

# Știință și povești

De-popularea și re-popularea științei

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# Florence Nightingale

## 1820-1910

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- English social reformer and statistician, and the founder of modern nursing
- Active during the Crimean War, Oct. 1853 – Feb. 1856
- Focus: the Barrack Hospital in Scutari, Ottoman Empire
- Sources:
  - History's Badasses: Florence Nightingale, <http://historythings.com/historys-badasses-florence-nightingale/>







[William Simpson \(artist, 1823–1899\) E. Walker \(lithographer, lifespan unknown, working for Day & Son\)](http://wellcomeimages.org/indexplus/obf_images/a3/ac/734d0b4d5c31bb4ed35072db6b23.jpg)  
[http://wellcomeimages.org/indexplus/obf\\_images/a3/ac/734d0b4d5c31bb4ed35072db6b23.jpg](http://wellcomeimages.org/indexplus/obf_images/a3/ac/734d0b4d5c31bb4ed35072db6b23.jpg)

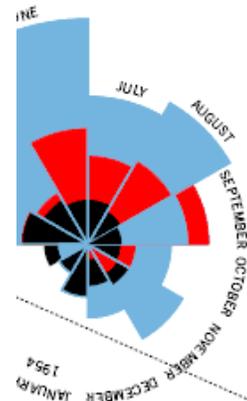
# People behind the charts

„Florence Nightingale kept meticulous records of the death toll at the hospital. In the months before she took over from the military, the death rate at the hospital varied between 32 and 42 percent on an annual basis. (These figures were obtained by extrapolation of the monthly mortality values to yearly values.) In January 1855, from the 3,168 soldiers that died, she counted 2,761 deaths due to preventable or 'mitigable' causes, mostly cholera, typhus and malnutrition. Only 83 died during that month from wounds, and 324 lives were lost to other causes. Five months after the commencement of her sanitary reform, however, the mortality had reached a level of 2 percent on an annual basis, which was comparable to that of the army hospitals in and around London. Florence Nightingale recorded that the overall mortality of the British army fighting in the East was about two thirds of that in the army back home! [6]. This was the result of the relentless and innovative efforts of Florence Nightingale and her team, despite the disapproval and opposition of the military administration who remembered her best as 'the lady with the hammer'. In April 1856, the war in the Crimea came to an end and Florence returned to England where she was acclaimed as a national hero, although haunted by the memory of the 9,000 soldiers which she had seen dying because of ignorance, disbelief and stubbornness of the military sanitary service.”

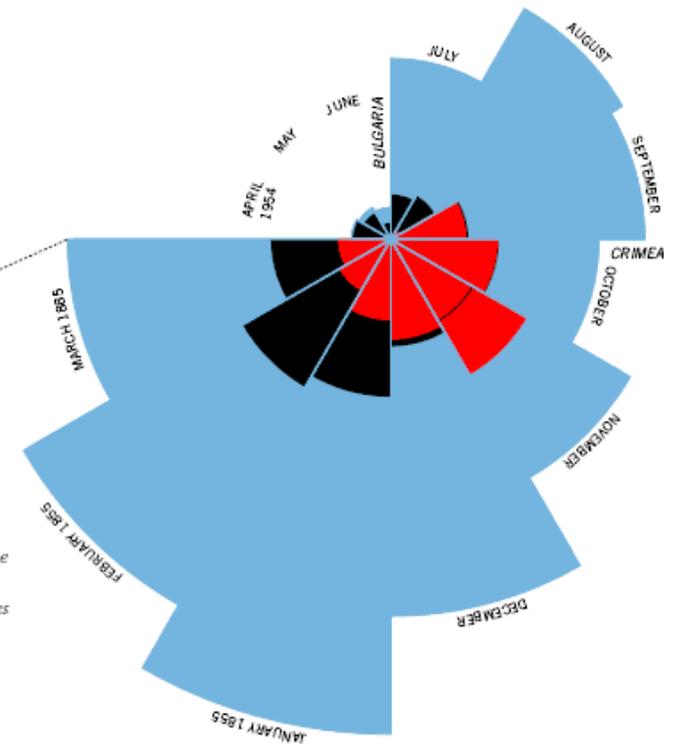
„In January 1855, from the 3,168 soldiers that died, she counted 2,761 deaths due to preventable or 'mitigable' causes, mostly cholera, typhus and malnutrition. **Only 83 died during that month from wounds, and 324 lives were lost to other causes.**” (Lewi 2006)

## DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST

2.  
15 TO MARCH 1856



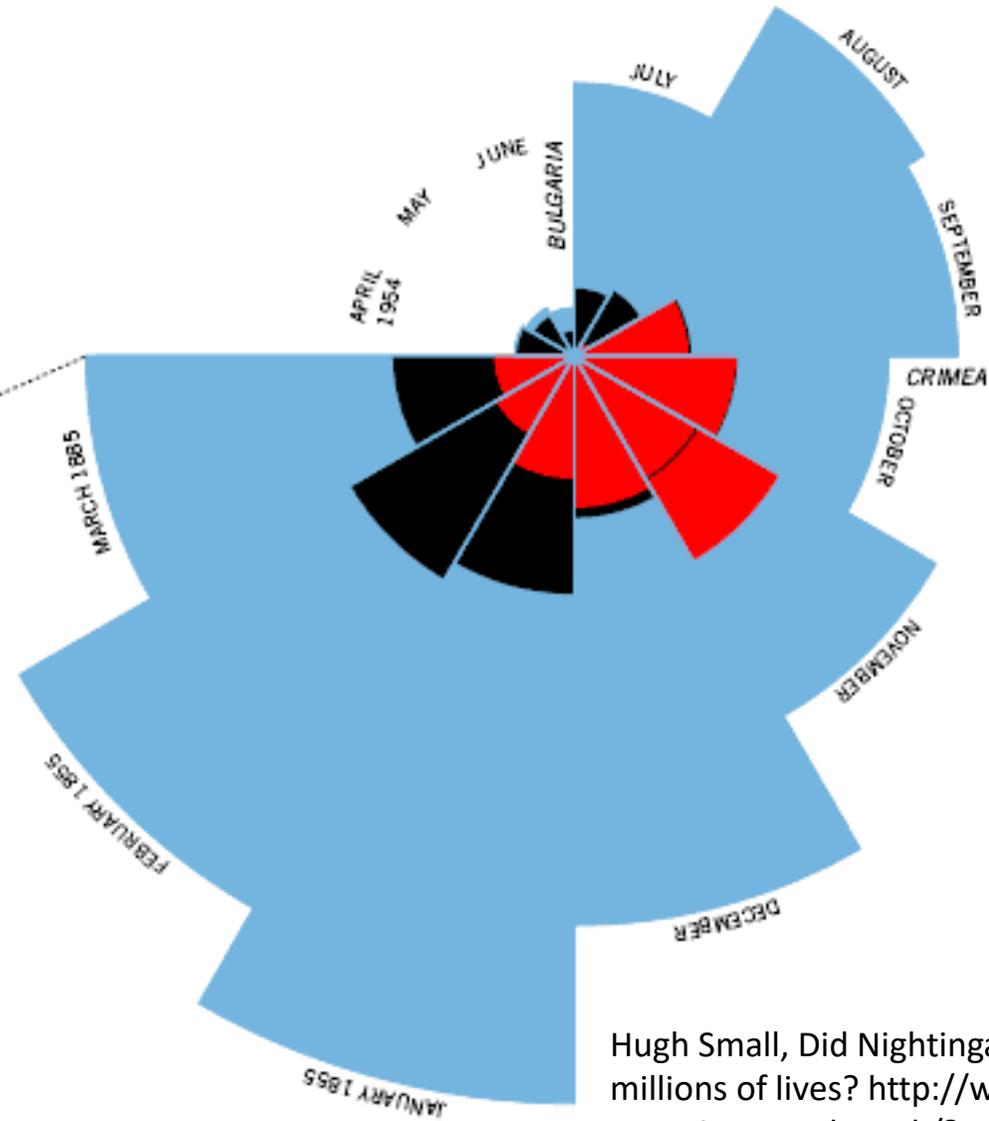
1.  
APRIL 1854 TO MARCH 1855



*If the blue, red, & black wedges are each measured from the centre of the circle as the common vertex the blue wedges measured from the centre of the circle represent area of the deaths from Preventable or Mitigable Zymotic Diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes. The red triangle in Nov' 1854 marks the boundary between deaths from all other causes during the month of November 1854, & April 1855, the black area coincides with the red, & February 1856, the blue coincides with the black area. The areas may be compared by following the blue, the red & the black areas enclosing them.*

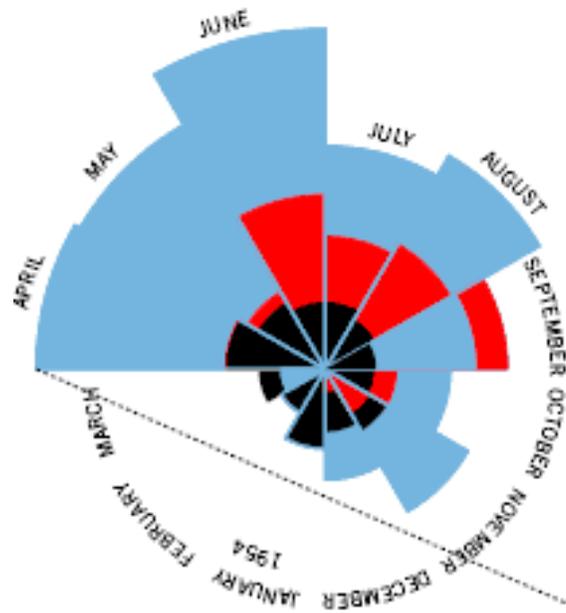
# DIAGRAM OF THE CAUSES OF MORTALITY IN THE ARMY IN THE EAST

1.  
APRIL 1854 TO MARCH 1855



Hugh Small, Did Nightingale's 'Rose Diagram' save millions of lives? <http://www.florence-nightingale-avenging-angel.co.uk/?p=462>

2.  
APRIL 1855 TO MARCH 1856



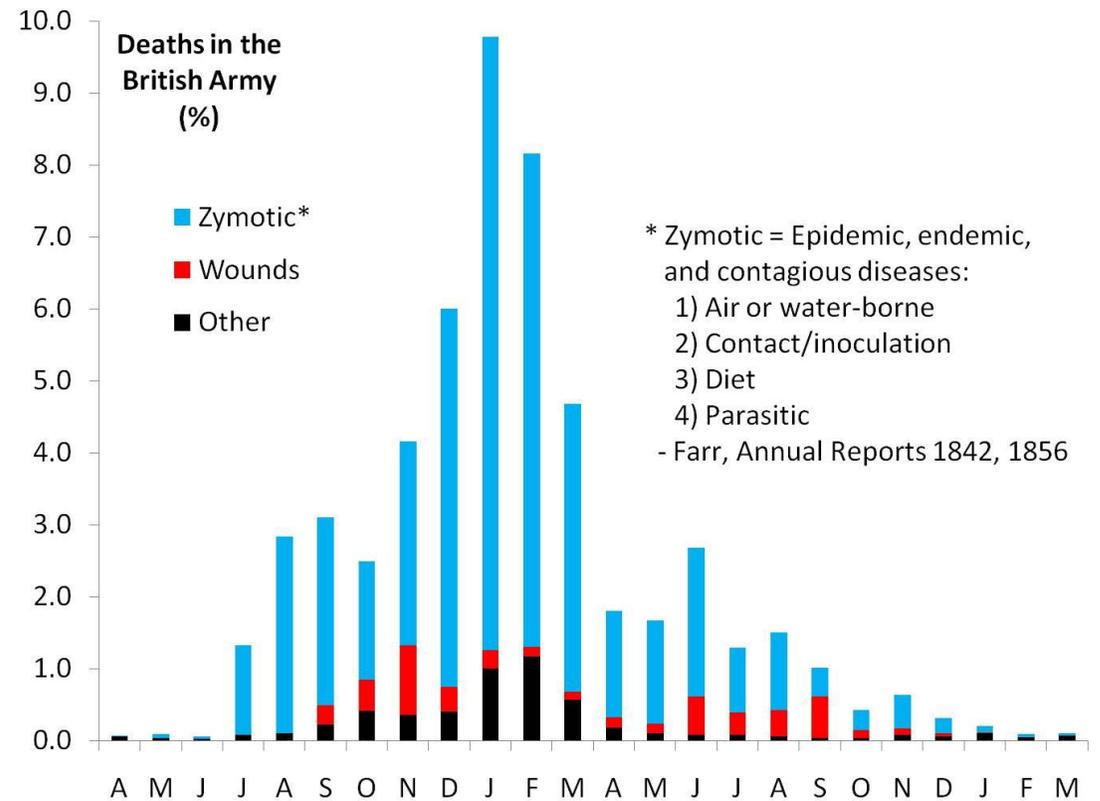
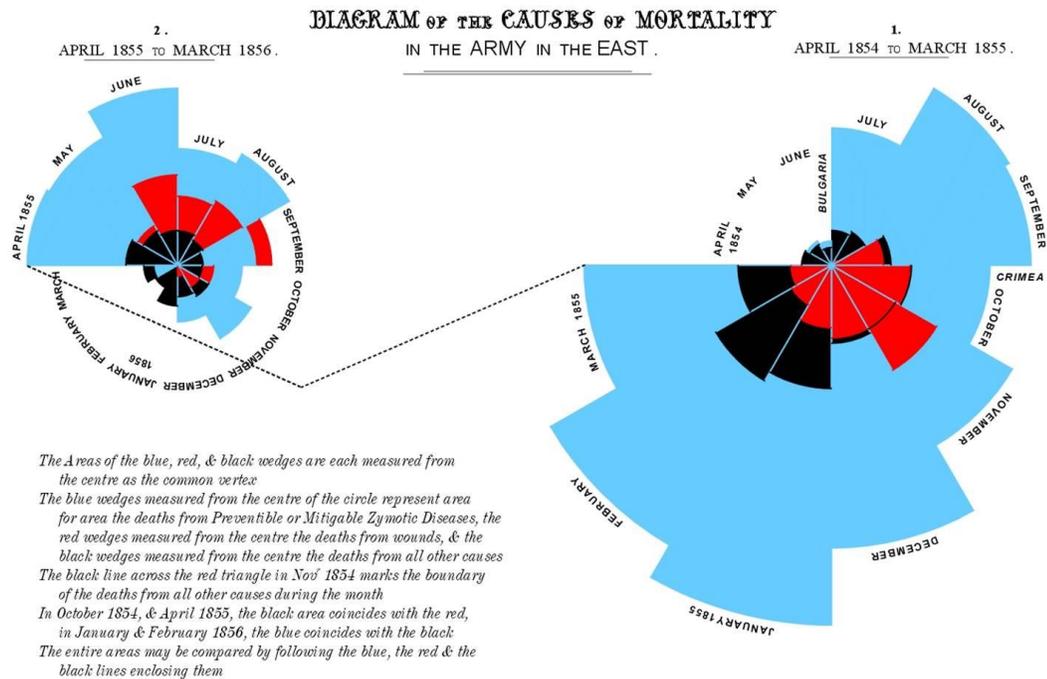
*The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex*

