



My Drift

Title: Life Expectancy

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The life expectancy for a man living in Hawaii is 78.0 years. This ranks as the 8th highest age in the United States. Well, I'm currently 78 years old and will turn 79 on 23 July 2019. Nationwide, the life expectancy for men is 76.3 years. I hope to beat the averages for a few more years. But it did get me thinking about how much longer I will be living here on earth. The seven states ahead of Hawaii and the seven lowest life expectancy states are listed below:

U.S. Life Expectancy Chart for Men (2018)			
Highest States	Age	Lowest States	Age
1. Minnesota	78.7	44. Kentucky	73.4
2. Connecticut	78.6	45. Oklahoma	73.3
3. California	78.3	46. Arkansas	73.1
4. Utah	78.3	47. West Virginia	72.8
5. Vermont	78.2	48. Louisiana	72.6
6. Massachusetts	78.1	49. Alabama	72.6
7. New Hampshire	78.1	50. Mississippi	71.8

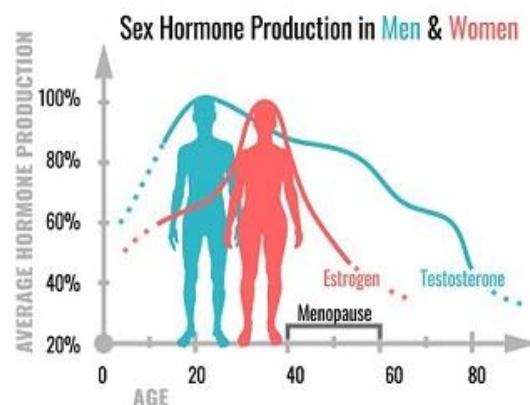
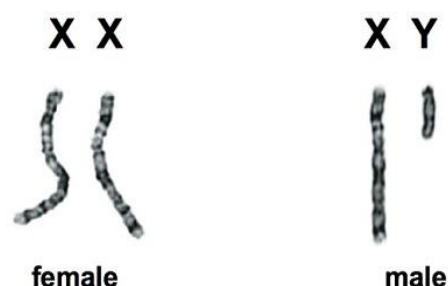
Well, it could be much worse. If I was living in Mississippi, I would have been dead 6 years ago! Yes, living in the south can be hazardous to your health. When I was in the Navy, I lived in New Iberia, Louisiana for 6 months and I could see why people drop dead at an early age. It was hot, humid, millions of mosquitoes and snakes, everybody smokes, and that Cajun food could burn holes in your stomach.

We know that women live longer than men, right? 84.7 to 78.0 in Hawaii – almost 7 years. Why is that, I wondered? So, I have done some research and here is the answer:

Men are more abusive of their bodies. Factors such as smoking, drinking, and overeating may partly explain why size of the gender gap varies so widely between countries. For example, Russian men are likely to die 13 years earlier than Russian women, partly because they drink and smoke more heavily. But the fact is that female chimpanzees, gorillas, orangutans, and gibbons also consistently outlive the males of the group, and you do not see apes – male or female – with cigarettes hanging out of their mouths and beer glasses in their hands.

Instead, it would seem like the answer lies in our evolution. **Our DNA is known as the chromosomes within each cell. They come in pairs, and whereas women have two X chromosomes, men have an X and a Y chromosome. That difference may subtly alter the way that cells age. Having two X chromosomes, women keep double copies of every gene, meaning they have a spare if one is faulty. Men don't have that back-up. The result is that more cells may begin to malfunction with time, putting men at greater risk of disease.**

Too much testosterone linked to shorter life spans! Testosterone, the male sex hormone, helps regulate heart function and plays a part in sperm production, bone health, energy levels, concentration, and muscle mass. This key hormone plays more of a role in a man's life than just fueling his sex drive. **Testosterone might make our bodies stronger in the short-term, but these same changes also**



leave men open to heart disease, infections, and cancer later in life.

