PAK WASLO
Indonesia
He has type 2 diabetes

05 The **Blueprint for Change** Programme
March 2013

where economics and health meet: changing diabetes in indonesia

Like many countries undergoing rapid socioeconomic transition, Indonesia is struggling with a fast-growing burden of diabetes. Facing this challenge compels stakeholders to align their vision in a way that leads to better awareness and improves access, affordability and quality of care. Success will generate shared value for stakeholders, society and Novo Nordisk.

novo nordisk®

contents

Indonesia is a country with sound economic fundamentals, an improving standard of living and – unfortunately – a growing diabetes epidemic. Barriers to appropriate diabetes care prevent many people from living a healthy and productive life. Less than 1% of people living with diabetes achieve treatment targets. Insulin treatment is received by one in eight persons who need it.

Lack of public awareness about and focus on the diabetes pandemic, the shortage of diabetes specialists and the low level of diabetes knowledge among many healthcare professionals are among the key barriers to quality care in Indonesia.

Novo Nordisk has been investing ahead of the diabetes prevalence curve to address the barriers. Investment in healthcare education has a positive effect on doctors' knowledge and patients' outcomes, while including other healthcare professionals such as general practitioners, nurses and diabetes educators could help alleviate the burden.

Changing diabetes in Indonesia requires collaborative efforts between governmental, non-governmental organisations, local and international private businesses. By investing in changing diabetes, especially in prevention, awareness, diagnosis and treatment, we can all improve the lives of many people and save billions of dollars in the cost to society, thereby stimulating market growth and enhancing business opportunities for all the players involved.

If we work together with a patient-centric mindset, we can change diabetes in Indonesia. It is part of our Triple Bottom Line business principle. It is how we create shared value.

the challenge

The improving standard of living in Indonesia is bringing with its lifestyle changes that increase diabetes risk and prevalence, thereby hampering sustainable economic growth. Demand for healthcare, however, may outstrip the country's ability to provide it. With our focus on patients and commitment to changing diabetes, Novo Nordisk is investing ahead of the curve to remove barriers to diabetes care in Indonesia and elevate economic potential.

the burden

Diabetes is growing worldwide, but more in developing countries. More than half of new patient growth will come from nations outside the European Union, North America and the industrialised Far East.[1] Indonesia is the fourth most populated country with 242 million people[2] and among the top 10 countries in number of people living with diabetes in the world.[3]

Today, 7.6 million people in Indonesia are living with diabetes, while another 12.6 million have prediabetes (Figure 1).[3] By 2030, the number of people with diabetes in Indonesia will top 11.8 million[4] – a 6% annual growth that by far exceeds the country's overall population growth.[2]

Moreover, fewer than half of those with diabetes are aware of their condition,[3] and while the vast majority of those who are aware receive treatment, only a handful – less than 1% – achieve treatment targets.[5] Those who remain in rural areas will have the greatest need for high-quality treatment from a healthcare system strained by demand for resources and know-how.

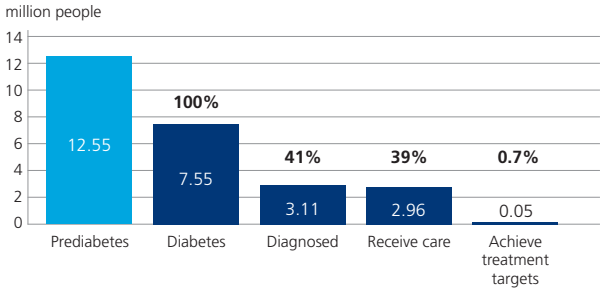
Increasing diabetes rates are often related to an improvement in living standards. As people leave the countryside to perform jobs in the cities, the key diabetes risk factors such as lack of exercise and dietary habits are generally exacerbated.

Today, with its low population growth rate (1% annual growth rate[2] since 2006), coupled with solid productivity gains (Figure 2) and stable inflation rates (Figure 3),[6] Indonesia is poised for sustainable, long-term economic growth and burgeoning investment opportunities. Projections are that 90 million people in Indonesia will join the middle class by 2030.[7]

Unfortunately, the disability, loss of life and productivity resulting from the complications from undertreated diabetes may negatively affect the Indonesian economic progress. The economic impact does not begin to communicate how the complications affect the people and families of those who live with diabetes.

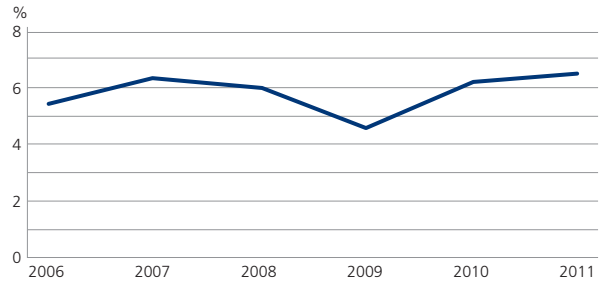
Prediabetes and the diabetes rule of halves in Indonesia Figure 1

7.6 million people live with diabetes, but very few achieve treatment targets



Economic growth since 2006 (annual) Figure 2

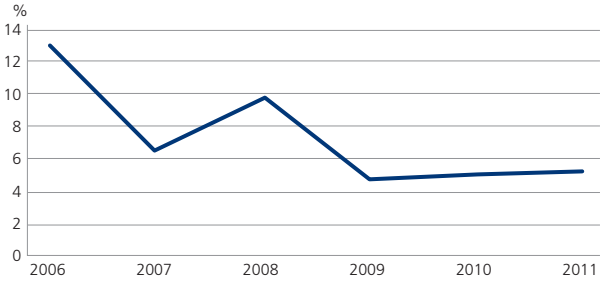
5.9% average annual GDP growth presents untapped potential



Note: GDP = Gross domestic product.

Inflation since 2006 (consumer prices, annual %) Figure 3

5.4% inflation rate is below GDP, making growth sustainable



issues and barriers

The number of people living with diabetes is growing in Indonesia. The reasons for this and the country's inability to adequately curb it are multifactorial and complex.

Some 32 million Indonesians are expected to move from rural to urban areas by 2030.[7] It is no coincidence that the rise in diabetes prevalence in Indonesia is accompanied by two of the most common effects of urbanisation: change in dietary intake and lack of exercise.

Almost half of the Indonesian diet consists of white polished rice (Figure 4).[9] As a result, glycaemic load is high – the typical individual in Indonesia consumes more than double the carbohydrates necessary for body function – and fibre intake is low – less than half of what is needed for good digestion.[10] Low fibre intake drives abdominal obesity, which is strongly associated with increased risk of diabetes.[11,12]

Lack of exercise constitutes the other half of the urbanisation equation. In Indonesia, the lowest diabetes prevalence is found in farmers, fishermen and labourers. When people leave rural areas for jobs in cities, they often adopt a more sedentary lifestyle. Rates of diabetes and impaired glucose tolerance are higher in occupations typical of city living and among housewives.[13]

As is true in many developing nations, healthcare in Indonesia has largely focused on infectious diseases. As incomes, living standards and life expectancy increase, so will the number of people living with chronic diseases such as diabetes. This highlights the need to shift priorities for population care in general and, specifically, to put the diabetes challenge on the public healthcare agenda.

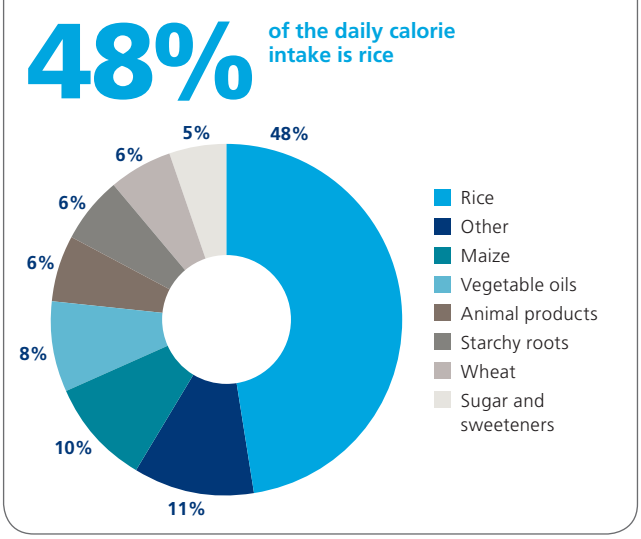
Failure to transform the healthcare system to face this trend can widen the gaps in diabetes outcomes and threaten Indonesia's economic stability.

Mapping the issues

Our approach to healthcare access is rooted in the Universal Declaration of Human Rights, which defines *right to health* as essential for an adequate standard of living.[14] Four key elements shape the right to health: availability, accessibility, affordability and quality.[15] In addition, the World Health Organization has identified awareness of diabetes as a critical barrier in developing countries.[16] Together, these five barriers form a framework for identifying diabetes care issues in Indonesia.

Through extensive qualitative interviews with patients, healthcare professionals (HCPs) and a wide range of stakeholders within diabetes care, including the Ministry of Health (MoH), the Indonesian Society of Endocrinology (PERKENI) and the Indonesian Diabetes Association (PERSADIA), we identified key issues in diabetes care in Indonesia.