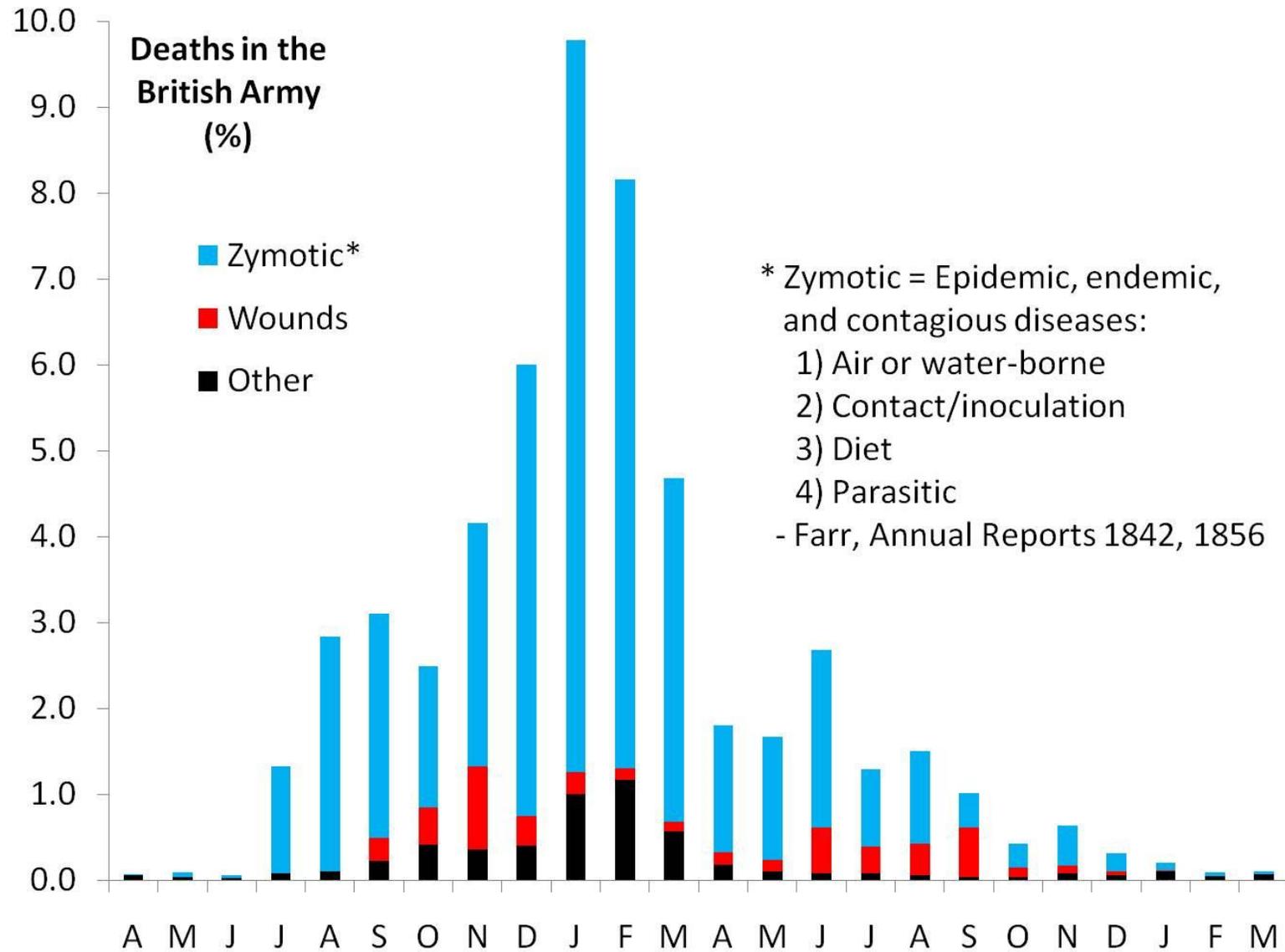
*The blue wedges measured from the centre of the circle represent area for area the deaths from Preventible or Mitigable Zymotic Diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes*

*The black line across the red triangle in Nov' 1854 marks the boundary of the deaths from all other causes during the month*

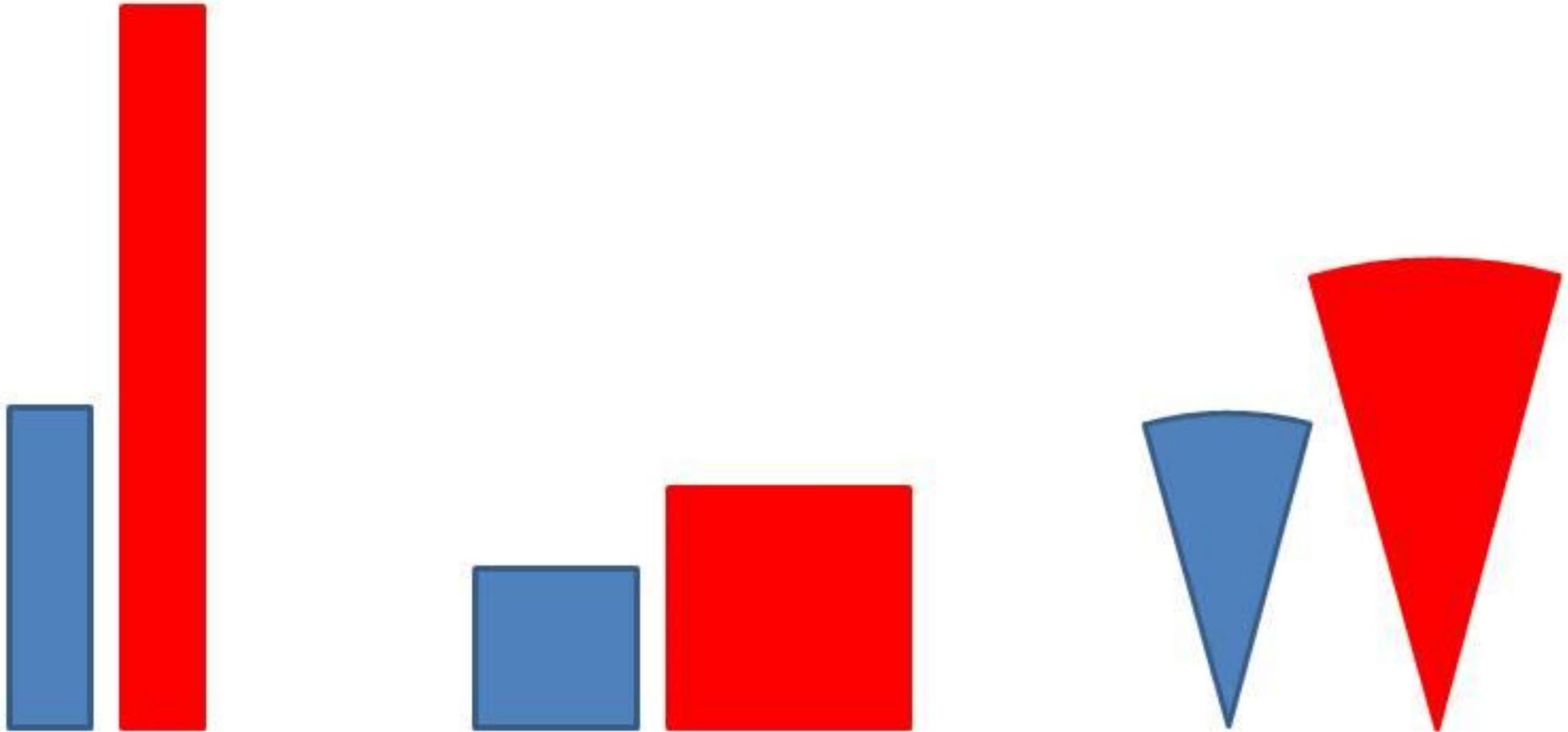
*In October 1854, & April 1855, the black area coincides with the red, in January & February 1856, the blue coincides with the black*

