

I am a Software Business Quality Analyst by Profession. 17 yrs at Great Plains Software/Microsoft: 1992-2009. 15 years at NAU Country: 2009-present. We build software that implements the Federal Farm Bill for the 2nd largest crop insurer in the US. I understand complicated, complex, and the power of computers to help us. I have used the power of Microsoft CoPilot AI tool to quickly organize and summarize information from a wide variety of sources for your review. I have been a Type 1 Diabetes Advocate since 2018. I am sharing why I am passionate about getting access for even one more person to affordable and accessible insulin therapy. Full Disclosure: I have an ERISA plan, so this will not help me personally, but will help many ND residents and their communities.

Lack of Insulin...Stops a Beating Heart. Insulin saves my daughter's life **every single day**. It is Black and White.

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Q: Are insulin copay caps working

A: The \$35 insulin copay cap policy, implemented under the Inflation Reduction Act, has shown promising results. It has significantly reduced out-of-pocket costs for Medicare beneficiaries, with an estimated 1.5 million people saving around \$734 million in 2020 alone. This cap has made insulin more affordable and accessible, helping to improve adherence to insulin therapy and potentially reducing diabetes-related complications. The cost-effectiveness of the policy is still being evaluated, but the initial results suggest that it has had a positive impact on insulin affordability and patient outcomes.

Q: Is the Federal Medicare Drug Price Negotiation Process Effective

A: The Medicare drug price negotiation policy, part of the Inflation Reduction Act, is showing promising early results. The policy allows Medicare to negotiate prices directly with drug manufacturers for certain high-cost, single-source drugs without generic or biosimilar competition. The first round of negotiations has resulted in significant savings, with the negotiated prices set to take effect in 2026.

A recent report from AARP found that the new \$2,000 cap on out-of-pocket drug costs, which also went into effect this year, is expected to save Medicare Part D enrollees an average of \$2,474 in 2025. This represents a 48% reduction in total out-of-pocket costs for those who reach the cap.

While the full impact of the policy will be more evident once the negotiated prices take effect, the initial outcomes suggest that it is helping to lower drug costs and improve access to medications for Medicare beneficiaries.

The impact of state insulin copay caps on insurance premiums appears to be minimal. According to a study published in the journal Diabetes, state policies capping insulin out-of-pocket costs at \$25-\$100 per 30-day supply were effective in reducing financial burdens for members with high-deductible health plans and health savings accounts (HSA). However, these policies did not significantly affect insurance premiums.

It seems that while the copay caps have helped lower out-of-pocket costs for insulin users, they haven't led to noticeable increases in premiums. This suggests that the financial burden on insurers has been manageable, at least in the short term.

Q: What is the cost of an amputation in the US

A: The cost of an amputation in the US can vary widely depending on several factors, such as the type of amputation, the complexity of the surgery, hospitalization fees, and associated medical services. On average, the cost ranges from **\$20,000 to \$60,000**.

Q: What is the cost of a leg prosthesis

A: Lower Extremity Prosthesis (Leg):

- Basic models: **\$5,000 to \$15,000** - Advanced microprocessor models: **\$20,000 to \$50,000**
- Highly advanced models: **\$50,000 to \$120,000**

Q: What is the yearly cost of kidney dialysis

A: The yearly cost of kidney dialysis in the US can vary depending on the type of dialysis and whether you have insurance coverage. Here's a general breakdown:

- **In-center Hemodialysis:** This is typically done at a dialysis center and costs around **\$72,000 to \$88,000 per year**. Each session can cost between **\$250 to \$350**.
- **Peritoneal Dialysis:** This can be done at home and generally costs **\$53,000 to \$65,000 per year**. Each session might cost around **\$145 to \$180** per day.

Q: What is the disability cost for blindness

A: The cost of disability benefits for blindness in the US can vary depending on the program and individual circumstances. Here are some key points:

1. **Social Security Disability Insurance (SSDI):** If you qualify, you can receive monthly benefits based on your work history and the amount you've paid into Social Security. The average monthly benefit for SSDI in 2023 was about **\$1,483**.
2. **Supplemental Security Income (SSI):** This program provides monthly payments to individuals with limited income and resources. The maximum federal benefit rate for SSI in 2023 was **\$914 per month** for an individual.