Food supply in 2009 (kcal/capita/day) Figure 4



These issues were cross-validated in a survey of 200 people.[17] (Figure 5). The concentric circles in figure 5 suggest how these issues are interconnected and have different implications for patients, HCPs, healthcare organisations and society, weaving layers of complexity into the search for solutions to the country's diabetes epidemic. In Indonesia, four key issues in diabetes care are:

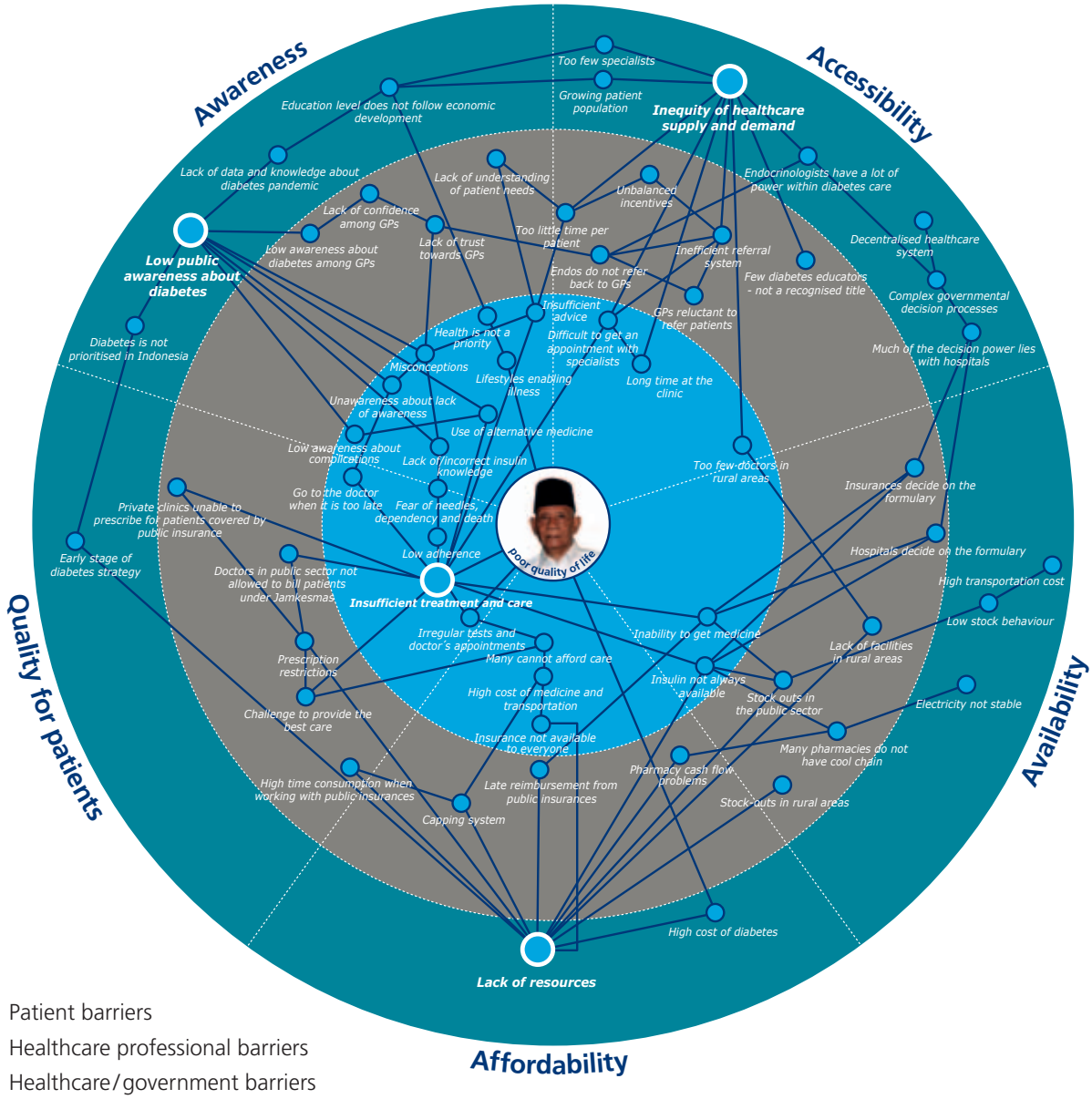
- **Lack of awareness** about diabetes in the general public and among some healthcare professionals and policy-makers
- **Inequity of healthcare supply and demand** resulting from an expanding patient population and too few diabetes specialists
- **Lack of resources** in the public healthcare system and among the Indonesian population
- **Too few people receiving proper treatment** or insulin, resulting in poor-quality care

These issues lead to poor quality of care, poor treatment outcomes and poor quality of life. The four issues summarise where we and our converging partners should start changing diabetes in Indonesia.

The next pages highlight how we, through close collaboration, have responded to the issues. The initial outcomes of our work are clear, but we are at the start of the changing diabetes journey.

Issues and barriers are interconnected, creating a complex issues map

Figure 5



Note: Issues are mapped using qualitative research methods including thematic coding and clustering. The issues are mapped according to the five barriers and three stakeholder groups. Priority action is on clusters with more connections (indicated with white circles).

Non-exhaustive

our approach

Sustainable value creation is a core business strategy focused on addressing fundamental societal issues that provide community benefit, are scalable and generate returns on – and beyond – a profit-and-loss sheet. Sustainable value incorporates concept of shared value, which focuses on the measurable competitive advantages of transforming a social value proposition into action.

our history

Novo Nordisk is a company with 90 years of innovation and leadership in diabetes care. In 1923, our Danish founders began a patient-centric journey to change diabetes. Today, we have almost 35,000 employees across the world with the passion, skills and commitment to continue this journey to prevent, treat and ultimately cure diabetes. We know there are millions of people with diabetes that could be living their lives in full if having access to the necessary medical treatment and care. We are determined to close the gap. We have set an ambition that by 2020 we will provide medical treatment to an estimated 40 million patients – a doubling from the 20 million we reached in 2011.[18]

The complexity inherent in changing diabetes in Indonesia means that healthcare companies cannot expect to enter the market with the usual model. Many of the diabetes challenges in this island nation are unique to Indonesia – a place where HCPs with specialised diabetes training are spread too thinly across the archipelago to serve a burgeoning diabetes population. Our approach to expanding access to quality care, then, has been to stay attuned to market needs by creating cross-sector partnerships with stakeholders.

We learned the importance of this through experience. In the first years after our Indonesian affiliate was established in 2003, inward-focused investments reflected a lack of attention to the needs of the market. In 2006, Novo Nordisk adopted a patient-centric focus in Indonesia, rooted in the Novo Nordisk Way of doing business. The affiliate reprioritised its activities and invested in the market.

Today, Novo Nordisk and our partners are actively addressing barriers to diabetes care in Indonesia, with focus on patient and HCP education. Furthermore, we collaborate with stakeholder groups to support community events that increase awareness of diabetes, prevention, detection and treatment.

These are just a few of the initiatives we carry out in partnership with doctors and other stakeholder groups (Figure 6). Our work in Indonesia is bearing fruit, but we are yet to realise the full potential. The value generated to society and to Novo Nordisk is described in more detail later in this report.

Examples of initiatives implemented by Novo Nordisk and its partners since 2000 Figure 6

2000
- DiabCare study, increasing local research base about diabetes

2003
- Novo Nordisk affiliate established in Indonesia

2006
- First World Diabetes Day in Indonesia, improving public awareness for diabetes
- Diabetes camps, improving knowledge about diabetes among patients (in collaboration with PERSADIA)

2007
- Deeper implementation of the Novo Nordisk Way into the Indonesian affiliate
- Novo Nordisk launches modern insulin in Indonesia

2008
- Diabetes foot care, improving capacity within diabetes foot care (World Diabetes Foundation (WDF))

2010
- INSPIRE programme, diabetes education for healthcare professionals (HCPs)
- A1chieve observational study on type 2 diabetes and insulin therapy
- Diabetes prevention and care at primary care level, Ternate diabetes clinic in rural area established as a part of the project (WDF and local authorities)

2011
- Facilitation of the National Diabetes Plan (NDP), an action plan for changing diabetes in Indonesia (in collaboration with MoH and a number of other key stakeholders)

2012
- Improvement of INSPIRE programme, strengthening HCP knowledge and capacity (in collaboration with the STENO Diabetes Center and PERKENI)
- Posbindu, increasing public awareness about non-communicable diseases, including diabetes (in collaboration with MoH and local authorities)
- Signing of a Memorandum of Understanding between Novo Nordisk and MoH to jointly change diabetes in Indonesia
- Indonesia becomes a new strategic market for Novo Nordisk

> "I wish to invest in the market and the customers, not the home office. Our impact on providing care to people with diabetes makes employees proud to be a part of Novo Nordisk."
>
> – Sandeep Sur, general manager, Novo Nordisk, Indonesia

the value proposition

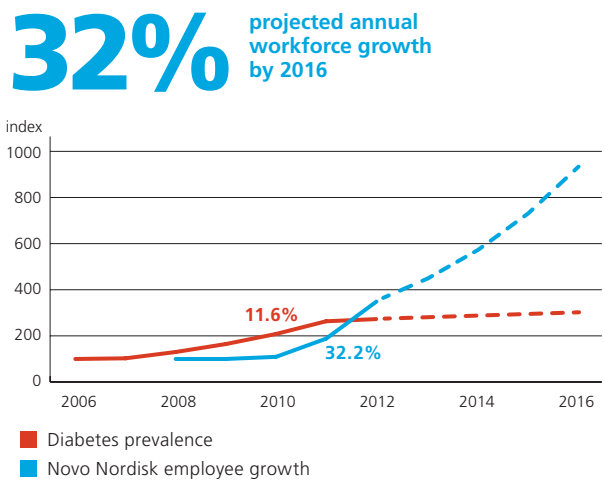
With a healthy economy and rapid growth in diabetes prevalence, Indonesia is an important strategic market for Novo Nordisk. At the same time, the gulf between accepted standards of care and the health status of the population is set to widen, threatening economic growth.

In addressing this situation, our objective is to create value for the Indonesian society, for our business partners and for Novo Nordisk. In practice, Novo Nordisk takes actions that yield measurable societal gains a core business strategy, conferring a competitive advantage. In Indonesia, societal gains include HCP skills, health outcomes and job creation.

We are investing ahead of the curve, making substantial internal improvements that enable us to partner with others on initiatives aimed at breaking down barriers to better diabetes care. During the past 3–4 years, Novo Nordisk has seen significant growth in Indonesia, and this growth is expected to continue for many years. From 2008 to 2016, we expect our own workforce to increase by 32% annually[1] – more than double the growth of diabetes prevalence (Figure 7).[3,4,8]

We collaborate with our partners on activities and programmes that address issues most acutely in need of attention. These activities become drivers of how we create value (Figure 8).