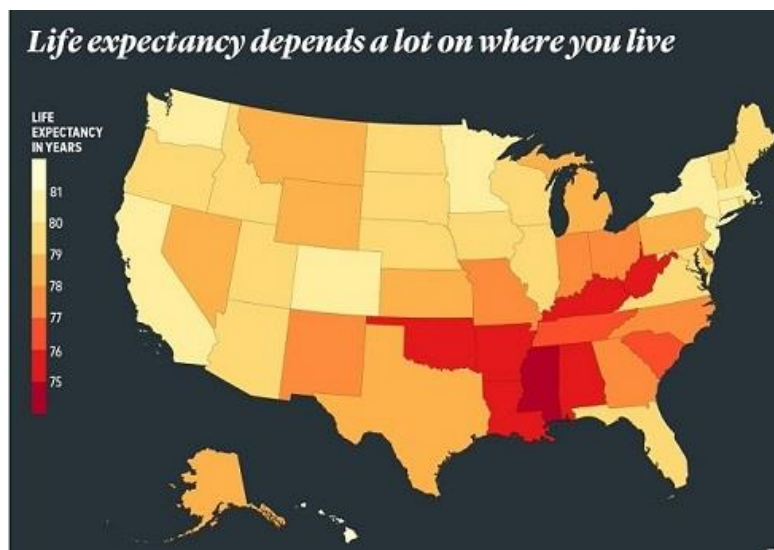
Most men are taller than most women and it is a fact that shorter people including short men live longer than tall people. Researchers have found that the lungs of taller people don't function as efficiently, relative to their bodies' demands, as those of short people. **DARN!**

Research studies also have shown that people (and animals) without testicles do live longer. **DOUBLE DARN!**



Did you know that the life expectancy of women in Hawaii is the highest of all U.S. states? We learned earlier that it was 84.7 years and it is the highest. The top six after Hawaii are Minnesota, Connecticut, California, New York, Massachusetts, and Vermont all with a life expectancy of over 82.6 years. The bottom seven are the same southern states as the men with Mississippi being the worst again with 78.0 years.

Here is a U.S. Map showing the good (longer) and bad (shorter) life expectancy areas of our country:



Hawaii also has the highest life expectancy for all people (men and women) with 81.3 years. As you probably guessed, Mississippi is the lowest with 75.0 years. For all my family and friends in Utah, the life expectancy for all is 80.2 years which is ranked as the 10th highest. Lucky, most of my readers live in Hawaii but you never know when your time is up, and you will be kicking the bucket – do you?

For the entire United States, the life expectancy for all (men and women) is 78.8 years. For just men it is 76.3 years and for just women it is 81.3 years.

Note: The above figures are computed as of 31 December 2018.

So, how does the life expectancy of the United States stack up against the other countries of the world?

The U.S. being one of the richest countries in the world must be in the Top 10. Right? NOPE!

Well, we must be in the Top 20. Right? SORRY!

Now I'm getting worried. Are we in the Top 30? SORRY AGAIN!

THE UNITED STATES' LIFE EXPECTANCY IS RANKED 31ST BY THE WORLD HEALTH ORGANIZATION. HERE IS THE LIST:

- | | | |
|---------------------|-------------------------|-------------------------------|
| 1. Japan 83.7 | 11. South Korea 82.3 | 21. Belgium 81.1 |
| 2. Switzerland 83.4 | 12. Canada 82.2 | 22. Finland 81.1 |
| 3. Singapore 83.1 | 13. Luxembourg 82.0 | 23. Portugal 81.0 |
| 4. Australia 82.8 | 14. Netherlands 81.9 | 24. Germany 80.9 |
| 5. Spain 82.8 | 15. Norway 81.8 | 25. Greece 80.6 |
| 6. Iceland 82.7 | 16. Malta 81.7 | 26. Slovenia 80.5 |
| 7. Italy 82.7 | 17. New Zealand 81.6 | 27. Denmark 80.4 |
| 8. Israel 82.5 | 18. Austria 81.5 | 28. Cyprus 80.2 |
| 9. Sweden 82.4 | 19. Ireland 81.4 | 29. Chile 80.0 |
| 10. France 82.4 | 20. United Kingdom 81.2 | 30. Costa Rica 79.6 |
| | | 31. United States 78.8 |

Now wait just a minute. Are you telling me that the people living in Slovenia, Cyprus, Chile, and Costa Rica live longer than us Americans? I would have never guessed this!

OH NO - IT GETS WORSE!! Read the following headline and give it a little thought:

U.S. Life Expectancy Drops for Third Year in a Row (from 2016 to 2018) Reflecting Rising Drug Overdoses and Suicides

This drop represents longest sustained decline in expected lifespan since the tumultuous period of 1915 to 1918

On average, life expectancy across the globe is steadily ticking upward—but the same can't be said for the United States. Three reports newly published by the Centers for Disease Control and Prevention highlight a worrying downward trend in Americans' average life expectancy, with the country's ongoing drug crisis and climbing suicide rates contributing to a third straight year of decline.

