

The Lost World of High Mortality

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What Crude Death Rates Don't Tell Us

- Crude death rates are useful as a component of population growth, but they are *most* uninformative on mortality conditions
- For this purpose we want to look at the *survivorship curve* from the life table
- Only in this way do we gain an understanding of what high mortality means for individual, family and society

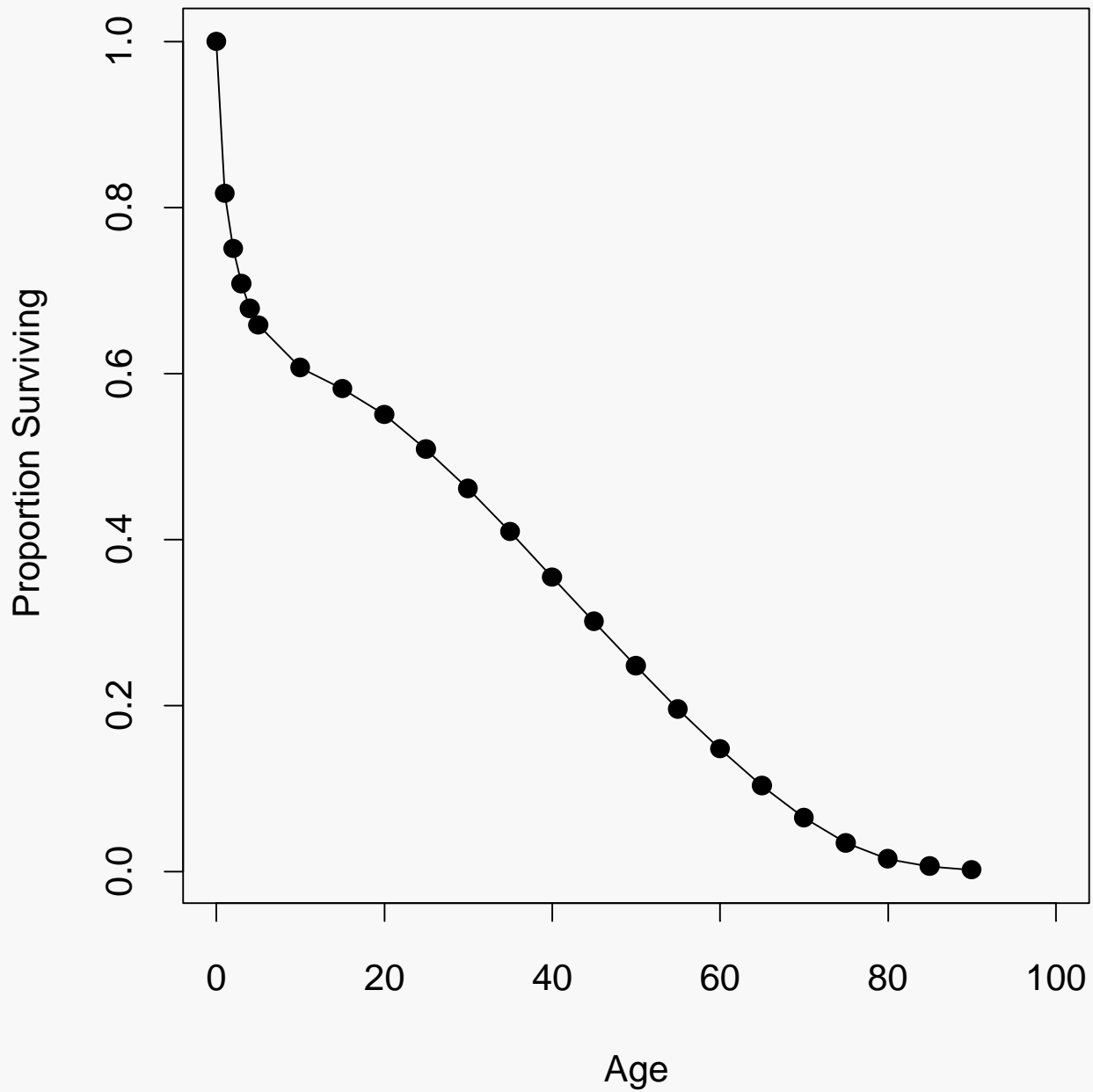
Survivorship Curves for Human Populations