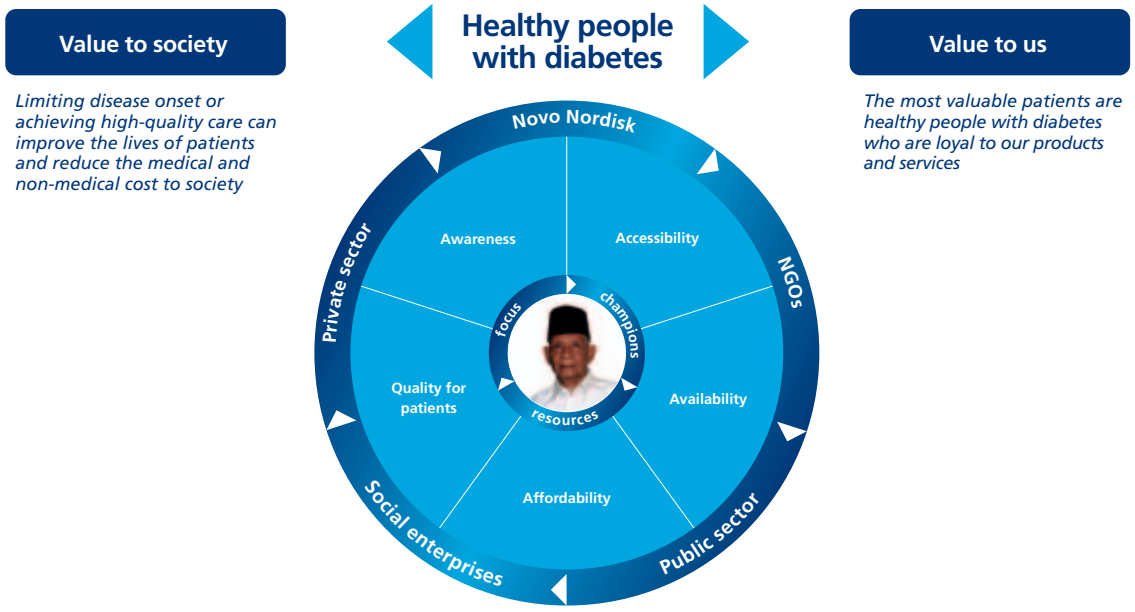
We are investing ahead of the curve Figure 7



Note: Percentages indicate compound annual growth rates (CAGR).

At Novo Nordisk, we work by *the Novo Nordisk Way*. The Novo Nordisk Way describes who we are, where we want to go and how we work. It sets the direction for and applies to all employees at Novo Nordisk – no matter what they do or where they work. It is a promise we make to each other and our external stakeholders. Furthermore, we believe that what is good for our customers is good for us. This philosophy of doing business is part of our Triple Bottom Line principle, which embraces social, environmental and economic responsibility. Novo Nordisk has made the Triple Bottom Line a business principle. It is how we create shared value.

Shared value starts with the patient Figure 8



Note: Barriers in the figure represent the barriers for the three stakeholder groups defined in figure 5.

key success factors

Novo Nordisk is committed to changing diabetes in Indonesia, but we cannot do it alone. A collaborative approach is necessary to achieve sustainable improvements in people's health.

To accomplish this, three critical success factors must be in place:*

1 – Focus

All parties must remain focused on the mission to improve diabetes care and outcomes. This means that:

- The government must set the direction, following through on implementation of the NDP.[19]
- Novo Nordisk must maintain its focus on changing diabetes in Indonesia and a collaborative mindset to assist with implementation.

2 – Champions

Various stakeholders have to see the value in the cause – and then champion it. This means that:

- Novo Nordisk will partner extensively with government, NGOs and others to define a vision, align goals and improve competences. We have identified partners for success in Indonesia; some key partners are profiled opposite.
- Our partners (organisations and people) should be willing to actively lead and drive change.

3 – Resources

All parties must allocate the resources necessary to drive change. This means that:

- Private-sector investments are needed to complement government interventions and support local champions.
- A sustainable business case will be essential for incentivising private institutions to invest in infrastructure and care delivery.

All stakeholders have a role in changing diabetes. With these critical success factors in place, each can help to make a difference in overcoming the issues relating to inadequate quality of care, awareness, accessibility, affordability and availability.

Although the depth and complexity of the issues is daunting, the flow map in figure 9 shows what each stakeholder contributes – and gains – by being a partner in this mission.

** Critical success factors are shown in figure 8 (around the patient circle).*

Partner: Ministry of Health (MoH)

Role: Policymaking and coordination

The ministry has overall responsibility for healthcare policy, including the NDP.[19] Individual provinces have a high degree of decision-making authority, which influences implementation of policies. An MoH subdirectorate deals exclusively with diabetes. With a focus on prevention and early diagnosis, it also has a coordination role among stakeholders committed to changing diabetes in Indonesia.

Partner: PERKENI

Role: Access to care and HCP capacity

The Indonesian Society of Endocrinology provides expertise and a professional network of diabetes specialists. It advises the MoH on diabetes-related issues and policy development. PERKENI establishes clinical practice guidelines so that doctors who treat people with diabetes provide consistent treatment. PERKENI also trains HCPs, enhancing their expertise in treating people with diabetes.[20]

Partner: PERSADIA

Role: Increasing local awareness

The Indonesian Diabetes Association brings together patients, doctors and other stakeholder groups to create awareness and to develop the knowledge base about diabetes in Indonesia. The group also advises the government on various aspects of the diabetes challenge.[21]

Partner: STENO Diabetes Center

Role: Supporting quality of care improvement

STENO is a diabetes research centre focusing on dispersing knowledge and improving patient outcomes around the world. STENO research studies seek to understand and improve patient education, prevention and health promotion. With a cross-disciplinary focus, STENO translates research into care and prevention.[22]

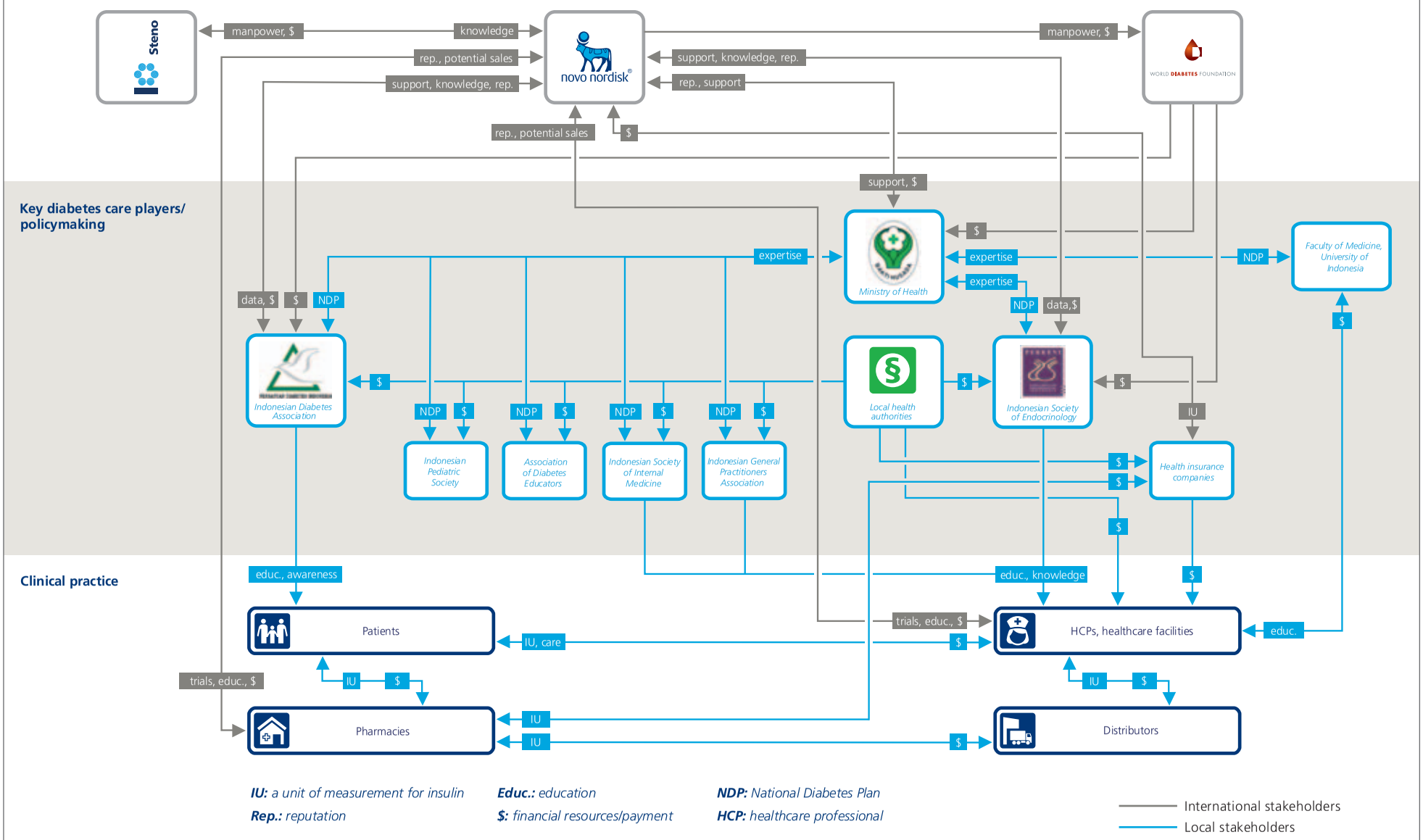
Partner: World Diabetes Foundation (WDF)

Role: Programme funding

Novo Nordisk established the World Diabetes Foundation in 2001 with the purpose of supporting projects that improve diabetes care in developing countries. The foundation provides grants for fundamental diabetes care and professional education programmes. Through WDF-funded activities, more than 3.7 million people in Indonesia have received diabetes care and prevention services.[23]

Indonesian diabetes healthcare system. Sustainable business models need to be created throughout the healthcare system value chain

Figure 9



Note: Key stakeholders within diabetes care. The figure describes only tangible flows.
** There are more stakeholders in the market, for example the International Diabetes Federation, private companies and other relevant bodies.*

creating shared value

Improving the quality of diabetes care in Indonesia entails addressing four barriers: awareness, accessibility, affordability and quality. Novo Nordisk is actively supporting the changing diabetes agenda in Indonesia. We are mindful that ending the diabetes epidemic requires partnerships, and therefore recognise other stakeholders' complementary strengths and engage them in advocating for improvements.

awareness

Imagine being told that eating live insects or soap would help your diabetes. That drinking banana stem tea can help you manage your blood sugar. That you should not use insulin if you are Muslim because it is made from pork.

Such misconceptions conspire to erect a key barrier to better population health: lack of awareness about diabetes, prevention and treatment. For many Indonesians, the inability to recognise symptoms or complications of diabetes means that they see a doctor far too late. And among those who receive care there may be a wide perception that they know all that there is to know about managing their diabetes.