The three-year drop represents the longest sustained decline in expected lifespan since the period of 1915 to 1918. Then, the decrease could be at least partially attributed to World War I and the devastating 1918 influenza pandemic. Now, the drivers are drug overdoses, which claimed 70,237 lives in 2017, and suicides, which numbered more than 47,000 over the same period. Both of these figures rose between 2016 and 2018. They rose even higher in 2018 but total figures are not available as of this writing.

ANOTHER HEADLINE

Americans are now more likely to die from opioid overdoses than car crashes



Fentanyl is a synthetic opioid that is 80-100 times stronger than morphine

For the first time in history, Americans are more likely to die from opioid overdoses than car crashes, according to a new report from the National Safety Council. Based on 2017 data, people in the U.S. have a 1 in 103 chance of dying in a motor vehicle crash over their lifetime, but a 1 in 96 chance of dying of an opioid overdose.

In comparison, a person has a 1 in 6 chance of dying of heart disease, a 1 in 7 chance of dying of cancer, a 1 in 285 chance of dying of a gun assault, a 1 in 1,117 chance of dying by drowning, a 1 in 188,364 chance of dying in a plane crash, and a 1 in 218,106 chance of getting killed by lightning.

While life expectancy was creeping up in most countries, it has been going down in the United States the last three years from 80.0 to 78.8 years.

“Life expectancy gives us a snapshot of the Nation’s overall health,” CDC Director Robert R. Redfield said in a statement, “and these sobering statistics are a wakeup call that we are losing too many Americans, too early and too often, to conditions that are preventable.”

What countries have the lowest life expectancy?

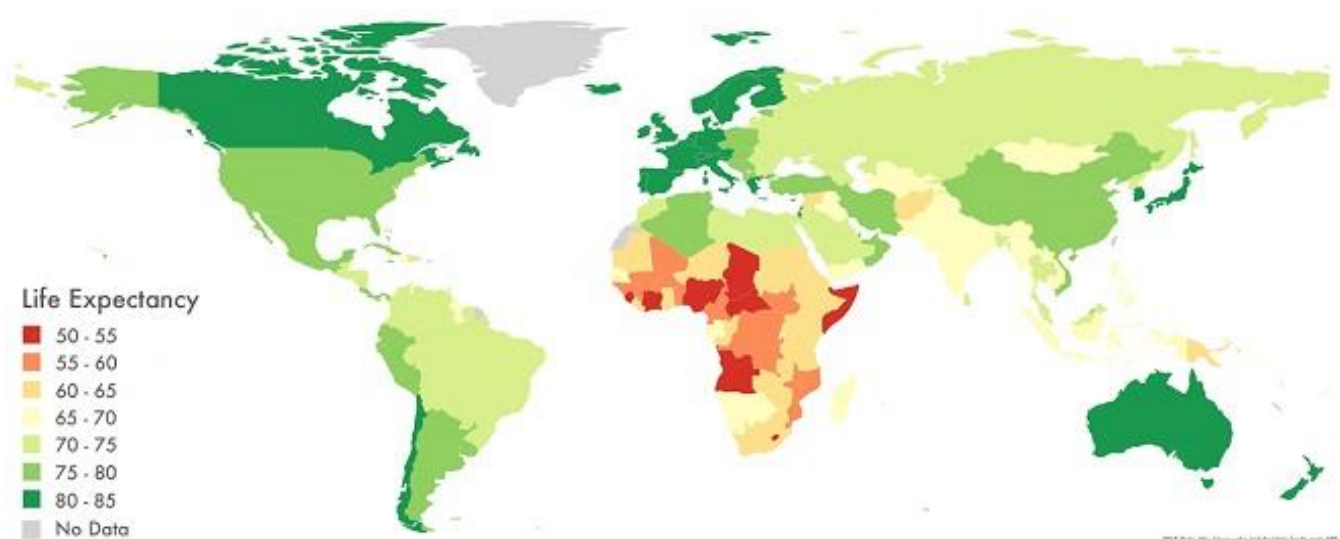
Out of the established 224 countries on earth, these are the bottom five with the lowest life expectancy. The countries listed below range from an average lifespan of 52.1 years to 50.6 years old.

Country	Life Expectancy	Primary Reasons
5. Swaziland	52.1	HIV/AIDS and lower respiratory infections
4. Gabon	52.0	HIV/AIDS and heart disease
3. Afghanistan	51.7	War, terrorism, and lack of health services
2. Guinea-Bissau	51.0	HIV/AIDS and Malaria



1. Chad	50.6	High rate of maternal mortality Famine and severe malnutrition HIV/AIDS
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Except for Afghanistan, all of the lowest life expectancy countries are located in central Africa. Check out this world map:



Human Life Span vs Human Life Expectancy

Do you know the difference? I learned a lot by the following explanations.

