TBL Quarterly 2013
Novo Nordisk’s Triple Bottom Line approach to business

Going the extra mile
Meet the people stepping up to change diabetes

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On 14 November, to mark World Diabetes Day, the International Diabetes Federation publishes its annual Diabetes Atlas. In their latest 6th edition, the reported number of people living with diabetes has, once again, gotten bigger. The new number, 382 million, is yet another tragically big number that is a cause for grave concern and a loud and clear call to action.

But the number is much more than a broad call to action to address the rising prevalence of diabetes. We must never forget that it represents stories of 382 million individual people living with diabetes. Earlier this year I travelled to Guinea in Western Africa, one of the poorest countries in the world. On a visit to one of Novo Nordisk’s Changing Diabetes in Children clinics in Donka Hospital in Conakry, I met with Thierno Aliou Diallo.

Thierno is a 17-year-old boy who was diagnosed with type 1 diabetes in May 2013. In a very short time, Thierno has become a role model for children with type 1 diabetes in Conakry and has been using his personal drive for change to help others who are struggling with their health. When I met Thierno he told me that it was thanks to the Changing Diabetes in Children clinic and the actions of the staff that many children are lucky to be alive today, despite their condition.

Unfortunately, many children with type 1 diabetes living in low-income countries are not diagnosed until a potentially life-threatening complication sets in that requires acute medical attention. The Changing Diabetes in Children programme was started to make sure that no child goes undiagnosed and to ensure that they are secured life-saving insulin and professional support. Thierno is living proof that the programme is fulfilling this ambition.

Focusing on ‘the one’
Thierno is only one out of 382 million stories. Some have type 1 and some have type 2 diabetes. Some are born with diabetes; others may be unaware and undiagnosed and feel helpless as their health worsens. Some struggle to get access to healthcare professionals and some to get the medicines that are necessary to keep their diabetes in control and avoid complications. Altogether they represent 382 million reasons to change diabetes.

Changing Diabetes is Novo Nordisk’s commitment to people living with diabetes. It is our commitment to ensuring these people are diagnosed, have access to trained healthcare professionals, quality medicine and ultimately receive education and support to self-manage their diabetes. When all of these are in place, people with diabetes have the possibility of living healthy and productive lives. Sadly, this is not the case for the majority of people living with diabetes.

A framework for change
According to the ‘Rule of Halves’ (see figure below), only half of the 382 million people living...
with diabetes have been diagnosed and only about half of those are receiving professional care. Of the people receiving care, only about half achieve their treatment targets and of those, only about half live a life free from diabetes-related complications. This means that of the 382 million people with diabetes, only 24 million are in proper control and free from complications, worldwide.

At Novo Nordisk, we aspire to break the ‘Rule of Halves’. By building partnerships with a common purpose and programmes that are community based, we can increase diabetes awareness and improve access to care and treatment options.

This year, we launched our long-term target to provide medical treatment to 40 million people by year 2020, doubling the number of people we serve. This 40by20 target is a win-win approach that will benefit people with diabetes, the societies they live in and the business of Novo Nordisk. In this way, the target builds on our sustainable business model by linking global health needs with our commercial offering.

We want to continue to increase our reach, particularly in low- and middle-income countries where nearly 80% of people with diabetes are living. Doing this requires more than just insulin. It will take effort to ensure people are diagnosed, treated by educated healthcare professionals and provided the support and education to manage their diabetes. But insulin is essential and must be accessible and affordable by everyone. It has been 91 years since the discovery of insulin and the reality that some people living with diabetes still do not have access is not acceptable.

Inside this issue
In this issue of the TBL Quarterly, we look at the vulnerable populations where diagnosis and access to treatment and care creates life-threatening conditions. In least developed countries, children with type 1 diabetes often lose out to more pressing health priorities. In China, living in rural areas can result in lower quality treatment. Lack of infrastructure threatens the health of people living in central Africa. Lastly, among the world’s 370 million indigenous peoples, nearly 50% over the age of 35 have type 2 diabetes but experience some of the toughest barriers to receiving the care they need.

Changing Diabetes® is how we go beyond medicine to help people better manage their diabetes and live life on their own terms. It all starts by putting the individual, people like Thierno, at the centre of how we make this change happen.

Charlotte Ersbøll
Corporate Vice President, Global Stakeholder Engagement
Novo Nordisk

Sometimes it’s a matter of life or limb

The town of Rosebud is the unofficial capital of the reservation and home to the only health facilities providing care to all Rosebud Sioux Tribal members living on the reservation. For the majority of people living in the 20 communities spread across the reservation, the trip to Rosebud is too long and too expensive. For those living with undiagnosed and diagnosed diabetes, this distance means the difference between good and bad health.

