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glooko



THE mHEALTH PATIENT MONITORING SOLUTION FOR DIABETES - AN ACTIVE CARE CALL CENTER CASE STUDY



In 2013, a case study was carried out by an ActiveCare call center to assess the impact of a wireless mobile glucose monitoring device on diabetic patients. It produced surprising results. More than just better patient engagement, it showed that much short-term reduction in costs - especially in employee claims can be attained.

In the past, many such studies were long-term and concentrated mostly on complications arising from patient non-adherence to test and monitoring procedures. As a result, absenteeism at work rose, with a corresponding rise in claims against employers. More healthcare workers had to be dispatched to check on errant patients, raising medical program costs further. It was a vicious cycle that was hard to redress.

With modern communications technology, the study showed that diabetic patients can be better engaged and motivated. An ecosystem of sorts could easily be set up to involve all "carestakers" – ranging from a dedicated diabetic call centre (such as ActiveCare's), doctors and concerned family members. Secure patient data websites and smartphone apps were also developed to encourage engagement by all.

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ActiveCare's mHealth Patient Monitoring Solution for Diabetes is one such holistic solution to cater to patients and fellow carestakers.

The cost reductions uncovered in the 2013 ActiveCare case study were not insignificant. The year-on-year employee claims decreased by US\$3,384 – a staggering amount. And that was just with 50% active participation (which was actually 20% above the national average!) Those who didn't take part incurred a cost of US\$282 each instead.

The monitoring program did not incur much cost either. For just an additional US\$50-spend on each member per month, the program was able to save US\$1,595 per person annually. That's some ROI or return on investment!

The case study had been about the impact of a diabetic monitoring solution on employer-sponsored health insurance. It is found that other studies, while dissimilar, had also elicited the same cost-saving findings. It validates a system such as mHealth, where diabetic patients turn on their devices to actively transmit back their glucose-level data to a concerned call center. Other solutions have been less stellar, leaning on prescription renewal instead. This behavioral change in users caused by the mHealth monitoring program was deemed very important in the study for it reinforced a commitment to task by the diabetes sufferer, resulting in an actual reduction in glycated hemoglobin in their blood. Such compliance (getting the diabetic patient to monitor and control glucose levels themselves) can have employee productivity implications. A similar program showed a US\$3000 increase in employee productivity, a figure confirmed independently by the American Diabetes Association. And not losing an employee can save a company US\$3,136 per person per year!

One significant finding in another 12-month study was that regular trend reports generated by such a radio-linked device would lead to a 10% reduction in glucose levels in patients. Others relying on traditional glucose meters with no such radio link and automated feedback enjoyed no such advantage at all.

In recent years the rise of health information technology such as mobile health or "mHealth" solutions in recent years proved critical to the management and control of chronic illnesses.

This ActiveCare case study confirms that not only is mHealth technology useful in engaging and changing the behavior of patients in such a program, it actually reduces much the traditional costs associated with the disease. - Costs that are borne by employer-sponsored insurance, costs that are both tangible and intangible such as absenteeism at work, employee productivity, loss of employee, and their overall well being.







ASIA, ONE PERSON AT A TIME

She is a mom of 2 kids ages 12 and 8 and a loving wife. She is an HR Specialist who works 4 days a week, a special arrangement with a supportive boss. She watches her diet and plans to get an activity tracker soon. Her motto is "Take care of your diabetes, so you are able to take care of everything else."

Meet Lynette. Lynette has Type 1 diabetes (T1D) and has been living with T1D for over 30 years. She lives in Singapore. She was diagnosed in the 1980s when the practice of frequent blood sugar testing was not available. Growing up with diabetes at a time when technology was just starting to be available in Singapore put her in and out of hospitals frequently either due to hypoglycaemia or hyperglycaemia. It was not only personally hard, it was expensive.

As she got older, she learned to better manage her diabetes with skills she learned from her healthcare team, but Lynette also set out to make it easier - she was determined. And that is when she found Glooko.

We got to interview Lynette for our blog. There are many nuggets of inspiration and wisdom in Lynette's thinking....read on....

Tell us about your experience with diabetes:

I was diagnosed during childhood and have been living with Type 1 diabetes for 36 years. I take multiple insulin injections daily and have achieved below a 7% A1C for the last 5 years!

