**, the Year, Philadelphia, PA --3,190
 265. 1889 -- May 31, South Fork **Dam Failure**, Flash Flood, Fire, Johnstown PA --2,209-3,188
 266. 1896 -- **Measles**, esp. NYC/714, Brooklyn/333, Philadelphia/191, Cincinnati/100, CT--3,178
 267. 1920 -- **Malaria**, esp. MS/683, LA/586, SC/487FL/344, NC/210 and TN/183³¹ --3,136
 268. 1976 -- **Tuberculosis**, US death rate 1.44 per 100K, esp. DC/4.0, NM/2.8, AL/2.6 --3,130
 269. 2001 -- Sep 11, **Violence, 9/11 Terrorist Attacks** --3,064
 270. 1939 -- **Whooping Cough**, nationally, esp. AL, GA, IL, MS, NY, NC, PA, TX, VA--3,026
 271. 1819 -- **Yellow Fever**, esp. Charleston, Mobile, Natchez; most esp. New Orleans-2871-3019
 272. 1981 -- **Influenza**, US death rate 1.31 per 100K, esp. SD/4.2, IA/3.5, UT/3.3, VT/3.3 --3,006
 273. 1804 -- **Epidemic, Possibly Cholera** (or Typhoid or Plague) Natives, Oahu, HI >3,000
 274. 1928 -- Sep 6-20, Great Okeechobee **Hurricane/Flood**, Southeast FL --1,800-3,000

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

275. 1850 -- **Measles**, especially NY/505, OH/363, PA/316, VA/222, MO/189, IN/163 --2,988
 276. 2017 -- Sep 20, **Hurricane Maria**, Puerto Rico (2,975), US Virgin Isl. (2), NJ (3) --2,980
 277. 1977 -- **Tuberculosis**, US death rate 1.35 per 100K, esp. DC/4.24, TN/2.8, KY/2.2 --2,968
 278. 1966 -- July, **Heat Wave** and “excess deaths,” esp. IL, NYC, St. Louis, MO ~2,582-2,954
 279. 1940 -- **Whooping Cough**, nationwide, especially TX and KY --2,926
 280. 1978 -- **Tuberculosis**, ICD-8 codes 010-019, esp. NY/283, CA/217, PA/185, IL/165 --2,914
 281. 2016 -- **Influenza** (ICD-10 codes J09, J10.0, J10.1, J10.8, J11.0, J11.1, J11.8) --2,905

 282. 1883 -- **Smallpox**, esp. New Orleans/834 Baltimore/633 Cincinnati/189 Chattanooga/103--2,868
 283. 1950 -- **Influenza**; separate from influenza with pneumonia/3,492 and pneumonia/40,523 --2,857
 284. 1959 -- **Influenza**,³² esp. TX/191, TN/133, OH/126, NY/126 IN/119 MI/108 GA/104 CA--2,845
 285. 1931 -- “Epidemic **Cerebrospinal Meningitis**,”³³ U.S., especially IL, NY and PA --2,832
 286. 1966 -- **influenza** (pneumonia deaths were 63,615), esp. CA/636, WA/154, OR/134 --2,830
 287. 1944 -- **Cerebrospinal Meningitis**, nationwide, esp. CA, IL, MI, NJ, NY, OH, PA --2,812

 288. 1875 -- **Smallpox**, esp. New York City (1,899), Cincinnati (745), Philadelphia (54) --2,770
 289. 1931 -- June-Sep, **Heat Waves/excessive heat**, West, Midwest, NE, esp. IL, IA, WI --2,768
 290. 1839 -- Jun-Oct, **Yellow Fever**, SC, FL, GA, TX, esp. Mobile, Natchez, New Orleans ~2,764
 291. 1925 -- **Scarlet Fever**, esp. PA/343, IL/279, OH/252, MI/216, NY/191, MO/169 --2,762
 292. 2009 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,756
 293. 1955 -- **Influenza**, esp. OH/187 AL/183 GA/181 TX/169 PA/154 TN/136 MS/106 --2,755
 294. 2011 -- **Diarrhoea & Gastroenteritis of Infections Origin** (ICD-10 code A09), esp. NJ --2,743
 295. 1822 -- **Yellow Fev.**, esp. late Sum-Fall, esp. NOLA/Marietta OH/NYC/Pensacola³⁴-1519-2,741
 296. 2010 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,741
 297. 1949 -- July-Nov esp., Polio, esp., NY/320, IL246, MI/210, TX/183 NJ/180 CA/236--2,720

³¹ 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.

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

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

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

298. 1871 -- Scarlet Fever, esp. NYC/791, Baltimore/625, MI/696, MN/335, Philly/262 --2,709
 299. 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):

300. 1954 -- **Influenza**, esp. TX/228 AL/180 GA/162 PA/154 OH/143 TN/120 MO/104 --2,696
 301. 2009-2010 (Winter) -- **Influenza** deaths (out of 1,595,870 US deaths) --2,691
 302. 2013 -- **Diarrhoea and gastroenteritis of infections origin** (ICD-10 code A09) --2,669
 303. 1931 -- **Scarlet Fever**, especially children, especially IL --2,651
 304. 2012 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,610
305. 1931 -- **Malaria**, esp. AL, AR, FL, GA, LA, MS, MO, SC, TN --2,536
 306. 1865 -- **Smallpox**, esp. NYC/≤664, Philly/524, SC/GA/FL Sea Islands/~800³⁵ -2,500-2,510
 307. 1797 -- **Yellow Fever epidemic**, New Design, MO, NYC, Philly, Providence, RI --2,502
 308. 1876 -- **Smallpox**, 10 data-points, esp. Cincinnati/~930, SF CA/482, Philly/407, NYC/315~2500
 309. 1893 -- Aug 27-28, **Hurricane**, Sea Islands “Great Storm of 1893,” GA/SC --1,000-2,500
 310. 1900 -- June-Dec, **Measles** and **Influenza**, Native Alaskans, esp. west AK ~2,000-2,500
311. 1863 -- **Smallpox**, esp. DC/700, Camp Chase OH, Fort Delaware DE, Baltimore/IL/PA-2.3K--2,490
 312. 2015 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,456
 313. 1910 -- Sum-Fall esp., **Polio**, esp. IA/161, MA/122, MN/97, NY/170, PA/269 --1459-2,449
 314. 1864 -- **Yellow Fever**, esp. New Bern NC/1,359, Charleston, SC/700, Galveston, NOLA--2,414
 315. 2014 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,405
 316. 1925 -- **Measles**, 40 Registration states, esp. PA/503, MA/349, NY/323, IL/217, NJ/124 --2,404
 317. 1941 -- Dec 07, **Violence, Attack** by Japanese on Pearl Harbor, HI --2,402
 318. 1871 -- Oct 8-9, **Wildfire/Firestorm**, Peshtigo/NE WI vic.; Birch Creek MI --1,228-2,400
319. 1967 -- **Syphilis** --2,381
 320. 2016 -- **Diarrhoea and Gastroenteritis of Infections Origin** (ICD-10 code A09) --2,361
 321. 1850 -- **Smallpox**, esp. OH/551, NY/276, MA/232, PA/208, KY/150, MD/144, IN/140- 2,352
 322. 1956 -- **Influenza**, esp. PA/139, TX/153, OH/134, AL/130, GA/109, MS/100, TN/96 --2,323
 323. 1880 -- **Diphtheria**, NY, esp. children, esp. NYC & Brooklyn; elsewhere NY--1,805-2,303
324. 1965 -- **Influenza**,³⁶ death rate 1.2 per 100K, esp. ME/5.0, KS/4.0, NE/3.6, VE/3.3 --2,295
 325. 1941 -- **Measles**, esp. children, esp. VA (170), GA (160), KY (158), SC (138), TN (133) --2,279
 326. 1864 -- **Typhoid**, Chicago/192, Philadelphia/648; **Typhus**/Typhoid, NYC/1,425 --2,265
 327. 1873 -- **Smallpox**, esp. Boston/668, Baltimore/631, Chicago/515, NYC/117, Charleston/106--2,201
 328. 1974 -- **Influenza**, ICD-8 codes 470-474, death rate 1.30 per 100K, esp. KS/3.48 --2,201
 329. 1893 -- Dec-Jan 1894, epidemic **Influenza**, NY --2,200
330. 1911 -- **Heat waves**/excessive heat deaths, esp. June 4-23, July 1-13, esp. MW, NE ~2,190
 331. 2022 -- excessive **natural heat**, esp. AZ (1,030) esp. Maricopa County/425, TX/203--2,159
 332. 2023 -- excessive **natural heat**, esp. AZ (867), TX (440), NV (208), LA/82, FL/81 --2,155
 333. 1867 -- June-Dec, **Cholera**, esp. St. Louis, New Orleans, KS/OK/Chicago, US Army-2,145