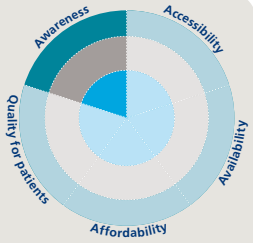
The qualitative research of this study indicated that many people living with diabetes may not know all there is to know and reasons for this may be based on educational shortfalls. In Indonesia, the educational index[24] lags behind economic growth[6] (Figure 10). This portends shortcomings with the awareness and knowledge about diabetes, as there may be a correlation between the education level of patients and the treatment outcomes they achieve.[25]

> "I know very little about diabetes. I just know that I urinate a lot, and I am tired all the time. That is it."
>
> – Madsuri, person living with diabetes in Indonesia

Advocacy also correlates with awareness, and the lack of both has profound public health implications. Historically focused on infectious diseases (malaria, tuberculosis and HIV/AIDS remain serious health issues in Indonesia), the country's healthcare system has not made chronic conditions such as diabetes a priority. This is reflected in rates of diagnosis; in Indonesia, 59% of people living with diabetes are unaware of their condition.[3] In rural areas, where clinics are scarce, undiagnosed diabetes may be as high as 70%.[26]

Key issue:
Lack of awareness about diabetes

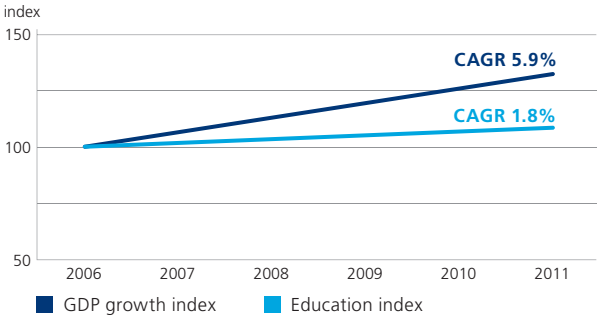
Other issues:
Public misconceptions about diabetes and its treatment, low awareness among some HCP groups, lack of data about diabetes pandemic, diabetes not a national priority



Interventions:
Clinical research sponsorship and development, educational initiatives, support of awareness-building activities

Economic and educational development since 2006 Figure 10

1.8% growth in the educational index is well below the country's GDP



> "Patients really do not care much for themselves because they do not know the consequences."
>
> – Doctor Ariani Intan, internist, RS Husada Insani Tangerang, Indonesia

paths to shared value

Clinical research

The lack of focus on diabetes in Indonesia is, in part, characterised by the scarcity of clinical research conducted in the country. Since 2005, 22 trials of diabetes treatment in Indonesia have been published;[27] by contrast, 102, 89 and 64 trials have been completed in the Philippines, Malaysia and Colombia respectively (Figure 11), whose economies and GDP growth are similar to those in Indonesia.[6] The 22 diabetes trials equate to one study for every 343,300 people living with diabetes – far lower than comparative rates for the other four countries.[2,27]

Over this period, Novo Nordisk has sponsored and conducted more than half of the completed diabetes trials in Indonesia (Figure 12), enrolling almost 13,000 people.[27] For patients, the value of participation lies in better heath outcomes and knowledge of the disease.[28] For Novo Nordisk, value derives from demonstrating the benefits of insulin use on the market, while demonstrating our commitment to changing diabetes.

The objective of clinical trials is to test efficacy and safety. However, for society there are some additional benefits. It promotes awareness in two ways. Firstly, it imparts knowledge to HCPs, which has implications for treatment and the development of guidelines that define best practices in care. Secondly, creates locally specific databases on genetics – an important component of diabetes research – and on health status, which drives public policy initiatives.

Awareness-building programmes

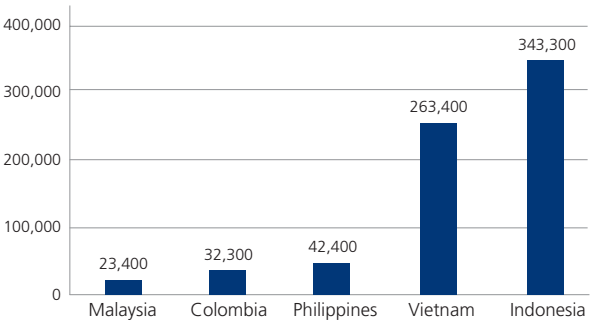
In the community, Novo Nordisk employees support World Diabetes Day each November. Over the past five years, we have invested almost 400,000 US dollars in this event, joining our partners to bring a message of health, hope and activism to more than 68,000 people (Figure 13).[1]

Through grant-making, WDF also plays a role in improving awareness and prevention activities. WDF has provided more than 1 million US dollars in funding for diabetes care and education programmes that benefit patients and HCPs. More than 3.5 million Indonesians have been reached through WDF awareness-improvement initiatives.[29] Novo Nordisk's Indonesian affiliate has supported these activities with personnel and other support, and with nearly 400,000 US dollars in funding.[1]

> "We didn't believe that diabetes will be, you know, a health problem in Indonesia."
>
> – Doctor Pradana Soewondo, consultant endocrinologist, former President of the Indonesian Society of Endocrinology

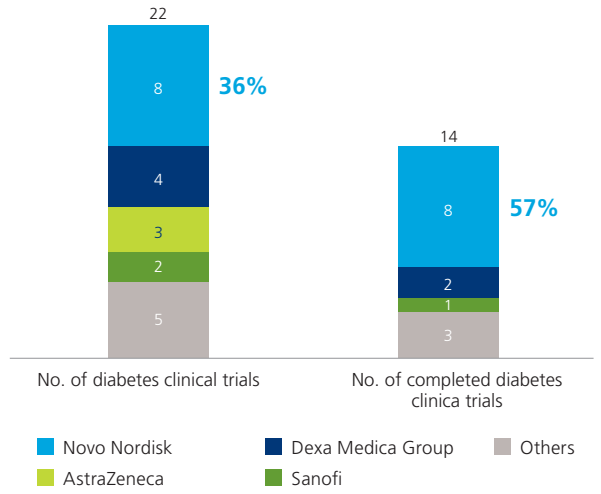
Number of people with diabetes for every clinical trial conducted Figure 11

343,300 people living with diabetes for every clinical trial in Indonesia



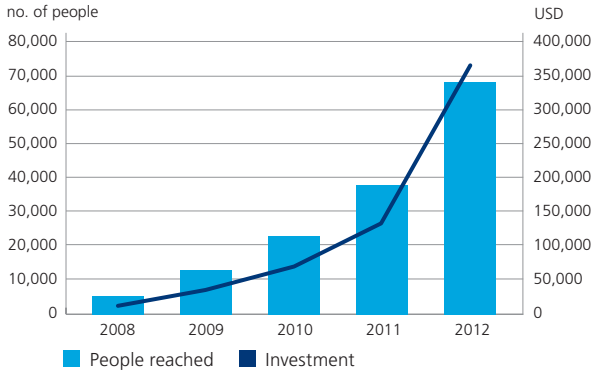
Diabetes clinical trials since 2005 Figure 12

57% of completed clinical trials in Indonesia have been conducted by Novo Nordisk



Impact of World Diabetes Day in Indonesia Figure 13

68,000 people reached through World Diabetes Days



Note: Cumulative numbers.

World Diabetes Day in Indonesia, 2011.

First Posbindu supported by Novo Nordisk established in Kayu Putih, Jakarta, 2012.

Building and strengthening links

Posbindu is a community based programme, created to increase awareness among general population about non-communicable diseases, recognising the risk factors of these diseases, and detecting the conditions on the early stages. Currently, there are 3,314 Posbindu chapters in Indonesia.[30] Supported by the local government, each Posbindu is driven by a local champion.

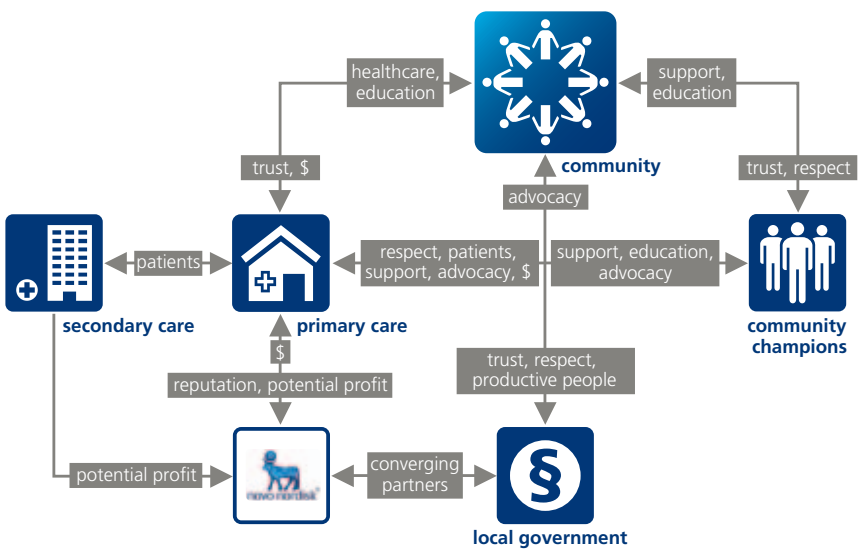
Posbindu is derived from an earlier initiative, Posyandu. Posyandu was successful in promoting the value of maternal healthcare.[31] In a nation where appreciation of chronic disease burden is low, however, replicating that success has been a challenge. Few of the organisations involved in Posbindu understand the long-term value in addressing diabetes.

Novo Nordisk is involved in a pilot designed to improve the effectiveness of Posbindu in four districts. For the first time, HCPs are taking an active part at the event and a direct link to the healthcare system is established as a part of the Posbindu system. Through our support, dozens of champions and HCPs at primary clinics are learning about diabetes – preparing them to educate the public at Posbindu events.[1] Those attending benefit from access to professional advice about their health, while HCPs and primary care clinics reap the value through referrals into the healthcare system.

With adequate support, the Posbindu model has the potential to provide multiple benefits for stakeholders in diabetes care (Figure 14). Novo Nordisk's Posbindu project to build links among healthcare stakeholder groups is akin to providing ferries between islands in this archipelago nation. It is our plan that by the time the government takes over the costs of this effort in 2014, the value of Posbindu will be recognised.

Creating a holistic support system for the community, with a direct link to the healthcare system

Figure 14



Breaking down the barrier:

Society must do more to address the following gaps, which foster low awareness:

- Lack of trust in general practitioners (GPs)
- Low awareness about complications
- Use of alternative and folk remedies
- Myths and misunderstanding
- Diabetes not a national priority
- Health not a general priority

accessibility

In a country where almost 7.6 million people live with diabetes,[3] access to diabetes care is extraordinarily poor. The total of 64 endocrinologists in Indonesia ranks last in Asia (Figure 15)[1] and equates to one endocrinologist for every 118,000 people with diabetes.[3]

Moreover, endocrinologists spend a good deal of time involved in professional education, attending conferences and instructing other healthcare professionals. This limits the number of hours they can devote to patient care.

