

# Biggest diseases and causes of death before WW2

Just over a century ago the average life expectancy at birth for a man was 48.4 years, whereas women could expect to live to 54.0

Fast forward from 1915 to 2015 and a man's life span extended by 31 years and almost 29 years for a woman (79.3 and 82.9 respectively).

1900 Largest killers in the West were:

Influenza

Tuberculosis

Pneumonia

## Tiles Type

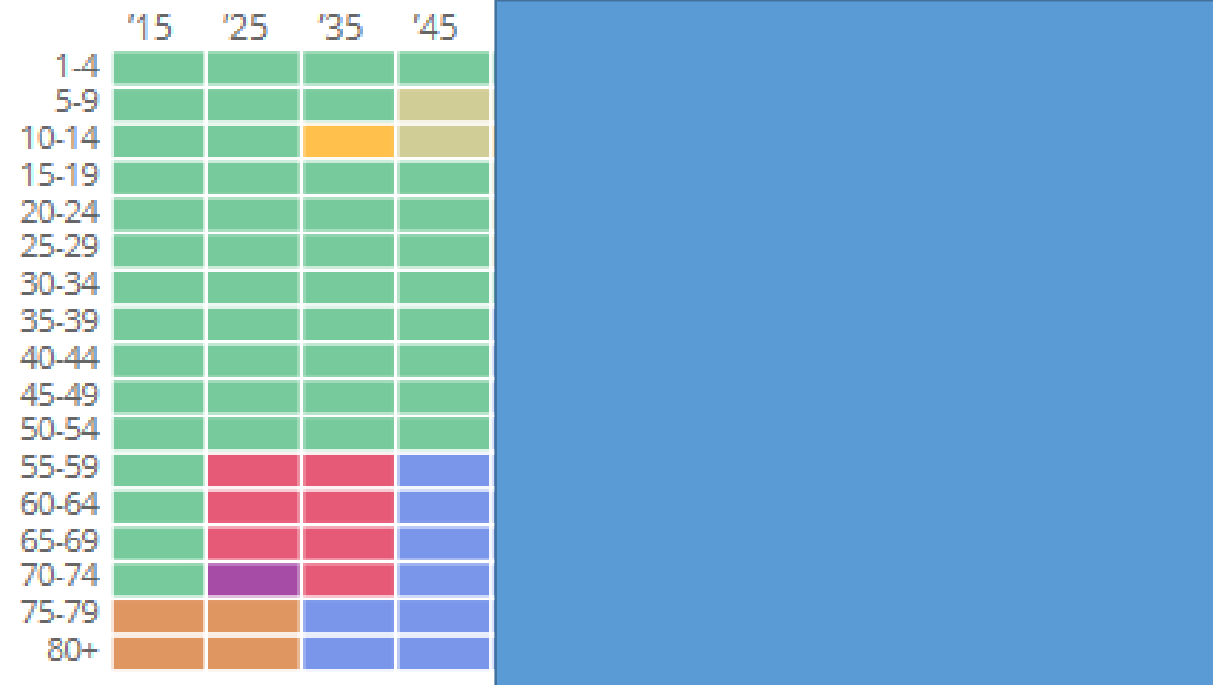
Infections
Cancer
Heart conditions
External
Motor vehicle incidents
Conditions of the nervous system
Dementia
Senile decay
Other

## Causes such as:

Tuberculosis, Bronchopneumonia  
 Malignant neoplasm of breast, lung, brain, etc.  
 Myocardial infarction, coronary disease  
 Drug misuse, suicides, self-harm  
 Collisions with vehicles, cycles, pedestrians  
 Cerebral palsy, Epilepsy  
 Unspecified dementia  
 Senile decay, other forms of senile decay  
 Other ill-defined and unspecified causes