Q: What is the insulin manufacturers oligopoly?

A: The insulin market is dominated by three major companies: **Eli Lilly, Novo Nordisk, and Sanofi**. These companies control over 90% of the global insulin market, creating an oligopoly. This lack of competition allows them to set high prices, which have increased significantly over the years. This oligopoly has led to skyrocketing insulin prices, making it unaffordable for many people with diabetes. Efforts to address this issue include policy changes, such as capping insulin costs and allowing Medicare to negotiate drug prices.

There are several pieces of evidence that suggest the insulin market is not operating as a free market:

1. **High Prices:** Despite the existence of older, cheaper insulin formulations, prices for newer insulin analogs have increased significantly over the years. This suggests that prices are not solely driven by competition but by other factors such as market control by a few major companies.
2. **Market Concentration:** The insulin market is dominated by three major companies—Eli Lilly, Novo Nordisk, and Sanofi—which together control over 90% of the global insulin market. This high level of market concentration limits competition and gives these companies significant pricing power.
3. **Patent Protection and Pay-for-Delay Schemes:** These companies have used patent protection and pay-for-delay agreements to delay the entry of generic or biosimilar insulins into the market. These practices reduce competition and keep prices high.
4. **Lack of Generic Competition:** Unlike many other drugs, insulin is a biologic drug, making it difficult to create generic versions. This lack of generic competition allows the dominant companies to maintain high prices.
5. **Rising Costs Despite Technological Advances:** Despite advances in insulin formulations and delivery devices, prices have continued to rise, suggesting that factors other than innovation and production costs are driving prices.

Q: Explain the progression of Autoimmune Type 1 Diabetes when access to Insulin therapy in the dosage as prescribed by your doctor is not followed.

A: Without insulin, the progression of Type 1 Diabetes can be quite severe and life-threatening. Here's a general overview of what happens:

1. **Initial Hours:** Blood sugar levels start to rise significantly. Symptoms like increased thirst, frequent urination, fatigue, and blurred vision may occur.

2. **Days Without Insulin:** The body begins to break down fat for energy, leading to the production of ketones. This can cause nausea, vomiting, abdominal pain, and rapid breathing.
3. **Diabetic Ketoacidosis (DKA):** After about 24 hours without insulin, there's a high risk of developing DKA. This condition occurs when ketone levels become dangerously high in the bloodstream. DKA can lead to severe dehydration, electrolyte imbalance, and potentially life-threatening issues like heart arrhythmias.
4. **Long-Term Effects:** If left untreated, the lack of insulin can lead to severe complications such as **kidney failure, nerve damage, heart disease, and even coma.**

It's crucial for individuals with Type 1 Diabetes to have a reliable supply of insulin and a plan for emergencies to avoid these serious complications.

Q: Describe the mental distress associated with a chronic illness

A: Common mental health challenges faced by individuals with chronic illnesses:

1. **Emotional Distress:** Feelings of sadness, frustration, and grief are common as individuals grapple with the reality of their condition and its impact on their lives.
2. **Anxiety and Stress:** The ongoing management of symptoms and uncertainties about the future can lead to chronic stress and anxiety.
3. **Depression:** The combination of chronic pain, reduced physical function, and ongoing medical treatment can contribute to depression.

Q: How does the lack of school nurses compound the burden of this disease physically & emotionally?

A: The lack of school nurses can significantly impact students with Type 1 Diabetes, as they require continuous monitoring and management of their condition throughout the school day. Some key challenges and potential consequences:

1. **Blood Sugar Monitoring:** Without a school nurse, students may struggle to regularly check their blood sugar levels, leading to potential episodes of hyperglycemia (high blood sugar) or hypoglycemia (low blood sugar).
2. **Insulin Administration:** Proper timing and dosage of insulin are crucial for managing Type 1 Diabetes. Without a nurse, students might miss doses or administer incorrect amounts, which can have serious health implications.
3. **Emergency Response:** In case of a diabetic emergency, such as diabetic ketoacidosis (DKA) or severe hypoglycemia, immediate medical attention is vital. The absence of a school nurse can delay critical care.
4. **Education and Support:** School nurses play a key role in educating students, teachers, and staff about diabetes management. Without this support, there may be a lack of understanding and awareness, leading to potential mismanagement of the condition.
5. **Mental and Emotional Well-being:** The stress of managing diabetes without adequate support can affect a student's mental health, leading to anxiety, stress, and feelings of isolation.