All the while, demand for diabetes care is surging, with disease prevalence in Indonesia increasing almost 12% annually since 2006.[3,4,8] Internists and other HCPs can help to alleviate the imbalance between supply and demand, but many of them may not have the skills and time to provide proper care.[32,17]

> "There were 50 doctors. I give a piece of paper and write on it, 'How do you diagnose diabetes?' Only seven good answers."
>
> – Professor Sidartawan Soegondo, President of the Indonesian Diabetes Association

paths to shared value

INSPIRE training for internists

Novo Nordisk created INSPIRE to improve access to high-quality care. With a holistic focus on medication, nutrition and exercise, INSPIRE provides internists with knowledge to address diabetes. We worked with PERKENI and the STENO Diabetes Center to strengthen the programme and its reach, and by the end of 2012 more than 1,200 internists had been trained. The goal is to train another 1,280 during 2013. Pre- and post-training test results indicate that INSPIRE has a positive effect on internists' knowledge (Figure 16)[1] and, ostensibly, the value of the care they provide. STENO is following INSPIRE graduates to document the real-world outcomes of their training.

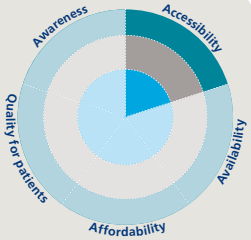
Enlisting internists to change diabetes can be an effective strategy for removing barriers to access, but its reach is limited. Even if all of Indonesia's 3,000 internists[33] were INSPIRE-trained, time pressures would prevent them from serving everyone in need. Most internists work 12-hour days,[17] and the Indonesian Society of Internal Medicine estimates that at the current rate it would take 70 years to train enough internists to meet the demand for diabetes care.[34] That is where GPs can play a role.

INSPIRE training for GPs

Improving the competences of GPs to address the diabetes challenge makes intuitive sense, but it will take some effort to make it sustainable. In general, a GP receives two hours of diabetes education during medical training;[31] not surprisingly, fewer than half have the skills to screen for diabetes or manage its complications, and only half know enough to advice patients on proper nutrition (Figure 17).[17]

Key issue:
Inequity of healthcare supply and demand

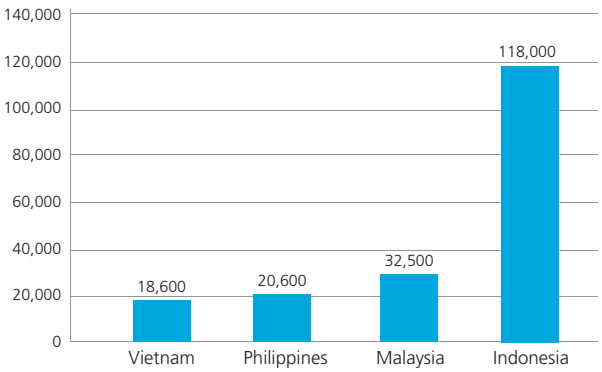
Other issues:
Few specialists, internists and GPs overburdened, growing patient population, inadequate staffing and facilities in rural areas



Interventions:
Train internists and GPs in diabetes care, staff and support rural health clinics, public advocacy

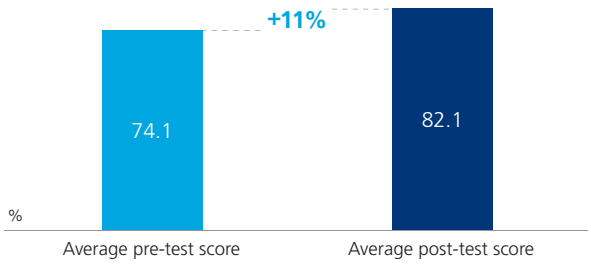
Shortage of specialists in Indonesia Figure 15

118,000 people with diabetes per endocrinologist in Indonesia



Diabetes knowledge among internists before and after participation in the INSPIRE programme Figure 16

11% gain in knowledge among internists who participated in the INSPIRE programme during 2012



Given low level of training, many GPs feel unsure about administering insulin to patients.

To address this, Novo Nordisk adapted INSPIRE to meet the needs of GPs. Implemented in 2012 in collaboration with STENO and PERKENI, INSPIRE GP provides a holistic understanding of diabetes management from prevention and diagnosis to late-stage complications. GPs are trained in, among other things, early detection and monitoring, comorbidities, pharmaceutical and non-pharmacological interventions, and diabetes foot care. Participants demonstrated a 34% increase in their knowledge of diabetes care, based on pre- and post-test scoring (Figure 18).[1]

In two respects, the effect of training GPs has been greater than that of training internists. First, GPs' baseline knowledge was below that of internists. Second, the greater number of GPs gives them broader reach with patients in need of diabetes care.

The value in helping GPs develop new skills is reflected in their confidence in treating patients with diabetes and is measured in outcomes. In a pilot that we developed with PERKENI, GPs who were mentored by INSPIRE-trained internists felt more confident in their abilities to advise patients and administer insulin. Their patients experienced significant HbA1c reductions after 12 weeks of insulin therapy (Figure 19).[35]

> "We should educate [GPs] within diabetes care, but they do not have a lot of time to learn to better serve the patients."
>
> – Doctor Roy Panusunan Sibarani, endocrinologist, RS Pantai Indah Kapuk, Indonesia

Involving other HCPs

Just as internists are overburdened, so are GPs. With fewer than three GPs per 10,000 people in Indonesia,[36] patients face long waiting times in crowded clinics for a short consultation, usually 10 minutes or less.[17] One solution defined in the NDP[19] is cross-sector involvement, which could include other HCPs like nurses and diabetes educators, thus improving supply. There is little incentive for involving other HCPs, however, given that most physicians are paid by the number of patients they see.[17]

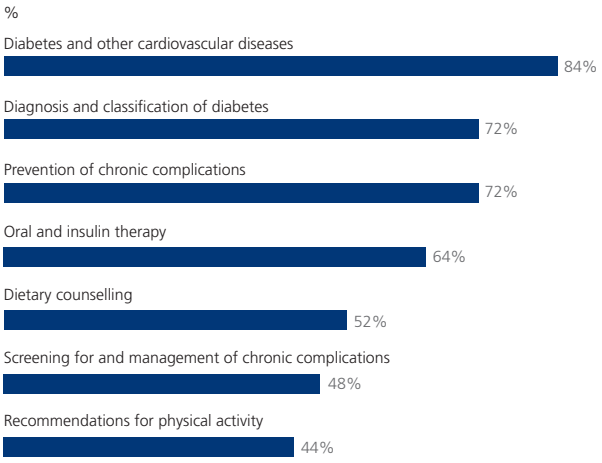
The NDP includes solutions such as:

- Cross-sector involvement
- Evidence based actions
- Regional and central coordination

Novo Nordisk supported the development of the NDP and continues to work with the MoH to find efficient and effective ways to implement it.

Training areas for GPs in Indonesia Figure 17

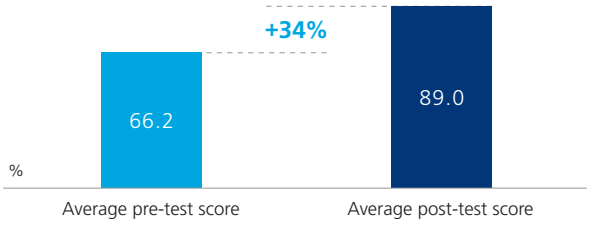
48% of GPs have never received training about diabetes screening and management of complications



Note: GPs who did not partcipate in the INSPIRE programme.

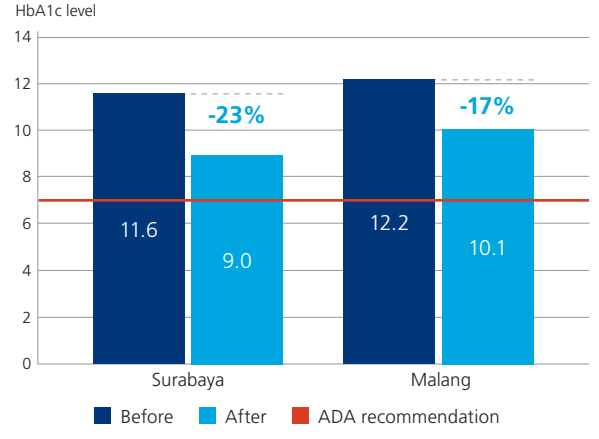
Diabetes knowledge among GPs before and after participation in the INSPIRE programme Figure 18

34% gain in knowledge among GPs who participated in the INSPIRE programme during 2012

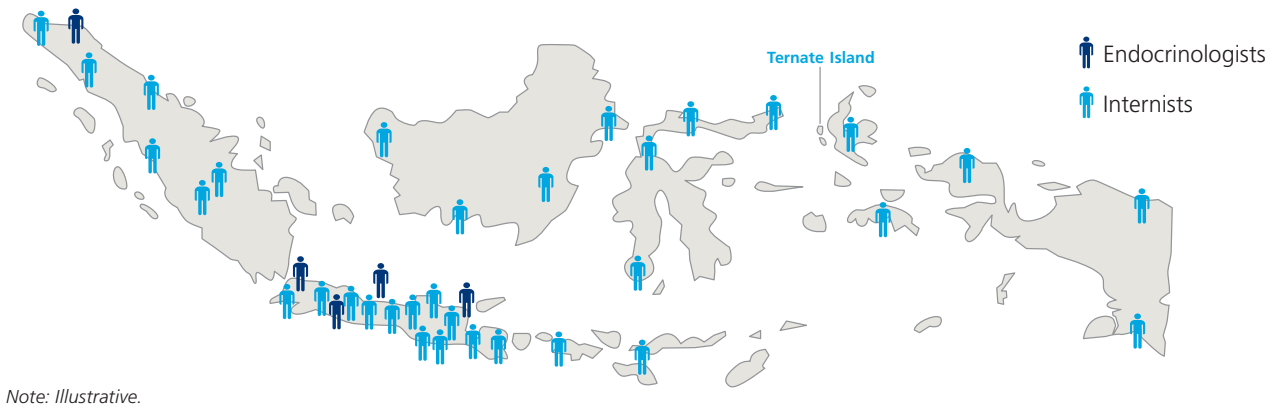


Potential for improvement in diabetes control at primary care level Figure 19

23% lower HbA1c levels achieved by people treated by better educated and more confident GPs



Distribution of endocrinologists and internists in Indonesia Figure 20



Note: Illustrative.