- We will look at a variety of survivorship curves for human populations
- First, curves characteristic of very high mortality populations, then curves characteristic of low mortality populations
- Male-Female differences are not pertinent here; we look at curves for *both sexes*

Mortality in Early 20th Century Taiwan

- The Japanese colonizers of Taiwan instituted a remarkably accurate vital registration system
- This provides us with a rare instance of reasonably accurate statistics on very high mortality
- Source: *Colonial Development and Population in Taiwan*, George Barclay. Princeton University Press, Princeton, New Jersey, 1954, Chapter VI. Appendix, page 173

Taiwan Survivorship: 1906



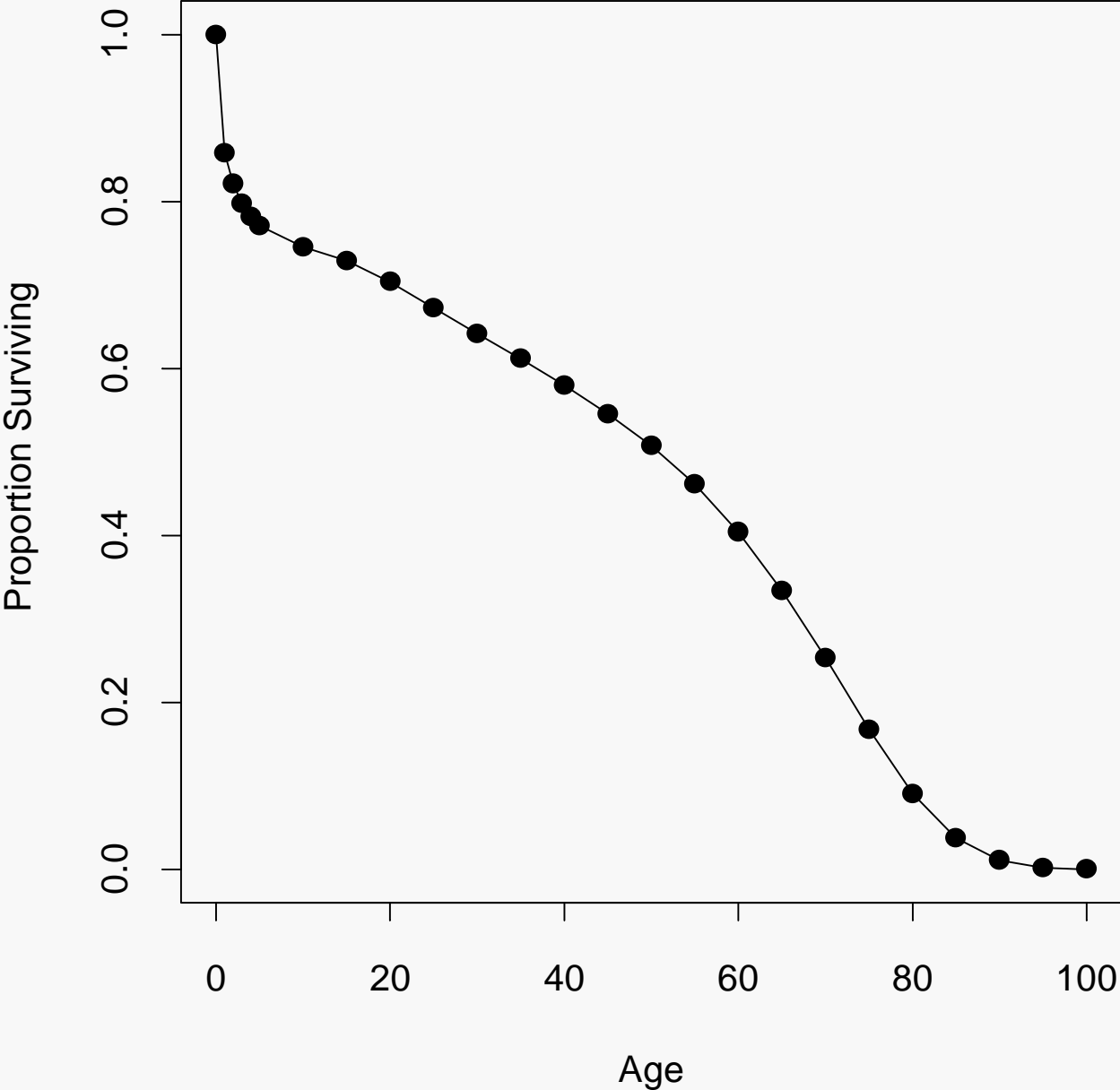
Points to Note

- How *very rapidly* the survivorship curve declines
- Nearly 20 percent of the cohort has died before reaching age one, nearly 40 percent by age 10
- Of those who reach age 20, only a small fraction reach age 60
- *Very few* people live into old age

