

## Large Loss-of-Life Events Arranged by Mortality (Down to and including 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 1492

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

1. 1492-1800 – North American Native Population Decline, esp. due to **diseases** ~2,800,000
2. 1918-1919, **Influenza** and Pneumonia Epidemic 531,851-728,922  
1918 -- Influenza and Pneumonia Epidemic 430,000-543,482  
1919 -- Influenza and Pneumonia Epidemic 101,851-185,440
3. 1920 -- **Influenza** and **Pneumonia** (1918-1920 subset) 141,609-220,798
4. 1931 -- **Influenza** (31,701) and **Pneumonia**, all forms (96,974), especially PA 128,675
5. 1917 -- **Influenza** and **Pneumonia** 115,526
6. 1900 -- **Tuberculosis**, esp. CA, IL, IN, KY, MA, MO, NJ, NY, OH, PA, TN 109,750
7. 1930 -- **Influenza and Pneumonia**, nationwide 102,504
8. 1920 -- **Tuberculosis**, esp. Denver, San Antonio, Nashville, New Orleans 99,916
9. 1939 -- **Influenza** (21,464) & **Pneumonia**, esp. CA, IL, MI MO, NY, OH, PA, TX 99,097
10. 1940 -- **Influenza and Pneumonia**, esp. CA, IL, MO, NY, OH, PA, TN, TX 92,525

#### 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. 1906 -- April 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA --3,000-5,000
4. 1936 -- **Heat Wave** (access deaths), July 1-31, especially Chicago, IL (2,696) --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 OK<sup>1</sup> ~4,000
7. 1899 -- Aug 8-19, **San Ciriaco Hurricane**, especially Puerto Rico, NC, SC --3,477
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

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<sup>1</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.

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

1. 1900 -- Sep 9, **Hurricane**, Galveston and southeast coastal area, TX --7,200-12,000
2. 1906 -- April 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA --3,000-5,000
3. 1936 -- **Heat Wave** (access deaths), July 1-31, especially Chicago, IL (2,696) --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**, especially Puerto Rico, NC, SC --3,477
6. 1928 -- Sep 6-20, **Great Okeechobee Hurricane/Flood**, Southeast FL --1,800-3,000
7. 1966 -- July, **Heat Wave** and “excess deaths,” esp. IL, NYC, St. Louis, MO ~2,582-2,954
8. 1931 -- June-Sep, **Heat Waves/excessive heat**, West, Midwest, NE, esp. IL, IA, WI --2,768
9. 1871 -- Oct 8-9, **Wildfire/Firestorm**, Peshtigo/NE WI vic.; Birch Creek MI<sup>2</sup> --1,152-2,500
10. 1893 -- Aug 27-28, **Hurricane**, Sea Islands “Great Storm of 1893,” GA/SC --1,000-2,500

### “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**, especially Puerto Rico, NC, SC 3,477
4. 1928 -- Sep 6-20, **Great Okeechobee Hurricane/Flood**, Southeast FL 1,800-3,000
5. 1871 -- Oct 8-9, **Wildfire/Firestorm**, Peshtigo/NE WI vic.; Birch Creek MI<sup>3</sup> 1,152-2,500
6. 1893 -- Aug 27-28, **Sea Islands Hurricane**, “Great Storm of 1893,” GA/SC 1,000-2,500
7. 1893 -- Oct 1-2, **Hurricane Cheniere Caminanda**, Gulf Coast esp. LA, MS, AL 1,700-2,000
8. 2005 -- Aug 25-31, **Hurricane Katrina**, FL, LA, esp. NOLA & MS<sup>4</sup> ≥1,833-1,836
9. 1553 -- **Hurricane**, Lower Coast of TX 1,700
10. 1919 -- Sep 10-14, **Hurricane**, FL Keys, Gulf & Corpus Christi area, TX --500-1,131

<sup>2</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).

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<sup>4</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.

**“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 OK<sup>5</sup> ~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**, MS Riv., Redman Point, AR 1,238-2,000
7. 2005 -- Aug 29, **Hurricane Katrina Levee/floodwall failures/overtopping**, NOLA<sup>6</sup> ~1,300
8. 1904 -- **General Slocum Excursion Steamer Fire**, Jun 15, East Ri., NYC, NY 957-1,204
9. 1675 -- Dec 19, English Colonists **Massacre** Narragansetts, Great Swamp, RI --365-1,100
10. 1915 -- July 24, **S.S. Steamer Eastland** Rolls-over in Dock, Chicago, IL --812-852

**“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, **Steamer Sultana Explodes/Burns**, MS Riv., Redman Point, AR 1,238-2,000
3. 2005 -- Aug 29, **Hurricane Katrina Levee/floodwall failures/overtopping**, NOLA<sup>7</sup> ~1,300
4. 1904 -- **General Slocum Excursion Steamer Fire**, Jun 15, East Ri., NYC, NY 957-1,204
5. 1915 -- July 24, **S.S. Steamer Eastland** Rolls-over in Dock, Chicago, IL --812-852
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, Ammonium Nitrate **Explos./Fire**, *Grandcamp*, Texas City, TX --552-600
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

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<sup>6</sup> We show 1,833-1,836 Hurricane Katrina total deaths in FL, GA, AL, LA and MS – though the total number of deaths associated with Katrina will never really be known. Most of the deaths in AL and MS were from storm-surge. There were deaths related to evacuation as well as other causes. Most of the deaths in New Orleans, however, related to the failures of or overtopping of man-made structures. There were 1,577 reported deaths in Louisiana, including 1,300-1,400 in New Orleans, depending on the source. In order to be conservative we take the lower end of the range to represent lives lost due to the failures, breaches, and overtopping of man-made structures (levees and flood-walls).

<sup>7</sup> We show 1,833-1,836 Hurricane Katrina total deaths in FL, GA, AL, LA and MS – though the total number of deaths associated with Katrina will never really be known. Most of the deaths in AL and MS were from storm-surge. There were deaths related to evacuation as well as other causes. Most of the deaths in New Orleans, however, related to the failures of or overtopping of man-made structures. There were 1,577 reported deaths in Louisiana, including 1,300-1,400 in New Orleans, depending on the source. In order to be conservative we take the lower end of the range to represent lives lost due to the failures, breaches, and overtopping of man-made structures (levees and flood-walls).

