

# Nightingale's impact on social change



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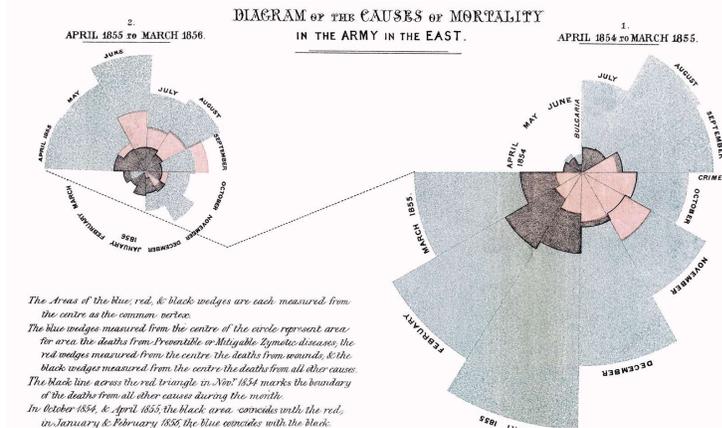
## Background

- British nurse, statistician, and social reformer
- 1854: Went to Crimea when the Crimean War began
  - Recognized the horrible conditions
  - Decided to graphically depict the horrible conditions, but records were inadequate
  - Decided to collect her own data. Was unique in that she was one graphic designer to collect her own data
  - Developed the [Diagram of the causes of mortality in the Army in the East](#)



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## Rose Diagram



“Diagrams are of great utility for illustrating certain questions of vital statistics by conveying ideas on the subject through the eye, which cannot be so readily grasped when constrained in figures. This aid has therefore been called in to give greater clearness to the numerical results.”

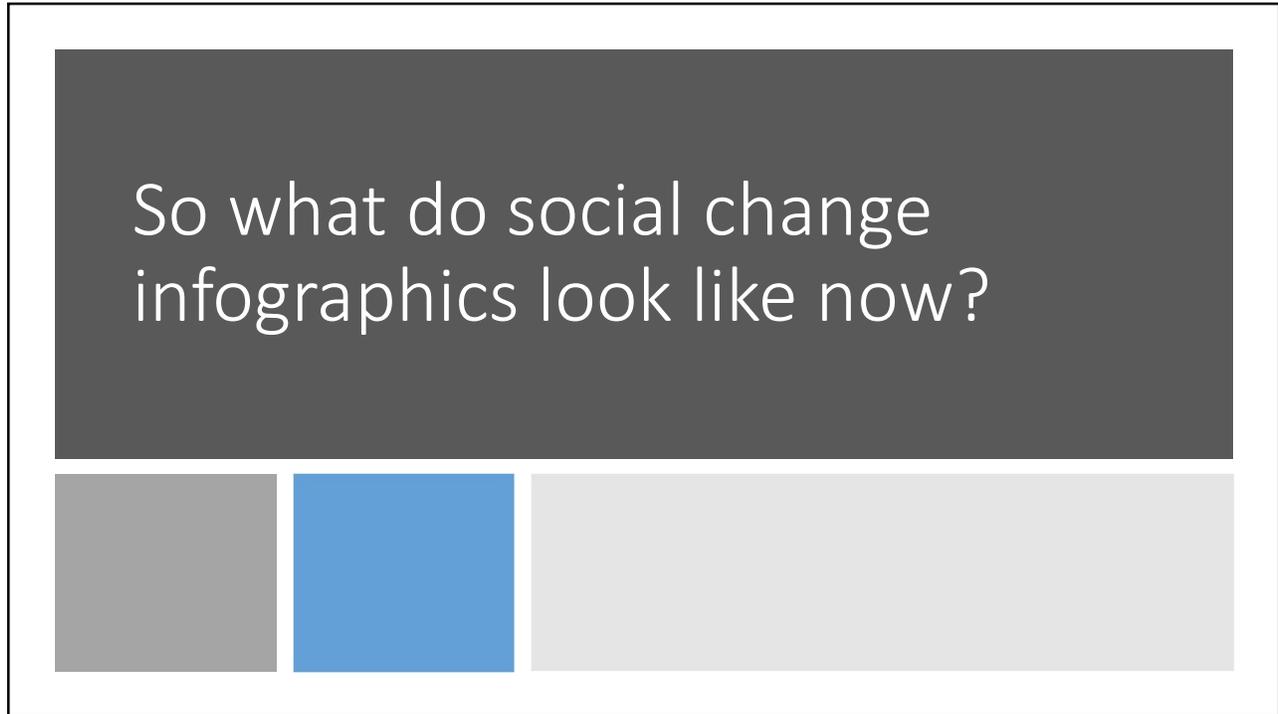
- Nightingale, 1858, page 1

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## What made it so impactful?