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

³⁶ Distinct from the 61,903 pneumonia deaths noted in the nest USPHS 1965 Mortality Data column in Table 1-14.

334. 1931 -- **Polio**, esp. July-Oct (Aug peak), esp. NY, NJ, MI, MA, IL, CT, PA --2,139-2,144
 335. 1961 -- **influenza**,³⁷ US death rate 1.2 per 100K; esp. AK/3.3, KS/ME/NE at 2.7 --2,137
 336. 1925 -- **Malaria**, esp. MS/426, FL/338, AL/306, LA/256, MO/189, SC/183, TN/155 --2,132
 337. 1902 -- **Smallpox**, esp. NJ/432, NYC/310, MA/283, Cleveland/233, Philly PA/231 --2,111
 338. 1964-65 -- **Rubella (German measles)**, last major US epidemic, especially newborn--2,100

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

339. 1990 -- **Influenza**, US death rate 0.84 per 100K; esp. NE//3.5; IA/3.1; ID/2.3; SD/2.3 --2,098
 340. 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
 341. 1863 -- Sep-June 1865, **Diarrhea & Dysentery**, Confederate POWs, Point Lookout MD--2,050
 342. 1865 -- **Typhus/Typhoid** NYC/1,075; Typhoid/Chicago/190 and Philadelphia/773 --2,038
 343. 1896 -- Aug 1-14~, **Heat**, esp., NY/891, IL/277, PA/226, NJ/168, MO/81, WI/77 --2,038
 344. 1927 -- **Polio** (Acute), especially late Summer and Fall, especially children --2,013
 345. 1834 -- ~July-Nov, **Cholera**, esp. Baltimore, Cleveland, Detroit, Goliad TX, NYC-->2,010
 346. 1979 -- **Tuberculosis**, US death rate 0.89 per 100K, esp. DC/2.7, KY/1.7, MS/1.6 --2,007
 347. 1634-35, **Smallpox epidemic**, Five Nations, especially Mohawks, Upper NY³⁸ -->2,000
 348. 1709-10, **Smallpox epidemic**, Native Americans, lower CA -->2,000
 349. 1893 -- Oct 1-2, **Hurricane**, Cheniere Caminanda, Gulf Coast esp. LA, MS, AL 1700-2000

 350. 1616 -- **Unknown Epidemic**, Natives, especially ~coasts of MA, ME, RI --thousands

 351. 1939 -- **Diphtheria**, esp. Jan-Mar, Sep-Dec, Nationwide, esp. GA, IL, NC, TX, VA --1,997
 352. 1980 -- **Tuberculosis**, US death rate 0.87 per 100K, esp. DC/4.21, SC, 1.79, AL/1.74 --1,978
 353. 1989 -- **Tuberculosis**, US death rate 0.80 per 100K, esp. DC/2.55; NY/1.63; LA/1.34 --1,970
 354. 1947 -- **Whooping Cough**, Int. List No. 9 --1,954
 355. 1865 -- Apr 27, Steam **Sultana** explodes/burns, Miss. Riv., Redman Point, AR--1,547-1,947
 356. 1988 -- **Influenza**, US death rate 0.79 per 100K; esp. ID/3.7, IA/2.5, MT/2.6, SD/3.3 --1,943
 357. 1981 -- **Tuberculosis**, US death rate 0.84 per 100K, esp. AL/1.96, DC/1.57, FL/1.43 --1,937
 358. 1837 -- Aug-Nov, **Yellow Fever** epidemics, Mobile AL; New Orleans LA; Natchez MS--1550-1930
 359. 1944 -- **Measles**, especially Jan-June, Nationwide, esp. CA, GA, OH, PA, TX --1,923
 360. 2021 -- **excessive natural heat**, esp. AZ/854, WA/170, NV/166, CA/140, OR/133 --1,923
 361. 1988 -- **Tuberculosis**, US death rate 0.78 per 100K, esp. DC/2.05, NY/1.61, HI/1.48 --1,921
 362. 1950 -- **Polio**, esp. Jul-Nov (1,611 deaths), esp. CA, IL, MI, NY, OH, PA, TX --1,904
 363. 1980 -- June-Sep, **Heat**, esp. Midwest & So. Plains, esp. MO/TN/AR/TX/MS³⁹--1,863-1,904

 364. 1948 -- **Polio**, especially CA, MN, NC, OH, SD, TX and WI --1,895
 365. 1944 -- **Whooping Cough**, Nationwide, especially NC, VA, TX, SC, KY, MS --1,878
 366. 1855 -- May-Aug, **Cholera**, IL//KS/KY/MO/OH/WI, esp. New Orleans/883 --1,797-1,869
 367. 1946 -- Especially July-Nov, **Polio**, nationwide, esp. IL, MN and TX --1,845

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

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

³⁹ 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.