### Multiple-Death Fires (All Types --Top Ten)<sup>8</sup>

1. 1906 -- Apr 18, Earthquake, Fire, Landslides, San Francisco & vicinity, CA<sup>9</sup> --3,000-5,000
2. 2001 -- Sep 11, World Trade Center Terrorist Attack and Fires, NYC, NY<sup>10</sup> --2,666
3. 1871 -- Oct 8-9, Wildfire/Firestorm, Peshtigo/NE WI vic.; Birch Creek MI<sup>11</sup> --1,152-2,500
4. 1865 -- Apr 27, Steamer *Sultana* Explodes/Burns, MS. Riv., Redman Point, AR--1,547-2,000
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>12</sup> -- 602
7. 1947 -- Apr 16, Ammonium Nitrate Explos., Fire, *Grandcamp*, Texas City, TX<sup>13</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>14</sup> -- 492

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  - 1918 -- Influenza and Pneumonia Epidemic 430,000-543,482
  - 1919 -- Influenza and Pneumonia Epidemic 101,851-185,440
3. 1920 -- **Influenza** and Pneumonia (1918-1920 subset) 141,609-220,798
4. 1931 -- **Influenza** (31,701) and **Pneumonia**, all forms (96,974), especially PA 128,675
5. 1917 -- **Influenza** and pneumonia 115,526
6. 1900 -- **Tuberculosis**, esp. CA, IL, IN, KY, MA, MO, NJ, NY, OH, PA, TN 109,750
7. 1930 -- **Influenza and Pneumonia**, nationwide 102,504
8. 1920 -- **Tuberculosis**, esp. Denver, San Antonio, Nashville, New Orleans 99,916
9. 1939 -- **Influenza** (21,464) & **Pneumonia**, esp. CA, IL, MI MO, NY, OH, PA, TX 99,097
10. 1940 -- **Influenza and Pneumonia**, esp. CA, IL, MO, NY, OH, PA, TN, TX 92,525
11. 1879 -- June-May 1880, **Tuberculosis**, esp., NY, PA, OH, IL, IN, TN, KY, MA 91,270
12. 1775-82-**Smallpox** Epidemic North America ~84,000
13. 1931 -- **Tuberculosis**, esp. CA, IL, NY, OH, PA 81,395
14. 1907 -- **Tuberculosis**, esp. CA/Chicago, IN/MA/NY (esp. NYC)/PA (esp. Philly) 76,650
15. 1957-58-**Influenza** ("Asian") Epidemic 70,000
16. 1870 -- **Tuberculosis** (Consumption), Nationwide 69,896
17. 1966 -- Jan-Dec, **Influenza and Pneumonia**, nationwide 63,615
18. 1939 -- **Tuberculosis**, Nationwide, esp. CA, IL, NY, OH, PA, TN, TX 61,609
19. 1940 -- **Tuberculosis**, Nationwide, especially CA, IL, NY, OH, PA and TX 55,576

<sup>8</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>9</sup> Cross-listed in Earthquake and in Landslides, in that there were a small number of deaths due to slides.

<sup>10</sup> Cross-listed in Violence-Terrorism section.

<sup>11</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>12</sup> Cross-listed in Violence-Crushing, Trampling, Suffocation.

<sup>13</sup> Cross-listed in Explosions and in Maritime.

<sup>14</sup> Cross-listed in Violence-Crushing, Trampling, Suffocation.

20. 1944 --	<b>Tuberculosis</b> , Nationwide, esp. CA, IL, MI, NJ, NY, OH, PA, TN, TX	54,731
21. 1849 --	<b>Cholera</b> , esp. IL, IN, KY, NOLA, MA, MI, MO, NY, OH, PA, TN, TX <sup>15</sup>	--45,287-51,206
22. 1928-1929 --	Winter, <b>Influenza and Pneumonia</b> Epidemic	~50,000
23. 1860 --	<b>Tuberculosis</b> (Consumption), Nationwide	49,082
24. 1616 --	<b>Yellow Fever</b> , Wampanoag btw. Provincetown, MA / Narragansett Bay, RI	45,000
25. 1890 --	<b>Diphtheria and Croup</b> , especially IL, MA, NJ, NY	41,677
26. 1870 --	<b>Pneumonia</b> , esp. AL, GA, IL, IN, KY, MA, MO, NY, OH, PA, TN, TX, VA	40,012
27. 1879 --	June-May 1880, <b>Diphtheria</b> , esp. Sep-Jan, esp. children, esp. PA, IL, NY, IA	38,143
28. 1900 --	<b>Typhoid</b> , esp. AL, AR, GA, IN, KY, MS, MO, NY, NC, OH, PA, TN, TX	35,379
29. 1968/69 (Sep-March), A2 “Hong Kong”	<b>Influenza (and Pneumonia)</b> Epidemic	33,800
30. 1850 --	<b>Tuberculosis</b> (Consumption), nationwide	33,156
31. 1890 --	<b>Typhoid Fever</b> , Nationwide, spiking in Oct	28,191-29,329
32. 1860 --	<b>Scarlatina (Scarlet Fever)</b> , 38 Census “Registration” States and DC	26,402
33. 1878 --	<b>Yellow Fever</b> , Jun-Dec, AL, AR, FL, GA, IL, KY, LA, MO, MS, OH, TN	25,000
34. 1910 --	<b>Typhoid Fever</b> , Nationwide	25,000
35. 1879 --	June-May 1880, <b>Typhoid</b> (“Enteric”) Fever, especially IL, IN, MO, OH, TX	23,339
36. 1870 --	<b>Typhoid Fever</b> , Nationwide, esp. IL, IN, MA, MO, NY, OH, PA	22,187
37. 1829-34	<b>Unknown Epidemic</b> , West Coast Native Americans <sup>16</sup>	6,500-22,000
38. 1915 --	Dec-Jan 1916, <b>Influenza &amp; Pneumonia</b> , esp. IL, MD, NY, OH, PA, WI	21,102
39. 1870 --	<b>Scarlet Fever</b> , esp. IL, MO, NY, PA, WI	20,339
40. 1879 --	June-May 1880, “ <b>Malarial Fever</b> ,” esp. AL, AR, GA, IL, MS and MO	20,231
41. 1837-38--	<b>Smallpox</b> , Upper Mid-West Native American Tribes	~20,000
42. 1860 --	<b>Typhoid Fever</b> , Census “Registration” States	19,236
43. 1853 --	May-Dec, <b>Yellow Fever</b> , esp. AL, FL, LA, MS, NY, PA, TX, VA	~19,000
44. 1832 --	June–Dec 16, <b>Cholera</b> Epidemics, esp. DC, LA, MD, NY, PA, VA	--16,781-18,491
45. 1879 --	June-May, 1880 -- <b>Croup</b> , especially Oct-Dec, especially IL, PA and TN	17,966
46. 1890 --	Jan-Feb, <b>Influenza</b> (La Grippe/Russian Flu), esp. IL, Northeast <sup>17</sup>	16,024-17,626
47. 1912 --	<b>Tuberculosis</b> , Jan 1-Jun 8, CA, IL, IN, MA, MO, NJ, NYC, PA, TX, WI	17,463
48. 1944 --	<b>Influenza</b> , especially Jan-Apr & Dec, Nationwide, especially OH, PA, TX	17,320
49. 1916 --	<b>Diphtheria</b>	17,000
50. 1880 --	<b>Scarlet Fever</b> , especially children, nationwide, especially IN, NY and PA	16,388

<b>Top Fifty:</b>	<b>Diseases, infectious, contagious</b>	<b>--49</b>
	<b>Battle</b>	<b>-- 1</b>
	<b>Hurricane</b>	<b>-- 1</b>

<sup>15</sup> There were outbreaks elsewhere (see below). 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>16</sup> From contemporary accounts, it appears that the year 1833 was the deadliest.