- Allows users to instinctively and directly compare the major causes of casualties of war in a given month and across the course of a campaign.
- Traditional pie charts (which had been around for 50 years) does not get at the harsh realities shown in the month-by-month view and it lacks the kind of attractive intricacy that Nightingale’s diagram has which inspires further study.
- used four separate fonts in the ‘Mortality Diagram,’ each of which has a consistent purpose which helps the user intuitively navigate the piece.
  - Four fonts reinforce visual flow and create a context for which the reader can go deeper to understand data

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## Racism

### Lifetime Likelihood of Imprisonment

<p>All Men</p> <p>1 in 9</p>	<p>White Men</p> <p>1 in 17</p>	<p>Black Men</p> <p>1 in 3</p>	<p>Latino Men</p> <p>1 in 6</p>
<p>All Women</p> <p>1 in 56</p>	<p>White Women</p> <p>1 in 111</p>	<p>Black Women</p> <p>1 in 18</p>	<p>Latina Women</p> <p>1 in 45</p>

Source: Bonczar, T. (2003). *Prevalence of Imprisonment in the U.S. Population, 1974-2001*. Washington, D.C.: Bureau of Justice Statistics.

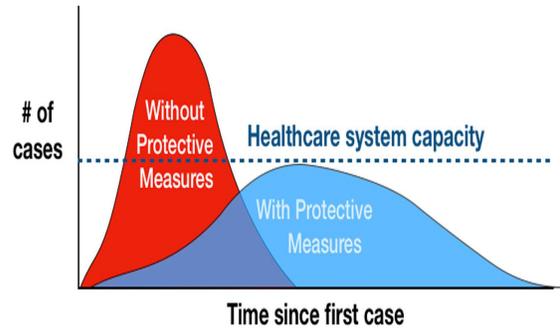
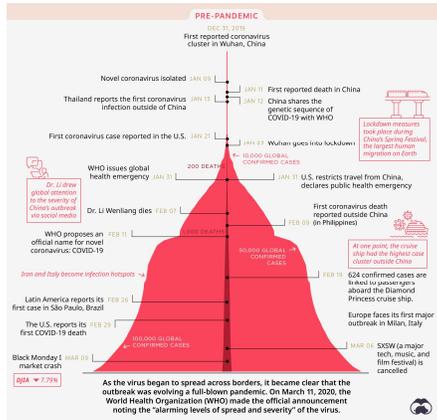
**PETER G. PETERSON**  
FOUNDATION

**Blacks and Hispanics have much higher poverty rates than other groups**

SOURCE: United States Census Bureau, Current Population Survey, 1980 to 2020 Annual Social and Economic Supplement, September 2020.  
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# Public health

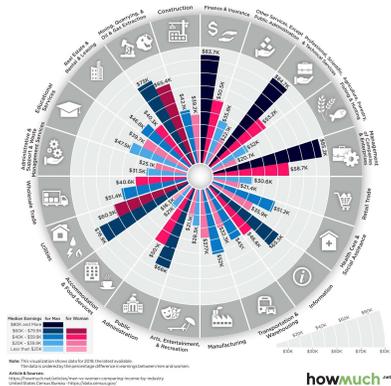


Adapted from CDC / The Economist

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# Gender Pay Gap

**Men vs. Women: Comparing Income by Industry**  
Median Annual Earnings For the Civilian Employed Population (16+ years old) in the U.S.



## What's Your Pay Gap?

Women earn less than men in 439 of 446 major U.S. occupations, a Wall Street Journal examination of the gender pay gap found. They earn more than men in seven occupations.



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## Questions to ask ourselves:

- What is my message?
- How can I use colour to my advantage?
- How can I do this simply but with enough information?
- Who is my audience?
- Am I grabbing their attention?

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## References

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- Grace, S. (n.d.). *Designing war-care: "Diagram of the causes of mortality in the army of the east"*. The art of consequences. <https://edspace.american.edu/visualwar/nightingale/>
- Nightingale, F. (1858) *Notes on Matters Affecting the Health, Efficiency, and Hospital Administration of the British Army*. Harrison and Sons

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