Q: Can you describe caregiver burnout?

A: Symptoms of Caregiver Burnout

- **Physical:** Fatigue, frequent headaches, body aches, changes in appetite, and weakened immune system.
- **Emotional:** Feelings of anxiety, depression, irritability, and feeling overwhelmed.
- **Behavioral:** Isolation from friends and family, neglecting one's own health, and increased substance use.

Q: The most common chronic illness in the US is heart disease, does diabetes cause heart disease?

A: Heart Disease is the leading cause of death and disability, affecting millions of Americans. Other prevalent chronic illnesses include **cancer, diabetes, obesity, and arthritis.**

A: Yes, diabetes can significantly increase the risk of developing heart disease. Here are some key reasons why:

1. **High Blood Sugar Levels:** Over time, high blood sugar levels can damage blood vessels and nerves that control the heart.
2. **High Blood Pressure:** Many people with diabetes also have high blood pressure, which is a major risk factor for heart disease.
3. **Abnormal Cholesterol Levels:** Diabetes can lead to unhealthy cholesterol levels, including high LDL ("bad") cholesterol and low HDL ("good") cholesterol, contributing to plaque buildup in arteries.
4. **Insulin Resistance:** This condition, common in Type 2 diabetes, is linked to inflammation and metabolic abnormalities that increase the risk of cardiovascular disease.

Q: How many people utilized the Alec Smith Emergency Insulin Program in 2024 in Minnesota?

***Danelle note: over 1700 individuals used this program in 2024 – From my advocacy resources.**

A: I couldn't find the exact number of people who used the Alec Smith Emergency Insulin Program in 2024. However, the program has been instrumental in providing affordable insulin to Minnesotans who are uninsured or underinsured.

The Alec Smith Emergency Insulin Program, established in Minnesota, provides affordable insulin to those who are uninsured or underinsured. While AI couldn't find the exact number of people who used the program in 2024, it has been a crucial resource for many Minnesotans.

The program has two parts:

1. **Emergency Program:** Allows individuals to get a one-time, 30-day supply of insulin for \$35.
2. **Continuing Need Program:** Provides insulin to eligible patients for a year at no more than \$50 for a 90-day supply.

Q: Results of the Colorado Insulin Copay Cap Bill.

***Danelle Note: ND Bill was drafted from the Colorado Bill, which was the first State to pass an insulin copay cap bill.**

A: The Colorado Insulin Copay Cap, established by HB21-1307, has shown promising results in improving insulin affordability and access. Here are some key points:

1. **Affordability:** The cap limits the copay for a 30-day supply of insulin to \$100 for individuals with state-regulated commercial health insurance plans. This has significantly reduced the financial burden on patients.
2. **Emergency Supply:** The program also allows eligible individuals to access an emergency 30-day supply of insulin for a copay of \$35 once every 12 months.
3. **Positive Impact:** Early reports indicate that the program has helped many people afford their insulin, reducing the risk of complications and hospitalizations due to unmanaged diabetes.

While comprehensive data on the long-term effectiveness of the program is still being collected, these initial outcomes suggest that the Colorado Insulin Copay Cap is making a positive difference for those who need it.

Q: Can you address some common arguments from the opposition to insulin copay caps:

A: Public Health

- **Preventing Complications:** Affordable insulin helps prevent severe health complications like diabetic ketoacidosis, heart disease, kidney failure, and blindness. This leads to healthier individuals who can contribute more effectively to society.
- **Reducing Mortality:** Ensuring access to insulin can significantly reduce mortality rates among people with diabetes.