“Really, it is a matter of life or limb,” says Rosebud Lakota Sioux Tribal member Connie Brushbreaker, Programme Director of Rosebud Sioux Tribe Diabetes Prevention Program. “The health system loses the people living in rural communities. The distance and lack of available or affordable transportation means that many people wait until the last minute to get checked. Most often, this is too late.”

Type 2 diabetes can be easy to ignore, especially in the early stages when you are feeling fine. Although long-term complications of diabetes develop gradually, they can eventually be disabling or even life-threatening. Some of the potential

The long journey to improve diabetes care in Rosebud

Diabetes continues to rise, impacting the health of nations and diverse ethnic groups. Unfortunately, vast differences exist when it comes to access to preventative care and treatment. In the United States, the Rosebud Sioux Tribe is taking measures to close the gap.

The Rosebud Sioux Tribe Reservation is home to between 15,000 to 20,000 Sioux tribal members dispersed across nearly 5,000 km² (2,000 square-miles) of south central South Dakota, USA. Like in most Native American communities, type 2 diabetes has become a critical health issue. According to the U.S. Department of Health and Human Services, Native American adults are twice as likely as non-Hispanic whites to develop or have diabetes. The figure is even more alarming for youth under 18 who are 9 times more likely to develop type 2 diabetes1 (see fact box on page 8).

More and improved prevention efforts, diabetes screening and access to care and education are sorely needed but the barriers to making this happen are complex. One of which is the vast distances.

Complications of diabetes include an increased risk of various cardiovascular problems and nerve, kidney, eye and foot damage. Controlling your blood sugar levels can help prevent these complications.

“Complications are the result of poorly controlled diabetes management,” says Connie. “It is frustrating to see people wait until there is a crisis, then seek treatment, when we could have helped prevent a lot of the complications. If we could provide education and treatment in a timely manner, we could help delay the complications.”

Connie knows first-hand the importance of treating early. In early 2013, Connie’s husband went in for a regular health check. When his blood tests came back, the results showed elevated blood sugar levels and high cholesterol. His HbA1C was 6.2%. The healthcare provider at the local hospital gave him some medication and told him not to worry.

Connie was anything but satisfied with the doctor’s response.

With more than 15 years of experience helping people improve their health and avoid type 2 diabetes, she went back to the doctor and convinced him that what he should have told her husband was that he had pre-diabetes. And the doctor should help him understand and learn what he should do to avoid full-blown diabetes.

With help from the Life-style Balance Program, one of two programmes offered through the Rosebud Sioux Tribe Diabetes Prevention Program, Connie’s husband changed his eating habits and got his weight under control.

After only two months, his blood sugar levels went back to the normal range.

**Tired of playing the waiting game**

On the Rosebud Sioux Tribe Reservation, getting the necessary support to prevent or manage type 2 diabetes is a secondary challenge. The primary challenge is getting people to access the healthcare system in the first place.

The local hospital is notorious for long waiting times. It is common for people to make the two to three hour journey to the hospital to end up waiting all day to see a healthcare provider. Despite having the highest age-adjusted prevalence of diabetes among all U.S. racial and ethnic groups, the healthcare provided through the Indian Health Service is underfunded and understaffed.

The Rosebud Sioux Tribe Diabetes Prevention Program was established back in 1998 with initial funding support from the Special Diabetes Program for Indians (SDPI). The U.S. Congress established the SDPI as part of the Balanced Budget Act to address the growing epidemic of diabetes in Native American communities. Under the SDPI, tribes are able to design their own programmes in an effort to identify intervention and prevention methods that would be culturally specific, effective and novel.

Sadly, even with the SDPI funding, much more needs to be done.

**Coming in from the cold**

Normally, on November 14, Rosebud Sioux Tribal members gather at the local high school football field for the annual 24-hour walk for diabetes. The walk not only marks World Diabetes Day,
but also helps create health awareness in the community. With the harsh South Dakota winter approaching, the walk takes place in everything from a cold rain to freezing snow. In the center of the field, tepees are erected and a fire is made to keep warm during rest breaks and to make offering for those who live or have lost the fight with diabetes.

“Even into the early hours of the morning, someone is always walking,” says Connie. “Last year we walked more than 900 rounds.”

On 7 November 2013, the 24-hour walk for diabetes was repeated. Only this time it took place on the indoor walking track in the community’s new 1200 m² (13,000 square-feet) Rosebud Wellness Center which opened on World Diabetes Day.

The wellness center boasts more than just an indoor walking track. There is a fitness room and aerobics studio to support recommended exercise programmes. A video conferencing room will make it possible for people to receive diabetes educator distance learning and exam rooms will provide much needed capacity to take some of the burden off the local hospital. There is also dedicated office space for the Diabetes Prevention Program staff.

Although the wellness center just opened in November 2013, it has a two year history behind it.