*The entire areas may be compared by following the blue, the red & the black lines enclosing them.*





# Use *areas* to give a square root transformation

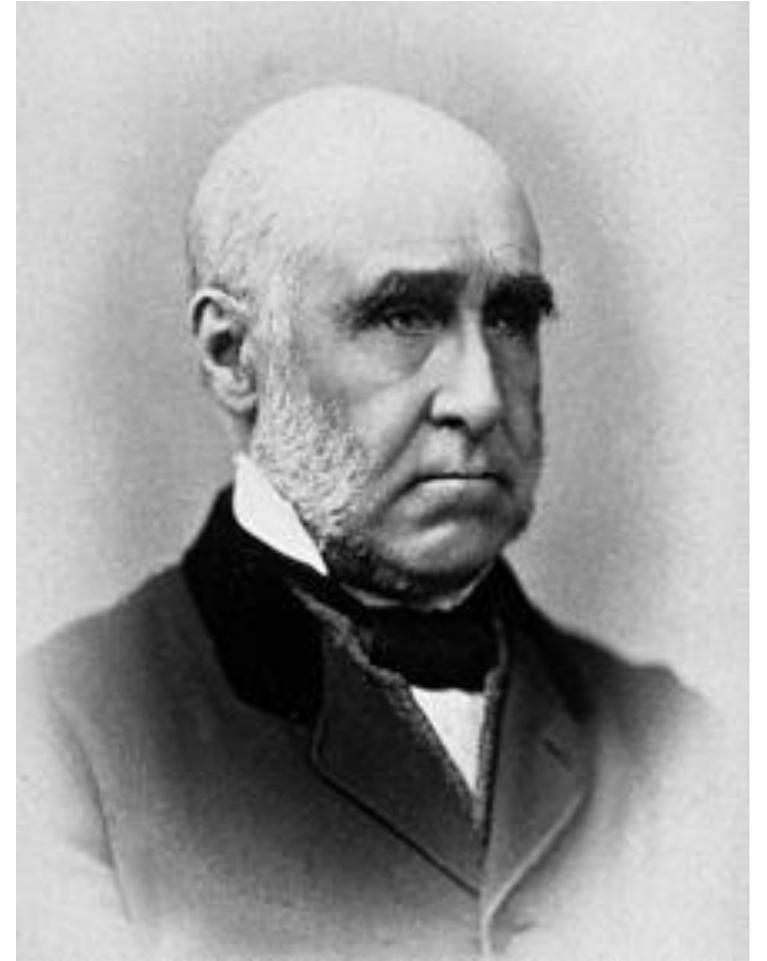


Each blue area is 4 cm<sup>2</sup>, each red area is 9 cm<sup>2</sup>

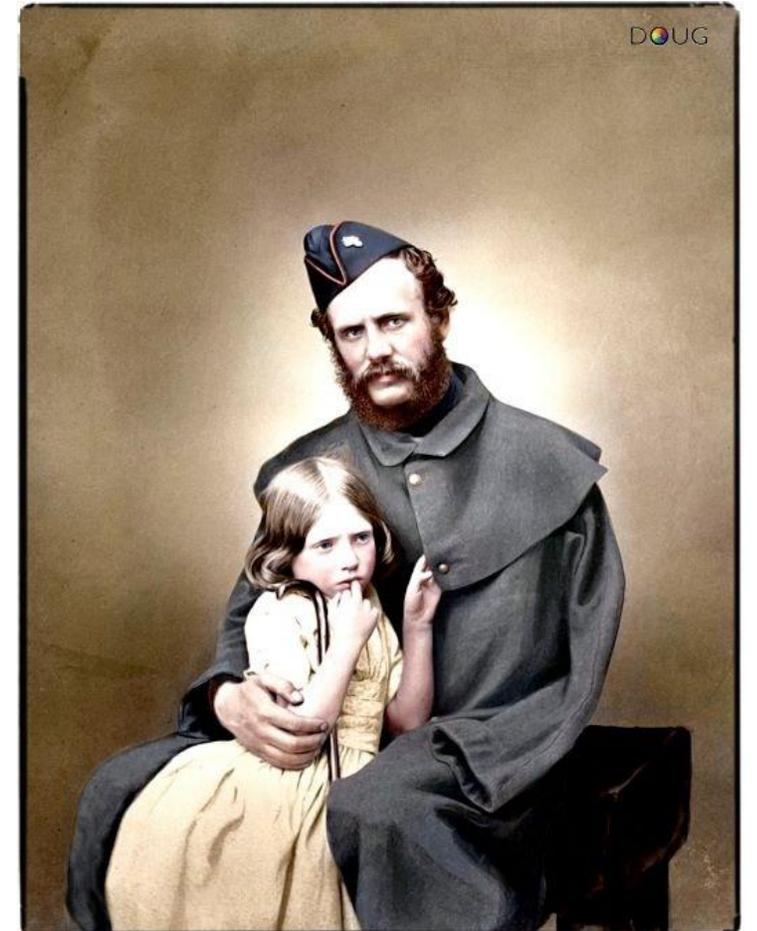
Hugh Small, Did Nightingale's 'Rose Diagram' save millions of lives?  
<http://www.florence-nightingale-avenging-angel.co.uk/?p=462>