While both terms relate to the number of living years, they actually define very different concepts. **While the term lifespan refers to the maximum number of years an individual can live, life expectancy refers to an estimate or an average number of years a person can expect to live from birth.** Most simply put, life expectancy can be attributed to and impacted by an individual and their personal health history, genetics, and lifestyle, whereas lifespan holds for all living humans.

The maximum lifespan for humans is 122 years. This number has not increased much over the years – even since pre-historic days.



However, as we have learned in this article, human life expectancy has been steadily going up for more than a century. The wonders of modern medicine, better hygiene, healthier lifestyles, sufficient food and reduced child mortality are the primary reasons we enjoy longer lives than at any time in human history. For example, in 1841 a baby girl was expected to live to just 42 years of age, a boy to 40. In 2016, a baby girl could expect to reach 83; a boy to 79.

Life expectancy numbers can be misleading since they are a statistical average. If you have two children, and one dies before their first birthday but the other lives to the age of 70, their average life expectancy is 35. During Roman Empire days, the estimated 35-year life expectancy was the average. Meaning it factors in the ancient world's very high child mortality rate: Up to half of all Roman kids died before the age of 10. If you did reach 10, you could expect to live into your 50s or 60s, or even longer.



The Roman empress Livia, wife of Augustus, lived until she was 86 or 87 years old.



The 6th-Century ruler Empress Suiko, who was Japan's first reigning empress in recorded history, died at 74 years of age.

The point here is even back in the beginning of recorded history, the maximum lifespan of humans was near 122 years. People back then were not old at 35 – the life expectancy was low largely due to a high infant mortality rate and a lot of people were dying young due to other childhood diseases.

Estimated life expectancy through history

Estimates suggest that in a pre-modern, poor world, life expectancy was around 30 to 35 years in all regions of the world. In the early 1800s, life expectancy started to increase in the industrialized countries while it stayed low in the rest of the world. However, life expectancy in the 1800s was not as bad as it appeared. For example, if you were born in 1850, your life expectancy was indeed a dismal 38.3 years. But that's incredibly misleading because if you made it to age 10, your life expectancy increased to 58.0 years.

Are you as confused as me? As far as I can tell, your current life expectancy is unknown and a big mystery. On the first page of this article, I told the world that my life expectancy was 78.0 years. I lied - this is not true! The truth is - a man born in 2019 can expect to live 78.0 years. Hey, I was born in 1940, so what is my real life expectancy?

I found a table for males born in 1940. My life expectancy then was 62.8 years.

Birth	Age 10	20	30	40	50	60	70	80	90
62.8	57.0	47.8	38.8	30.0	22.0	15.0	9.4	5.4	3.0
62.8	67.0	67.8	68.8	70.0	72.0	75.0	79.4	85.4	93.0

How to read the above table. At birth, my life expectancy was 62.8. At age 10, my life expectancy was an additional 57 years making it 67. If I make it to age 80, I'm expected to live another 5.4 years making my life expectancy 85.4 years.

Things are getting clearer, but what is my life expectancy right now? Here is the life expectancy formula:

$$e_x = E[K(x)] = \sum_{k=0}^{\infty} k \Pr(K(x) = k) = \sum_{k=0}^{\infty} k {}_k p_x q_{x+k}.$$

Great!! I majored in statistics and I can't figure out this formula.

Fortunately, there are many life expectancy calculators on the Internet. Don't use the life insurance company calculators – they ask too many questions. The simplest one I found is from the U.S. Social Security Administration.

<https://www.ssa.gov/planners/lifeexpectancy.html>

They only ask for Gender and Date of Birth. Here are my results:

Life Expectancy Calculator

The following table lists the **average number** of additional years a male born on July 23, 1940, can expect to live when he reaches a specific age.

At Age	Additional Life Expectancy (in years)	Estimated Total Years
78 and 10 months	9.3	88.2
Note: The estimates of additional life expectancy:		