In October of 2010, Connie Brushbreaker was told that Novo Nordisk was interested in a partnership with the Rosebud Sioux Tribe. After several phone calls and face-to-face meetings, the Tribal Health Board and Tribal Council approved the partnership on September 22, 2011.

This resolution called for the Rosebud Sioux Tribe to enter into an agreement with Novo Nordisk for the enhancement of diabetes prevention, education, training, and wellness.

Diabetes care on wheels
The wellness center is just one result of the commitment. A first of its kind 12 m (40 ft) mobile medical unit will begin mapping daily routes throughout the Rosebud Sioux Tribe Reservation. The mobile medical unit will bring screening, diabetes and nutrition support and diabetes educator training to the 20 small communities across the vast reservation.

“The unit is a perfect complement to the wellness center,” says Curt Oltmans, corporate vice president, Novo Nordisk Inc. “The mobile medical unit has been custom built with two fully-equipped exam rooms and space to conduct the diabetes educator training.”

For the first time, people living at insurmountable distances from Rosebud will be able to get their blood sugar levels checked, have access to an x-ray machine and be screened for diabetes and its complications. Without having to leave their community.

“The mobile unit will travel more than 1700 km (1100 mi) a month. The plan is for Milks Camp to be the first stop for the unit. It’s about 200 km (120 mi) from the nearest medical facility and the two dozen families living there definitely have the biggest obstacle when it comes to travel,” says Curt.

Though the partnership is just beginning to deliver additional health support to the Rosebud Sioux
Tribe, plans for a sustainable future have already been made.

“Novo Nordisk has underwritten the cost of the wellness center and mobile medical unit. But our real vision is in the work it can accomplish,” says Curt. “By training more people to become diabetes educators, especially in the rural communities, we can increase access to diabetes education and awareness. We also hope to get those who are trained certified by the American Association of Diabetes Educators and believe this can be an additional source of support in the future.”

“Hecel Oyate Kinipe Kte” (So that the people may live)

At the opening of the wellness center, tribal spiritual leaders bless the new building, offering prayers and smudging the center with a blend of tobacco and sage.

“The smoke carries our prayers up to the sky,” says Connie. “The hope is that everyone who enters the wellness center arrives in a good way. When they are finished, they take this good way and health with them as they go.”

Diabetes in Native Americans

2.3 times higher
likelihood of Native American adults to have diagnosed diabetes compared with non-Hispanic whites.

9 times higher
likelihood of Native American youth aged 10-19 to have diagnosed type 2 diabetes compared to non-Hispanic whites.

110%
increase in diagnosed diabetes from 1990 to 2009 in Native American youth aged 15-19 years.

1.6 times higher
death rate due to diabetes for Native Americans compared with the general U.S. population.

Some rules are made to be broken

Worldwide, 382 million people have diabetes. The ‘Rule of Halves’ is a framework that can be used to illustrate how barriers to better health prevent the majority of them from living a life free from complications.

### 382 million people have diabetes today

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**Did you know that...**

People at high risk can reduce their risk of developing diabetes by 58% through lifestyle changes, such as healthy eating and exercise.

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### About 50% are diagnosed

191 million

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**More people will be able to identify symptoms of diabetes if general awareness about the condition is increased.**

**Symptoms of diabetes:**

Thirst, problems with vision, weight loss, tiredness, frequent urination and constant hunger.

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### Of whom about 50% receive care

96 million

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**Educated healthcare professionals can support people with diabetes to prevent developing diabetes-related complications.**

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### Of whom about 50% achieve treatment targets

48 million

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**A study shows that a 1% decrease in HbA1c level was associated with a 21% decrease in the risk of developing complications, such as heart attacks and kidney failure.**

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### Of whom about 50% achieve desired outcomes

24 million

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**A psycho-social study shows that 19% of people with diabetes experience discrimination, intolerance and lack of support from their community.**

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5. People with diabetes need to control their HbA1c level (recommended target below 7%).
Access to care in Africa – It’s all in the delivery

In the African region, many people with diabetes have limited access to care due to long distances, modest incomes and inadequate healthcare systems and as much as 63% remain undiagnosed. Training of healthcare professionals and setting up an innovative distribution chain can help provide better treatment to more people.

Sometimes, Novo Nordisk’s insulin travels a long way from production to patient. The journey starts in Kalundborg, Denmark where it is produced, assembled and packaged. From here, the insulin embarks on a 7000 km (4000 mi) journey to the bustling airport of Nairobi, Kenya. Here it is imported by a distributor and transported directly to a healthcare facility. Sometimes it goes through a wholesaler and is sold further to a local hospital or pharmacy. The final delivery – often referred to as the last mile – is the distance separating a person with diabetes from his medicine. For a person living in a rural area in Kenya, the last mile could in fact be several hundred miles.

