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Are you one of the 34.2 million Americans living with the life-threatening illness that is diabetes? If you are, then this is always in the back of your mind: will you be able to afford the medicine that will help you live another day? If you are not, you can be an ally and help voice the struggles, and help build a strong community to have a group of strong people to fall back on when time gets rough. Insulin is very important for survival. However, you don't notice how important it is until you don't have it being produced within your body. This project will go into detail about the struggles of living with diabetes as well as dealing with the cost of living with diabetes. There are going to be terms that might not be known by all, but there will be a list where you can refer to them as you please. A type one diabetic's main way to survive life is insulin, but it is difficult to sustain a healthy lifestyle due to the high cost of insulin. Insulin is also poorly covered by insurance companies. Insulin should be more affordable for people living with diabetes. Examples of effects of insulin not being affordable is there are higher death rates from lack of insulin, and insurance companies have the opportunity to price gouge.

Diabetes is when your pancreas does not work, there is no insulin being produced within your body, implying that your body will begin to shut down due to the fact of high glucose levels (sugar within the blood). According to *'100 years of Insulin'* written by Diabetes UK (FayeRiley), the date of birth of insulin was May 17th, 1921, at the University of Toronto created by Sir Frederick G Banting, Charles H Best, and JJR Macleod. On May 17th the idea of insulin was created and invented, then on November 10, 1921, their experiences were victorious.

Diabetes is managed and treated by insulin to live a healthy life because there is no cure for it yet. Insulin comes in pens and vials, a vial costs roughly \$2.28 to \$3.42 to be produced according to the SingleCare Team in the article, "Insulin prices: How much does it insulin cost?" they also say that it takes less than 4 dollars to make but is being sold for 20

times it being created from. Insulin is one of the main treatments for the illness, without it, the diabetic could pass away. For example in the article, “Type 1 Diabetes Symptoms and Treatments”, it says, “Without insulin, your body will break down its own fat and muscle, resulting in weight loss. This can lead to a serious short-term condition called diabetic ketoacidosis. This is when the bloodstream becomes acidic, you develop dangerous levels of ketones in your bloodstream and become severely dehydrated.” This shows how it can be fatal for a diabetic to not have insulin. It is also important to examine the fact that many people can't afford these ridiculous prices, according to “The Absurdly High Cost of Insulin”. The article states: “We're also seeing the terrible impact of rising insulin prices on patients: people being forced to taper off insulin so they can pay their medical bills and winding up with kidney failure, blindness, or even death.” Insulin is a key factor in keeping your blood levels at a perfect range. Keeping them at a perfect range helps subsidize the chances of losing vision, having limbs amputated, or even death. Due to the fact that there are only 3 producers, there isn't a lot of competition for who's the best, so they price how they want without any worry.

The 3 manufacturers in the United States are Eli Lilly, Novo Nordisk, and Sanofi. The significance of the vials and the pen injections is that a vial could last from 2 to 3 weeks depending on how much your ratios are and what you are consuming. A pen can last a diabetic for about 4 to 5 days. According to an article from PharmaNewsIntelligence, titled, “Eli Lilly and the company to drop insulin cost 40% in the U.S.” In the beginning of January of 2022, the price of individual vials will be \$82.41 and the price of an individual pen will be \$31.82. As stated by Fierce Pharma, Novo Nordisk's insulin costs are as follows: -\$137.35 for individual vials and \$53.04 for individual pens (Dunleavy). For Sanofi, they have their pricing of insulin as follows, a 10-milliliter vial of insulin will cost \$99 and for a box of 5 pens will be \$149 so that means each pen is \$29.80 (Berkeley Jr.). Furthermore, according to

the 'State Minimum Wage Law,' the lowest you can get paid is \$7.25. This means that if you work a full work week, which is 40 hours, you would be making \$290. Each one of these prices is a fourth of that paycheck.

Insulin costs have been bouncing up and staying there, the chances of them coming down are slim to none, because of the fact that the manufacturers are getting the money they want, due to the fact that the price is basically unaffordable to many diabetics the manufacturers are saying we can price it how high as we want because it is high in demand, so why should they? Tara O'Neill and Josee Farmer who wrote the article "Insulin Cost and Pricing Trends", explain how "If the trends of the past decade continue, gross insulin costs in the United States could reach \$121.2 billion in total spending (or \$12,446 per insulin patient) by 2024, but if more recent trends of much slower price growth prevail, insulin spending could total \$60.7 billion in 2024 (or \$6,263 per patient)." Seeing these numbers would most definitely scare most people who can't afford to pay their rent and their insulin bill but most of the paycheck going to their insulin instead of the roof over their head is a price they will sadly have to pay because of this increase, which could lead to a lot of deaths because insulin needs to be kept in a cold environment, like a refrigerator. Having a chance to live because your body doesn't fully or at all produce insulin shouldn't be weighted on the diabetic's income.