Bringing healthcare to rural areas

Outside of cities, quality diabetes care is scarce in Indonesia. All of the country's 64 endocrinologists and most internists are concentrated in the cities (Figure 20).[1,34] Internists are obligated to practice in rural areas, but lack of proper facilities and basic supplies hinders efforts to encourage specialists to accept the challenge.[34]

> **"Budget allocation is the biggest challenge. We have decided to allocate more money on health, but that means we have less money to spend on other areas."**
>
> – Ir. Arfin Djafar, deputy mayor, Ternate, Indonesia

The small island of Ternate provides an example of where need is great and resources are scarce. In this remote area of North Maluku province, diabetes prevalence among adults is 19.6%.[37]

In 2008, the World Diabetes Foundation initiated a project to bring diabetes care and prevention to the primary care level. A diabetes care centre was established in rural Ternate.[38] Novo Nordisk supported WDF to staff the clinic with a physician, provide education and training, and purchase supplies. Patients receive nutrition counselling, examinations and time with a doctor. An adjacent pharmacy provides medications to people prescribed them.[38]

In its first years, the clinic served 371 people and screened another 3,000. The clinic has also developed a number of public awareness campaigns to reach people on the island who live with diabetes or are at risk of developing diabetes later in life.[39]

In the coming years, Novo Nordisk is supporting the local government in opening a diabetes clinic in Halmahera, where prevalence is high yet only four GPs serve the area.[1] In Ternate and Halmahera, Novo Nordisk is fostering sustainable health improvements by providing access to care in underserved areas.

Community-based diabetes management centre on the island of Ternate in North Maluku province.

Breaking down the barrier:
Government, HCPs and other stakeholder groups must do more to address the following gaps, which result in an unbalanced supply and demand in diabetes care:

- Too few specialists
- Insufficient time spent with patients
- GPs reluctant to refer patients
- Few diabetes educators
- Difficulty of getting appointments

affordability

Lack of resources represents a major impediment to better diabetes care and outcomes in Indonesia. On the surface, the primary factors are simple enough to grasp: per-capita public healthcare spending remains stagnant,[36] while health insurance coverage is fragmented.[1] Resolving these issues, however, is a complicated task requiring the cooperation and sustained focus of both private- and public-sector stakeholder groups.

The milieu

Steady economic growth is contributing to the rise of the Indonesian middle class. By 2014, 61% of the nation's population, or 150 million people, will be considered middle class – a 200% increase on 2009. The growth of the share of people reaching middle-class status in Indonesia outstrips comparable gains in Malaysia or the Philippines.[40]

Nevertheless, per-capita health and diabetes expenditures in Indonesia are lagging behind those in most countries with similar economic profiles (Figure 21).[36] Despite rising incomes, most consumers' monthly budgets are spent largely on food and other basic necessities.[17]

Currently, the ability to afford insulin in Indonesia is dependent on income and health insurance coverage. However, with the growing middle class more people should be able to afford care. For those patients recieving insulin treatment, Novo Nordisk provides appropriately affordable high quality insulin.

Today, four out of five people without insurance can afford treatment with oral antidiabetic drugs (OAD) (Figure 22).[1] An often overlooked component of healthcare costs is travel, yet this expenditure is crucial in terms of diabetes outcomes. In rural areas, where clinics and doctors are scarce, many people cannot afford to travel to see a doctor. Travel costs are 45% higher than the cost of OAD, and this is compounded by the fact that patients often travel with family (Figure 22). Add in the cost of a doctor's appointment and it is understandable why many people opt to obtain OAD from a nearby pharmacy.[41] In making this choice, they miss an opportunity for better care and prevention of complications.

Furthermore, due to affordability issues and insufficient knowledge about blood glucose monitoring, many people with diabetes only have their blood sugar measured when they visit the doctor.

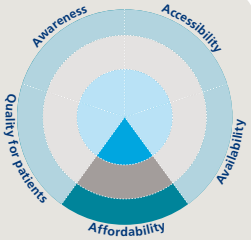
Health insurance

Coverage for healthcare costs in Indonesia is patchy and splintered. About 3% of people have private health insurance that allows them to seek the best care. Most others with health insurance have benefits either through Askes, which covers public-sector employees, or Jamkesmas, a social insurance fund. Almost half of the Indonesian population has no coverage and pays for care out of pocket.[1]

Key issue:
Lack of resources in the public healthcare system

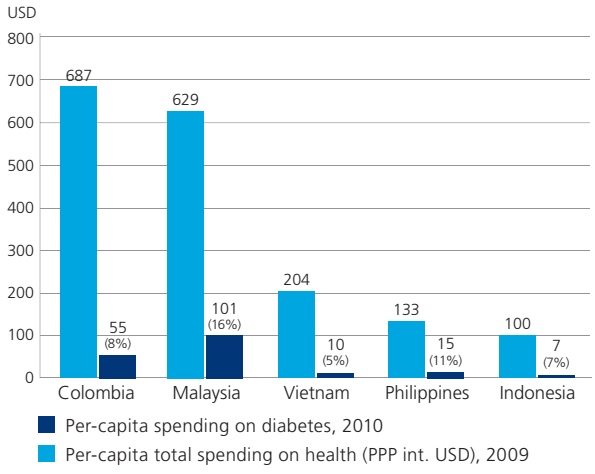
Other issues:
Insufficient healthcare spending, splintered healthcare coverage, expense of transportation, uncertainty about implementation of universal healthcare

Interventions:
Market investments that improve competition, boost awareness and improve outcomes, investments in the provision of continuing medical education, job creation



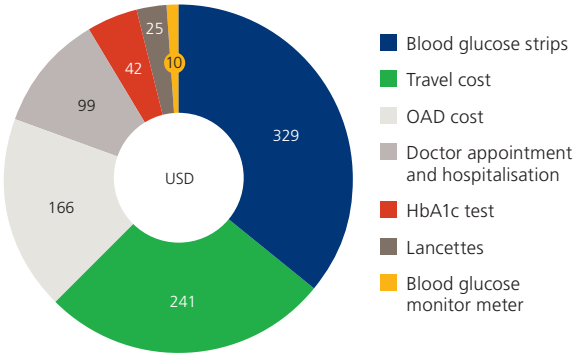
Per-capita expenditure on healthcare and diabetes care (per year) Figure 21

7% of total health spending in Indonesia is on diabetes, which is considered low



Direct annual cost of diabetes care (oral pharmacotherapy care) Figure 22

45% more expensive to travel to see a doctor than to obtain OAD from a local pharmacy



Note: Minimal care for the most used therapy in Indonesia.

The Indonesian government intends to improve affordability in 2014 with by implementing universal health coverage for all.[42] In providing universal coverage for individuals without it now, the government expects healthcare spending to double (Figure 23).[42,43] Though the specifics of this plan are dynamic, it is conceivable that limitations on diabetes care could be enacted to preserve a benefit for all.

paths to shared value

Implementation of universal healthcare

Novo Nordisk welcomes and supports the government's effort to address affordability and improve the public health status. Our broad portfolio strategy, from human insulin to our latest innovations and technologies, is enabling us to serve people at all levels of the economic scale.

Currently, drug prices in the public sector are controlled by an essential drug list that imposes price cuts and caps on generic drugs. To ensure quality of care, drugs should be available for more patients in a way that preserves the contributions of private-sector players.

The Indonesian healthcare market is immature, with few competitive pressures. Market prices and volatility are related to volume. We create value for patients through investments that stimulate market growth. Making the Indonesian healthcare arena more compelling to enter broadens the supply of high-quality healthcare services. Ultimately, market forces improve the affordability of these services.

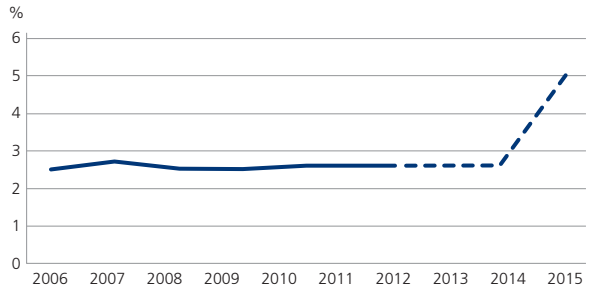
The World Diabetes Foundation programmes increase public awareness and strengthen health system capacity. WDF has provided more than 2 million US dollars in support of educational projects for patient and HCPs in addition to capacity-building initiatives.[29]

Novo Nordisk invested mainly in patient and HCP training, awareness and clinical trials. (Figure 24). By sponsoring training programmes that allow HCPs to obtain state-required continuing medical education credits, we enable the government to redirect its resources to patient care. Finally, we create jobs, internally and through the effect of these activities, thereby contributing to economic growth.[1]

> "You know that if all the people are aware of their health and they would go to the health system, we will be bankrupt."
>
> – Doctor Pradana Soewondo, consultant endocrinologist, former President of the Indonesian Society of Endocrinology

Total expenditure on health as % of GDP Figure 23

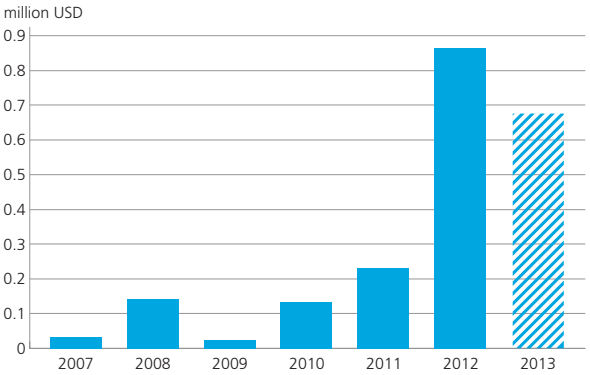
50% increase expected as a result of upcoming universal health coverage



Note: It is assumed that total expenditure on health remains constant as % of GDP between 2010 and 2013. The figure for 2014–2015 is projected based on the interview with consultant endocrinologist Professor Pradana Soewondo, (former President of the Indonesian Society of Endocrinology).

Our financial contribution to changing diabetes in Indonesia Figure 24

2.1 million USD has been invested in programmes that directly reach the public



Note: This figure does not cover the full Novo Nordisk contribution to Indonesian society.

Breaking down the barrier:
Private enterprise, HCPs and other stakeholder groups should collaborate with government to address the following gaps, which result in unaffordable care:

- Insurance reimbursement delays that create cash flow issues for care providers
- Inequities in insurance coverage

quality for patients

Our barriers-and-issues map on page 5 reveals the Byzantine nature of the diabetes problem in Indonesia. All of the barriers previously discussed – awareness, accessibility and affordability – are interconnected and lead directly to another barrier: poor quality of care for people with diabetes.