Sheer distances are not the only challenge. On the way, factors such as red tape, weak infrastructure, poor management of stock in pharmacies, and involvement of a series of ‘middle men’ drive up prices. The fact that insulin has to be distributed and stored between 2 to 8 degrees Celsius (36–46 degrees Fahrenheit) adds to the complexity and cost of the distribution chain. On top of the actual cost of the insulin, people with diabetes living in remote areas must add travel costs and lost wages. And there is more to the story than getting the insulin from A to B.

“Setting up the insulin distribution chain is one thing, but building a supportive environment around the product is even more important. It includes increasing diabetes awareness and building healthcare capacity to provide better quality treatment,” says Ben Konate, general manager, Novo Nordisk Middle Africa. “And that can be a real challenge in Africa.”

Diabetes in Africa – a well-kept secret

According to the most recent numbers from the International Diabetes Federation (IDF), the average diabetes prevalence in Africa is 5.7%. Compared to the rest of the world this number is small, however, a gloomy truth is hiding behind these numbers – as much as 63% of people with diabetes remain undiagnosed.

With the number of people with diabetes set to double by 2035, the challenges for a region that accounts for less than 1% of global healthcare expenditures on diabetes continue to grow. Making matters worse, the majority of healthcare systems in the same time have to fight communicable diseases such as HIV/AIDS and Malaria. The region has the highest diabetes mortality rate with more than three-quarters of deaths from diabetes in 2013 occurring in people under 60 – that is to say people in their prime working years.

A 2012 policy brief from the working group on non-communicable diseases at John Hopkins University showed that improving access to insulin was just one piece of the puzzle when it comes to improving the health of people with diabetes. The structural obstacles in the distribution chain must be overcome, but equally important is a holistic understanding of what it takes to build a functioning ecosystem for care. One such prerequisite is the availability of trained healthcare professionals.

In most of the region there is a persistent lack of healthcare professionals with adequate knowledge about diabetes. According to a 2010 paper, there are only 2 doctors and 11 nurses per 10,000 people in Sub-Saharan Africa compared to 32 doctors and 78 nurses per 10,000 in Europe. This is a huge gap and for conditions such as diabetes, the number of specialists is even smaller.

Building capacity among healthcare professionals

In the African region only very few general practitioners (GPs) are trained in insulin therapy and many do not feel comfortable prescribing insulin because they do not have enough knowledge about its use. As a result, people are left undiagnosed and without proper treatment and adequate training in how to manage their diabetes.

An educational programme developed by Novo Nordisk, together with local healthcare professionals in Africa, has addressed this gap since 2012. In the Buddy Doctor Initiative, local diabetes care experts act as mentors for GPs to provide optimal diabetes management. The objective of the programme is to inspire interest for and knowledge of diabetes management among GPs across Sub-Saharan Africa. The hope is that lasting professional relationships are built between GPs and diabetes experts that result in better care for people with diabetes. The training consists of theoretical and practical sessions and involves GPs in both public and private health clinics.

So far, the programme is running in 14 African countries.

“The more than 100 mentors have reached over 1,200 GPs and with each GP passing his knowledge on to nurses and patients, we can quickly see the effect of the programme. It is a practical, cost-effective and sustainable way to strengthening people’s access to better quality care,” says Prakash Toocaram, marketing manager, Novo Nordisk Middle Africa.

Rethinking the distribution chain to reach new patient groups

Due to distribution challenges, most businesses have been focusing their efforts on catering to high-income people in Africa. However, recently more attention has been given to how companies can reach out to the millions of people living at the Base of the Pyramid (BoP). Since 2012, Novo Nordisk has been working with developing a profitable, sustainable and scalable solution to improve diabetes care for people with modest incomes in Kenya.

The project is a public-private partnership between Novo Nordisk, Philipps Pharmaceuticals Ltd., Mission for Essential Drugs and Supplies (MEDS), Faith

The Buddy Doctor Initiative works to train general practitioners in better diabetes management.

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based organisations, the Ministry of Health and the national patient organisation Kenya Defeat Diabetes Association (KDDA). Each partner has a unique and vital role to play (see figure below). Novo Nordisk is in charge of the production and packaging of the insulin as well as its transportation to Kenya. Phillips Pharmaceuticals Ltd. is responsible for importing the insulin and MEDS takes care of the distribution to the Faith based hospitals and clinics. Training of healthcare professionals is carried out by the Ministry. Patient support groups mobilise the community to increase awareness. It is the first time that all these actors have come together in a partnership.

“The partnership is a new way to improve access to insulin for the so-called ‘working poor’\(^8\). It is leveraging already established structures and provides value to all partners involved which ensures the sustainability of the partnership,” says Kasper Veje, BoP project manager, Novo Nordisk Business Area Africa, Gulf and India.