## Most common cause of male death:

Total



# WW2



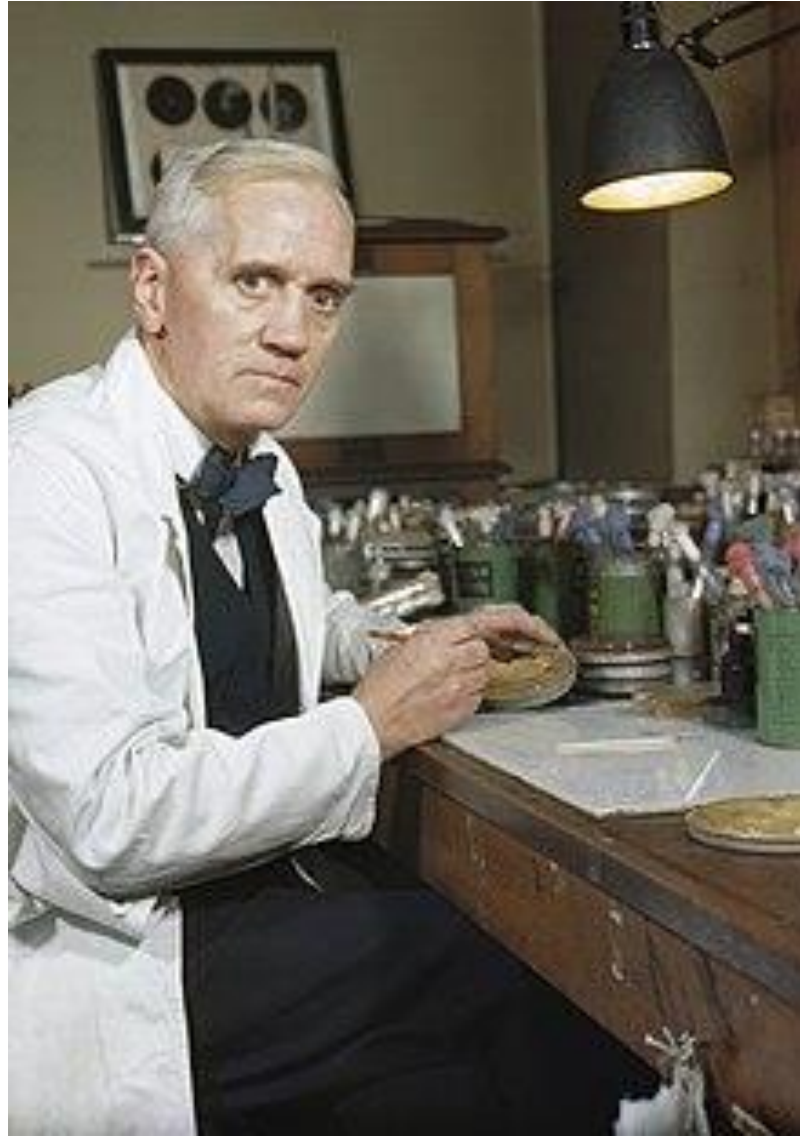
# Antibiotics



# Penicillin



# Sir Alexander Fleming





## Tiles Type

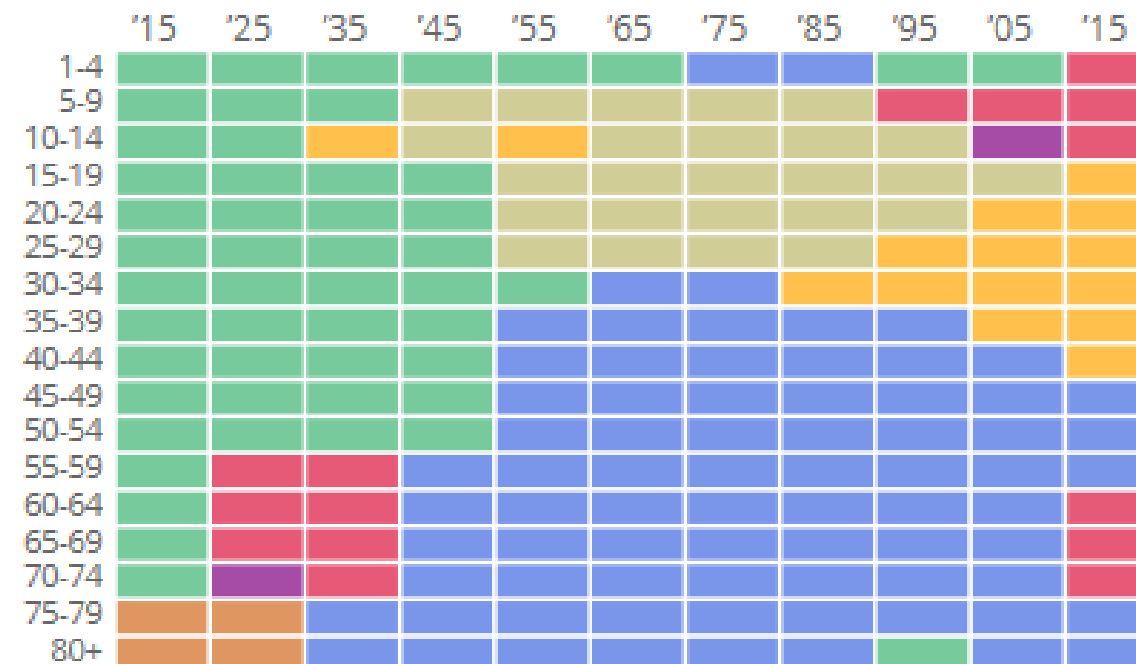
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# Largest causes of death 2019