368. 1986 -- **Influenza**, US death rate 0.76 per 100K, esp. VT/3.9 ME/3.59 MN/3.2 ND/2.84 --1,838
 369. 2005 -- Aug 25-31, **Hurricane Katrina**, FL, LA, esp. NOLA & MS⁴⁰ --≥1,833-1,836
 370. 1868 -- June-Dec, **Smallpox**, esp. San Francisco/960, Cincinnati/649, Chicago/150--≥1,825
 371. 2005 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.613 per 100K; esp. SD (4.513) --1,812
 372. 1990 -- **Tuberculosis**, US death rate 0.73 per 100K, esp. DC/1.97; NY/1.63; MS/1.48 --1,810
 373. 1982 -- **Tuberculosis**, US death rate 0.78 per 100K, esp. DC/2.83, AL/1.63, TN/1.4--1,807
 374. 1800 -- **Yellow Fever**, esp. Baltimore, Charleston SC, Norfolk, Philly, Providence RI --1,806

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

375. 2003 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.618 per 100K; esp. ND (2.661) --1,792
 376. 1986 -- **Tuberculosis**, US death rate 0.74 per 100K, esp. DC/1.72, DE/1.43, NY/1.34-1,782
 377. 1983 -- **Tuberculosis**, US death rate 0.76 per 100K, esp. DC/3.63, AL/1.6, LA/1.2 --1,779
 378. 2008 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.57 per 100K; esp. SD (2.13) --1,772
 379. 1870 -- **Typhus**, nationwide, especially IL, IN, NY, and PA --1,770
 380. 2000 -- **Influenza**, ICD-10 codes J09-11.8; US death rate 0.63 per 100K; esp. SD (3.05) --1,765
 381. 1939 -- **Malaria**, esp. May-Nov, especially AL, AR, FL, GA, LA, MS, SC, TX --1,761
 382. 1987 -- **Tuberculosis**, US death rate 0.72 per 100K, esp. DC/2.82, AL/1.54, NY/1.5 --1,755
 383. 1894 -- **Smallpox**, esp. Chicago/1033, WI/325, esp. Milwaukee/244; NY/147 --1,752
 384. 1945 -- **Whooping Cough**, communicable disease No. 9 International List --1,752
 385. 1985 -- **Tuberculosis**, US death rate 0.74 per 100K, esp. DC/3.46, GA/1.34, AL/1.23 --1,752
 386. 1984 -- **Tuberculosis**, US death rate 0.73 per 100K, esp. DC/3.62, AL/1.57, NY/1.21 --1,729
 387. 1945 -- **cerebrospinal** (meningococcus) **meningitis** (code 6 communicable disease)--1,728
 388. 1998 -- **Influenza**, ICD-9 code 487.0; US death rate 0.62 per 100K; esp. MT (6.72) --1,724
 389. 1911 -- **Typhoid Fever**, PA --1,716
 390. 1991 -- **Tuberculosis**, US death rate 0.68 per 100K, esp. DC/2.32. NY/1.62; AR/1.17 --1,713
 391. 1992 -- **Tuberculosis**, US death rate 0.66 per 100K, esp. NY, 1.38; MS, 1.33 --1,705
 392. 1553 -- **Hurricane**, lower coast of TX --1,700

 393. 1964 -- **influenza**,⁴¹ US death rate 0.9 per 100K, esp. MT/4.0 WA/3.8 NE/3.6 ND/3.1 --1,687
 394. 1862 -- **Yellow Fever**, esp. Wilmington NC/>653; TX coast/≥328; Key West--1,131-1,679
 395. 1999 -- **Influenza**, ICD-10 codes J09-11.8; US death rate 0.597 per 100K; esp. SD/4.913 --1,665
 396. 1993 -- **Tuberculosis** (US death rate 0.63 per 100K), esp. DC/2.51 and NY/1.16 --1,631
 397. 1995 -- June-Aug, esp. July 12-17, **Heat**, esp. IL/>700 WI/154 PA/146 MO/58 1,563-1,601

 398. 1921 -- **Polio** (acute), esp. late Summer-Fall, esp. children, esp. NY, IL, WA, MI --1,597
 399. 1989 -- **Influenza**, US death rate 0.64 per 100K; esp. IA/2.38, MT/2.1, ND/2.17, OR/2.0 --1,593
 400. 1925 -- **Excessive Heat**, esp. NY (439), PA (299), NJ (112), CA (69), MA (65) --1,587
 401. 2009 -- **Influenza (avian)**, ICD-10 code J09 (US death rate 0.5 per 100K) esp. MT (1.3) --1,557
 402. 1951 -- **Polio**, especially July-Nov, especially CA, IL, TX --1,551-1,555
 403. 1847 -- **Typhoid** and **Typhus**, New York City (1,396), Typhus, New Orleans (154) --1,550
 404. 2011 -- **Influenza**, ICD-10 codes J09-11 (US death rate 0.5), esp. SD (2.3 per 100K) --1,532
 405. 1848 -- **Typhus** and **Typhoid**, New Orleans, LA/372, NYC/953, South Philly/205 --1,530
 406. 1925 -- **Polio**, esp. late Sum.-Fall, esp. children, esp. NY/208, CA/149, MN/140 --1,519

⁴⁰ 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.

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

407. 1971 -- **Influenza**, ICD-8 codes 470-474/death rate 0.73 per 100K, esp. ME/2.9, NE & WA/1.9-1,504
 408. 1689-1690 -- **Smallpox epidemics**, New England and NY, settlers and natives- \geq 820-1,500
 409. 1983 -- **HIV AIDS**, New York City (425), U.S. --1,500

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

410. 1877 -- **Smallpox**, 7 data pts., esp. New Orleans/1.1K; Philadelphia/155; Cincinnati/56 --1,496
 411. 1914 -- **Diphtheria and Croup**, the Year, NYC, NY --1,489
 412. 1843 -- July-Nov, **Yellow Fever**, esp. Mobile AL (240-750), New Orleans (487-700)--758-1,481
 413. 1994 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.56 per 100K, esp. DC, 1.86 --1,478
 414. 1967 -- **Influenza** --1,475
 415. 1937 -- **Polio** (Acute), especially late Summer and Fall, especially children --1,461
 416. 1953 -- **Polio** (acute), especially CA, IL, MI, and NY --1,450
 417. 1940 -- **Malaria**, especially AL, AR, GA, MS, SC and TX --1,442
 418. 1949 -- **Dysentery**, infectious, all forms (codes 045-048) --1,440
 419. 1983 -- **Influenza**, US death rate 0.61 per 100K, esp. ME/3.9, MT/3.2, MN/2.7 --1,431
 420. 1803 -- July 18-Oct, **Yellow Fever**, Charleston SC, New York, VA, Philadelphia --1,403
 421. 1952 -- **Heat**, excessive natural, Sixth Revision of International Lists, 1948, code E931 --1,401
422. 1864 -- July-June 1865, **Diarrhea and Dysentery**, Confederate POWs. Elmira, NY --1,394
 423. 1954 -- **Polio**, acute; esp. TX/138 & CA/119; 33 other states double digit deaths --1,389
 424. 1928 -- **Polio** acute, especially late Summer and Fall, especially children --1,381
 425. 1944 -- **Polio**, especially July-Nov (1,070 deaths), esp. NY, OH and PA --1,381
 426. 1930 -- **Polio**, especially late summer through fall --1,370
 427. 1799 -- **Yellow Fever**, Charleston, SC, NYC, Philadelphia, USS *General Greene* --1,356
 428. 1851 -- **Typhus/Typhoid**, NYC/1,103, New Orleans/Typhus/228, Chicago/Typhoid/10 --1,341
 429. 1995 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.5 per 100K, esp. DC, 1.89 --1,336
 430. 1820 -- May-Dec, **Yellow Fever**, Savannah GA/New Orleans/NYC/Philadelphia --1,335
 431. 1913 -- **Diphtheria and Croup**, the Year, NYC, NY --1,333
 432. 1972 -- **Excessive heat**; heat as contributing factor, esp. July 12-25 NYC/891, MD/269 --1,324
 433. 1912 -- **Typhoid Fever**, Pennsylvania --1,310
 434. 1946 -- **Measles**, International List infectious and parasitic diseases code 35 --1,310
 435. 1863 -- **Diphtheria**, Vermont -->1,300
 436. 1977 -- **Influenza**, ICD-8 codes 470-474, US death rate 0.59 per 100K, esp. AL/1.98 --1,304
 437. 1943 -- **Measles**, especially children --1,301
438. 1862 -- Feb-Jun '65 (41 mo.), **pneumonia/pleurisy**, Confederate POWs, Camp Douglas IL- 1,296
 439. 1876 -- **Yellow Fever**, Savannah (also Brunswick), GA; also New Orleans & Baltimore --1,293
 440. 1880 -- **Smallpox**, esp. TX/517, Philadelphia/429, Camden NJ/47 Chicago/43, NY --1,281
 441. 1911 -- **Diphtheria**, Year, esp. NYC, Chicago, Philadelphia, MA --1,281
 442. 1915 -- **Diphtheria and Croup**, The Year, NYC, NY --1,278
 443. 1860 -- **Smallpox epidemics**, especially MA and NY 1,263-1,271
 444. 1900 -- July-Aug (esp.) **Heat**, esp. NY/361, NJ/119, Chicago/102, St. Louis/90, PA/90-1,266
 445. 1946 -- **Diphtheria**, infectious diseases International List No. 10 --1,259
 446. 1946 -- **Cerebrospinal (meningococcus) meningitis** infections (Int. List No. 6) --1,257
 447. 1946 -- **Whooping Cough**, International List No. 9 --1,241
 448. 1817 -- June-Dec, **Yellow Fever**, esp. Charleston SC, Natchez MS, New Orleans-1208-1,233