<sup>17</sup> Technically, what became the flu epidemic of early 1890 began in late December 1889.

51. 2010 --	<b>HIV/AIDS</b> , U.S., nationally	15,525
52. 1866 --	<b>Cholera</b> , May-Oct, Cincinnati, New Orleans, NY, St. Louis, TN, US Army	15,339
53. 1860 --	<b>Croup</b> (contagious upper airway viral infection), nationwide	15,188
54. 1850 --	<b>Cholera</b> , esp. Sac. & SF, CA, IL, IN, KY, LA, MO, OH, TN, WI <sup>18</sup>	--14,158-14,637
55. 1920 --	<b>Diphtheria</b> , esp. Detroit, Fall River, MA, Bridgeport, CT, St. Louis	13,395
56. 1835 --	Nov-Spring 1838, <b>Smallpox</b> , Sitka, Gulf of AK, Kodiak, Aleutian Isl. natives, AK	13,105
57. 1850 --	<b>Typhoid Fever</b> , nationwide	13,099
58. 1907 --	<b>Typhoid Fever</b> , nationwide	12,670
59. 1891 --	<b>Influenza and Pneumonia Epidemic</b> , March-May, esp. Chicago, IL & NY	12,472
60. 2009 --	April 12-April 10, 2010, <b>H1N1 "Swine Flu" Pandemic</b> (U.S.)	12,469
61. 1900 --	Sep 9, <b>Hurricane</b> , Galveston and southeast coastal area, TX	--7,200-12,000
62. 1879 --	June-May 1880, <b>Whooping Cough</b> , nationwide, esp. IN, GA, NC, TX, AL	11,064
63. 1920 --	<b>Whooping Cough</b> , esp. Atlanta, Nashville, Kansas City, KS, Omaha	10,968
64. 1911 --	<b>Tuberculosis</b> , Aug-Dec, NYC, NY, IL, CA, IN, MA, NJ, PA, TX	10,926
65. 1850 --	<b>Croup</b> (contagious upper airway viral infection), nationwide	10,706
66. 1870 --	<b>Croup</b> (contagious upper airway viral infection) nationwide	10,692
67. 1914 --	<b>Influenza and Pneumonia</b> , The Year, NYC, NY	10,500
68. 1907 --	<b>Diphtheria</b> and Croup, Nationwide, esp. NY and PA (esp. Philadelphia)	10,154
69. 1907 --	<b>Influenza</b> , Census "Registration States and Localities	≥10,066
70. 1854 --	<b>Cholera</b> , esp. Boston, Chicago, Detroit, NYC, Pittsburgh, St. Louis	10,009-10,046
71. 1659 --	<b>Measles</b> Epidemic, Native Americans, FL	10,000
72. 1798 --	<b>Yellow Fever</b> Epidemic, East Coast Port Cities, esp. Philly and NYC	10,000
73. 1837 --	<b>Smallpox</b> , California Native Americans <sup>19</sup>	2,000-10,000
74. 1848 --	Sep-early '49, <b>Measles/Whooping Cough/Dysentery/Influenza</b> Epidemics, HI	10,000
75. 1988 --	<b>Heat Wave</b> , Summer, Central/eastern U.S	~5,000-10,000
76. 1980 --	June-Sep, <b>Heat</b> , esp. Midwest & So. Plains, esp. MO/TN/AR/TX	-->2,000~10,000
77. 1861 --	May 1-June 30, 1866, <b>Smallpox</b> , Union soldiers and Confederate prisoners <sup>20</sup>	--9,682
78. 1853 --	<b>Smallpox</b> , esp. natives, HI, Nevada City vic., CA, OR/WA; also NYC	7,450-9,450
79. 1867 --	July-Nov, <b>Yellow Fever</b> , New Orleans, Galveston/Houston; also FL, TN, US Army <sup>21</sup>	≥9,238
80. 1870 --	<b>Measles</b> , Nationwide	--9,237
81. 1918 --	<b>Typhoid Fever</b> , 33 Registration States, DC and Puerto Rico, esp. TX	--9,100
82. 1870 --	<b>Whooping or "Hooping" Cough</b> , Nationwide, esp. NY, IL, IN, OH, PA	--9,008
83. 1872 --	<b>Smallpox</b> , esp. Baltimore, Boston, Cincinnati, IL, NYC, Philly, St. Louis	≥8,957
84. 1860 --	<b>Whooping Cough</b> , nationwide, especially, NY, NC, OH, PA, and VA	--8,408
85. 1880 --	<b>Measles</b> , nationwide, especially GA, IL, IN, KS and MO	--8,254
86. 1920 --	<b>Measles</b>	--7,712
87. 1879 --	June-May 1880, <b>Meningitis</b> , especially KY, NY, PA, MO and TN	--7,481
88. 1916 --	esp. Jul-Sep, <b>Polio Epidemic</b> , most States, esp. NYC and State, NJ	~6,000->7,000

<sup>18</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.

<sup>19</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>20</sup> There is overlap with our 1863 entry (1,078 deaths) which includes Fort Delaware, Camp Chase, MD, and VA.

<sup>21</sup> If our sources are accurate then there were at least 9,238 deaths. It is probable that other unrecorded (or unlocated by us) deaths occurred, especially amongst those fleeing from afflicted areas, as well as poor land laborers.

89. 1882 --	<b>Smallpox</b> , esp. Chicago, Cincinnati, PA, Baltimore, NOLA, TN; elsewhere	>6,992
90. 1920 --	<b>Typhoid Fever</b>	--6,805
91. 1858 --	<b>Yellow Fever</b> Epidemic, Charleston, SC, Mobile, New Orleans, Texas	--6,363
92. 1870 --	<b>Diphtheria</b> , Nationwide	--6,303
93. 1540 --	Oct 18, Spanish (de Soto) <b>Battle/massacre</b> , with Atahachi, Mabila, AL	2,500-6,000
94. 1855 --	<b>Yellow Fever</b> , Montgomery AL, New Orleans, MS, Memphis, VA	--5,938
95. 1897 --	<b>Typhoid Fever</b> , esp. CT, DC, IN, MI, MN NY, OH, PA, Denver, St. Louis	--5,855
96. 1931 --	<b>Diphtheria</b> , especially children, especially AR, IL, KY and PA	--5,738
97. 1850 --	<b>Whooping Cough</b> , nationwide	--5,280
98. 1881 --	<b>Smallpox</b> , esp. Philly, Pittsburgh, Chicago, NYC, Richmond; also DE, HI, NJ, etc.	--5,165
99. 1906 --	<b>Measles</b> , nationwide, especially children	--5,087
100. 1793 --	<b>Yellow Fever</b> Epidemic, Aug-Nov, Philadelphia, PA	--4,041-5,000