# **Nightingale's 'Coxcombs'**

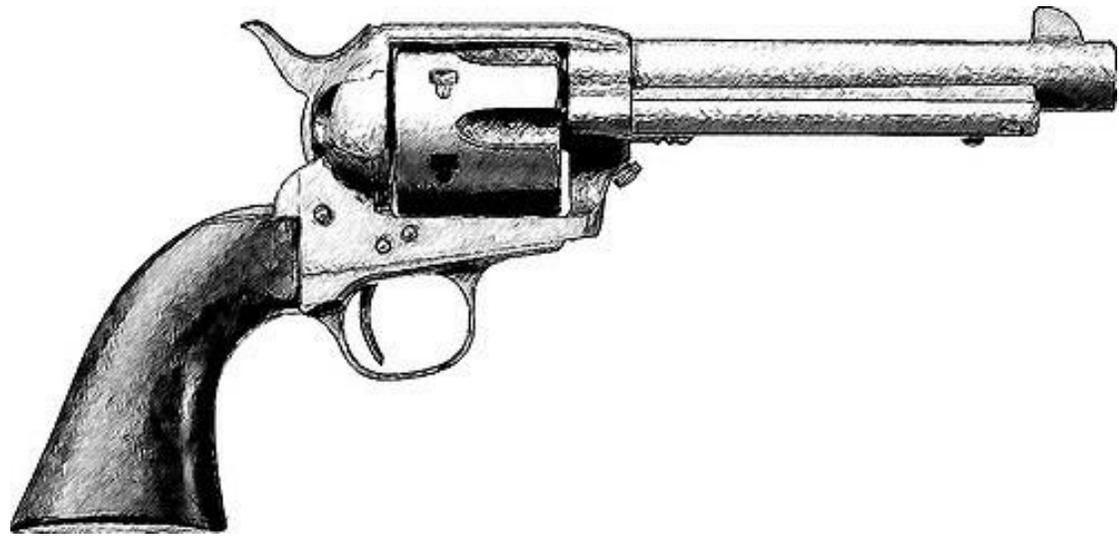
<https://understandinguncertainty.org/coxcombs>

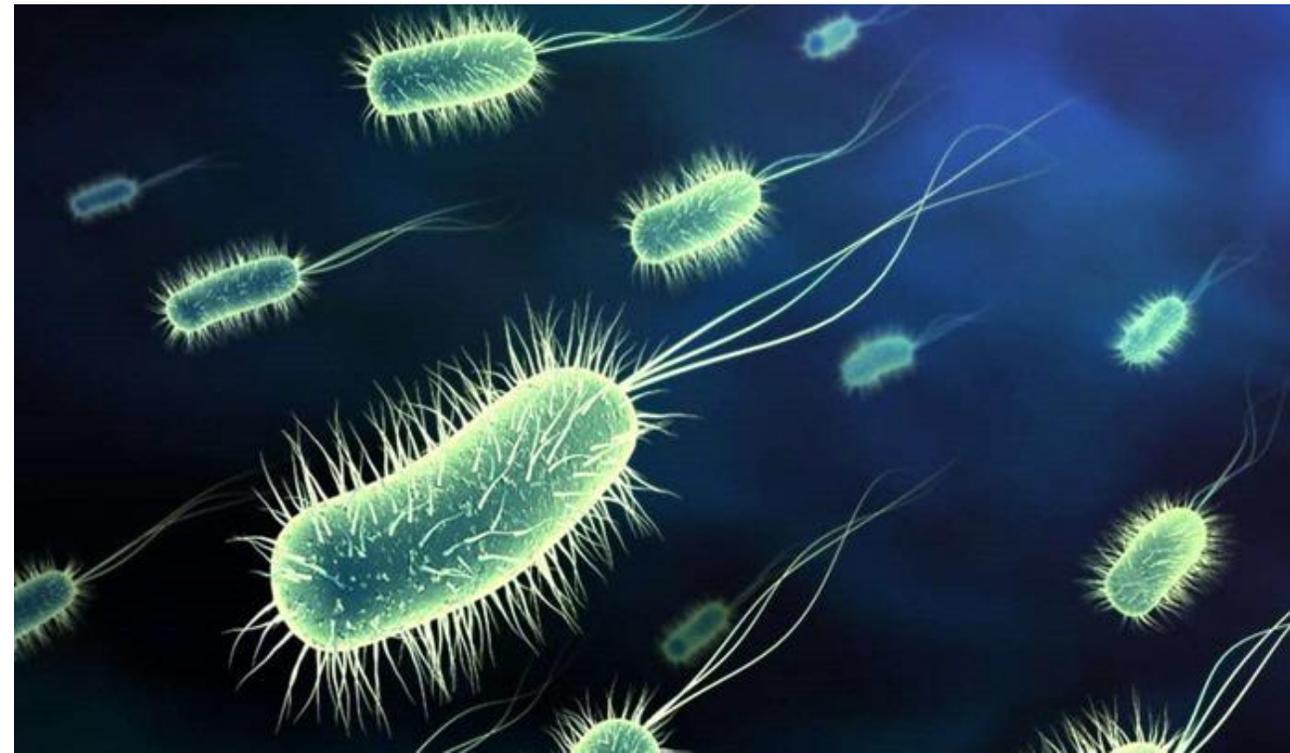
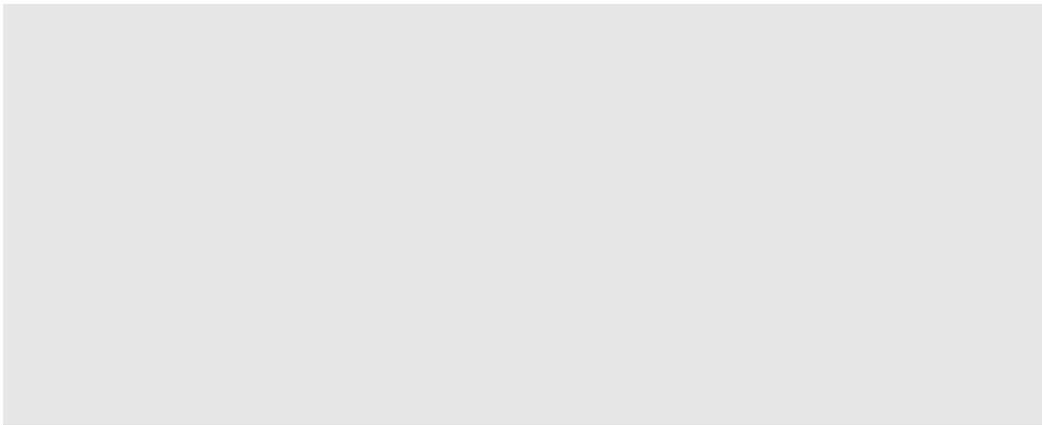


Mr. John Simon, 1816-1904, The first [Chief Medical Officer](https://en.wikipedia.org/wiki/John_Simon_(pathologist)) for Her Majesty's Government from 1855–1876  
[https://en.wikipedia.org/wiki/John\\_Simon\\_\(pathologist\)](https://en.wikipedia.org/wiki/John_Simon_(pathologist))