449. 1994 -- **Influenza**, US death rate 0.47 per 100K; esp. SD/2.6; MT/1.7; IA/ 1.5; NE/1.22--1,229
 450. 1913 -- **Heat**, esp. June 25-July 1, esp. PA/237, OH/178, MO/114, IL/92, NY/80 --1,226
 451. 1996 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.45 per 100K, esp. DC, 1.92 --1,202

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

452. 1945 -- Jan-Dec, **Polio**, especially July-Nov (Sept. peak) --1,186
 453. 2020 -- excessive **heat**, natural sources; esp. AZ/522, CA/137, Clark Co., NV/124 --1,184
 454. 1917 -- **Polio**, Census area (27 States/DC/43 cities), esp. Chicago/177 OH/128 VA/69, VT \geq 1,182
 455. 2021 -- exposure to excessive **natural cold**/ICD-10 code X31, esp. AK/NM/IA/CO --1,179
 456. 1997 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.43 per 100K, esp. HI, 0.99 --1,166
 457. 1848 -- Dec, **Cholera**, New Orleans, also MS Riv., Paducah KY, NYC, Port Lavaca TX--1,159
 458. 1943 -- **Polio**, especially late Summer and Fall, especially children --1,151
 459. 1829 -- **Yellow Fever**, esp. FL, Mobile AL/130; Natchez MS/90; New Orleans LA/900-1,146
 460. 1948 -- **Whooping Cough** --1,146
 461. 1991 -- **Influenza**, US death rate 0.45 per 100K; esp. NE/2.38, ND/1.73, IA/1.54 --1,137
 462. 1905 -- May 21-Nov, **Yellow Fever**, esp. LA (esp. New Orleans/455), Pensacola, MS-1,131
 463. 1919 -- Sep 10-14, **Hurricane**, Florida Keys, Gulf & Corpus Christi area, TX 500-1,131
 464. 1912 -- **Diphtheria**, NYC, NY --1,125
 465. 1950 -- **Whooping Cough**, code 056 of 6th rev. of international lists, 1948 (US PHS)--1,118
 466. 2019 -- Exposure to excessive natural **cold/hypothermia**, esp. MI/70 NY/65 PA/61 --1,115
 467. 1998 -- **Tuberculosis**, ICD-9 code 010-018, death rate 0.40 per 100K, esp. LA, 0.72 --1,112
 468. 2012 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.4; SD, 2.5 per 100K --1,106
 469. 2006 -- **excessive natural heat**, esp. CA/194, AZ/169, NY/148, TX/106, IL/51, PA/50--1,104
 470. 1675 -- Dec 19, English Colonists **Massacre** Narragansetts, Great Swamp, RI --365-1,100
 471. 2004 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.376 per 100K; esp. ME (1.827) --1,100
472. 1984 -- **Influenza**, US death rate 0.46 per 100K, esp. MT, 2.3, OR/1.7, WA/1.4, AR/1.3 --1,096
 473. 1925 -- **Meningococcus meningitis**, esp. NY/148, PA/79, IL/56, OH/53, MA/51 --1,095
 474. 1872 -- **Cerebral Spinal Meningitis**, MA (esp. Boston), NYC, PA (esp. Philly) --1,090
 475. 1901 -- **Smallpox**, esp. NY/436 (Bronx/312), PA/202 (Philly/178), NJ/139 (Newark/71)--1,085
 476. 1912 -- **Polio**, acute anterior, code 63; Census “registration area” was 63.2% of pop.--1,081
 477. 1772 -- **Measles** epidemics, Charleston, SC (800-900), Philadelphia, PA (180) --980-1,080
 478. 1924 -- **Polio** (acute), especially late summer and fall, especially children --1,079
 479. 1948 -- **Dysentery**, infectious and parasitic diseases ICD code 27 --1,078
 480. 1939 -- June-Sep, **Heat**, esp. Sep 15-23, Los Angeles (546), TX (42), MO (37)⁴²-527-1,073
 481. 2011 -- excessive **natural heat**, esp. TX/183, AZ/177, PA/57, MO/52 IL/50 NY/45 --1,060
 482. 1911 -- **Polio**, US registration area (63.1%), esp. OH/137, NY/101, PA/93, IN/69, KY/61--1,060
 483. 1852 -- **Smallpox**, Nevada City, CA natives, NYC (407-516), Philadelphia/427--943-1,052
 484. 1999 -- **excessive natural heat**, esp. IL/153, PA/97, MO/92, TX/63, AZ/58, NY/56 --1,050
 485. 1993 -- **Influenza**, US death rate 0.40 per 100K; esp. ID 2.62; VE 2.42; MT 1.54; OR 1.37 --1,044
 486. 1955 -- **Polio** (acute); all States, esp. MA/168 (Boston ~200), WI/166, NY/77, TX/76--1,043
 487. 1935 -- **Polio** (acute), especially late Summer-and Fall, especially children --1,040

⁴² 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.”