Heart Disease

Cancer



Henrietta Lacks

August 1, 1920 –  
October 4, 1951



# Henrietta Lacks



Born 1920 in Virginia

Mother died when she was 4

Worked on a tobacco plantation with grandparents

Had 5 children (first when she was 14)

Died aged 31 from cervical cancer – almost untreatable at the time

Buried in an unmarked grave

# Henrietta's Treatment

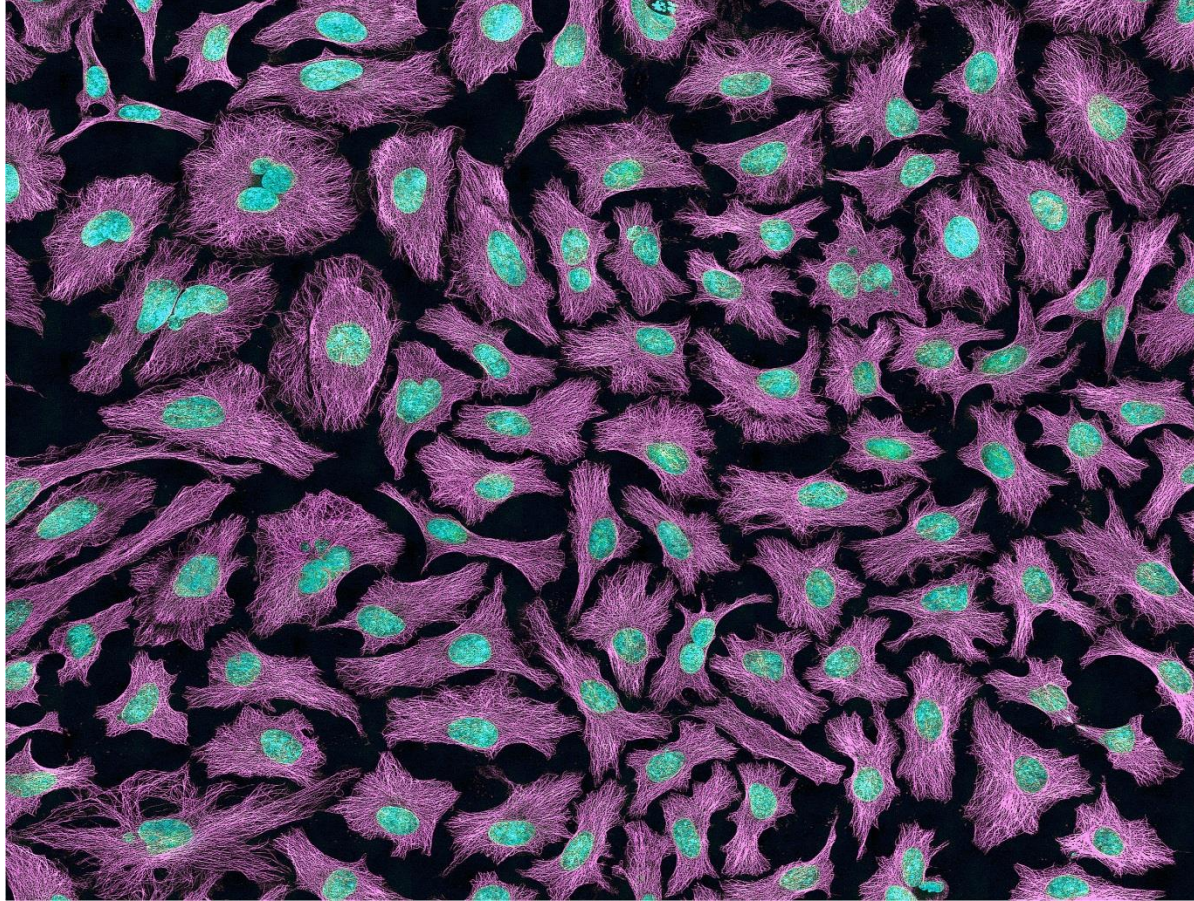
Lacks was treated with radium tube inserts as an inpatient and discharged a few days later with instructions to return for X-ray treatments as a follow-up.

During her treatments, two samples were taken from Lacks' cervix without her permission or knowledge; one sample was of healthy tissue and the other was cancerous.

These samples were given to George Otto Gey, a physician and cancer researcher at Johns Hopkins.

