Data Sources on Mortality Rates for New York City

Jason Barr,
Rutgers University-Newark

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I. Mortality Rates

1. New York City

1804 – 1865: Duffy, J., 1968. *History of Public Health in New York City, 1625-1866:* Volume 1. Russell Sage Foundation. Appendix 1

1866 – 1900: Rosenwaike, I., 1972. *Population History in New York City*. Syracuse University Press. Table A-2

1901 – 1921: *Annual Report of the State Department of Health*, v. 43, no. 2 (1922). https://babel.hathitrust.org/cgi/pt?id=nyp.33433075972772&view=1up&seq=55.

1922 – 1935: Rosenwaike, Table A-3

1936 – 2017: Various issues of *Summary of Vital Statistics, The City of New York*. Most recent issue for 2017 is here: https://www1.nyc.gov/assets/doh/downloads/pdf/vs/2017sum.pdf. Note that for earlier issues, just replace the year with an earlier year in the URL. Earliest issue available online is 1961.

2018 – 2019: Death rate assumed to be 6.3 deaths per 1,000 residents (same as 2017)

2019: Mortality Rate = estimated deaths divided estimated population (in thousands). See below for assumptions and calculations on deaths.

2. United States

1900 – 1998: *Historical Statistics of the United States, Millenial Edition Online*. (1999). Table Ab952.

1998 – 2019: https://www.macrotrends.net/countries/USA/united-states/death-rate

II. New York City Number of Deaths

1804 – 1900: Rosenwaike, Table A-1

1901 – 1935: Rosenwaike, Tables A-4 & A-9

1936 – 2017: Various issues of *Summary of Vital Statistics, The City of New York*

2018 – 2019:   *Estimated Deaths=(Population x Mortality Rate)/1000*

2020: Began with assumption that the number of deaths, and population are the same as 2019. Death rate then was assumed death plus additional deaths from COVID-19 from https://www1.nyc.gov/site/doh/covid/covid-19-data.page (accessed on June 13, 2020). Death rate then was total deaths divided by population. This is thus the death rate for 2020, assuming no more COVID-19 deaths and no bump in deaths from untreated illnesses that arisen from people without COVID-19 who were fearing getting medical treatment because of the virus. In short, this death rate is an undercount and is used as likely minimum death rate for 2020.

III.   NYC Population

1804 – 1865: Duffy, Appendix 1

1866 – 1935: *Population = (1000*Mortality Rate)/(# Deaths)*

1936 – 2017: Various issues of *Summary of Vital Statistics, The City of New York*

2018: https://www1.nyc.gov/site/planning/planning-level/nyc-population/current-future-populations.page

2019: American Community Survey, via Wikipedia: https://en.wikipedia.org/wiki/Demographics_of_New_York_City

2020: Assumed same population as 2019

IV.   NYC Homicides

1797 – 1999: Data assembled by Eric Monkkonen, UCLA. https://www.icpsr.umich.edu/icpsrweb/NACJD/studies/03226

2000-2019: NYPD. https://www1.nyc.gov/site/nypd/stats/crime-statistics/historical.page

V.   Other NYC Deaths:

1983 – 2017: HIV/ADIS Deaths: Various issues of *Summary of Vital Statistics, The City of New York*.

2018 – 2020: Based on average reduction in number of HIV/AIDS deaths from 2015-2018, I assumed that the number of deaths would decline by 10% each year as compared to the prior year. So estimated deaths in 2018 = .9(Deaths in 2017) and so on.

2001: Deaths from the 9/11 terrorist attacks is given in the *Summary of Vital Statistics, The City of New York* after 2001.

VI.   Epidemic Dates for New York City

Condran, G.A., 1995. Changing patterns of epidemic disease in New York City. *Hives of sickness: Public health and epidemics in New York City, pp.27-41*. Table 1. http://www.columbia.edu/itc/hs/pubhealth/rosner/g8965/client_edit/readings/week_5/condran.pdf