488. 1870 -- May-Dec, **Yellow Fever**, esp. New Orleans/587 Mobile/173 Brunswick GA--1,038
 489. 1904 -- June 15, Fire, *General Slocum* excursion steamer, East River, NYC, NY-957-1,031
 490. 2018 -- exposure to excessive natural **cold/hypothermia**, esp. MN/36 CO/34 IN/35 --1,028
 491. 1899 -- **Typhoid fever** epidemics/outbreaks, Greensboro, NC; PA, esp. Philadelphia-1,026
 492. 1940 -- **Polio**, Nationwide, especially IL, IN, IA, KS, MI, OH and WV --1,026
 493. 2018 -- **excessive natural heat**, esp. AZ/252, Clark Co., NV/163, CA/106, TX/89 --1,012
 494. 1992 -- **Influenza**, US death rate 0.39 per 100K; esp. ME/1.94; MT/1.21; WV/1.27 --1,006
 495. 1633-34 -- **Smallpox epidemic**, New England Natives, Plymouth Colonists, MA >1,000
 496. 1663 -- **Smallpox**, Fort Orange, NY and Northern “NY” Native American Tribes --1,000
 497. 1677-78 -- **Smallpox epidemic**, Massachusetts Bay Colony --1,000
 498. 1818 -- Sep 12-14, **Hurricane**, Galveston, TX <1,000
 499. 1833 -- Early Aug-early Nov, **Yellow Fever epidemic**, New Orleans, LA --1,000
 500. 1861-62 -- winter-spring, **Flooding**, CA, OR, WA, British Columbia ~1,000
 501. 1918 -- Oct 12-15, **Forest Fire**, Cloquet-Moose Lake, MN/WI 400-1,000
 502. 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):

503. 1721-22, Apr-Apr, **Smallpox**, Massachusetts Colony, esp. Boston & Charlestown--944-991
 504. 1731 -- **Smallpox epidemics**, New York City (548-700) and Philadelphia (288) --836-988
 505. 1796 -- **Yellow Fever**, esp. Charleston, SC/300, New Orleans/250-400; Wilmington, NC/150--836-986
 506. 1954 -- **Heat** (esp. July), esp. MO/235, OK/178, KS/139, TX/95, IL/50, GA/39 --978-984
 507. 1961 -- **Hepatitis**, infectious -- 976
 508. 1848 -- **Yellow Fever**, Mobile AL~76, New Orleans/850-872, NY Marine Hosp./12 --937-960
 509. 1951 -- **whooping cough**/pertussis, esp. TX/110, GA/86, MS/72 NC/52 VA/48 AL/45--960
 510. 1864 -- Feb-Jun 1865 (17 mo.), **pneumonia/pleurisy**, Confederate POWs, Camp Chase OH--954
 511. 1946 -- **Dysentery**, infectious and parasitic diseases International List code 27 -- 952
 512. 1949 -- **Measles** (code 085); PHS, *Vital Statistics...[US] 1949, Part II...Mortality* -- 949
 513. 1955 -- Aug 31–Sep 9, **Heatwave**/excessive **deaths**, greater Los Angeles, CA⁴³ --115-946
 514. 1887 -- **Yellow Fever**, esp. Fernandina and Tampa, FL and New Orleans, LA -- 941
 515. 1760 -- **Smallpox epidemic**, Charleston SC (also undocumented Native deaths) --730-940
 516. 1952 -- **Dysentery**, infectious, all forms (codes 045-048), esp. TX/249 MS/71 KY/61 GA/46--939
 517. 2005 -- **excessive natural heat**, esp. AZ/244, NYC/~140, TX/111 CA/64, MD/47, NV/43--939
 518. 1960 -- **Hepatitis**, infectious -- 938
 519. 1876 -- **Smallpox epidemic**, Cincinnati, OH -- 934
 520. 1999 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.333 per 100K, esp. NM, 0.608 -- 930
 521. 2014 -- Exposure to excessive natural **cold/hypothermia** esp. PA IL NY OH MT NM-- 930
 522. 1988 -- **Heat**, Summer (esp.); esp. IL/341, MI/121, IN/~44, MO/~44, CA/37 --913-921
 523. 2020 -- Exposure to excessive **natural cold**; ICD-10⁴⁴ code X31, esp. AK/NM/CO/MN--919
 524. 1947 -- **cerebrospinal (meningococcus) meningitis infections** (Int. List No. 6) -- 917
 525. 1949 -- **Meningococcal infections** (code 057) ; *Vital Statistics...[US] 1949, Part II* -- 917
 526. 1849 -- Aug-Dec, **Yellow Fever**, Charleston SC, Mobile AL, New Orleans -- 912

⁴³ 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.

⁴⁴ Tenth revision of International Classification of Diseases.

527. 2019 -- Exposure to **excessive natural heat**, esp. AZ/283, TX/101, NV/88 --911-915
 528. 1851 -- **Smallpox**, esp., NYC/562-586, Philadelphia/316; Augusta GA/7, Chicago/5 --895-909
 529. 1875 -- **Croup and Diphtheria**, MI (374) and Hudson County, NJ (533) -- 907
 530. 1756 -- **Smallpox epidemic**, Philadelphia --800-900

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

531. 1916 -- June 18-Aug 22, **Heat Waves**, esp. Chicago, Detroit, Milwaukee, St. Louis -- ~895
 532. 1948 -- **Measles**, 1948 ICD infectious and parasitic diseases code 35 -- 888
 533. 1953 -- **Dysentery**, infectious, all forms (codes 045-048), esp. TX/268, MS/52, GA/41-- 886
 534. 2012 -- **excessive heat**, esp. AZ/209, CA/66, TX/62, IL/54, MO/54, MD/46, VA/24 -- 879
 535. 1966 -- **Meningococcal infections**, esp. CA/109, TX/59, OH/50, NY/40, NC/38 -- 876
 536. 2010 -- **excessive natural heat**, esp. AZ/228, TX/64, CA/46, NV/46, TN/45, PA/37 -- 874
 537. 1948 -- **Cerebrospinal (meningococcus) meningitis infections** (code 6, ICD 1, 1948)--873
 538. 1947 -- **Dysentery**, infectious and parasitic diseases Int. List code 27 -- 869
 539. 1913 -- **Polio**, acute, esp. June-Sep (Sep peak), US “registration area” (65.1% pop.) -- 864
 540. 1850 -- Jan-Oct, **Yellow Fever**, esp. Jefferson/Orleans Parishes/New Orleans, LA & SC⁴⁵-- 862
 541. 1934 -- **Polio** (acute), especially late Summer and Fall, especially children -- 852
 542. 1926 -- **Polio** (acute), especially late Summer and Fall, especially children -- 851
 543. 1809 -- **Yellow Fever**, esp. Brooklyn/NYC (42); New Orleans (civilian/military; ~800) -- 850
 544. 1923 -- **Polio** (acute), especially late Summer and Fall, especially children -- 850
 545. 2006 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.285 per 100K; esp. VE (1.605) -- 849
 546. 1796 -- **Scarlet Fever** epidemic (especially children), Marblehead, MA and esp. VT--681-846
 547. 1915 -- July 24, crowded SS steamer **Eastland rolls-over** at dock, Chicago, IL --812-844
 548. 1967 -- **Infectious Hepatitis** -- 844
 549. 1947 -- **Encephalitis**, acute infectious, Int. List infectious diseases code 37 -- 830
 550. 1932 -- **Polio** (acute), especially late summer and fall, especially children -- 828
 551. 1837 -- **Scarlet Fever**, Boston, MA, New York City, NY, Philadelphia, PA -- 823
 552. 2017 -- exposure to **excessive natural heat**, esp. AZ/264, NV/235, CA/93, TX/40 -- ≥817
 553. 2015 -- Exposure to excessive natural **cold/hypothermia**, esp. PA NY OH AK NM -- 815
 554. 1929 -- **Polio** (acute), especially late summer and fall, especially children -- 812
 555. 1805 -- **Yellow Fever**, esp. NYC/270-340, Philly/300-400, Providence, RI/10, SC/≤59--750-809
 556. 1941 -- **Polio**, especially late summer and fall, especially children -- 807
 557. 2017 -- Exposure to excessive natural **cold/hypothermia**, esp. AK WA MN CA MI -- 804
 558. 1599 -- Jan 21, Spanish (Oñate) **Massacre** Acoma Natives, punitive expedition, NM-300-800
 559. 1795 -- July 19–Oct 12, **Yellow Fever** epidemic, NY City, also Providence RI ~745-800
 560. 1833 -- **Malaria** Epidemic, ConCow Maidu Villages, Butte County, CA vicinity -- ~800
 561. 1926 -- Sep 16–21, **Great Miami Hurricane**, Cat 4, FL, MS, AL⁴⁶ -- ~800
562. 1947 -- **Diphtheria**, infectious diseases Int. List No. 10 -- 799
 563. 1933 -- **Polio** (acute), especially late Summer and Fall, especially children -- 797
 564. 1925 -- Mar 18, **Tornadoes**, esp. Tri-State Tornado (IL/IN/MO) 695; AL/KY/TN --740-792