Late 19th Century Mortality in Japan

- Official Japanese life tables begin in the 1890s and continue to the present
- Mortality levels for earlier periods are problematic for lack of suitable data
- Source: *The 15-th Life Tables*, Statistics and Information Department, Minister's Secretariat, Ministry of Health and Welfare, Tokyo, no date, pages 44-45

Survivorship: Japan, 1890s



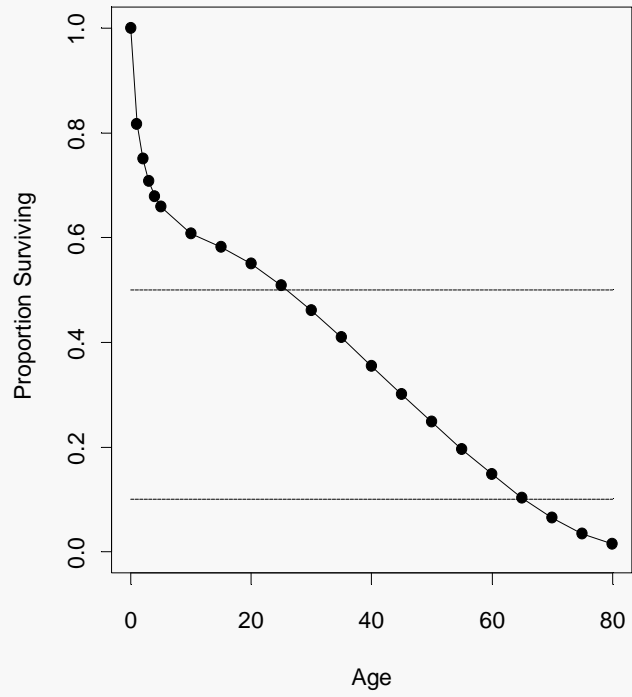
What Do You See?

- How does the shape compare with that of Taiwan? What is different? What is similar?
- How does the level compare with that of Taiwan?

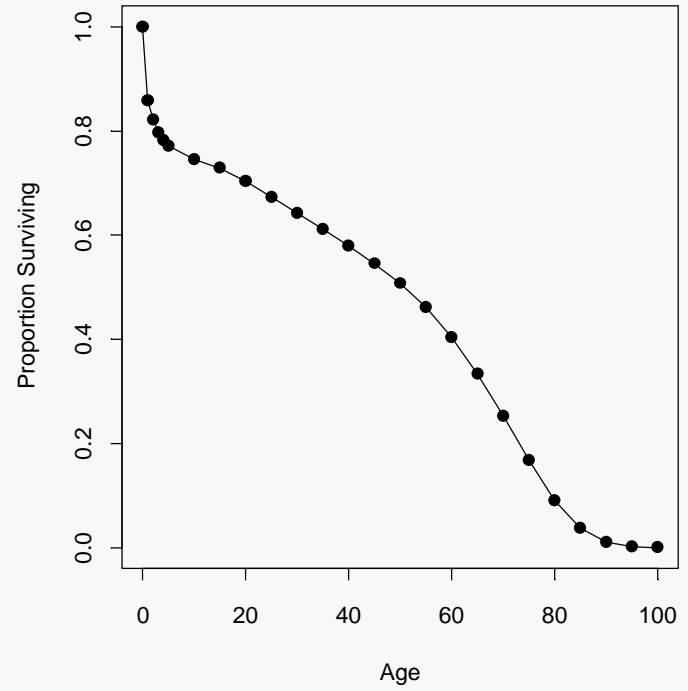
Aside on PowerPoint Technique

- We can also shrink the two plots down and put them side by side
- Copy the first plot to a new slide, then shrink it down
- Copy the second plot to a new plot and shrink it down
- Copy the second plot to the page of the first plot and position it appropriately