The project has resulted in significant improvement in diabetes care in terms of access, affordability and comprehensive care. The price increases that have normally taken place through the distribution chain have been reduced. By working with all partners along the supply chain, insulin is now available at 500 KSH (approximately 6 USD), and the people with diabetes are aware that this is the price they should be paying.

One 500 KSH pack of insulin is enough to ensure treatment for approximately one month. This has greatly reduced the out-of-pocket expenses since they previously could be paying more than three times as much for their insulin.

So far, 2,700 additional people have been given access to insulin. Additionally, more than 200 healthcare professionals have been trained and 184 healthcare facilities have been involved in the project.

In the coming year, Novo Nordisk plans to further scale the project in Kenya and other BoP initiatives are also currently being piloted in Nigeria and Ghana.

A region of opportunities

The millions of people living with diabetes, many of whom are undiagnosed, highlight the magnitude of unmet needs in the region. But they also represent a big opportunity for change and improvement. The actors most successful in providing care will be the ones who understand how to adapt to patient needs and support local healthcare systems.

“There is no one size fits all in Africa,” says Ben Konate. “This is why we need to look at each country and see how we can build on existing healthcare structures to the benefit of the patient,” he adds.

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8. People with annual income between $1500 and 3000.
Children with diabetes have a high mortality rate in low-income countries. The life expectancy for a child with newly diagnosed type 1 diabetes in Sub-Saharan Africa is typically less than a year. Many children die even before they have been diagnosed due to the lack of diagnostics facilities. Other barriers include lack of insulin, lack of equipment for monitoring treatment, poor understanding of diabetes in children among healthcare workers, lack of appropriate protocols and lack of education to parents and the children.

But 17-year-old Thierno has a different story to tell.

Thierno Aliou Diallo is 17 years old and lives with his family in Conakry, Guinea’s capital and largest city. Guinea is one of the poorest countries in the world but the port city of Conakry moves at a fast pace, handling and storing cargo ranging from aluminum to bananas.

Like most teens living in Conakry, Thierno attends school, drinks tea with friends, goes dancing and attends local concerts. Until nine months ago, Thierno lived the joys of adolescence, free from adult responsibilities that lie in the future and filled with the dreams of things to come.

In early 2013, Thierno began having stomach pains. A normally energetic teen, he suddenly felt tired all the time. No matter how much he drank, his thirst never went away and his weight began to drop dramatically.

His father took him to a local clinic where the doctor made the type 1 diabetes diagnosis and referred him to the diabetes department at Donka hospital, the city’s largest public hospital. For most families living in low-income countries, having a child diagnosed with type 1 diabetes represents a heavy financial burden. Thierno’s father also worried about how they would afford treatment and how he would be able to support his son’s health.

After a week in the diabetes ward, Thierno was discharged. Doctors at Donka referred him to the Changing Diabetes® in Children clinic adjacent to the hospital. What the staff at the clinic did not know at the time was that Thierno would be much more than a patient. He would become an inspiration and educator for the other children. He would become Sugar Man.

The undiagnosed children

Thierno’s story is not common in the developing world. Each year, nearly 6,000 children are diagnosed with type 1 diabetes in Africa. Many more go undiagnosed.

Ulrik Uldall Nielsen knows the tragedy first hand. As Senior Project Manager for the Changing Diabetes® in Children programme, Ulrik is responsible for overseeing the programme’s 89 clinics that have been established in nine least developed and lower income countries.

“Almost a year ago, we established a clinic in a local hospital in Boké, 350 km (215 mi) north of...
Conakry. At the time, they had never diagnosed a child with type 1 diabetes. Within 10 months they have diagnosed and enrolled 16 children with type 1 diabetes,” says Ulrik. “I bet, if you come back in one year’s time, it will at least double. And this is in the small local community, not a big city.”

Due to a lack of awareness and medical education, many children that develop the symptoms of type 1 diabetes do not receive medical attention until their health is in jeopardy. Untreated, children can slip into a coma with fatal consequences. But even then, the symptoms are often mistaken for other acute conditions such as malaria.

“Doctors will treat diabetes symptoms with anti-malarial medication and because of the dehydration they would be given water with sugar or a glucose-drop,” says Ulrik. “This leads to poorer health as glucose levels run out of control in the child without insulin.”

Changing the situation is a challenge. Training and education of healthcare professionals is critical to increase the rate of diagnosis and improve treatment. In the East African countries, the number of paediatric endocrinologists, specialists trained in diagnosis and treating type 1 diabetes, is few. According to Ulrik, in West Africa with the exception of Nigeria, these crucial specialists are nearly non-existent.