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

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

⁴⁶ Includes missing, presumed dead – see Narrative Information and footnotes below.

565. 1922 -- **Polio** (acute), especially late Summer and Fall, especially children -- 790
566. 1944 -- Dec 18, **three ships capsize, Navy Task Force 38**, typhoon off Philippines-- ~790
567. 1879 -- June-Dec, **Yellow Fever**, Forest City, AR, Louisiana, MS, Memphis, TN--682-786
568. 2016 -- exposure to **excessive natural heat**, esp. AZ (219), NV (89), CA (70), TX/86-- 786
569. 1864 -- **Cerebrospinal Meningitis** epidemic, Carbondale & Philadelphia PA -- 784
570. 2002 -- **Tuberculosis**, ICD-10 code A16-19, death rate .273 per 100K, esp. AR, .443-- 784
571. 1936 -- **Polio** (acute), especially late Summer and Fall, especially children -- 780
572. 1862 -- Aug 17-23 especially, **Dakota “insurrection,”** southcentral MN; also IA --750-779
573. 2000 -- **Tuberculosis**, ICD-10 code A16-19; death rate 0.276 per 100K, esp. LA, 0.559 -- 776
574. 1864 -- July-June 1865 (12 mo.), **pneumonia/pleurisy**, Confederate POWs, Elmira NY-773
575. 1939 -- **Polio**, especially late Summer through Fall, especially children -- 773
576. 1920 -- **Polio** (33 “registration states), especially young children -- 769
577. 2001 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.268 per 100K, esp. DC, 1.741 -- 764
578. 1861 -- **Smallpox epidemic**, Philadelphia, PA -- 758
579. 1854 -- **smallpox**, esp. Charleston SC/59, Chicago/12, Jacksonville FL/~15, NYC/624, Philly/40-- 750
580. 1919 -- **Polio** (Acute). Especially late Summer and Fall, especially children -- 747
581. 1824 -- **Smallpox epidemics**, NYC, NY, Philadelphia, PA, Sandusky, OH --740-745
582. 1852 -- **Yellow Fever epidemics**, Charleston SC, New Orleans, Savannah GA -- 745
583. 1996 -- **Influenza**, ICD-9 code 487; US death rate 0.276 per 100K; esp. SD (1.616) -- 745
584. 2000 -- exposure to excessive natural **cold/hypothermia**; ICD-10 code X31, esp. PA/48-742
585. 1911 -- **Scarlet Fever**, NYC, NY -- 741
586. 1911 -- Oct-June 8, 1912, **Cerebrospinal Meningitis** Epidemic, esp. TX , OK, MO-- 740
587. 2016 -- Exposure to excessive natural **cold/hypothermia**, esp. AK CA MI MT OH SD-- 731
588. 1949 -- **Whooping Cough**, Public Health Service. *Vital Statistics...[US] 1949, Part II*--727
589. 1982 -- **Influenza**, US death rate 0.31 per 100K, esp. NE/1.78, SD/1.74, ND/1.34 -- 727
590. 2002 -- **Influenza**, ICD-10 codes J09-11; US death rate 0.253 per 100K; esp. SD (2.237)-- 727
591. 2013 -- Exposure to excessive natural **cold/hypothermia**, esp. IL NY PA MN AZ WI--725
592. 1914 -- **Polio** (acute anterior), esp. late sum.-fall, esp. children, esp. NY/88, PA/65, VT/54--720
593. 1997 -- **Influenza**, ICD-9 code 487.0; US death rate 0.26 per 100K; esp. KS (0.99) -- 720
594. 1864 -- **Smallpox**, Fort Alton IL, Chicago/283, Philly/260, Northern VA/112, SC, DC-- 712
595. 1938 -- Sep 21, Long Island, NY & New England **Hurricane**, esp. RI, MA, CT --682-712
596. 2003 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.25 per 100K, esp. LA, 0.49 -- 711
597. 2007 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 X31 code; esp. NY/53-711
598. 2010 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31 -- 710
599. 1925 -- **Smallpox**, esp. MN/196, WI/134, CA/59, NJ/48, OH/47, IA/42, PA/29, IL/23-- 709
600. 1637 – May 27, **Massacre**, Eng. Colonists Attack Pequot village, Mystic Riv. CT--400-700
601. 1644 -- Feb, Dutch / Eng. **Massacre**, Siwanoy, Petuquapaen, ~Cos Cob, CT⁴⁷ --500-700
602. 1881 -- Aug 27, **Hurricane**, Cat 2, Savannah (Georgia-South Carolina) -- 700
603. 2005 -- exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. MI/40-- 700
604. 1862 -- Feb-June 1865, **Diarrhea & Dysentery**, Confederate POWs, Camp Douglas, IL- 698
605. 1881 -- **Typhoid Fever**, Birmingham AL, Washington DC, Minneapolis, NYC -- 692
606. 1848 -- **Smallpox**, esp. New York City, NY/585 and Philadelphia, PA/100 -- 691

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

⁴⁷ Some place massacre in Westchester Co., NY (Dinan. “Historians Sift Clues...” *Greenwich Time*, 3-5-2006.)