Economic Benefits

- **Cost Savings:** Preventing complications through affordable insulin reduces overall healthcare costs. Hospitalizations, emergency visits, and long-term care are far more expensive than providing affordable insulin.
- **Productivity:** Healthy individuals are more productive and can contribute to the workforce, reducing the economic burden on society.

Moral Responsibility

- **Ethical Imperative:** Access to life-saving medication should be a basic human right. Ensuring affordable insulin is an ethical imperative to support the most vulnerable populations.
- **Equality:** Insulin copay caps help address health disparities and promote health equity.

Market Failures

- **Lack of Competition:** The high cost of insulin is often due to a lack of competition and price gouging by pharmaceutical companies. Copay caps can help address these market failures and encourage fair pricing.
- **Transparency:** Copay caps can promote transparency in pricing and encourage pharmaceutical companies to justify their pricing strategies.

Success Stories

- **Minnesota:** The Alec Smith Emergency Insulin Program in Minnesota has provided affordable insulin to many individuals in need, demonstrating the effectiveness of such programs.
- **Colorado:** The Colorado Insulin Copay Cap has reduced financial burden and improved access to insulin for many residents, showing positive outcomes and improved health.
- **International Examples:** Countries like Canada and the UK, with more regulated healthcare systems, have more affordable insulin prices, showcasing the benefits of such policies.

Public Support

- **Advocacy Groups:** Organizations like the American Diabetes Association and Breakthrough T1D (Formerly JDRF) advocate for insulin affordability measures, reflecting strong public support.
- **Healthcare Professionals:** Many healthcare professionals support insulin copay caps as they see the direct impact of high insulin costs on their patients' health.

The public health impact of insulin copay caps has been significant in improving access to insulin and reducing the financial burden on patients. Here are some key findings:

1. **Improved Medication Adherence:** Studies have shown that insulin copay caps lead to better adherence to insulin therapy. When patients can afford their medication, they are more likely to take it as prescribed, reducing the risk of complications.
2. **Reduced Out-of-Pocket Costs:** Insulin copay caps have significantly lowered out-of-pocket expenses for patients. For example, in Colorado, the copay cap reduced out-of-pocket spending by an average of \$17.3 for basal insulin and \$11.5 for bolus insulin.
3. **Decreased Healthcare Utilization:** With better adherence to insulin therapy, there has been a reduction in healthcare utilization for diabetes-related complications. This includes fewer hospitalizations and emergency room visits, leading to overall cost savings for the healthcare system.
4. **Health Outcome Improvements:** Improved adherence and reduced financial burden have led to better health outcomes for individuals with diabetes. This includes better blood sugar control, fewer complications, and an overall improvement in quality of life.
5. **Economic Evaluation:** An economic evaluation of the \$35 insulin copay cap policy in Medicare showed that it could prevent thousands of diabetes complications and fatal events, generating additional life-years and quality-adjusted life-years (QALYs).

These findings highlight the positive public health impact of insulin copay caps, demonstrating their effectiveness in improving access to essential medication and reducing the burden on both patients and the healthcare system.

Q: When people lose hope, what generally happens to their health?

A: It can have profound effects on their health, both mentally and physically.

Mental Health

- **Depression:** Hopelessness is a common symptom of depression. It can lead to persistent feelings of sadness, worthlessness, and a lack of interest in activities once enjoyed.
- **Anxiety:** Losing hope can increase anxiety levels, making it difficult to cope with daily stressors.
- **Suicidal Thoughts:** Hopelessness is strongly linked to an increased risk of suicidal thoughts and behaviors.

Physical Health

- **Weakened Immune System:** Chronic stress and depression can weaken the immune system, making individuals more susceptible to illnesses.
- **Cardiovascular Issues:** Hopelessness can contribute to high blood pressure and heart disease due to the constant stress and negative outlook.
- **Chronic Pain:** Mental distress can exacerbate chronic pain conditions, leading to a cycle of pain and hopelessness.

Behavioral Changes

- **Withdrawal:** People may withdraw from social interactions, leading to isolation and loneliness.
- **Neglect of Health:** Loss of hope can result in neglecting self-care, including poor diet, lack of exercise, and skipping medical appointments.
- **Substance Abuse:** Some individuals may turn to substance use to cope with feelings of hopelessness.