Survivorship: Taiwan, 1906



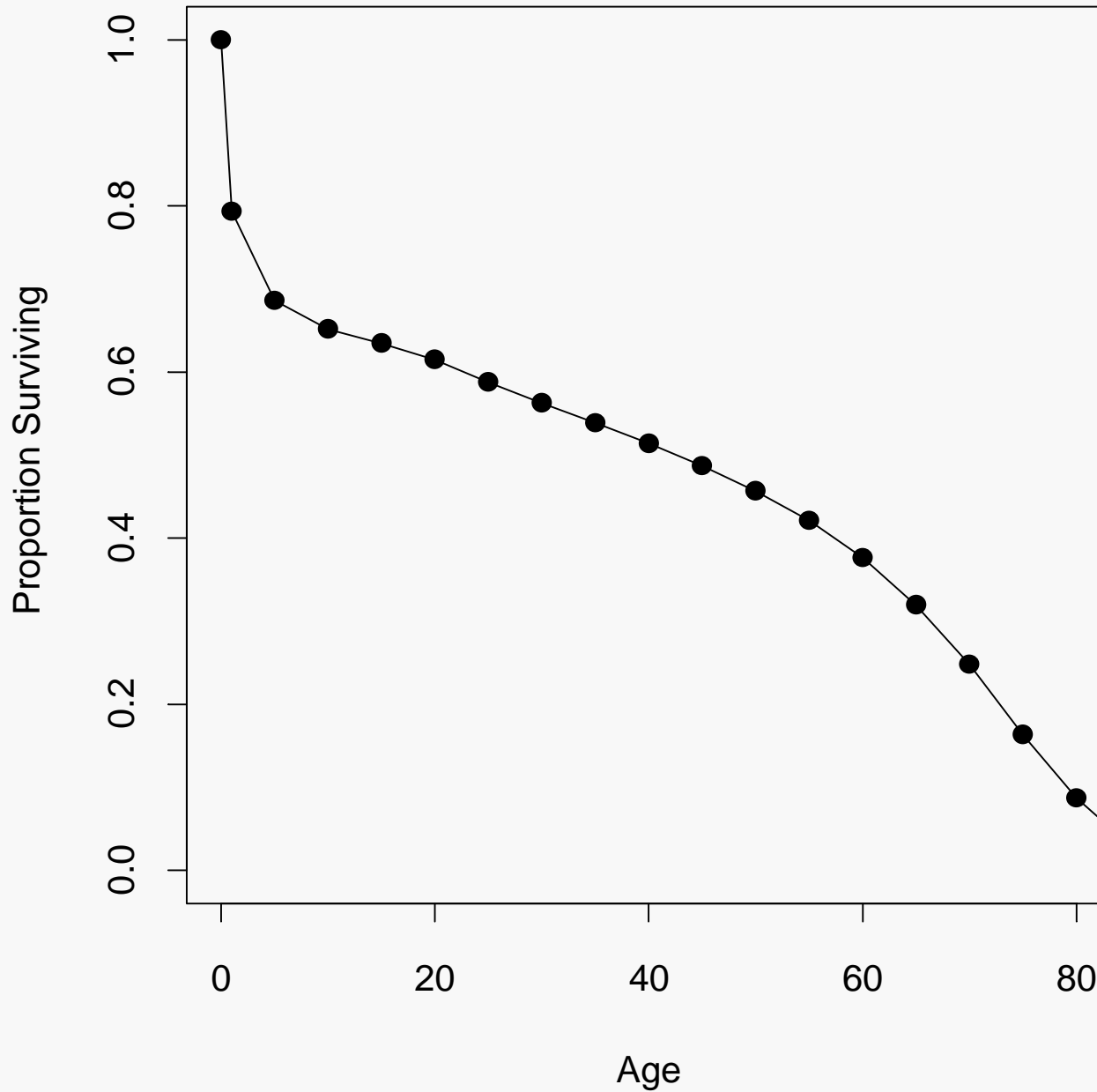
Survivorship: Japan, 1890s



Mid-19th Century Mortality in France

- Now let's look at a European country, France
- Data is available in the Keyfitz and Flieger compilation
- Source: *World Population: An Analysis of Vital Data*, Nathan Keyfitz and Wilhelm Flieger. The University of Chicago Press, Chicago & London, page 312

Survivorship: France, 1851



What Do You See?