# Cancer Research

## Hela Cells





# Hela Cells



- George Otto Gey, the first researcher to study Lacks's cancerous cells, observed that her cells were unique in that they reproduced at a very high rate and could be kept alive long enough to allow more in-depth examination.<sup>1</sup>
- Until then, cells cultured for laboratory studies survived for only a few days at most, which wasn't long enough to perform a variety of different tests on the same sample.
- Lacks's cells were the first to be observed that could be divided multiple times without dying, which is why they became known as "immortal."
- Gey was able to start a cell line from Lacks's sample by isolating one specific cell and repeatedly dividing it, meaning that the same cell could then be used for conducting many experiments. They became known as HeLa cells, because Gey's standard method for labelling samples was to use the first two letters of the patient's first and last names

# HeLa Cells

- HeLa cells were in high demand and put into mass production. They were mailed to scientists around the globe for research into cancer, AIDS, the effects of radiation and toxic substances, gene mapping, and countless other scientific pursuits.
- HeLa cells were the first human cells successfully cloned in 1955, and have since been used to test human sensitivity to tape, glue, cosmetics, and many other products.
- Since the 1950s, scientists have grown as much as 50 million metric tons of her cells, and there are almost 11,000 patents involving HeLa cells
- Pharmaceutical companies have made millions of dollars creating treatments based on research from HeLa Cells

50 million  
metric tons....

**One ton**





The image shows three large, white, woven polypropylene tote bags hanging from a rusty metal frame. The bags are arranged in a row, with the middle bag being the most prominent. They have four lifting straps each, two on each side. The bags appear to be empty or contain a light-colored material, as they are mostly white with some brown staining at the bottom. The background is an industrial or construction site with a clear blue sky, some distant buildings, and a large tire visible on the left. The text "578 days" is overlaid in red on the middle bag.

578 days



# Polio



Here's One Important Way—  
**TO FIGHT POLIO, KEEP  
HANDS REALLY CLEAN!**

Public Health Authorities Urge to Core  
**READ!**

*The Advertising*

Ordinary Wash-Ups MISS MUCH DIRT  
BUT **LAVA** SOAP GETS HANDS  
TRULY CLEAN... **LIGHTNING-FAST!**

**DIRT'S GONE! 30 to 50 SECONDS!**

**BEFORE**  
**AFTER**

There is nothing medicinal about LAVA Soap. But the hygienic value is vital, because it gets hands really clean... really clean... really fast! It's a simple, easy wash action. The rich, creamy lather contains 50,000 tiny, disinfecting cleansers per inch. They loosen and root out dirt of all kinds... around the fingernails and knuckle-creases.

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Even for women or toddlers!

THE LAVA is amazingly gentle, even for women's skin. It contains the most soothing ingredients... so gently hand-sudsing.

It's so easy—with LAVA—so be sure of clean hands. Try it if you wash long and hard enough, say good soap can clean hands.

But LAVA roots the germs out... gets around hands cleaner, quicker, than ordinary soap ever. Get LAVA Soap today... and be sure of CLEAN hands!