Q: What is the societal impact of unaffordable healthcare?

A: Unaffordable healthcare has far-reaching consequences on society, affecting individuals, families, and communities in various ways:

Economic Impact

- **Medical Debt:** Many Americans accumulate significant medical debt, leading to financial strain and even bankruptcy. This can affect credit scores and limit access to future loans and housing.
- **Reduced Productivity:** Health issues that go untreated due to cost can lead to reduced productivity at work, impacting both individual income and overall economic output.

Health Outcomes

- **Delayed Care:** People often delay seeking medical care due to cost, which can lead to worsened health conditions and more complex, expensive treatments later on.
- **Increased Mortality:** Lack of access to affordable healthcare can result in higher mortality rates, particularly among vulnerable populations.

Social Inequality

- **Disparities:** Unaffordable healthcare exacerbates existing social inequalities, disproportionately affecting low-income families, minorities, and those without insurance.
- **Mental Health:** The stress of unaffordable healthcare can lead to mental health issues, including anxiety and depression, further impacting overall well-being.

Public Health

- **Outbreaks and Epidemics:** When people avoid seeking care due to cost, it can contribute to the spread of infectious diseases and hinder public health efforts to control outbreaks.
- **Chronic Disease Management:** Unaffordable healthcare makes it difficult for individuals to manage chronic conditions, leading to higher rates of complications and hospitalizations.

Addressing the issue of unaffordable healthcare requires comprehensive policy changes and increased support for vulnerable populations. It's a critical step towards ensuring a healthier, more equitable society.

Q: How do chronic illnesses impact health and well-being?

A: Chronic illnesses can have profound impacts on various aspects of health and well-being, including suicide rates, addiction rates, homelessness, and mental health issues.

Suicide Rates

Chronic illnesses can significantly increase the risk of suicidal thoughts and behaviors. Factors such as chronic pain, social disconnection, perceived burdensomeness, and hopelessness contribute to this increased risk. For example, individuals with chronic conditions like cancer or chronic pain are more likely to experience depression, which is closely linked to suicidality.

Addiction Rates

Chronic illnesses can also impact addiction rates. The stress and challenges of managing a chronic illness can lead to substance use disorders.

Homelessness

Chronic illnesses can contribute to homelessness. Poor health can lead to unemployment, which in turn can result in loss of housing. Once homeless, individuals face even greater challenges in accessing healthcare, which can exacerbate their chronic conditions. Homelessness is associated with higher rates of physical and mental illnesses, as well as substance use disorders.

Mental Health Issues

Chronic illnesses are closely linked to mental health issues. The stress of managing a chronic condition, along with the physical limitations it imposes, can lead to anxiety, depression, and other mental health problems.

Additionally, the social isolation and stigma associated with chronic illnesses can further impact mental well-being.

It's clear that chronic illnesses have far-reaching effects on various aspects of health and well-being. Addressing these issues requires a holistic approach that considers both physical and mental health, as well as social support systems.

Q: Sometimes we need to be transparent

A: Absolutely. Transparency is key, especially when it comes to important issues like health, well-being, and social justice. Open, honest communication helps build trust, foster understanding, and drive meaningful change.

Whether we're discussing healthcare policies, mental health challenges, or personal struggles, being transparent allows us to connect on a deeper level and find effective solutions together.

Q: How can Business Chambers better support transparency of true health care costs for businesses. Like ROI Analysis of which treatments are proven effective, cost less than the complications from not being treated, increase productivity, moral, reduce absenteeism and presenteeism. Losing dollars to save pennies.