In short, too few people receive proper treatment and achieve treatment targets.

The proof is seen in public health outcomes. Seven out of every 10 people who live with diabetes in Indonesia develop complications that can reduce quality of life and lead to death. According to the International Diabetes Federation, on a global level around 50% of newly diagnosed diabetes patients live with complications.[4] However, in Indonesia most people living with diabetes experience complications (Figure 25).[44] The share of people with diabetes whose HbA1c is controlled to below 7%, a primary treatment target, is unacceptably low – between 1% and 13%, depending on the study.[5,44]

Moreover, follow-up care tends to be inadequate, if it occurs at all. In a 2012 survey,[17] a majority of patients said they had not received foot or eye examinations within the past year, 30% had not had their HbA1c checked, and many expressed a wish to see an HCP more often. At the doctor's office, the quality of follow-up visits varies; internists perform basic follow-up tests more frequently than GPs, but even among internists fewer than half perform foot and eye examinations.[17]

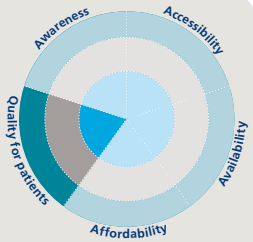
> "According to our survey, 80% of our people never do a blood pressure measurement, weight scale, and cholesterol measurement."
>
> – Doctor Pradana Soewondo, consultant endocrinologist, former President of the Indonesian Society of Endocrinology

Low insulin utilisation

Insulin can be essential for many people living with diabetes. Insulin utilisation in Indonesia, however, is unsatisfactory by any professional standard; only one in eight people who need insulin treatment actually receive it (Figure 26). Moreover, this gap is widening, as measured by the growth in prevalence relative to the growth of the insulin market in Indonesia.[1] This may be related to the fact that GPs in primary care rarely prescribe insulin.

> "Insulin is better at reducing blood glucose than OAD, and it improves quality of patients' lives."
>
> – Doctor Olly Renaldi, endocrinologist, RS Mitra Bekasi Barat, Indonesia

Key issue:
Too few people receive proper treatment

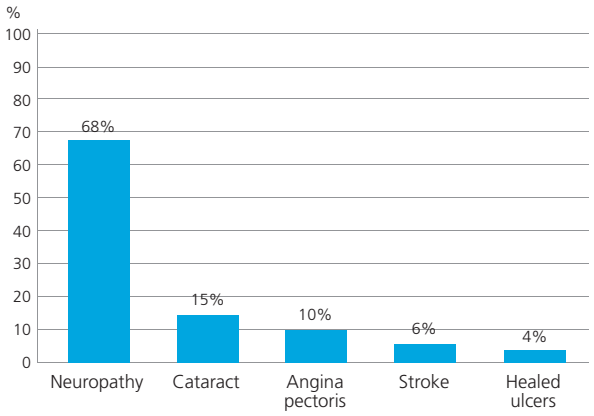


Other issues:
People see doctor too infrequently or too late, examinations and tests not performed at follow-up appointments, insufficient advice from HCPs, insulin accessibility may be inadequate

Interventions:
Provision of the STENO Quality Assurance Tool, development and execution of the patient and doctor education programmes

Prevalence of diabetes complications in Indonesia Figure 25

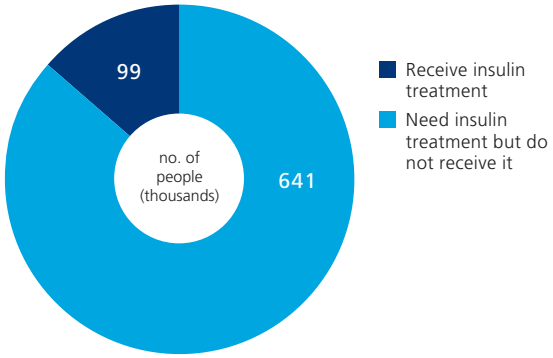
68% of patients in Indonesia live with neuropathy



Note: One patient can have more than one complication.

Number of people living with diabetes who receive and who need insulin treatment Figure 26

7 out of 8 people who need insulin treatment do not receive it



Note: It is estimated that 25% of people receiving diabetes care are in need of insulin treatment (based on IDF Diabetes Atlas 3rd edition, 2007).

paths to shared value

STENO Quality Assurance Tool (SQAT)

Medical records are the pillars of quality care. In Indonesia, good medical records are often not available, leading to reduced quality of care. Medical records may give HCPs access to a world of real-time patient data and a more complete picture of their care.

STENO has developed the user-friendly information system SQAT (STENO Quality Assurance Tool),[1] a software program that helps HCPs track a person's condition and communicate the importance of good care to their patients. Once installed on the HCP's computer, SQAT can create graphic presentations, giving both doctor and patient a visual representation of the patient's condition and changes over time. In this pilot, STENO is making SQAT available to GPs in Indonesia and providing them with hands-on training.

The value of the program lies in its educational value. The graphics help HCPs to track improvements with each visit – or to flag problems and make appropriate interventions. The visual displays can illustrate trends in a patient's course of illness and provide motivation to follow a treatment regimen.

Patient education

Novo Nordisk has been supporting patient education programmes for more than five years. Patient education links back to awareness: the more that people with diabetes know about their condition, their care and the importance of proper treatment, the more likely they are to seek quality treatment. In diabetes, this is illustrated by outcome studies that show a significant correlation between disease & treatment education and HbA1c outcomes.[25]

Novo Nordisk's past and future investments are totalling almost 500,000 US dollars (Figure 27). As of today, we have already reached 26,700 people living with diabetes in Indonesia.[1] We will have reached more than 41,000 people at over 4,100 educational activities by the end of 2013.

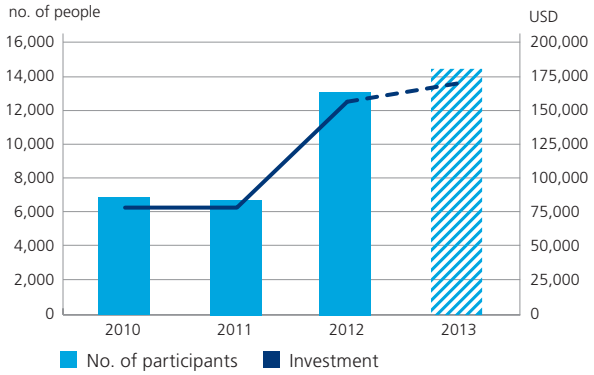
If informed patients are patients who take better care of themselves, then the value to society will ultimately be calculated in less disability, decreased healthcare costs and higher economic productivity.

> "As a doctor who specialises in diabetes, I believe that we have to give education. Education is the most important thing in my country. It is cheap, compared to the money we spend on curing."
>
> – Doctor Roy Panusunan Sibarani, endocrinologist, RS Pantai Indah Kapuk, Indonesia

SQAT symposium, Jakarta, December 2012.

Patient education activities, 2010–2013 Figure 27

26,700 **people living with diabetes have benefited from patient education through Novo Nordisk**



Breaking down the barrier:
Quality is everyone's responsibility. All stakeholder groups can collaborate to address the following gaps, which hinder receipt of proper care and insulin:

- Difficulty of getting appointments
- Irregularities in seeking care
- Visiting the doctor when it is too late
- Poor adherence
- GPs rarely prescribe insulin

overall value to society

Value to patients

In Novo Nordisk we put the patient at the centre of everything we do. In Indonesia, Novo Nordisk creates value for people living with diabetes by striving to improve awareness, access, affordability and quality of care.

In heightening awareness through patient education programmes, our support of World Diabetes Day and our work to strengthen Posbindu, we empower people living with diabetes to take control of their condition. In collaborating with our partners to improve HCP skills and by fostering the development of rural diabetes clinics, we broaden access to care that is in critically short supply. In growing the marketplace and supporting the government's healthcare reform initiative, we aim to make diabetes care affordable. The totality of these efforts improves quality of care, which drives better health outcomes.

Value to healthcare professionals

Novo Nordisk-sponsored clinical trials improve HCP knowledge and promote adherence to best practices. INSPIRE and other training programmes improve HCP competences, helping HCPs not only to succeed but to become advocates for quality care.

Value to healthcare system/government

Clinical research generates information that may assist prioritising needs. Our sponsorship of HCP training programmes allows the government to channel scarce economic resources in directions that have a direct impact on awareness, access and affordability.

Ripple effect of HCP education

Beyond access to care and health improvement, the provision of HCP education has direct and indirect societal benefits. In the past three years, HCP education has led to the creation of 94 full-time healthcare and service sector jobs. It is estimated that direct and indirect investment due to education activities has contributed 2.8 million US dollars to the Indonesian economy (Figure 28).[1]

How do you benefit from partnering with Novo Nordisk?

"Everything started with Novo Nordisk. We would not have existed without the partnership from Novo Nordisk, especially around World Diabetes Day. Their first investment was the salary of a nurse, and thereafter the ball got rolling."

– Professor Sidartawan Soegondo, President of the Indonesian Diabetes Association

"This enables us to broaden the knowledge of diabetes and insulin, and run education programmes enabling physicians to change diabetes."

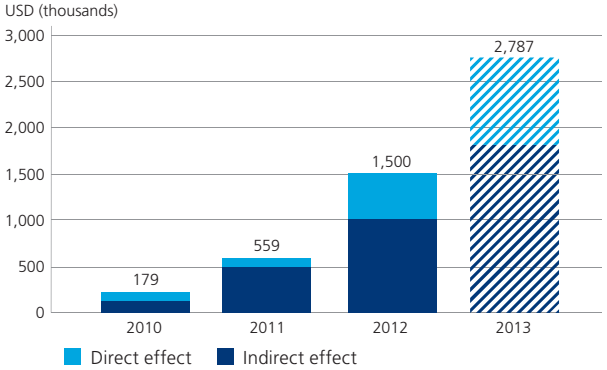
– Professor Ahmad Rudijanto, President of the Indonesian Society of Endocrinology

"We have a MoU* with Novo Nordisk to develop capacity of diagnosing and treating NCDs.** We can then coordinate which areas and which stakeholder groups should receive training."

– Hj. Titi Sari Renowati, Head of Subdit DM Control, Ministry of Health, Indonesia

Direct and indirect value creation through HCP and patient education by Novo Nordisk Figure 28

2.8 million USD in direct investment and indirect respending effect of education activities



Note: Cumulative numbers. Numbers may not add up due to rounding.