Insulin is the main treatment to treat people with diabetes, how to experience it does make financial hardships on a lot of diabetics' pockets. Due to the abundance of stress your numbers can go up leading to worse health problems, if your job provides good health insurance you may be in the clear for a few years, but if you aren't so lucky you can be dealing with having to pay 50 dollars or more every few days for your insulin. Insurance is supposed to cover most of the cost for the product, but that isn't the case for all insurance companies. According to a study reported in the article "Access to health care and control of

ABCs of Diabetes”, they came to the conclusion that “the diabetes control profile was related to health insurance coverage and the number of health care visits. Those who were uninsured reported fewer health care visits and were more likely not to have a usual source of care than those who were insured.” This is associated with the reasoning as to why it is essential to have a better healthcare system and coverage. This is a perfect example of why insurance is one of the key factors of a diabetic living a normal, healthy life. Insurance helps people afford their life-changing medication. Another point from the article “Access To Health Care”, is that “In 2008, 46 million people, or 15.4% of the population in the U.S., lacked health care insurance coverage, and between January and September 2010, the estimated number was up to 49.5 million.” This information provided an outlook on health care and how the healthcare system is not the best and most people do not have the proper way to receive the health care they need because they need insurance but they lack it.

When looking for work most people will look at the insurance that the company is offering, due to the fact that most of these meds are extremely expensive. In the article, “Evaluation of the Diabetes Health Plan to Improve Diabetes Care and Prevention”, it explains how there was a 2011 poll that showed how over half of employers were thinking about adding a “value-based insurance option in the next 3 to 5 years” (Dura). Additionally, the article states that “section 2713 of the Affordable Care Act allows the US Department of Health and Human Services to establish guidelines for value-based insurance designs, including plans to be offered in health insurance exchanges.” This is a great example of why we need the affordable care act, because we need to have something to advocate for people who don’t have the voices and the power to change the pricing and know that diabetics are being seen and heard.

Insurance is a very important part of a diabetic’s life, according to the

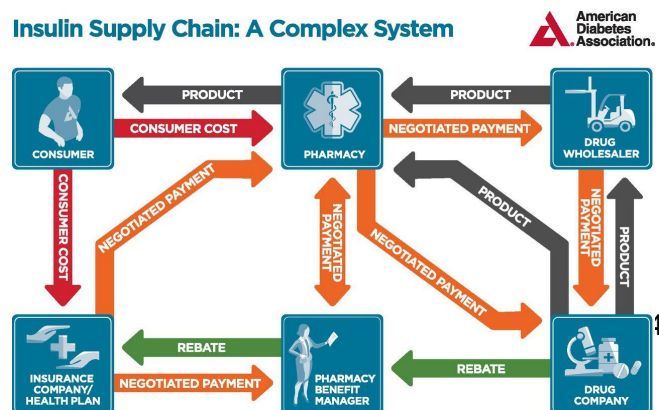


diagram to the right, titled, “Insulin supply Chain: A Complex System”. The diagram shows how the medication gets to the patient. As seen in the article which explains that without insurance, the average person could not afford the price of insulin due to manufacturers and pharmacies increasing the price. The diagram is explaining how the medicine is processed and distributed, and how the prices are manipulated.

Without insulin, it is proven that a person will die. It is the main part of your body to help sustain a healthy life, but without it, you will be having terrible health problems which will lead to a painful death. There are many people in this country that can not afford the price of insulin. That is why health insurance is so important because without insulin the number of people dying will proceed to go up. Life changes in the blink of an eye, and some of these changes can be life-threatening. If a diabetic gets fired from their job and can't afford their insulin they will end up in critical conditions. There was a diabetic named Alec Smith within the article named “The High Cost of Insulin in the United States: An Urgent Call to Action”, who lost his job, so he could not afford the cost of his insulin, so he tried to ration it and he was found dead in his house. In the Article “High Cost of Insulin has life-or-death implications for Diabetic Patients”, Dr. Rajkumar explains how diabetes is a chronic illness that has no cure, and the only treatment is insulin. Without insulin, a diabetic has a bigger chance of getting other health issues, as well as imminent death. The price of insulin needs to be affordable because of the reported death rates rising. When your health is at risk and you are in front of death's door you will do anything to fulfill the need to last a little longer. Claimed by RightCare in their article, “High Insulin Costs are Killing Americans”, “The price is so high that people are doing desperate things to get by, like using expired insulin, relying on crowdfunding to pay their bills, or taking less insulin than they need in an effort to ration their supplies. Rationing is extremely dangerous and can lead to a deadly condition known as diabetic ketoacidosis. Four people died in 2017 while rationing their insulin. Four

more died in 2018. Five died in 2019. ” This shows how people are going to deadly lengths in order to survive with diabetes.

Diabetes is an illness that you can see old age with if handled properly, implying that you need proper medication to fulfill what you are missing. Insulin is the only way to treat type one diabetes. If it is the only way, then it should be at a reasonable price from what the patient can afford. As it has been examined in this paper, people are going to great measures to survive with this illness, like by rationing insulin, using expired insulin because of price gouging.

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