607. 1915 -- **Polio**, esp. late summer-fall, US registration area (67-1% pop.) esp. children-- 691
608. 1951 -- **Measles**, esp. TX/102, KY/43, OH/39, CA/37, IL/31, MO/30, PA/26, OK/25-- 688
609. 1881 -- July 6-16 esp., **heat**/sunstroke, esp. OH/585 (Cincinnati/456), also Pittsburgh -- ≥687
610. 1996 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901; esp. PA/43--685
611. 2004 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. PA/45--676
612. 2011 -- Exposure to excessive natural **cold/hypothermia**; 0.2 death rate; esp. AK, SD-- 672
613. 1912 -- **Measles**, New York City, NY -- 671
614. 1913 -- March 23-27, Ohio Valley **Flooding**, dam/levee failures, esp. OH, IN --593-670
615. 1917 -- Summer to Fall (esp.), **Excessive Heat**, New York City (530), State of NY -- 665
616. 1911 -- **Measles**, New York City, NY -- 659
617. 2004 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.22 per 100K, esp. KY, 0.36 -- 657
618. 1809 -- May-Feb 1810 -- **Disease/Illness**, U.S. Army, MS -- 656
619. 1954 -- **Dysentery**, infectious, all forms (codes 045-048), esp. TX/172 and MS/61 -- 655
620. 1978 -- Exposure to excessive natural **cold/hypothermia** (ICD-8 E901), esp. OH/39 -- 652
621. 2006 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.22 per 100K, esp. AR/35, LA/33-- 652
622. 2013 -- **Excessive natural heat**, esp. AZ/151, NV/80, CA/67, TX/53, NY/42, IL/23 -- 651
623. 1862 -- Aug 17-Sep, **Violence, Sioux "Insurrection,"** Litchfield, elsewhere, MN--300-650
624. 2005 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.22 per 100K, esp. LA, 0.39 -- 648
625. 2002 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. PA/47-- 646
626. 1863 -- Aug-Jun 1865, **Diarrhea & Dysentery**, Confederate POWs, Fort Delaware, DE-644
627. 1946 -- **Encephalitis**, acute infectious, International List infectious diseases code 37-- 642
628. 1993 -- Exposure to excessive natural **cold/hypothermia**; ICD9 E901 code, esp. MI/42-- 641
629. 2008 -- exposure to excessive natural **cold/hypothermia**; ICD-10 code X31, esp. MI/45-- 641
630. 1967 -- **Meningococcal infections** -- 635
631. 1948 -- **Diphtheria**, infectious diseases code 10 -- 634
632. 1977 -- **cold/hypothermia**, exposure to excessive natural (ICD-8 E901); esp. OH/43-- 634
633. 1994 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901, esp. NY/38--633
634. 1987 -- **Influenza**, death rate 0.26 per 100K; esp. NE/1.02 (16), SD/1.29 (9), VE/1.11 (6) -- 632
635. 1915 -- **Measles**, New York City, NY -- 630
636. 2002 -- **excessive natural heat**, esp. AZ/130, TX/62, PA/56, IL/54, MD/50, CA/44 -- 626
637. 1794 -- **Yellow Fever** epidemics, Baltimore, MD, and New Haven, CT -- 624
638. 1952 -- **Measles**, 24 states double digits, esp. PA/49, NY/48, AL&TN/40 IN&KY/30 IL/25- -621
639. 2003 -- Exposure to excessive natural **cold/hypothermia**; ICD code X31, esp. PA/46-- 620
640. 1982 -- **HIV AIDS**, U.S. -- 618
641. 1897 -- July 1-11, **heat**, esp. upper midwest/NE, esp. Chicago/Cincinnati/St. Louis --608-616
642. 2009 -- Exposure to excessive natural **cold/hypothermia** (ICD-10 code X31) -- 616
643. 1912 -- **Scarlet Fever**, New York City, NY -- 615
644. 1955 -- excessive natural **heat** (US Public Health Service code E931) -- 615
645. 2021 -- **Influenza** (distinct from 41,309 pneumonia deaths); death rate 0.18, esp. TN/0.60--608
646. 1995 -- **Influenza**, ICD-9 code 487.0; US death rate 0.23 per 100K; esp. WV, 1.32 -- 606
647. 1979 -- **Influenza**, US death rate 0.27 per 100K, esp. ID/1.18, NE/1.15, KS/.98, WA/.85--604
648. 1903 -- Dec 30, **fire, suffocation, trampling**, Iroquois Theater, Chicago, IL -- 602
649. 2021 -- **tuberculosis**, ICD-10 codes A16-A19, esp. CA/106, TX/58, FL/36, NY/36 VA/22--602
650. 1835 -- Apr-Aug, **Cholera**, esp. Madison, IN; KY, esp. Russellville; New Orleans, TN--590-601
651. 1559 -- Sep 19-20, **hurricane**, Spanish ships and colonists, west coast of FL --?-600
652. 1759 -- **Smallpox** epidemic, Philadelphia --500-600
653. 1853 -- Burnt Ranch **massacre**, Settlers kill Tolowa, Yontocket, Smith Riv., No. CA --450-600

654. 1873 -- Aug 14-27, "Nova Scotia" **Hurricane**, off East Coast -- >600
 655. 1928 -- Mar 12, **St. Francis dam failure**, Ventura County, CA --400-600
 656. 1947 -- Apr 16-17, **Grandcamp ammonium nitrate explosion**, Texas City, TX --581-600
 657. 2020 -- **Tuberculosis**, ICD-10 codes A16-A19; esp. CA/119, TX/66, NY/36, FL/30-- 600

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

658. 1853 -- **Cholera**, New Orleans (554-585); Choctaw on Arkansas River, OK/14 --568-599
 659. 2001 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. MI/29-- 599
 660. 1999 -- exposure to excessive natural **cold/hypothermia**; esp. NY/36, PA/36 -- 598
 661. 1983 -- July-Aug esp., **heat** (esp. July 15-30) esp. MO/70 KY/57 IL/53 GA/35 TX/35-595-597
 662. 1990 -- Exposure to excessive **natural cold/hypothermia**; ICD9 code E901; esp. IL/45--596
 663. 1863 -- Nov 23-Mar 27 1865 (16 mo.), **Dysentery**,⁴⁸ Union POWs, Prison Hosp., Danville VA-592
 664. 1844 -- **Yellow Fever** epidemic, Galveston, TX; Mobile, AL; New Orleans, LA -- 590
 665. 1991 -- Exposure to excessive natural **cold/hypothermia**; ICD9 E901 code, esp. IL/63-- 588
 666. 2008 -- **Tuberculosis**, ICD-10 code A16-19, death rate 0.19; esp. MS (above avg. rate) -- 585
 667. 2005 -- June-Aug esp., **heat**, esp. AZ/244 TX/112 MD/47 PA/26 MO/25 NV/17 -- 584
 668. 2007 -- **excessive natural heat**, esp. AZ/134, CA/74, TX/43, MO/39, TN/34, SC/26-- 582
 669. 1823 -- July-Nov 1, **yellow fever** epidemic, Natchez & vicinity, MS, New Orleans -- 581
 670. 1873 -- **Scarlet Fever**, especially children, MI -- 580
 671. 1947 -- **Polio** -- 580
 672. 1953 -- **Heat**, esp. Aug 22-Sep 5, esp. MO/71, NY/43, TX/41, PA/40 -- 576
 673. 1949 -- **Diphtheria**, code 055 -- 574
 674. 1702 -- summer to late fall, **yellow fever** epidemic, New York City, NY --500-570
 675. 1948 -- **Encephalitis**, acute infectious (viral), 1948 ICD infectious diseases code 37 -- 570
 676. 1752 -- early in year through at least Sum., **smallpox** epidemic, Boston, MA --535-569
 677. 1909 -- **Polio** (acute), especially MA (74), MN (30), NE (135), and ND (19) -- 569
 678. 2010 -- **Tuberculosis**, esp. AL, CA, KY, TX (above avg. death rate) -- 569
 679. 2015 -- exposure to **excessive natural heat**, esp. AZ/139; NV/69, TX/64, CA/51 -- 567
 680. 1956 -- **Polio**, especially late summer and fall, especially children -- 566
 681. 1872 -- **scarlet fever**, especially children, MI -- 565
 682. 1854 -- Sep 27, **US Mail steamer Arctic** hit by *Vesta*, Fog, Cape Race, NFLD --318-562
 683. 1802 -- **Yellow Fever** epidemics, Wilmington DE, MD, MA, Philadelphia, NH, SC -- 561
 684. 1942 -- **Polio**, especially late summer and fall, especially children -- 561
 685. 1949 -- **Hepatitis**, infectious (code 092); PHS. *Vital Statistics...1949...Mortality* -- 560
 686. 1918 -- Oct 12, **forest fires**, Cloquet, Moose Lake, many towns, northeast MN --453-559
 687. 1992 -- Exposure to excessive natural **cold/hypothermia** (ICD9 code E901), esp. PA/37--558
 688. 2009 -- **Excessive natural heat**, esp. AZ/156, TX/79, CA/63, FL/39, IL/21 -- 555
 689. 2013 -- **Tuberculosis**, ICD-10 Code A16-A19, especially CA (133) and TX (61) -- 555
 690. 2007 -- **Tuberculosis**, death rate 0.184 per 100K, esp. TN/.389 above avg. -- 554
 691. 1995 -- Exposure to excessive natural **cold/hypothermia** (ICD9 code E901); esp. IL/41--553
 692. 1868 -- July 6-18, **excessive heat/sunstroke**, esp. NY/313, St. Louis/45, OH/42 -- 552
 693. 1950 -- **Hepatitis**, infectious, code 092, 6th rev. of International Lists/1948, US PHS-- 552