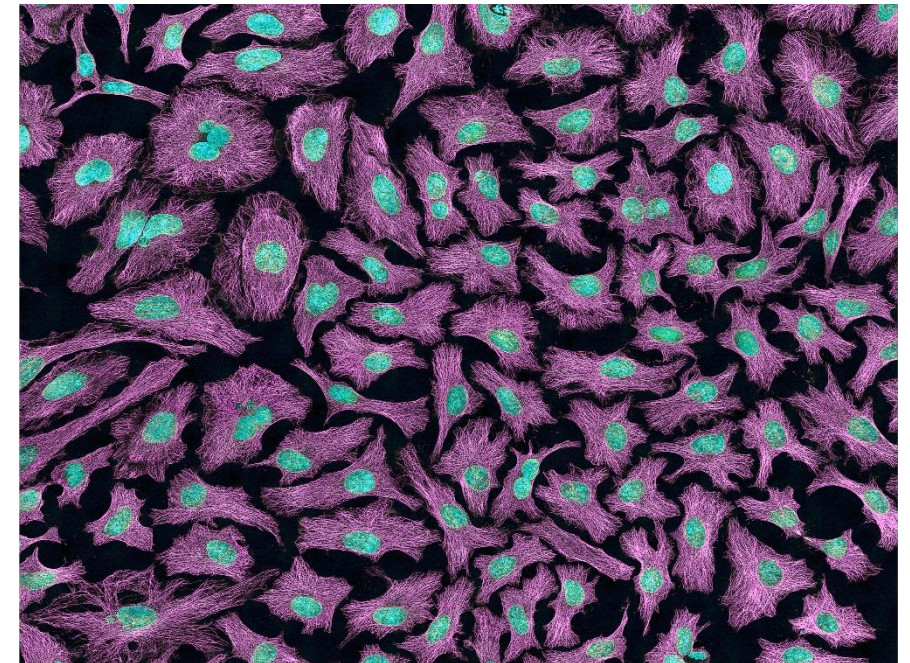
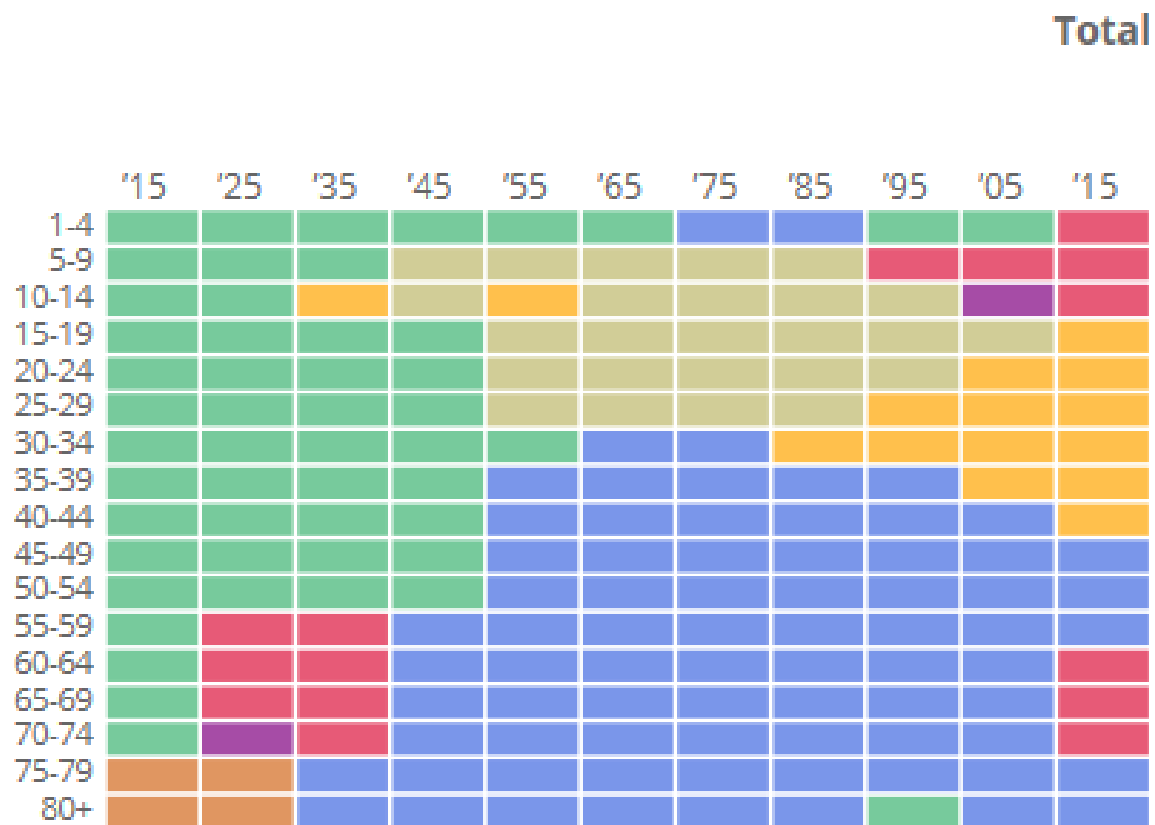
**ALL HANDS NEED LAVA SOAP!**  
the good gray bar with the ivory, creamy, cleansing lather!

From The LAVA Soap Co.



Tiles	Type	Causes such as:
	Infections	Tuberculosis, Bronchopneumonia
	Cancer	Malignant neoplasm of breast, lung, brain, etc.
	Heart conditions	Myocardial infarction, coronary disease
	External	Drug misuse, suicides, self-harm
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	Dementia	Unspecified dementia
	Senile decay	Senile decay, other forms of senile decay
	Other	Other ill-defined and unspecified causes

### Most common cause of male death:



# BUT

Henrietta never gave her consent nor was she informed that her cells had been taken in 1951

Dr Gey lied and stated the cells had been taken from a patient called 'Helen Lane'

- Henrietta never gave her consent nor was she informed that her cells had been taken in 1951
- Her family only began to find out in the 1970s when researchers mysteriously started to contact family members asking for blood samples.
- Only in 1976 did the story come to public attention
- No-one from her family or children have ever received any financial benefit or profit directly as a result of this research

Henrietta Lacks