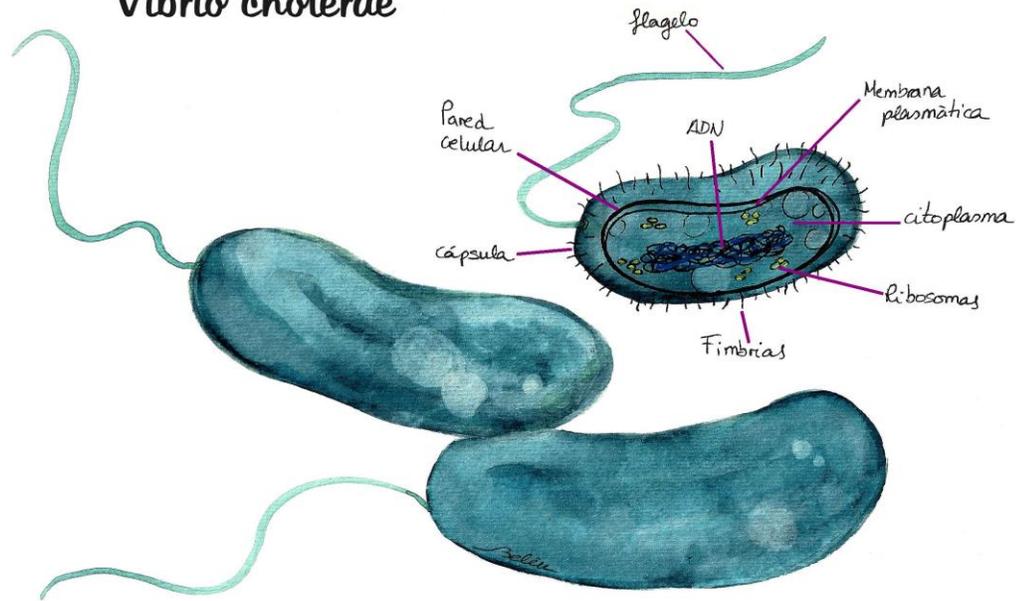
<http://www.twcenter.net/forums/showthread.php?642811-Crimean-War-Soldiers-In-Colour>  
<https://ro.pinterest.com/pin/569494315352088656/>





Typhoid fever / *Salmonella enterica* subsp. *enterica*

# Vibrio cholerae

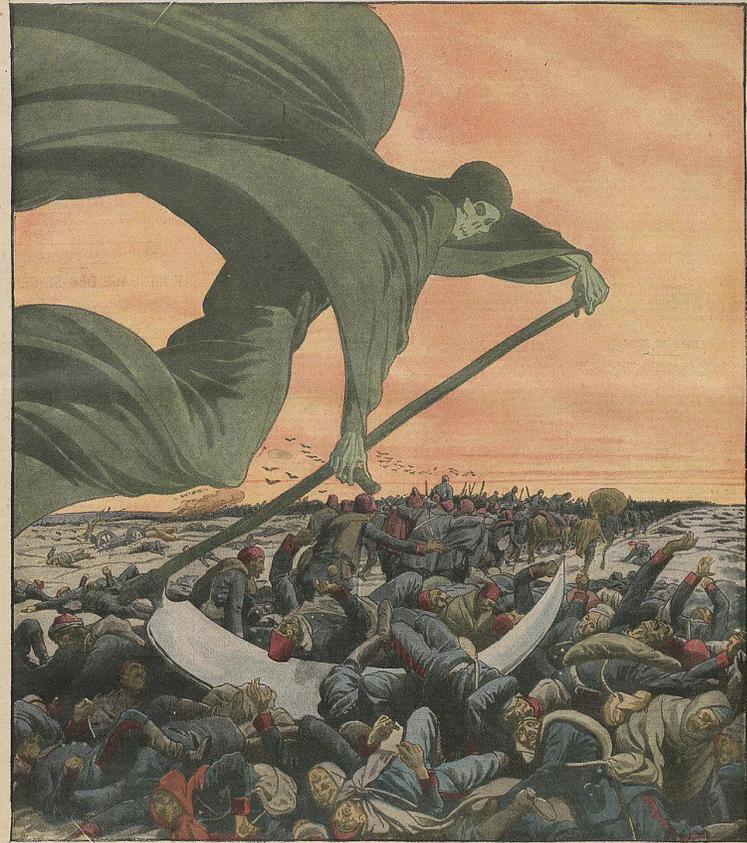


# Le Petit Journal

ADMINISTRATION 61, RUE LAFAYETTE, 61  
Les manuscrits ne sont pas rendus  
On s'abonne sans frais  
Dans tous les bureaux de poste.

5 CENT. SUPPLÉMENT ILLUSTRÉ 5 CENT. ABONNEMENTS  
23<sup>me</sup> Année — 42 — Numéro 1.150  
DIMANCHE 1<sup>er</sup> DECEMBRE 1912

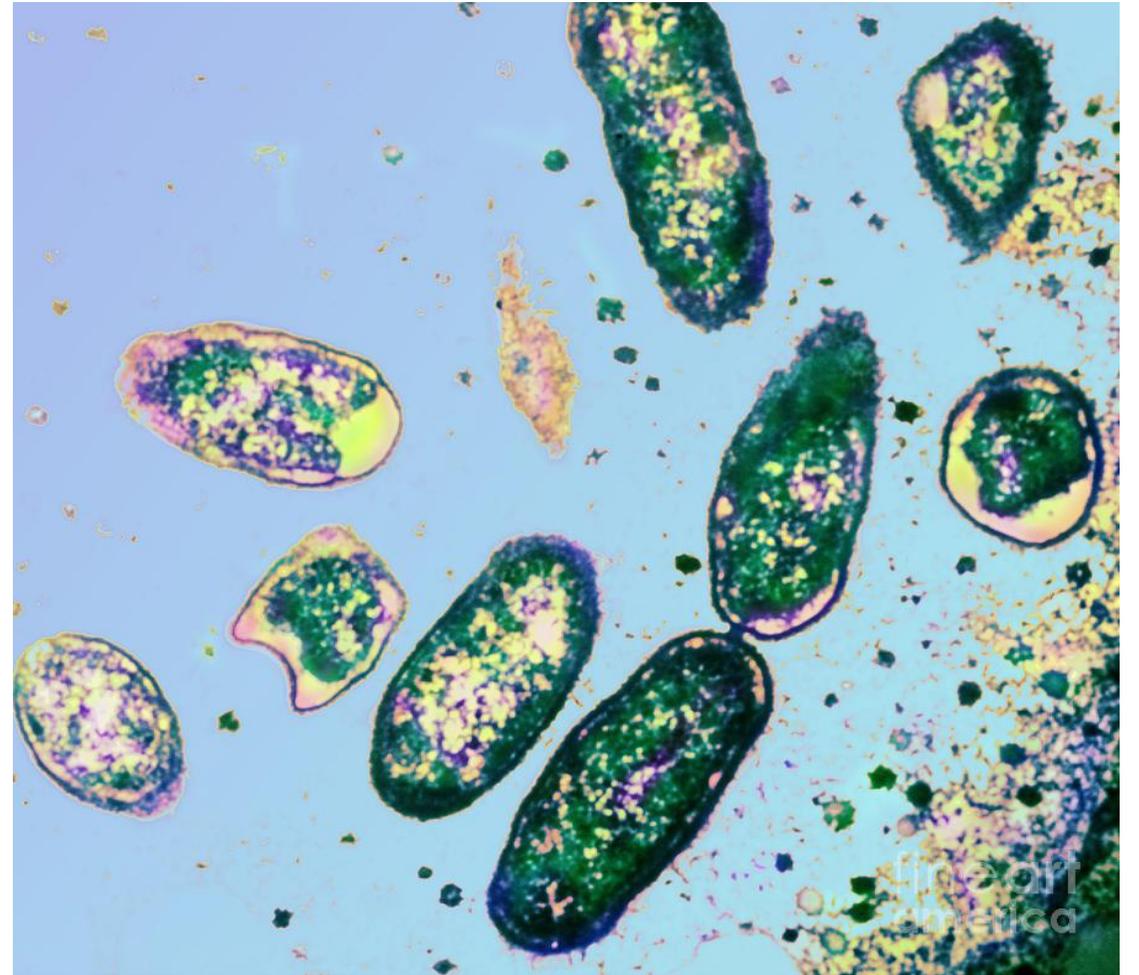
115 N°115 015 AN  
SEINE ET SEINE-ET-OISE... 2 F. 3 F. 00  
DEPARTEMENTS... 2 F. 4 F. 5  
ÉTRANGER... 2 50 6 F. 5