### Top 100:

<b>Disease</b> , infectious and/or contagious:	<b>96</b>
<b>Influenza/Pneumonia:</b>	<b>20</b>
<b>Tuberculosis</b>	<b>13</b>
<b>Typhoid Fever</b>	<b>11</b>
<b>Small Pox</b>	<b>9</b>
<b>Yellow Fever</b>	<b>8</b>
<b>Diphtheria</b>	<b>7</b>
<b>Measles</b> (1 cross-listed)	<b>6</b>
<b>Cholera</b>	<b>5</b>
<b>Whooping Cough</b>	<b>5</b>
<b>Croup</b>	<b>4</b>
<b>Scarlet Fever</b>	<b>3</b>
<b>Unknown</b>	<b>2</b>
<b>HIV/AIDS</b>	<b>1</b>
<b>Malarial Fever</b>	<b>1</b>
<b>Meningitis</b>	<b>1</b>
<b>Polio</b>	<b>1</b>
<b>Heat Waves:</b>	<b>2</b>
<b>Hurricanes:</b>	<b>1</b>
<b>Violence-Battle:</b>	<b>1</b>

101. 1906 -- Apr 18, **Earthquake, Fires, Landslides**, San Francisco & vic., CA --3,000-5,000
102. 1936 -- **Heat Wave** (access deaths), July 1-31, especially Chicago, IL (2,696) --5,000
103. 1907 -- **Whooping Cough**, Census Registration States and localities --4,856
104. 1921 -- **Measles**, especially children, nationwide --4,667
105. 1877 -- **Yellow Fever**, Enterprise, St. Augustine FL, especially New Orleans, LA --4,662
106. 1898 -- Jun-Dec, esp., **Typhoid**, esp. Spanish War Army Camps, esp. Southeast -->4,627
107. 1931 -- **Whooping Cough**, year, especially children, esp. IL, KY, NY and PA --4,619
108. 1873 -- Feb-Sep, **Cholera**, esp. AL/AR//IL/IN/IA/KY/LA/MS/MO/OH/TN-- ~4,539-4,599
109. 1870 -- **Smallpox**, Nationwide --4,597
110. 1887 -- **Diphtheria**, NYC, NY --4,509
111. 1871 -- Winter-March 1872-**Smallpox** Epidemic, Philadelphia, PA --4,464
112. 1912 -- **Pneumonia**, Mar 24-Jun 8, Chicago, IL, NYC, NY --4,342
113. 1907 -- **Scarlet Fever**, Nationwide --4,309
114. 1907 -- **Measles**, especially children, nationwide --4,302
115. 1854 -- **Yellow Fever**, esp. AL, FL, Charleston/Galveston/New Orleans/Savannah --4,224
116. 1901 -- June-July, **Heat waves**, except Pacific NW, esp. Northeast, June 27-July 6 --4,012
117. 1738 -- **Smallpox** Epidemic, Catawba/Cherokee Indian Nations, Charleston, SC --~4,011
118. 1920 -- **Scarlet Fever**, esp. Akron, OH, Wilmington, DE, Springfield, MA --4,004
119. 1815-16, Winter -- **Smallpox** Epidemic, Comanche Nation<sup>22</sup> -->4,000
120. 1838 -- May-Mar 1839, **Cherokee Relocation**, NE AL/NW GA/SE TN/NW NC to OK<sup>23</sup> ~4,000
121. 1860 -- **Measles**, especially NY, OH, MO and PA --3,809-3,900
122. 1906 -- **Tuberculosis**, The Year, Philadelphia, PA --3,742
123. 1931 -- **Measles**, especially children, especially IL and PA --3,576
124. 1920 -- **Dysentery**, 33 registration states --3,574
125. 1930 -- **Malaria**, nationwide, esp. AL, AR, FL, GA, LA, MS, OK, SC, TN, TX --3,572
126. 1852 -- **Cholera** Epidemic, esp. Chicago, New Orleans, Rochester, St. Louis, MO --3,521
127. 1909 -- **Tuberculosis**, the year, Philadelphia, PA --3,496
128. 1908 -- **Tuberculosis**, the year, Philadelphia, PA --3,490
129. 1899 -- Aug 8-19, San Ciriaco **Hurricane**, especially Puerto Rico, NC, SC --3,433
130. 1904-05--**Cerebrospinal Meningitis** Epidemic, New York City --2,594-3,428
131. 1847 -- **Yellow Fever**, esp. NOLA, also Galveston/Mobile/Pensacola/Vicksburg<sup>24</sup> --≥3,400
132. 1873 -- **Yellow Fever**, AL, Pensacola FL, Cairo IL, Louisville KY, LA, NYC, TX --3,390
133. 1833 -- Feb-Aug esp., **Cholera**, esp. KY (1765)/NOLA (1000)/Cincinnati (176) --3,381
134. 1943 -- Jan-Dec, **Whooping Cough**, especially children, nationwide --3,368
135. 1905 -- **Tuberculosis**, The Year, Philadelphia, PA --3,365
136. 1851 -- esp. June-Aug, **Cholera**, esp. St. Louis, IL, New Orleans, Cincinnati, SD Ter., also AL, AR, IN, IA, KS, KY, TN, WI, Riverine Maritime (esp. MS) --3,314-3,322
137. 1952 -- **Polio** Epidemic, especially children, Nationwide, esp. upper Midwest--3,000-3,300

<sup>22</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.

<sup>23</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>24</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.