A: Chambers of commerce can play a pivotal role in promoting transparency of healthcare costs for businesses by implementing several strategies:

1. **Advocacy and Policy Influence:** Chambers can advocate for policies that require healthcare providers and insurers to disclose pricing information. This can include supporting legislation that mandates transparency and competition in healthcare pricing.
2. **Educational Resources:** Providing businesses with educational resources and workshops on understanding healthcare costs, benefits, and how to navigate the system can empower employers to make informed decisions.
3. **Collaboration with Healthcare Providers:** Chambers can facilitate partnerships between businesses and healthcare providers to negotiate better rates and transparent pricing structures. This can help businesses get more value for their healthcare spending.
4. **Benchmarking and Reporting:** Chambers can collect and share data on healthcare costs and outcomes within their region. This benchmarking can help businesses compare costs and identify opportunities for cost savings.

5. **Supporting Health Plans:** Encouraging businesses to adopt health plans that emphasize transparency, such as value-based insurance designs, can help reduce costs and improve care quality.
6. **Promoting Wellness Programs:** Chambers can promote workplace wellness programs that focus on preventive care and healthy lifestyles. This can reduce overall healthcare costs and improve employee health.

By taking these steps, chambers of commerce can help businesses better understand and manage healthcare costs, leading to more transparent and affordable healthcare for all.

Q: Does living with an invisible illness that affects your ability to function 24/7/365 take a toll?

A: Living with an invisible illness that impacts your daily functioning can be incredibly challenging, both physically and mentally.

1. **Understanding and Validation:** It's important to recognize that your experiences are valid, even if others can't see your illness.
2. **Managing Daily Activities:** Pacing yourself and prioritizing tasks is crucial. On days when symptoms are particularly severe, allow yourself to rest and focus on essential activities.
3. **Mental Health:** Chronic illnesses often come with a burden of mental distress.
4. **Communication:** Open communication with friends, family, and colleagues about your needs and limitations can help them understand and support you better.
5. **Self-Care:** Engaging in activities that bring you joy and relaxation is important.
6. **Medical Management:** Regular follow-ups with your healthcare provider to manage symptoms and adjust treatments as necessary.

Q: What is the cost of a life flight trip for DKA

***Danelle Note:** Our grandson had a febrile seizure last fall, and the 30 mile ambulance ride cost \$2200.

A: The cost of a Life Flight trip for diabetic ketoacidosis (DKA) can vary widely depending on factors such as distance traveled, type of aircraft used, and whether the patient has insurance. On average, the cost without insurance ranges from **\$12,000 to \$50,000**.

For patients with insurance, the out-of-pocket cost can still be significant, as many air ambulance services are out-of-network.

Q: Is it True, \$1 of every \$4 spent on healthcare costs in the US is for diabetes?

A: Yes, that's correct. According to the American Diabetes Association, **one in every four healthcare dollars** spent in the US is attributed to diabetes. This includes both direct medical costs and indirect costs such as lost productivity and disability.

It's a significant financial burden, highlighting the importance of effective diabetes management and prevention strategies.

The \$412.9 billion annual cost of diabetes in the U.S. is divided into **direct medical costs** and **indirect costs**.

Here's a breakdown:

Direct Medical Costs

- **\$306.6 billion:** This includes expenses for hospital inpatient services, prescription medications, outpatient care, and diabetes supplies.

Indirect Costs

- **\$106.3 billion:** These costs arise from reduced productivity due to disability, presenteeism (working while sick), and premature deaths.

Additional Insights

- **Medical Expenditures:** On average, people with diabetes incur annual medical expenditures of \$19,736, of which approximately \$12,022 is attributable to diabetes.

- **Cost Drivers:** Major contributors to direct medical costs include increased use of prescription medications beyond glucose-lowering medications and hospital inpatient services.
- **Impact on Different Groups:** Women with diabetes spend more on average than men, and Black Americans with diabetes pay the most in direct health care expenditures.

These figures highlight the enormous economic burden of diabetes and the importance of effective management and prevention strategies.

Q: Are there effective interventions to reduce healthcare costs for diabetes.

A: Yes

Prevention Programs

- **National Diabetes Prevention Program (National DPP):** This program focuses on lifestyle changes such as healthy eating and physical activity to prevent or delay type 2 diabetes. Studies show it can reduce the risk of developing diabetes by more than 50% for those at high risk.