LE CHOLÉRA



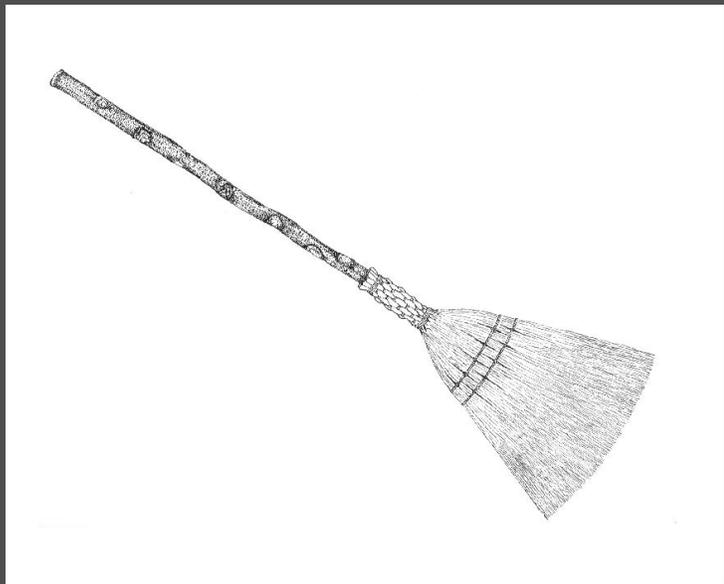
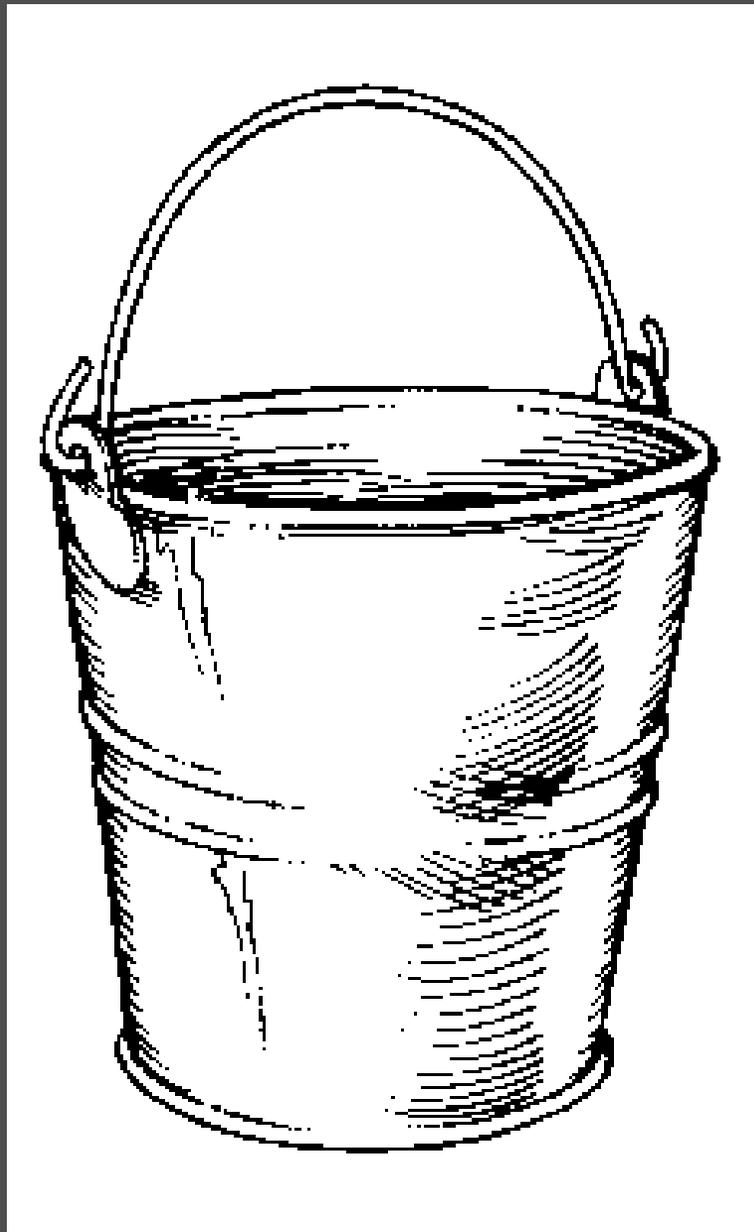
Pediculus humanus capitis