Tell us about your determination to stay healthy and to keep your diabetes under control:

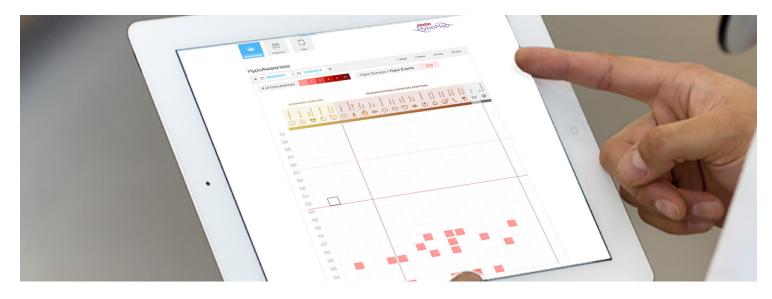
In 2013 I had to have carpal tunnel surgery. That experience was a wake-up call for me to focus more on diabetes control so I could minimize and even avoid the many complications that arise if you don't have good control. On top of that, I have seen many people with diabetes in my country have to have part of their legs amputated due to diabetes complications and I didn't want that to be me.

So how do you stay in charge?

To be in charge, I need to know how my blood sugar is doing and how my diet, exercise and insulin doses affect my blood sugar. Before Glooko, I had to keep track of this by writing it down and it was hard. Now, through Glooko, it is easier and I can share it with my healthcare team so we can work on strategies to improve.

It's interesting, a key benefit to me of tracking my blood sugar is that it made me more likely to check my blood sugar more frequently. I stopped assuming what it was and starting more proactively checking. I became more "ok" with imperfect BG readings because I knew more about why I was out of range. I came to grips with the fact that only people without diabetes have perfect blood sugar levels, and those of us with diabetes just need to know so we can manage it.

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What are the daily challenges you and your family face related to diabetes?

For me, the challenge is juggling my blood sugar and my family obligations and my work responsibilities. One thing that I have learned is that I can be open about it. I frequently check my blood sugar openly in my office and my colleagues are very supportive and understanding. I also am more aware of the need to encourage my family to lead a healthy lifestyle to avoid diabetes and other health problems.

After many years of living with diabetes, I learned that diligence is really the only way to overcome challenges. After many adjustments, I now have a routine related to how and when I take my insulin, what I eat and when I check my blood sugar - which can be 5-6x per day.

How do you stay educated about diabetes and your care plan?

Using my data, I am able to review my care plan, and even clarify my questions about my plan when meeting with my doctor. I am also an avid reader and often read about diabetes best practices online. I attend diabetes programmes hosted by local hospitals and also attend a support group. I make it a point to read the nutritional content of the food I eat and even attended nutritional classes to help me understand my nutrition better.

What did you use before Glooko?

Before I knew about the Glooko app, I used manual recording BUT, I was not able to record manually every detail. It was just too time consuming and tedious. The excel worksheet I used did not easily summarise my blood sugar and insulin data and didn't allow me to see trends.

With the Glooko app on my mobile phone, it is easy for me to record when I take my insulin, what food I eat, and how and when I exercise. And the ability to directly sync my blood sugar with Glooko directly with my meter makes my life much easier. And to top it off, my healthcare team can see my Glooko information in their computer system without any additional work!

What are some of the things Glooko helps you do?

With Glooko, I understand under what conditions I tend to go low. Knowing that, helps me to use things like the rule of 15 to manage my hypoglycemia. I also realized that a simple 20 minute brisk walk, 3 times a week works wonders for me to have better blood sugar levels. It also improves my circulation, helps to make me more energetic and gives me a chance to clear my mind!

Glooko also helps me get better at knowing the impact of my insulin doses. I know that I am not so great at estimating the carb content of my lunch when I eat out and am more careful about it now.

I view the Glooko weekly trends and statistics regularly to compare and improve. The Joslin Hypomap with Glooko is very useful as it allows me to identify the causes of hypoglycemia and what I do to treat it. It also gives me clarity around the frequency of my hypoglycemia.

What features should Glooko offer next?

Glooko should allow the user to repeat or set the insulin units for those of us who use MDI. It should allow us to add in the time of insulin injection and the type - all in one screen.

Do you see yourself using Glooko for the long term?

Yes! Glooko is a long term tool for me. It's an important part of each day and my diabetes control plan. Since the cost of living with diabetes in Singapore is high and almost not well subsidized, I hope the long term cost of using Glooko will be minimal!

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