Effective Management

- **Intensive Glycemic Management:** Targeting an A1C level of less than 7% can significantly reduce complications and healthcare costs compared to conventional management.
- **ACE Inhibitor/ARB Therapy:** These medications are cost-effective for managing hypertension and preventing complications like chronic kidney disease.

Comprehensive Care

- **Multicomponent Interventions:** Programs that combine behavior change, education, and pharmacological therapy targeting hyperglycemia, hypertension, and other risk factors have been shown to be cost-effective.
- **Telemedicine:** Using telemedicine for diabetic retinopathy screening and other routine care can reduce costs while maintaining quality care.

Policy Changes

- **Supporting Policy Action:** Advocating for policy changes that make diabetes care more affordable, such as capping insulin prices and improving insurance coverage, can have a significant impact.

Community Resources

- **Patient Assistance Programs:** These programs help individuals afford medications and supplies, reducing out-of-pocket costs.
- **Community Connection:** Finding local diabetes programs and resources can provide additional support and education.

Intensive Glycemic Management

Intensive glycemic management aims to achieve tighter control of blood glucose levels to prevent complications.

Key components include:

- **Frequent Monitoring:** Regular blood glucose checks to ensure levels remain within the target range.
- **Personalized Medication Plans:** Adjusting medications based on individual needs and responses.
- **Diet and Exercise:** Integrating a balanced diet and regular physical activity to support glucose control.

Telemedicine for Diabetic Retinopathy Screening

Telemedicine can provide convenient and cost-effective screening for diabetic retinopathy, a common complication of diabetes. Benefits include:

- **Accessibility:** Patients in remote or underserved areas can access specialist care without traveling.
- **Early Detection:** Timely screenings can detect retinopathy early, allowing for prompt treatment and preventing vision loss.
- **Cost Savings:** Reducing the need for in-person visits can lower overall healthcare costs.

Patient Assistance Programs

Many pharmaceutical companies and organizations offer patient assistance programs to help individuals afford their diabetes medications and supplies. Examples include:

- **Manufacturer Discounts:** Discounts or free medications provided by pharmaceutical companies to eligible patients.
- **Nonprofit Organizations:** Groups like the American Diabetes Association and NeedyMeds offer resources and support for accessing affordable medications.

Q: Has there been an increase in autoimmune type 1 diabetes dx due to environmental triggers?

A: There has been an observed increase in autoimmune Type 1 diabetes (T1D), and research suggests that environmental triggers play a significant role in this trend. Here are some key environmental factors that have been linked to the development of T1D:

1. **Viral Infections:** Certain viral infections, particularly enteroviruses, have been associated with the onset of T1D. These viruses can trigger an immune response that mistakenly targets the insulin-producing beta cells in the pancreas.
2. **Dietary Factors:** Changes in dietary habits, such as early introduction of certain foods or lack of breastfeeding, may influence the risk of developing T1D.
3. **Gut Microbiota:** Alterations in the gut microbiota, which can be influenced by factors like antibiotic use and diet, may impact immune system function and contribute to the development of T1D.
4. **Hygiene Hypothesis:** Reduced exposure to certain microbes during early childhood, due to improved hygiene and sanitation, may affect immune system development and increase the risk of autoimmune diseases like T1D.
5. **Epigenetics:** Environmental factors can lead to changes in gene expression without altering the DNA sequence itself, potentially influencing the development of T1D.

Understanding these environmental triggers is crucial for developing preventive strategies and improving prediction models for T1D. Ongoing research aims to identify the specific mechanisms by which these factors contribute to the disease, with the goal of reducing its incidence in the future.

Q: Has there been funding increases for researching a cure for type 1 diabetes?

A: There has been a recent increase in funding for Type 1 diabetes research. The **Special Diabetes Program (SDP)**, which supports research and diabetes care, received a funding increase. The program was reauthorized through December 31, 2024, with an annual funding rate of approximately **\$160 million per year**, which is a roughly **\$10 million increase** from previous levels.

This increase is significant as it marks the first funding boost for the SDP in 20 years. The additional funds will help accelerate research efforts aimed at finding a cure for Type 1 diabetes and improving diabetes care, especially for Native American and Alaska Native communities.