Typhus / Rickettsia prowazekii







# Stories & science

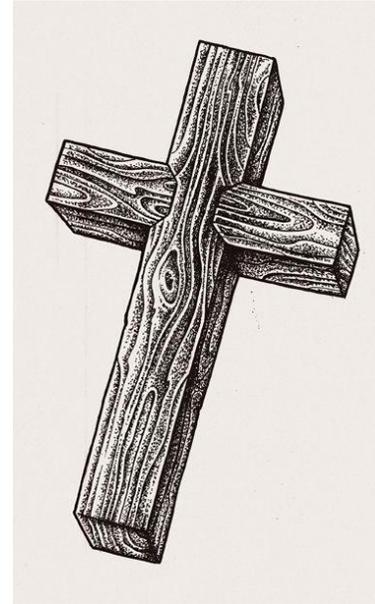
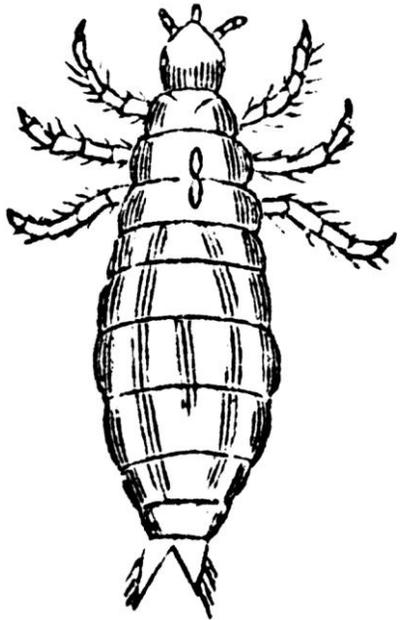
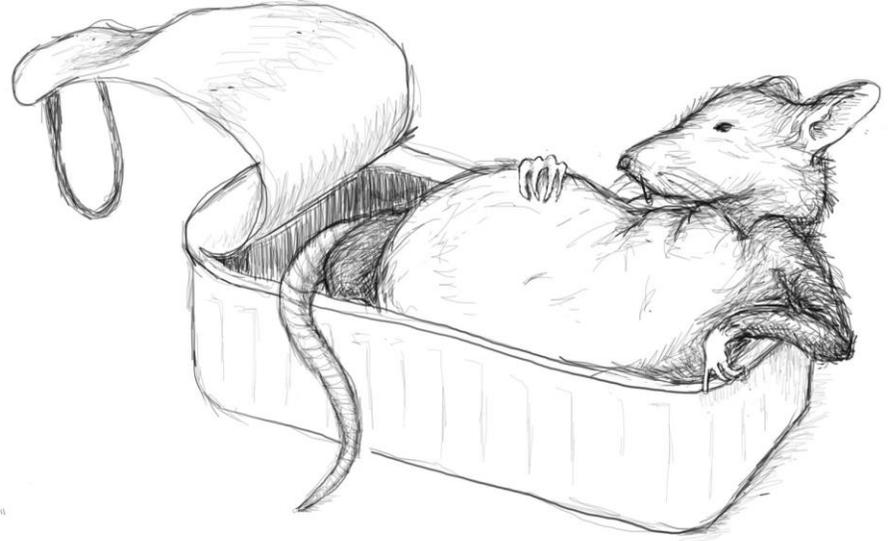
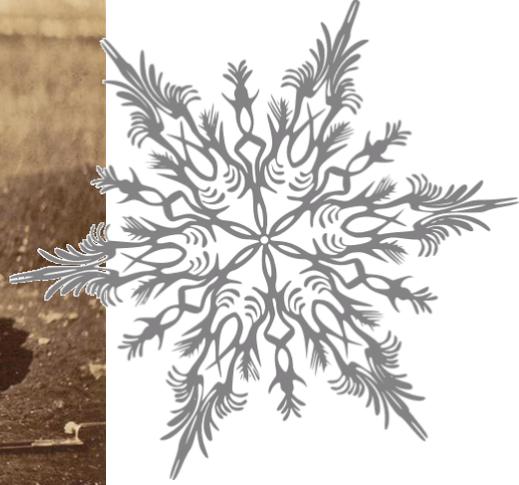
## **Stories**

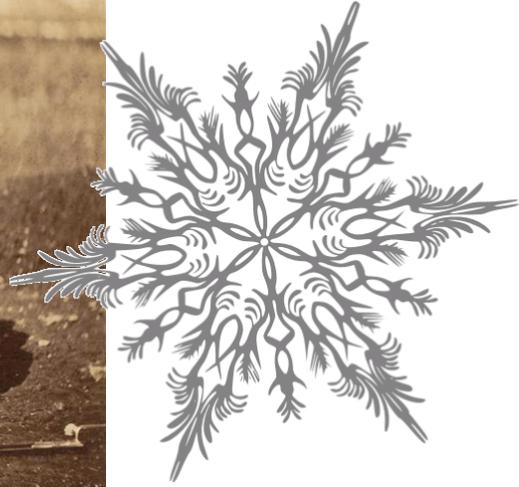
- Characters
- Plot
- Narrative

## **Science**

- Intervention on characters
- Counting characters
- Comparison of two or more character groups / situations
- Narrative





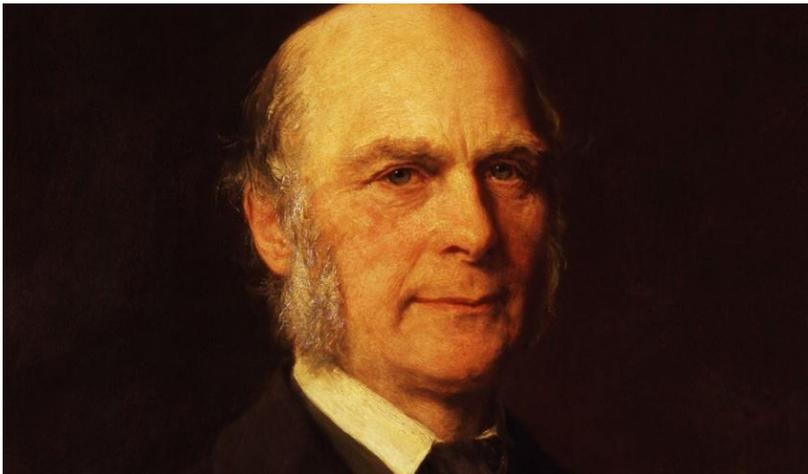


**Intercessory prayer**

# Intercessory prayer

- Francis Galton, 1872,  
Statistical inquiries into the efficacy of prayer

<https://academic.oup.com/ije/article/41/4/923/689380/Statistical-inquiries-into-the-efficacy-of-prayer>



Mean age attained by males of various classes who had survived their 30th year, from 1758 to 1843. Deaths by accident or violence are excluded

	Number	Average	Eminent men*
Members of royal houses	97	64.04	-
Clergy	945	69.49	66.42
Lawyers	294	68.14	66.51
Medical profession	244	67.31	67.07
English aristocracy	1179	67.31	-
Gentry	1632	70.22	-
Trade and commerce	513	68.74	-
Officers in the Royal Navy	366	68.40	-
English literature and science	395	67.55	65.22
Officers of the army	569	67.07	-
Fine arts	239	65.96	64.74

\*The eminent men are those whose lives are recorded in Chalmer's Biography, with some additions from the Annual Register.

## **Intercessory prayer and cardiovascular disease progression in a coronary care unit population: a randomized controlled trial.**

Aviles JM<sup>1</sup>, Whelan SE, Hernke DA, Williams BA, Kenny KE, O'Fallon WM, Kopecky SL.

### **+ Author information**

#### **Abstract**

**OBJECTIVE:** To determine the effect of intercessory prayer, a widely practiced complementary therapy, on cardiovascular disease progression after hospital discharge.

**PATIENTS AND METHODS:** In this randomized controlled trial conducted between 1997 and 1999, a total of 799 coronary care unit patients were randomized at hospital discharge to the intercessory prayer group or to the control group. Intercessory prayer, ie, prayer by 1 or more persons on behalf of another, was administered at least once a week for 26 weeks by 5 intercessors per patient. The primary end point after 26 weeks was any of the following: death, cardiac arrest, rehospitalization for cardiovascular disease, coronary revascularization, or an emergency department visit for cardiovascular disease. Patients were divided into a high-risk group based on the presence of any of 5 risk factors (age = or >70 years, diabetes mellitus, prior myocardial infarction, cerebrovascular disease, or peripheral vascular disease) or a low-risk group (absence of risk factors) for subsequent primary events.

**RESULTS:** At 26 weeks, a primary end point had occurred in 25.6% of the intercessory prayer group and 29.3% of the control group (odds ratio [OR], 0.83 [95% confidence interval (CI), 0.60-1.14]; P=.25). Among high-risk patients, 31.0% in the prayer group vs 33.3% in the control group (OR, 0.90 [95% CI, 0.60-1.34]; P=.60) experienced a primary end point. Among low-risk patients, a primary end point occurred in 17.0% in the prayer group vs 24.1% in the control group (OR, 0.65 [95% CI, 0.20-1.36]; P=.12).

**CONCLUSIONS:** As delivered in this study, intercessory prayer had no significant effect on medical outcomes after hospitalization in a coronary care unit.