Across the nine countries, efforts made by the Changing Diabetes® in Children programme have resulted in 3,800 trained healthcare professionals. This additional support has helped build up an enrolment of more than 11,000 children in the programme. In addition to healthcare support, children enrolled in the programme also receive free insulin, blood glucose monitoring equipment and supplies, and education support and materials for both them and their parents (read about the six components of the Changing Diabetes® in Children programme on page 15).

“If you asked any of the countries before the Changing Diabetes® in Children programme was created, they would say, ‘it is not a problem, because we don’t have any of these children’. But there is still a long way to go,” says Ulrik. “We are not able to completely cover all the health facilities in each country. You have to start at the central level and work your way out. In the case of Guinea, we have six centres covering the country of 12 million people. It is still better than nothing. But still, there is a lot of work to do.”

**Enter the Sugar Man**

After enrolling in the programme, doctors and nurses explained type 1 diabetes to Thierno, what
was happening in his body and what he needed to do to maintain his health. He quickly learned how to keep in good control of his blood glucose levels and what he should and should not eat.

At a diabetes camp organised by the clinic, Thierno discovered that other children in the programme were feeling stressed by the effort it took to manage their diabetes. Many of them did not really understand how to adjust their insulin dosage depending on what they had eaten or the results of the glucose measurement.

For Thierno, the changes to his daily life to properly manage his diabetes came easy. He decided to share what came easy to him with the other children. He explained that diabetes is a disease like any other and that there was no need to hide it or be ashamed of it. After the camp, he continued to meet with other children. Whenever he had the opportunity, he helped them understand how to adjust insulin doses, often telling personal stories from his learning journey.

“You know, some think that diabetes is a cursed disease and want to get rid of it, especially those who are not educated,” says Thierno. “Sometimes, in addition to not understanding how to adjust their insulin dose, they neglect taking insulin to avoid being laughed at. These are some of the difficulties I try to help them deal with.”

It was not long before Thierno was seen as a mentor and friend to the children enrolled in the Changing Diabetes® in Children programme in Conakry. When he was younger, before he was diagnosed, he had dreamed of becoming a pilot or serving in the military. Things have changed and now Thierno aspires to work with people managing the world’s economy such as a member of staff at the International Monetary Fund or the World Bank.

Despite Thierno’s career ambition, his family and friends have a different job title in mind for him. He might one day become an economist, but around Conakry, he will always be known as Sugar Man.

The 6 Components of the Changing Diabetes® in Children Programme

1. Improvement of existing infrastructure and supply of equipment to establish clinics for the treatment of children with type 1 diabetes.

2. Training of healthcare professionals and diabetes educators in diagnosing and treating children with type 1 diabetes.

3. Provision of free insulin and blood glucose monitoring equipment and supplies for children enrolled in the programme.

4. Development of diabetes education material for children and families, adapted to local settings.

5. Creation of diabetes patient registry and collection of data for patient follow-up.

6. Insights and outcome gained through the programme will be shared to the benefit of the development of healthcare systems in developing countries.

The Changing Diabetes® in Children programme integrates a number of mutually reinforcing components, which together add to the sustainability of the programme.
It is no surprise that there are differences between living in an urban city and rural town in China. In many ways, city life has big advantages, not the least of which is the greater opportunities for employment and wealth. If we compare health, city life has yet another advantage.

The story of Zhang and Wang

Meet Zhang and Wang. Both live in China, both are in their fifties and both have type 2 diabetes. But because their diabetes is handled in different ways, their lives unfold differently.

Zhang lives in Guangzhou, one of the largest cities in China, and works in a large state-owned company. He gets regular check-ups at his doctor and therefore his diabetes was diagnosed at an early stage. Zhang has full health coverage and easy access to diabetes specialists that help him manage his diabetes.

Wang lives in Huaiji, a rural county in Guangdong province and works in a small private company. For a long period he had been feeling very tired, extremely thirsty and experiencing occasional problems with his sight. He finally decided to visit the county hospital and after several consultations, he was diagnosed with diabetes, a condition he is not very familiar with. Neither is his doctor, who knows little about diabetes care and insulin therapy.

With the help of healthcare professionals, Zhang is able to eat right, check his blood sugar levels when needed and adhere to necessary treatment. In this way, Zhang is able to live with the same opportunities as his family members and friends.

If Wang is to see a diabetes specialist, he will have to travel several hundred kilometers to the big hospital in Guangzhou. However, with limited finances he is not able to do so on a regular basis. As a result, Wang has trouble keeping his blood sugar under control and in some periods he is unable to go to work. His condition puts financial and emotional strains on his family.

Zhang and Wang are not real people. But they illustrate the reality that many people with diabetes face when living in counties and villages in rural China. Learn more on the following page.
Rural versus urban – it makes a world of difference

The latest figures from the International Diabetes Federation (IDF) show that more than 39 million Chinese people with diabetes live in rural areas, corresponding to 40% of all people with diabetes in China1.