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

⁴⁸ "Diarrhoea and Dysentery."

694. 1958 -- **Measles**, esp. TX/50, OH/36, IL/34, NY/NC/PA/28 each, KY, 23, IN/20 -- 552
695. 1957 -- June 26-28, **Hurricane Audrey**, SW LA/526; also TX, IL, IN, NY, Can. --545-550
696. 1888 -- July-Dec, **Yellow Fever** epidemic, FL esp. Jacksonville/430; Decatur AL/35-- 546
697. 2018 -- **Tuberculosis**, ICD-10 codes A16-A19, esp. CA/100, TX/50, NY/39, FL/38 -- 542
698. 1947 -- **Heat**, excessive, International list code 191 -- 540
699. 2011 -- **Tuberculosis**, ICD-10 Code A16-A19, esp. CA (108), NY, SC (above avg. DR)-- 539
700. 2001 -- **excessive natural heat**, esp. AZ/74, TX/59, MO/41, IL/38, FL/30, CA/29, PA/28--538
701. 1875 -- **Scarlet Fever**, Michigan and Hudson County, NJ -- 537
702. 1936 -- Jan-Feb, **Arctic cold waves, snow, blizzards, snowslides**, flooding⁴⁹ --484-536
703. 1945 -- **Typhoid Fever** (471), Int. List No. 1; paratyphoid fever (63), Int. List No. 2-- 534
704. 1699 -- **Yellow Fever** epidemics, Charleston, SC (170-311); Philadelphia (220) --390-531
705. 1956 -- **Measles**, 21 states double digits, esp. IL/41 TX/31 OH/30 NC/29 PA/28 MI/26-- 530
706. 2009 -- **Tuberculosis**, ICD-10 code A16-19, esp. CA, LA, OK, TX (above avg. death rate)-- 529
707. 2019 -- **Tuberculosis**, ICD-10 codes A16-A19, esp. CA/112, TX/54, NY/37, FL/35 -- 526
708. 1954 -- **Measles**, 21 states double digits, esp. NY/36, TX/36, NC/35, PA/34, KY/27 -- 524
709. 1989 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901.0; esp. IL/45--524
710. 1897 -- Sep-Dec, **Yellow Fever**, esp. Mobile/48, New Orleans/298, MS, Memphis -- ~520
711. 1903 -- June-Aug (esp. July 1-11), **Heat**, esp. NY/144, NJ/60, IN/17, Chicago/15, CT/18 -- 520
712. 1985 -- Exposure to excessive natural cold/hypothermia; ICD9 E901.0; esp. IL/39 -- 519
713. 2006 -- Exposure to excessive natural **cold/hypothermia**; ICD-10 code X31; esp. MI/37--519
714. 2017 -- **Tuberculosis**, IDC-10 code A16-19, esp. CA/108 TX/49 NY/31 PA/22 NJ/21-- 515
715. 1915 -- Aug 16-17/19-20, **Hurricane**/trop. storm, Gulf, SE TX coast, remnant, MO--453-510
716. 1983 -- Exposure to excessive natural **cold/hypothermia**; ICD9 E901.0; esp. GA/36-- 510
717. 2012 -- **Tuberculosis**, ICD-10 Code A16-A19, especially CA (101) and TX (63) -- 510
718. 1920 -- **Smallpox**, 34 registration states, esp. LA/167, MS/45, MO/28, NC/28⁵⁰ -- 508
719. 1913 -- **Scarlet Fever**, NYC, NY -- 507
720. 1730 -- **Smallpox** epidemic, Massachusetts Bay Colony, especially Boston -- ≥502
721. 2008 -- **Excessive natural heat**, esp. AZ/112, TX/66, CA/51, PA/36, NV/35, NC/25-- 502
722. 1997 -- Exposure to excessive natural **cold/hypothermia**; ICD9 code E901; esp. IL/36-- 501
723. 2012 -- Exposure to excessive natural **cold/hypothermia**; esp. CA/32 NY/31 IL/25 -- 501
724. 1644 -- Apr 18 (or Mar 18), **Powhatans attack** English colonists along James River VA--400-500
725. 1690 -- spring-fall, **Smallpox**, Iroquois Native Americans, esp. upper NY ~300-500
726. 1793 -- **Influenza** epidemic, VA, 5 counties, 4 weeks -- 500
727. 1804 -- GA, SC, NC **Hurricane**, September 7-9 -- 500
728. 1811 -- **Yellow Fever** epidemic, New Orleans, LA -- >500
729. 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
730. 1864 --July 30, **Rebels kill wounded/surrendered/trapped black soldiers**, Petersburg, VA~500
731. 1864 -- Sep, general **massacre** of Yana Natives, Northern CA -->335-500
732. 1865 -- Mar 31, steam transport **General Lyon** burns, Cape Hatteras, NC --400-500
733. 1881 -- Sep 1-6, **wildfire**, “The Thumb Fire,” Lower Michigan --169-500
734. 1888 -- Jan 11-12, Schoolchildren’s **Blizzard**, IA/KS/ND/MN/MT/NE/SD/TX --315-500
735. 1898 -- Nov 26-27, **Portland Gale**, **SS Portland sinks** (Cape Ann MA), New Eng.⁵¹-400-500

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

⁵⁰ 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.

736. 2010 -- **Influenza**, ICD-10 codes J09-J11; US death rate 0.2 per 100K; esp. AK, KS (.4)⁵²-- 500

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

⁵² The ICD-10 Code for Influenza and Pneumonia (J09-J18), for 2010, shows 50,097 deaths (death rate of 16.2).