138. 1910 -- **Tuberculosis**, the Year, Philadelphia, PA --3,190
139. 1889 -- May 31, South Fork **Dam Fails**, Flash Flood, Fire, Johnstown PA --2,100-3,188
140. 1920 -- **Malaria**, esp. MS/683, LA/586, SC/487FL/344, NC/210 and TN/183<sup>25</sup> --3,136
141. 1693 -- Jun 17 start, **Yellow Fever**, Boston, arrival of British fleet from Martinique<sup>26</sup>-3,100
142. 1735-37<sup>27</sup> --“Throat Distemper” (**Diphtheria**),<sup>28</sup> Essex Co., MA, NH, ME --~2,600-3,100
143. 2001 -- Sep 11, **Violence, 9/11 Terrorist Attacks** --3,064
144. 1939 -- **Whooping Cough**, nationally, esp. AL, GA, IL, MS, NY, NC, PA, TX, VA--3,026
145. 1841 -- **Yellow Fever**, FL & NOLA, also Mobile, Vicksburg, Charleston, SC--2,560-3,004
146. 1804 -- **Epidemic, Possibly Cholera** (or Typhoid or Plague) Natives, Oahu, HI >3,000
147. 1928 -- Sep 6-20, Great Okeechobee **Hurricane**/Flood, Southeast FL --1,800-3,000
148. 1819 -- **Yellow Fever**, esp. Charleston SC/Mobile/Natchez/New Orleans/Balt. --2,918-2,988
149. 1850 -- **Measles**, especially children, nationwide --2,983
150. 1966 -- July, **Heat Wave** and “excess deaths,” esp. IL, NYC, St. Louis, MO ~2,582-2,954
151. 1940 -- **Whooping Cough**, nationwide, especially TX and KY --2,926
152. 1893 -- Dec 24-Aug 25, Nov 3-Dec 22, 1894 -- **Diphtheria**, Brooklyn & NYC, NY -2,858
153. 1931 -- “Epidemic **Cerebrospinal Meningitis**,”<sup>29</sup> U.S., especially IL, NY and PA --2,832
154. 1944 -- **Cerebrospinal Meningitis**, Nationwide, esp. CA, IL, MI, NJ, NY, OH, PA --2,812
155. 1931 -- Jun-Sep, **Heat Waves**/excessive heat, West, Midwest, NE, esp. IL, IA, WI --2,768
156. 1949 -- Esp. July-Nov, **Polio**, esp., CA, IL, MI, MN, MO, NJ, NY, OK, TX 2,720-2,732
157. 1891 -- **Typhoid Fever**, Chicago, IL Philadelphia, PA & Washington, DC --2,724
158. 1875 -- **Smallpox**, esp. New York City (1,899), Cincinnati (745), Philadelphia (54) --2,699
159. 1931 -- **Scarlet Fever**, especially children, especially IL --2,651
160. 1931 -- **Malaria**, esp. AL, AR, FL, GA, LA, MS, MO, SC, TN --2,536
161. 1797 -- **Yellow Fever** Epidemic, New Design, MO, NYC, Philly, Providence, RI --2,502
162. 1871 -- Oct 8-9, **Wildfire/Firestorm**, Peshtigo/NE WI vic.; Birch Creek MI<sup>30</sup>- 1,152-2,500
163. 1893 -- Aug 27-28, **Hurricane**, Sea Islands “Great Storm of 1893,” GA/SC --1,000-2,500
164. 1900 -- June-Dec, **Measles** and **Influenza**, Native Alaskans, esp. west AK ~2,000-2,500
165. 1839 --~Jun-Oct, **Yellow Fever**, AL/FL/GA/LA/MS/SC/TX, esp. Mobile, Natchez, NOLA~2,415
166. 1941 -- Dec 07, **Violence, Attack** by Japanese on Pearl Harbor, HI --2,402
167. 1864 -- **Yellow Fever**, esp. Charleston, SC, Galveston, New Bern NC, New Orleans--2,381
168. 1850 -- **Smallpox**, nationwide --2,352
169. 1941 -- **Measles**, esp. children, esp. VA (170), GA (160), KY (158), SC (138), TN (133) --2,279
170. 1893 -- Dec-Jan 1894, Epidemic **Influenza**, NY --2,200
171. 1911 -- **Heat waves**/excessive heat deaths, esp. June 4-23, July 1-13, esp. MW, NE ~2,190
172. 1931 -- **Polio**, esp. July-Oct (Aug peak), esp. NY, NJ, MI, MA, IL, CT, PA --2,139-2,144
173. 1872 -- **Cholera**, Cincinnati, OH (438); Philadelphia, PA (1,666) --2,104
174. 1927 -- **Polio** (Acute), especially late Summer and Fall, especially children --2,013

<sup>25</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>26</sup> Number is of sailor/soldier yellow fever deaths. We do not know number who were American, or how many Boston area residents died when the disease communicated to the town.

<sup>27</sup> The 1735-36 time-frame is essentially for NH and Kittery, ME, whereas the 1735-37 data is for Essex Co., Mass.

<sup>28</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.

<sup>29</sup> “Epidemic Cerebrospinal Meningitis,” is the name used for this malady in U.S. Census, *Mortality Statistics 1931*.

<sup>30</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).

175. 1634-35, **Smallpox** Epidemic, Five Nations, especially Mohawks, Upper NY <sup>31</sup>--≥2,000
176. 1709-10, **Smallpox** Epidemic, Native Americans, lower CA --≥2,000
177. 1865-Apr 27, **Steamer Sultana Explodes/Burns**, MS Riv., Redman Point, AR-1,238-2,000
178. 1893 -- Oct 1-2, **Hurricane**, Cheniere Caminanda, Gulf Coast esp. LA, MS, AL 1700-2000
179. 1939 -- **Diphtheria**, esp. Jan-Mar, Sep-Dec, Nationwide, esp. GA, IL, NC, TX, VA --1,997
180. 1944 -- **Measles**, especially Jan-June, Nationwide, esp. CA, GA, OH, PA, TX --1,923
181. 1950 -- **Polio**, esp. Jul-Nov (1,611 deaths), esp. CA, IL, MI, NY, OH, PA, TX --1,904
182. 1980 -- June-Sep, **Heat**, esp. Midwest & So. Plains, esp. MO/TN/AR/TX/MS<sup>32</sup>--1,863-1,904
183. 1948 -- **Polio**, especially CA, MN, NC, OH, SD, TX and WI --1,895
184. 1944 -- **Whooping Cough**, Nationwide, especially NC, VA, TX, SC, KY, MS --1,878
185. 1946 -- Especially July-Nov, **Polio**, nationwide, esp. IL, MN and TX --1,845
186. 2005 -- Aug 25-31, **Hurricane Katrina**, FL, LA, esp. NOLA & MS<sup>33</sup> --≥1,833-1,836
187. 1800 -- **Yellow Fever**, esp. Baltimore, Charleston SC, Norfolk, Philly, Providence RI --1,806
188. 1870 -- **Typhus**, nationwide, especially IL, IN, NY, and PA --1,770
189. 1939 -- **Malaria**, esp. May-Nov, especially AL, AR, FL, GA, LA, MS, SC, TX --1,761
190. 1911 -- **Typhoid Fever**, PA --1,716
191. 1553 -- **Hurricane**, Lower Coast of TX --1,700
192. 1834 --~Jul-Nov, **Cholera**, esp. Baltimore, Cleveland, Detroit, Rochester; esp. NYC~1,693
193. 1934 -- **Heat**, Jul-Aug, IL/IN/IA/KS/KY/MI/MN/MO/NE/OH/PA/TX/WI --1425-1683
194. 1910 -- Year, esp. Summer-Fall, **Polio**, especially IA, MA, MN, NY, PA 1,459-1,655
195. 1848 -- **Cholera** Epidemic, New Orleans, LA --1,616
196. 1995 -- June-Aug, esp. July 12-17, **Heat**, esp. IL/>700 WI/154 PA/146 MO/58 1,563-1,601
197. 1921 -- **Polio** (Acute), esp. late Summer-Fall, esp. children, esp. NY, IL, WA, MI --1,597
198. 1951 -- **Polio**, especially July-Nov, especially CA, IL, TX --1,551-1,555
199. 1855 -- May-Aug, **Cholera**, IL, LA, KS, KY, MO, OH, WI, esp. New Orleans--1,450-1,550
200. 1867 -- Jun-Dec, **Cholera** Epidemic, esp. New Orleans, St. Louis, TN, U.S. Army --1,536
201. 1925 -- **Polio** (Acute), especially late Summer and Fall, especially children --1,519
202. 1689-1690 -- **Smallpox**, New England and NY, settlers and natives --≥820-1,500
203. 1801-02 **Smallpox**, Native Americans, esp. Omaha Nation, esp. midwest, northwest--1,500
204. 1862 -- **Yellow Fever**, FL, Wilmington NC, Hilton Head SC, Matagorda, TX --1,499
205. 1914 -- **Diphtheria and Croup**, the Year, NYC, NY --1,489
206. 1730 -- **Smallpox** Epidemic, Boston, New York City --1,000-1,480
207. 1875 -- **Consumption (Tuberculosis)**, leading cause of death in MI for year --1,479
208. 1937 -- **Polio** (Acute), especially late Summer and Fall, especially children --1,461
209. 1953 -- **Polio** (Acute), especially CA, IL, MI, and NY --1,450
210. 1940 -- **Malaria**, especially AL, AR, GA, MS, SC and TX --1,442
211. 1803 -- **Yellow Fever**, July 18-Oct, Charleston SC, New York, VA, Philadelphia --1,403
212. 1894 -- **Smallpox**, Jan-Dec 17, Chicago, DC, IL, IN, MI (esp. Detroit), NY, PA/WI --1,397
213. 1928 -- **Polio** (Acute), especially late Summer and Fall, especially children --1,381