Although the prevalence of diabetes is still higher in urban areas, rapid economic growth and lifestyle changes mean that diabetes is on the rise in rural areas2. This means that there will be more people like Wang who are less likely to be aware of, treated for and able to manage their blood sugar levels because they have less access to quality care compared to people living in urban areas3.

Major reforms are paving the way
Since early 2000, the Chinese government has invested heavily in its healthcare sector. In just five years, the total Chinese healthcare spending has more than doubled from $156 billion in 2006 to $357 billion in 2011. Spending is projected to reach $1 trillion by 20204.

One of the biggest challenges is improving healthcare in rural China where there is a lack of qualified healthcare professionals and long distances to quality healthcare services. The starting point is the infrastructure of county hospitals and community health centres. The idea is to strengthen their ability to deliver initial diagnosis and treatment for chronic diseases such as diabetes to the benefit of people like Wang.

Offering a helping hand
But closing the gap between urban and rural healthcare is literally a matter of distance. China has more than 10,000 county hospitals spread across 2,000 cities and counties5 and almost 7,000 even more dispersed community health care centres6. Work has started but there is still a lot to do.

Through the Changing Diabetes® Mentor Programme, Novo Nordisk has found a way to help speed up the process.

The programme, launched in 2012, is a hands-on approach to training apprentices in county hospitals and community health centres, collaborating with the right partners to ensure a successful outcome.

Diabetes specialists at the big hospitals are carefully selected and appointed as mentors. China International Medical Foundation and China Diabetes Society are responsible for training the mentors. China Diabetes Society also works out the training materials for the apprentices, who are doctors in county hospitals and community health centres. Since its launch, the programme has been supported by the former Chinese Ministry of Health, now the National Health and Family Planning Commission of the People’s Republic of China.

“The programme is mobilising key stakeholders to ensure the maximum impact of the initiative to the benefit of people living with diabetes in China,” says Jack Chen, vice president, Marketing, Novo Nordisk China. But implementation has been complicated. Selection of mentors and apprentices is resource demanding, ensuring the right communication flow between all parties involved is challenging, and a lot of thought must be put into tailor-making the training so that it fits the target group.

For example, a major learning from the programme is that interactive patient case discussion and direct coaching has shown to be more effective than scientific lectures.

“The scientific lecture is the main manner to educate healthcare professionals by multinational companies in China, and it is a good way to improve awareness and treatment knowledge. But in low tier markets, the doctors need more hands-on clinical practice guidance,” Jack Chen argues.

By October 2013, the Mentor Programme covered 830 counties and 126 community healthcare centres through 2,323 activities that have been running for the past almost two years. A total of 2,076 apprentices have been trained and numerous rural people with diabetes have benefited from improved diagnosis and treatment.

These are important steps on the way to ease the burden of diabetes in China. Going forward, the Mentor Programme is scheduled to continue until the end of 2015 with plans to expand the programme to more areas, increase the amount of doctors reached and refine the training material.

“The programme is mobilising key stakeholders to ensure the maximum impact of the initiative to the benefit of people living with diabetes in China.”

It is evident that an armed conflict poses serious dangers to people living in Syria. What is perhaps less obvious is the life-threatening impact that the situation also has on the 889,500 Syrians living with diabetes. As a result of the conflict, the healthcare system is in ruins, supplies have trouble getting into the country and many people have been cut off from their insulin.

For more than 30 years, Novo Nordisk has been offering its products to Syrian people living with diabetes. Meet Eyad Al Safadi, Novo Nordisk’s General Manager for Syria and hear how he and his team continue their work to ensure access to insulin for people with diabetes in the face of conflict.

Could you tell a little about your background and your position as General Manager in Novo Nordisk Syria?

Eyad: My educational background is as a pharmacist. I worked for a range of pharmaceutical companies in the Middle East for many years until I landed in Novo Nordisk where I have been for the past 16 years. Like in other Novo Nordisk affiliates, we have financial responsibilities and targets that we strive to meet as well as responsibilities towards the society we live in. Our activities are guided by the Novo Nordisk Way, which is a set of values-based principles that go across the entire organisation.

Could you describe the set-up of the Novo Nordisk office in Syria?

Eyad: Novo Nordisk has been in Syria for more than 30 years. We are based in Damascus where our scientific office represents Novo Nordisk with 8 employees as of today. What is special about our affiliate is that in such a small setting, you tend to view your colleagues as family members and work becomes your second home. I guess you can say that this has been our little secret recipe for securing high performance over the last years, including the years of crisis.

Which impact has the conflict had on Syrian people living with diabetes?