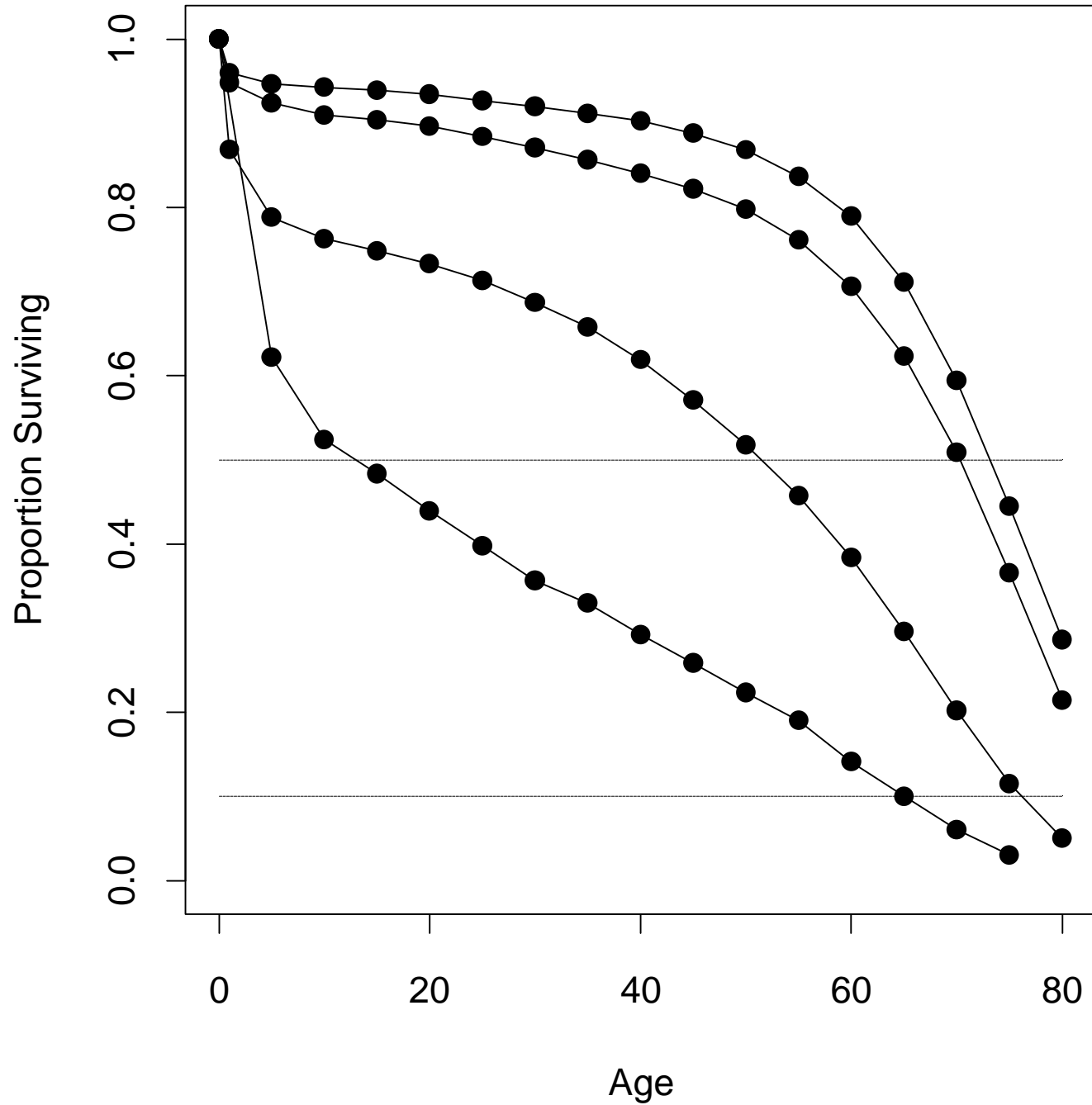
- Describe in words the shape of the survivorship curve
- Compare the curve for France with those for Taiwan and Japan

Mortality Decline in China

- Finally we will look at a series of survivorship curves for China
- The first is for rural china in 1930 and shows extremely low survivorship
- The second is for 1953-1964, the third for 1964-1982, and the last for 1987

China Survivorship

1930, 1953-64, 1964-82 and 1987



Questions?
Comments?
Discussion?