<sup>31</sup> We are assuming that if thousands died, then at least 2,000 must have died.

<sup>32</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>33</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.

214.	1944 --	<b>Polio</b> , the year, especially July-Nov (1,070 deaths), esp. NY, OH and PA	--1,381
215.	1896 --	<b>Heat Wave</b> , Jul 30 -Aug 17, esp., IL, MD, MO, NJ, NY, OH, PA, WI	--1,370
216.	1930 --	<b>Polio</b> , especially late Summer through Fall	--1,370
217.	1954 --	<b>Polio</b> , especially late Summer and Fall, especially children	--1,368
218.	1799 --	<b>Yellow Fever</b> , Charleston, SC, NYC, Philadelphia, USS <i>General Greene</i>	--1,356
219.	1913 --	<b>Diphtheria and Croup</b> , the Year, NYC, NY	--1,333
220.	1871 --	<b>Scarlet Fever</b> , especially children, Baltimore, MD (625), and MI (696)	--1,321
221.	1865 --	<b>Smallpox</b> , especially Mobile, AL, Philadelphia, PA, New York City <sup>34</sup>	>1,312
222.	1912 --	<b>Typhoid Fever</b> , Pennsylvania	--1,310
223.	1945 --	<b>Measles</b> , especially children	--1,301
224.	1876 --	<b>Yellow Fever</b> , Savannah (also Brunswick), GA; also New Orleans & Baltimore	--1,293
225.	1880 --	<b>Smallpox</b> , CA, CT, DC, IL, LA, MA, NJ, NM, NY, especially Philly & TX-	1,284
226.	1911 --	<b>Diphtheria</b> , Year, esp. NYC, Chicago, Philadelphia, MA	--1,281
227.	1915 --	<b>Diphtheria and Croup</b> , The Year, NYC, NY	--1,278
228.	1860 --	<b>Smallpox</b> , especially MA and NY	1,263-1,271
229.	1843 --	<b>Yellow Fever</b> Epidemic, Mobile, New Orleans	758-1268
230.	1900 --	July-Aug (esp.) <b>Heat</b> , esp. NY/361 NJ/119 Chicago/102 St. Louis/90 Balt./62--	1,266
231.	1817 --	June-Dec, <b>Yellow Fever</b> , esp. Charleston SC, Natchez MS, New Orleans	--1,210
232.	1904 --	<b>General Slocum Excursion Steamer Fire</b> , Jun 15, East Ri., NYC, NY	--957-1,200
233.	1873 --	<b>Smallpox</b> , Chicago (515), Baltimore (631); also Cincinnati (48)	--1,194
234.	1945 --	Jan-Dec, <b>Polio</b> , especially July-Nov (Sept. peak)	--1,186
235.	1917 --	<b>Polio</b> , especially Jun-Sep, Census registration area (27 States, some cities)	≥1,182
236.	1943 --	<b>Polio</b> , especially late Summer and Fall, especially children	--1,151
237.	1919 --	Sep 10-14, <b>Hurricane</b> , Florida Keys, Gulf & Corpus Christi area, TX	500-1,131
238.	1874 --	<b>Scarlet Fever</b> , especially children, MI (440) and Cincinnati, OH (687)	--1,127
239.	1912 --	Year, <b>Diphtheria</b> , NYC, NY	--1,125
240.	1675 --	Dec 19, English Colonists <b>Massacre</b> Narragansetts, Great Swamp, RI	--365-1,100
241.	1872 --	<b>Cerebral Spinal Meningitis</b> , MA (esp. Boston), NYC, PA (esp. Philly)	--1,090
242.	1924 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	--1,079
243.	1863 --	<b>Smallpox</b> , Fort Delaware, DE, Baltimore, Camp Chase, OH, Chicago, VA	>1,078
244.	1939 --	June-Sep, <b>Heat</b> , esp. Sep 15-23, Los Angeles (546), TX (42), MO (37) <sup>35</sup> -527-	1,073
245.	1837 --	<b>Yellow Fever</b> Epidemic, Mobile, AL; New Orleans, LA; Natchez, MS	--1,072
246.	1999 --	Jun-Aug esp., esp. July, <b>Heat</b> , esp. IL/141 MO/92 PA/90 AZ/57 TX/42 NY/40 <sup>36</sup>	776-1050
247.	1955 --	<b>Polio</b> , most States, especially, Boston, MA (~200)	--1,043
248.	1883 --	<b>Smallpox</b> , esp. Baltimore (633) and Chattanooga (105); also IL, NJ, WV	--1,042
249.	1935 --	<b>Polio</b> (Acute), especially late Summer-and Fall, especially children	--1,040
250.	1899 --	<b>Typhoid fever</b> epidemics/outbreaks, Greensboro, NC; PA, esp. Philadelphia-	1,026
251.	1940 --	<b>Polio</b> , Nationwide, especially IL, IN, IA, KS, MI, OH and WV	--1,026
252.	1820 --	May-Dec, <b>Yellow Fever</b> , Savannah GA, New Orleans, NYC, Philadelphia	--1,018
253.	1633-34 --	<b>Smallpox</b> Epidemic, New England Natives, Plymouth Colonists, MA	>1,000
254.	1663 --	<b>Smallpox</b> , Fort Orange, NY and Northern "NY" Native American Tribes	--1,000

<sup>34</sup> This does not take into account hundreds of smallpox fatalities in military ranks and especially military prisons.

<sup>35</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."

<sup>36</sup> 776 is the total we have been independently able to derive through State breakouts. 1,050 is a summary number noted by a CDC MD, citing the National Vital Statistics System.