Eyad: In simple words, the access to treatment has been the main impact of the crisis in Syria. Access to treatment basically means that the medicine is made available in the country, that people know about it and that they are able to reach it. These three steps can be quite simple in a normal setting, but very challenging when looking at the situation in Syria. Examples of this are lack of funds to cover the cost of medicines and treatment, many hospitals and diabetes clinics being destroyed, healthcare professionals leaving the country and risky roads making distribution of insulin extremely challenging.

How has the conflict made it more difficult for Novo Nordisk to reach people with diabetes in Syria?

Eyad: Normal tasks that were done automatically and smoothly in the past have become complicated processes that need careful planning and close follow-up. An example of this is shipping a few thousand human insulin vials to Syria. Since Damascus airport is no longer safe to use, all medicine has to be shipped to Beirut international airport from where it is carried by trucks to the Syrian-Lebanese border. At the border, shipments are reloaded on Syrian trucks which travel many hours to reach Damascus. Up to 8-10 stakeholders play a role in this process and accurate timing and coordination between them is essential for the insulin to reach warehouses in the best quality. A journey that used to take two days in the past can now take more than 15 days.
What has been most challenging? Can you give examples of “trade-offs” that you have had to make?

Eyad: Making “fateful decisions” under such an extreme environment was and will remain the most challenging for everybody in the Syrian team. We need to make decisions about whether we should stay or leave, whether we should donate or sell the insulin and decide on how many people we can realistically reach out to considering our resources. So far, four people from the office have decided to leave the country and Novo Nordisk while some are still here. And sometimes we have donated insulin, but many other times we have sold. It is constantly about making right and balanced decisions which we believe we have done.

What changes have you had to make in your work as a result of the conflict?

Eyad: We need to plan more and better. An example is the daily calls and visits to doctors and customers. You must ask yourself where is it possible to meet them? Which road can I take to reach them? And how can I do this in the most effective way? Also, we spend time preparing documents and IDs for check points on the roads and above all carefully assess the security situation.

At one point, you had to shut down operations due to intense fighting in the area – how do you ensure the safety of your employees when working in a conflict area?

Eyad: We have developed special guidelines and standard operating procedures that can help employees in how to act under certain situations and almost all in-country travelling has been frozen. But the situation on the ground can change from one minute to the other and no guideline can possibly take everything into account. Therefore personal sense and risk evaluation is key, and we have arranged many meetings to discuss with our staff the importance of this particular element and how to balance it. Safety is a number one priority for us.

Earlier this year, your team won the TakeAction award recognising your efforts to ensure the supply of insulin during the conflict - how do you manage to keep employees motivated in such an extreme environment?

Eyad: The extreme environment in itself has become a motivation to us. We have never felt more important to the Syrian people with diabetes than today and we have never felt more strongly the value of what we do than today. The TakeAction reward was a symbol of all of that.

What is the most rewarding part of your job?

Eyad: The most rewarding moments are when we make a difference. It can be something as simple as a phone call as when Omar, our medical rep, guided a mum to the outlet where she could get free insulin penfills for her son who has been using our devices for many years. Another example is when our product specialist, Rami, made the difference between life and death for a young woman with acquired haemophilia, an extremely rare and life-threatening bleeding disorder.

How does the future look for people with diabetes in Syria? How will Novo Nordisk continue to ensure access to insulin going forward?

Eyad: The estimated number of people with diabetes in Syria is projected to grow by 92% in 2030 corresponding to 1.7 million people, so our mission is far from accomplished. What we do today will change diabetes in Syria for the future and people with diabetes in Syria deserve the best products we can offer to them and not only basic treatment. So we will continue what we are doing because we believe that is the right thing to do.

1. TakeAction is Novo Nordisk’s corporate volunteering programme.
Headquartered in Denmark, Novo Nordisk is a global healthcare company with 90 years of innovation and leadership in diabetes care. We believe that a healthy economy, environment and society are fundamental to long-term business success. This is why we manage our business in accordance with the Triple Bottom Line (TBL) business principle and pursue business solutions that maximise value to our stakeholders as well as our shareholders. In 2004, Novo Nordisk’s shareholders unanimously agreed to amend the company’s by-laws anchoring the TBL business principle into our Articles of Association. As a pioneer in integrated reporting, we have been accounting for our social, environmental and financial performance and setting long-term targets for almost a decade.

We want to hear from you!
Novo Nordisk believes that reaching out to stakeholders helps us to reconcile dilemmas and find common ground for more sustainable solutions. If you have any questions, comments or suggestions regarding this issue of the TBL Quarterly, please send us a mail at sustainability@novonordisk.com or send us a tweet to @novonordisktbl

For a deeper look at how Novo Nordisk works with sustainability, visit our website at novonordisk.com/sustainability