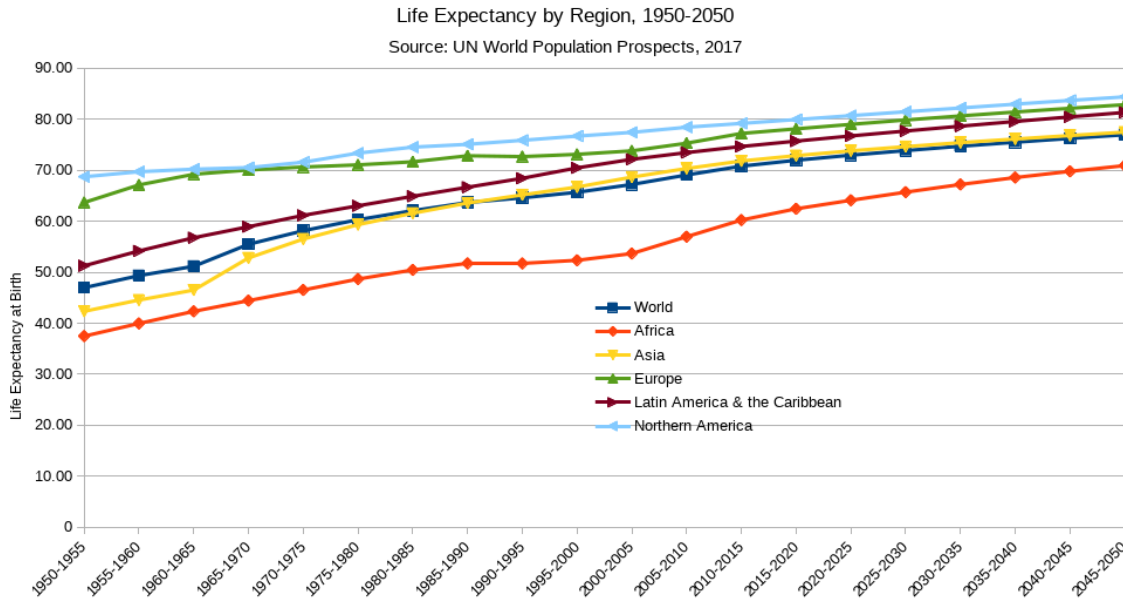
- Do not take into account a wide number of factors such as current health, lifestyle, and family history that could increase or decrease life expectancy.

So, now we know. My life expectancy is 88.2 years. That's a lot better than 78 years!

I wrote an article in May of 2009 titled Health Screening where I predicted that I would die at age 89. I think that is about right. I need to live as long as my dog Apache who is one and a half right now. Rottweilers only live an average of 10 or 11 years so we should kick the bucket at about the same time.

The Life Expectancy Chart on the next page shows the steady increase in life expectancy around the world.

Life Expectancy Chart



Human life expectancy by region between 1950 and 2050

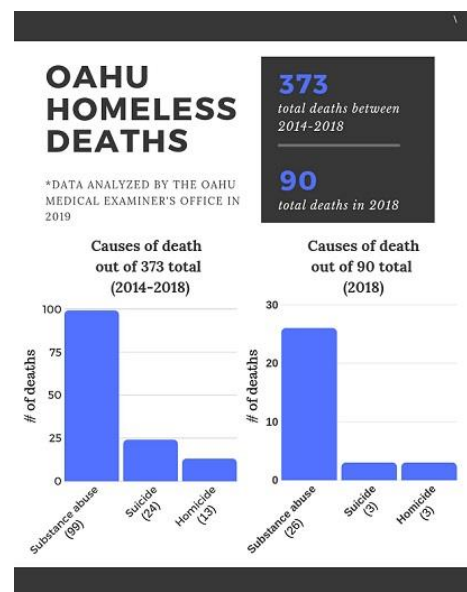
Conclusion: As the gap between maximum lifespan and life expectancy gets smaller, the increase in life expectancy will slow, stay the same, or even go down a bit. This is already happening in many countries including the United States.

One more thing before I end this article. Do you ever wonder what the life expectancy is of a homeless person living on the street? There was an interesting article in the Honolulu Star-Advertiser newspaper on 6/6/2019. It was about how many homeless people have died on Oahu in the past 5 years. Here are some statistics:

As least 373 in five years! That's the number of unsheltered homeless who died on Oahu from 2014 to 2018, according to the Honolulu Medical Examiner.

Compared to Oahu's general population, those who are homeless have a much higher rate of death from drug abuse, infectious diseases, and in far too many instances, they fall victim to homicide," said Honolulu Medical Examiner Dr. Christopher Happy.

"It's clear from the data that we gathered that living on the streets leads to an early death."



The average age of death among street homeless population was 52.6 years, well below the current life expectancy in the U.S. of 78.8 years old. In Hawaii, the average life expectancy is more than 80 years old.



In the whole United States, the average life expectancy of the homeless population is estimated to be 48 years old.

Well, there you have it – everything you ever wanted to know about life expectancy. I hope that all my readers, friends, and family have a healthy, long, and happy life.

If we learned one thing in this article, it is – LIFE EXPECTANCY FIGURES MEAN NOTHING!!

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