255.	1677-78 --	<b>Smallpox</b> Epidemic, Massachusetts Bay Colony	--1,000
256.	1818 -- Sep 12-14,	<b>Hurricane</b> , Galveston, TX	<1,000
257.	1861-62 -- Winter-Spring,	<b>Flooding</b> , CA, OR, WA, British Columbia	~1,000
258.	1918 -- Oct 12-15,	<b>Forest Fire</b> , Cloquet-Moose Lake, MN/WI	400-1,000
259.	1927 -- Apr-May, Rain, MS Riv.	<b>Flood/Levee Breaks</b> , MS, AR, LA, KY, MO	--246-1,000
260.	1721-22, Apr-Apr,	<b>Smallpox</b> , Mass. Colony, esp. Boston & Charlestown	--944-991
261.	1868 -- June-Dec,	<b>Smallpox</b> , esp. Chicago, Cincinnati, Milwaukee, San Francisco	-- 960
262.	1955 -- Aug 31–Sep 9,	<b>Heatwave</b> /excessive deaths, greater Los Angeles, CA <sup>37</sup>	--115- 946
263.	1887 --	<b>Yellow Fever</b> Outbreaks, esp. Fernandina & Tampa, FL & New Orleans, LA	-- 941
264.	1870 --	<b>Yellow Fever</b> , esp. New Orleans, Mobile AL, Brunswick GA, Gov. Isl. NYC	-- 939
265.	1848 --	<b>Yellow Fever</b> Epidemic – Mobile, New Orleans, NY Marine Hospital	-- 938
266.	1876 --	<b>Smallpox</b> , Cincinnati, OH	-- 934
267.	1822 --	<b>Yellow Fever</b> , late Sum-Fall, Baton Rouge/New Orleans/NYC/Pensacola	--879-923
268.	1988 -- June 1-Aug 31 especially;	<b>Heat</b> , esp. IL/341; MI/121; IN/~44; MO/~44 <sup>38</sup>	--911-919
269.	1849 -- Aug-Dec,	<b>Yellow Fever</b> , Charleston SC, Mobile AL, New Orleans	-- 912
270.	2006 -- June-Aug esp.,	<b>Heat</b> , esp. CA/184, AZ/169, NY/148, TX/106, MD/44, IL/43-	≥912
271.	1875 --	<b>Croup and Diphtheria</b> , MI (374) and Hudson County, NJ (533)	-- 907
272.	1756 --	<b>Smallpox</b> Epidemic, Philadelphia	--800-900
273.	1916 -- June 18-Aug 22,	<b>Heat Waves</b> , esp. Chicago, Detroit, Milwaukee, St. Louis	-- ~895
274.	1972 -- July 11-25,	<b>Heat Wave</b> , New York City, NY	-- 891
275.	1905 -- May 21-Oct,	<b>Yellow Fever</b> Epidemic, LA, especially New Orleans	-- 869
276.	1915 -- July 24,	<i>S.S. Steamer Eastland</i> Rolls-over in Dock, Chicago, IL	--812-852
277.	1934 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 852
278.	1926 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 851
279.	1923 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 850
280.	2005 -- June-Aug esp.,	<b>Heat</b> , esp. AZ/244, NYC/~140 TX/112 CA/55 MD/47 PA/26--	847
281.	1932 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 828
282.	1837 --	<b>Scarlet Fever</b> , Boston, MA, New York City, NY, Philadelphia, PA	-- 823
283.	1929 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 812
284.	1941 --	<b>Polio</b> , especially late Summer and Fall, especially children	-- 807
285.	1599 -- Jan 21, Spanish (Oñate)	<b>Massacre</b> Acoma Natives, punitive expedition, NM	300-800
286.	1795 -- July 19–Oct 12,	<b>Yellow Fever</b> Epidemic, NY City, also Providence RI	~745-800
287.	1833 --	<b>Malaria</b> Epidemic, ConCow Maidu Villages, Butte County, CA vicinity	-- ~800
288.	1926 -- Sep 16–21,	<b>Great Miami Hurricane</b> , Cat 4, FL, MS, AL	<sup>39</sup> --~800
289.	1933 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 797
290.	1925 -- Mar 18,	<b>Tornadoes</b> , esp. Tri-State Tornado (IL/IN/MO), AL, KY, TN	--689-792
291.	1922 --	<b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 790
292.	1944 -- Dec 18, Navy Task Force 38,	<b>Typhoon</b> , 3 ships capsized off Philippines	-- ~790

<sup>37</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.

<sup>38</sup> These figures are based on a State by State tally using best available sources which actually counted deaths. There are "estimates" for this year of 5,000-10,000 deaths, for which we can find no explanation of how these estimates were made. We suspect this was based on looking at high spikes in deaths during the high heat, and attributing some percentage of the spikes to heat, at least as a contributing or aggravating factor. However, we seek to provide tallies based on counting, as opposed to estimating.

<sup>39</sup> Includes missing, presumed dead – see Narrative Information and footnotes below.

293.	1850 -- Jan-Oct, <b>Yellow Fever</b> , especially New Orleans, LA	-- 785
294.	1864 -- <b>Cerebral Spinal Meningitis</b> Epidemic, Carbondale & Philadelphia PA	-- 784
295.	1936 -- <b>Polio</b> (Acute), especially late Summer and Fall, especially children	-- 780
296.	1939 -- <b>Polio</b> , especially late Summer through Fall, especially children	-- 773
297.	1920 -- <b>Polio</b> (33 “registration states), especially young children	-- 769
298.	1938 -- Sep 21, New England <b>Hurricane “Long Island Express”</b>	--600-766
299.	1879 -- mid June-Dec, <b>Yellow Fever</b> , Forest City, AR, Louisiana, Memphis, TN	-- 765
300.	1861 -- <b>Smallpox</b> Outbreak, Philadelphia, PA	-- 758
301.	1805 -- <b>Yellow Fever</b> Epidemic, New York, Philadelphia, Providence, RI	-- 750
302.	1919 -- <b>Polio</b> (Acute). Especially late Summer and Fall, especially children	-- 747
303.	1824 -- <b>Smallpox</b> , esp. NYC, NY, Philadelphia, PA, Sandusky, OH	--740-745
304.	1852 -- <b>Yellow Fever</b> Outbreaks, Charleston SC, New Orleans, Savannah GA	-- 745
305.	1911 -- <b>Scarlet Fever</b> , NYC, NY	-- 741
306.	1911 -- Oct-June 8, 1912, <b>Cerebrospinal Meningitis</b> Epidemic, esp. TX , OK, MO	-- 740
307.	1913 -- Mar 23-27, Ohio Valley <b>Flooding</b> and <b>Dam/levee failures</b> , esp. OH, IN	--700-732
308.	1760 -- <b>Yellow Fever</b> Epidemic, Charleston SC	-- 730
309.	1637 -- May 27, <b>Massacre</b> , Eng. Colonists Attack Pequot Vil., Mystic Riv. CN	--600-700
310.	1644 -- Feb, Dutch / Eng. <b>Massacre</b> , Siwanoy, Petuquapaen, ~Cos Cob, CT <sup>40</sup>	--500-700
311.	1881 -- <b>Typhoid Fever</b> , Birmingham AL, Washington DC, Minneapolis, NYC	-- 692
312.	1853 -- Burnt Ranch <b>Massacre</b> , Settlers kill Tolowa, Yontocket, Smith Riv., No. CA	--450-600
313.	2012 -- Summer esp. Heat, esp. AZ/157, MO/52, MD/46, CA/45, TX/40, IL/33, WI/24-598	
314.	1840 -- May 7, <b>Tornado</b> , Natchez, MS ( <i>Hinds</i> ); Concordia, LA Plantations	<sup>41</sup> --317-586
315.	1881 -- Aug 27, <b>Hurricane</b> , Cat 2, Savannah (Georgia-South Carolina)	-- 700
316.	1880 -- Oct-Jan 8, 1881, <b>Diphtheria</b> epidemic, esp. children, Brooklyn, NYC, NY	-- 688
317.	1912 -- <b>Measles</b> , NYC, NY	-- 671
318.	1911 -- <b>Measles</b> , NYC, NY	-- 659
319.	1809 -- May-Feb 1810 -- <b>Disease/Illness</b> , U.S. Army, MS	-- 656
320.	1862 -- Aug 17-Sep, <b>Violence, Sioux “Insurrection,”</b> Litchfield, elsewhere, MN	--300-650
321.	1915 -- <b>Measles</b> , NYC, NY	-- 630
322.	1794 -- <b>Yellow Fever</b> Epidemic, Baltimore, MD, and New Haven, CT	-- 624
323.	1912 -- <b>Scarlet Fever</b> , NYC, NY	-- 615
324.	1903 -- Dec 30, <b>Fire, Suffocation, Trampling</b> , Iroquois Theater, Chicago, IL	-- 602
325.	1835 -- Apr-Aug, <b>Cholera</b> , esp. Madison, IN; KY, esp. Russellville; NOLA	--590-601
326.	1759 -- <b>Smallpox</b> Epidemic, Philadelphia	--500-600
327.	1873 -- Aug 14-27, “Nova Scotia” <b>Hurricane</b> , off East Coast	-- >600
328.	1928 -- March 12, <b>St. Francis Dam Failure</b> , Ventura County, CA	--400-600
329.	1947 -- Apr 16-17, Ammonium Nitrate <b>Explos./Fire</b> , <i>Grandcamp</i> , Texas City, TX	--552-600
330.	1853 -- <b>Cholera</b> , New Orleans, LA (585); Choctaw on Arkansas River, OK (14)	-- 599
331.	1983 -- July-Aug esp., <b>Heat</b> (esp. July 15-30) esp. MO/70 KY/57 IL/53 GA/35 TX/35-595-597	
332.	1844 -- <b>Yellow Fever</b> Epidemic, Galveston, TX; Mobile, AL; New Orleans, LA	-- 590
333.	2005 -- June-Aug esp., <b>Heat</b> , esp. AZ/244 TX/112 MD/47 PA/26 MO/25 NV/17	-- 584
334.	1873 -- <b>Scarlet Fever</b> , especially children, MI	-- 580

<sup>40</sup> In dispute – some place the massacre in Westchester County, NY (Dinan. “Historians Sift Clues...” *Greenwich Time*, 3-5-2006.)

<sup>41</sup> See Nelson, Part 2 on why 317 fatalities is probably an undercount in Natchez. In addition, the “317” figure does not take account of what was described as hundreds (probably slaves) killed on the other side of the Mississippi River in Louisiana. This is why we are willing to consider higher estimates than 317 as real possibilities.

335.	1947 --	<b>Polio</b>	--	580
336.	1702 --	Sep, <b>Yellow Fever</b> Epidemic, New York City	--	570
337.	1752 --	<b>Small-Pox</b> Epidemic, Boston, MA	--545-569	
338.	1872 --	<b>Scarlet Fever</b> , especially children, MI	--	565
339.	1854 --	Sep 27, <b>US Mail Steamer Arctic hit by Vesta</b> , Fog, Cape Race, NFLD	--318-562	
340.	1802 --	<b>Yellow Fever</b> , Wilmington DE, MD, MA, Philadelphia, NH, SC	--	561
341.	1823 --	July-Nov 1, <b>Yellow Fever</b> Epidemic, Natchez & vicinity, MS, New Orleans--	581	
342.	1956 --	<b>Polio</b> , especially late Summer and Fall, especially children	--	566
343.	1942 --	<b>Polio</b> , especially late Summer and Fall, especially children	--	561
344.	1918 --	Oct 12, <b>Forest Fires</b> , Cloquet, Moose Lake, many towns, northeast MN	--453-559	
345.	1957 --	June 26-28, <b>Hurricane Audrey</b> , SW LA, North TX, South Central US	--535-550	
346.	1875 --	<b>Scarlet Fever</b> , Michigan and Hudson County, NJ	--	537
347.	1903 --	June-Aug (esp. July 1-11), <b>Heat</b> , esp. NY/144, NJ/60, IN/17, Chicago/15, CT/18	--	520
348.	1912 --	<b>Polio</b> , especially Summer to Fall, especially children, especially CA (129)	--	518
349.	1813 --	Aug 30, Creeks <b>Massacre</b> militia/settlers, Fort Mims, Baldwin Co., AL	--250-517	
350.	1920 --	<b>Smallpox</b> , 34 registration states, esp. LA/167, MS/45, MO/28, NC/28 <sup>42</sup>	--	508
351.	1913 --	<b>Scarlet Fever</b> , NYC, NY	--	507
352.	1793 --	<b>Influenza</b> Epidemic, VA, 5 counties, 4 weeks	--	500
353.	1804 --	GA, SA, NC <b>Hurricane</b> , September 7-9	--	500
354.	1811-12 --	Dec 16-May, <b>Earthquakes</b> , New Madrid, KY, TN, NE AR, MO	--100-500	
355.	1842 --	June 16, <b>Tornado</b> , Adams County, MS	--	500
356.	1864 --	July 30, <b>Rebels kill wounded/surrendered/trapped black soldiers</b> , Petersburg, VA~500		
357.	1864 --	Sep, General <b>massacre</b> of Yana Natives, Northern CA	-->335-500	
358.	1865 --	Mar 31, <b>Steam Transport General Lyon</b> Burns, Cape Hatteras, NC	--400-500	
359.	1881 --	Sep 1-6, <b>Wildfire</b> , "The Thumb Fire," Lower Michigan	--169-500	
360.	1888 --	Jan 11-12, Schoolchildren's <b>Blizzard</b> , IA/KS/ND/MN/MT/NE/SD/TX	--200-500	
361.	1898 --	Nov 26-27, <b>Portland Gale</b> , <b>SS Portland sinks</b> (Cape Ann MA), New Eng. <sup>43</sup>	400-500	

<sup>42</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>43</sup> There were deaths from and sinkings of multiple vessels. The loss of life on the Portland estimated at 127-192.