* MoU: Memorandum of Understanding.
** NCD: Non-communicable diseases.

overall value to Novo Nordisk

Through our efforts to understand the scale and impact of the diabetes epidemic in Indonesia, we have gained in-depth knowledge about the Indonesian market and where the gaps in care exist. This allows us to make strategic investments that benefit Novo Nordisk in multiple ways.

Market potential

We have cultivated valuable, long-term relationships in Indonesia by interacting with key stakeholders and performing clinical trials. Becoming actively involved with these stakeholders has had a beneficial effect on our market share. Novo Nordisk was the fastest-growing pharmaceutical company in Indonesia in 2012[45] and has the potential to supply a major portion of the insulin market over the next several years (Figure 29).

Reputation and stakeholder support

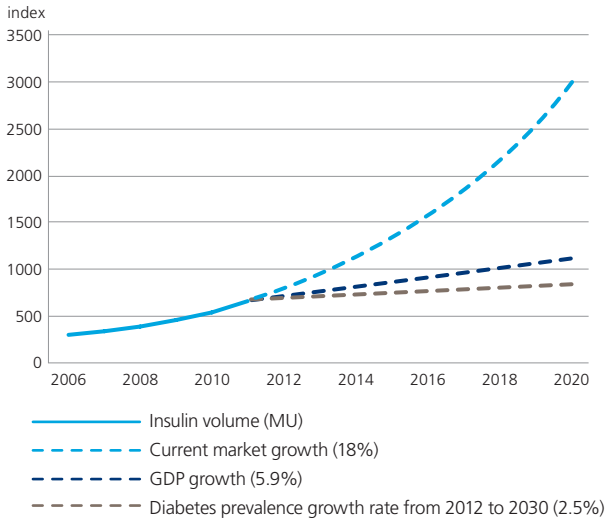
We understand that we cannot tackle the diabetes challenge in Indonesia alone. Through our creation of relationships built on a common vision to change diabetes, our partners have come to perceive us as respectful and trustworthy. For example, we have become a valuable partner to the Ministry of Health by assisting with the development of the National Diabetes Plan and by signing the Memorandum of Understanding. These are important efforts to accelerate and align efforts by key stakeholders to address the impact of diabetes in Indonesia.

Employee satisfaction

We want to change diabetes through the actions and commitment of our employees. Employee commitment and loyalty are usually closely linked to the company's external image and reputation.[46] With an important position in the Indonesian market and a reputation of trust and respect, employees at Novo Nordisk Indonesia PT are increasingly satisfied being a part of our company. Increasing employee satisfaction often correlates with inclining business outcomes of the company, has a positive impact on the customer satisfaction and is reflected in employee turnover rates.[47] In three years, employee turnover dropped by half, from 14% in 2009 to 7% in 2012[1] – well below the industry average (Figure 30).[48] Significant improvement in our eVoice scores is another indication of employee satisfaction.[1] A low attrition rate is important for success because of retraining costs and because access to talent is increasingly challenging.

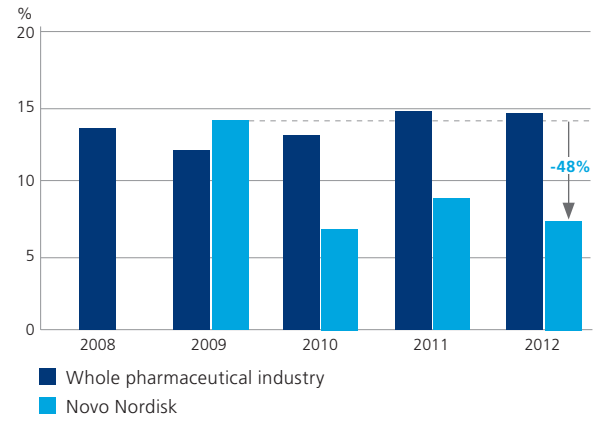
Potential growth of insulin market Figure 29

3.4 times potential growth if the market continues to grow at current pace



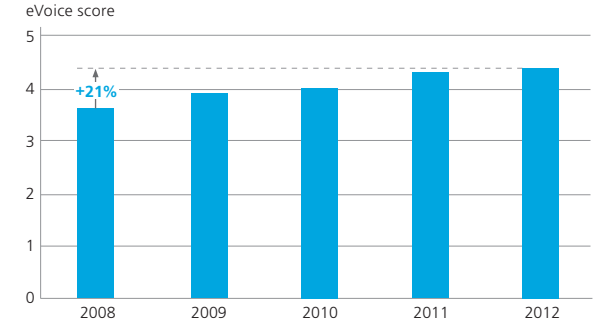
Attrition rates, Indonesia, 2008–2012 Figure 30

48% decrease in turnover puts Novo Nordisk well ahead of the industry average



Novo Nordisk Indonesia PT eVoice scores since 2008 Figure 31

21% improvement in employee satisfaction with their jobs



perspectives

"Coming together is a beginning; keeping together is progress; working together is success." Henry Ford's famous quote about partnerships is apt for the task in Indonesia. Working together to change diabetes, Novo Nordisk and its partners can accomplish more than any single entity can on its own. The potential clinical and economic outcomes add up to a compelling business case for us and for our partners.

the future's untapped potential

Together with community leaders, HCP groups, the government, private entities and patients, we can improve quality of life for people with diabetes and reduce the toll the disease takes on society.

Working as partners united in the same purpose – creating, in essence, a virtual organisation to change diabetes in Indonesia under the NDP – can have a synergistic effect. The health, economic and societal outcomes that can be achieved through cooperation can exceed what any party can deliver acting on its own.

One place to start is to examine the diabetes rule of halves. The rule of halves says that of all of those people with diabetes, half are diagnosed, half of those who are diagnosed are treated, and half of those who are treated achieve treatment targets.[49] Yet in Indonesia, as we have seen, the picture is even worse.

By closing the gaps in the rule of halves, the impact in Indonesia could be tremendous (Figure 32).[50] Over the remaining lifetime of the people currently living with diabetes the case for improvement could not be more clear:

37,500 diabetes-related heart attacks avoided

405,200 diabetes-related kidney failures prevented

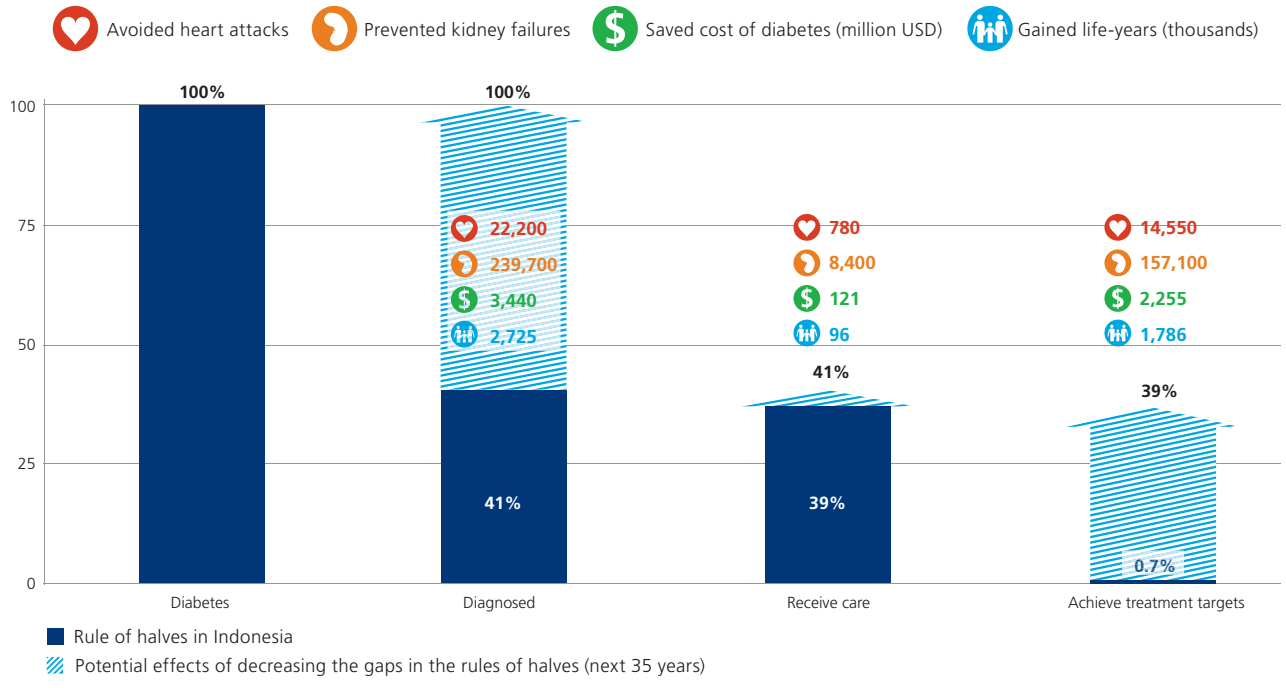
5.8 billion US dollars saved in diabetes treatment costs

4.6 million life-years gained

In 10 years, there will be almost 10 million people living with diabetes in Indonesia.[3] It is estimated that some 942,000 people will require insulin[1] – far more than the number who now receive it. The need is great, and it compels us to act.

In Indonesia, our focus is on increasing the number of people whose diabetes is diagnosed, treated and adequately controlled. We do this through public awareness initiatives and by improving HCP skills. In this manner, we build trust, our reputation and our ambition to become the most respected partner in changing diabetes in Indonesia.

Reducing the burden of diabetes Figure 32



Note: The results are based on Indonesian A1chieve data and assume a 1% reduction in HbA1c in patients with type 2 diabetes in all columns.
The incidence of complications is not adjusted for the increased life expectancy and each column in the rule of halves is interdependent on the prior column.

looking to the future

In partnership with local organisations, Novo Nordisk is working to establish a functional health system in Indonesia that recognises the importance of diabetes awareness, diagnosis and treatment. This platform will enable us to grow our business.

There is much work to be done. Awareness is low, and most people do not know what they do not know about diabetes, its care and its consequences. There is a great need to make care more accessible by improving HCP skills and by encouraging teamwork among healthcare disciplines. Currently, the ability to afford insulin in Indonesia is dependent on income and health insurance coverage. However, with the growing middle class more people should be able to afford care. Lack of availability in rural areas is a factor in suboptimal quality of care. The issues stemming from these barriers are interconnected and resolving them will require a patient-centric, holistic approach.

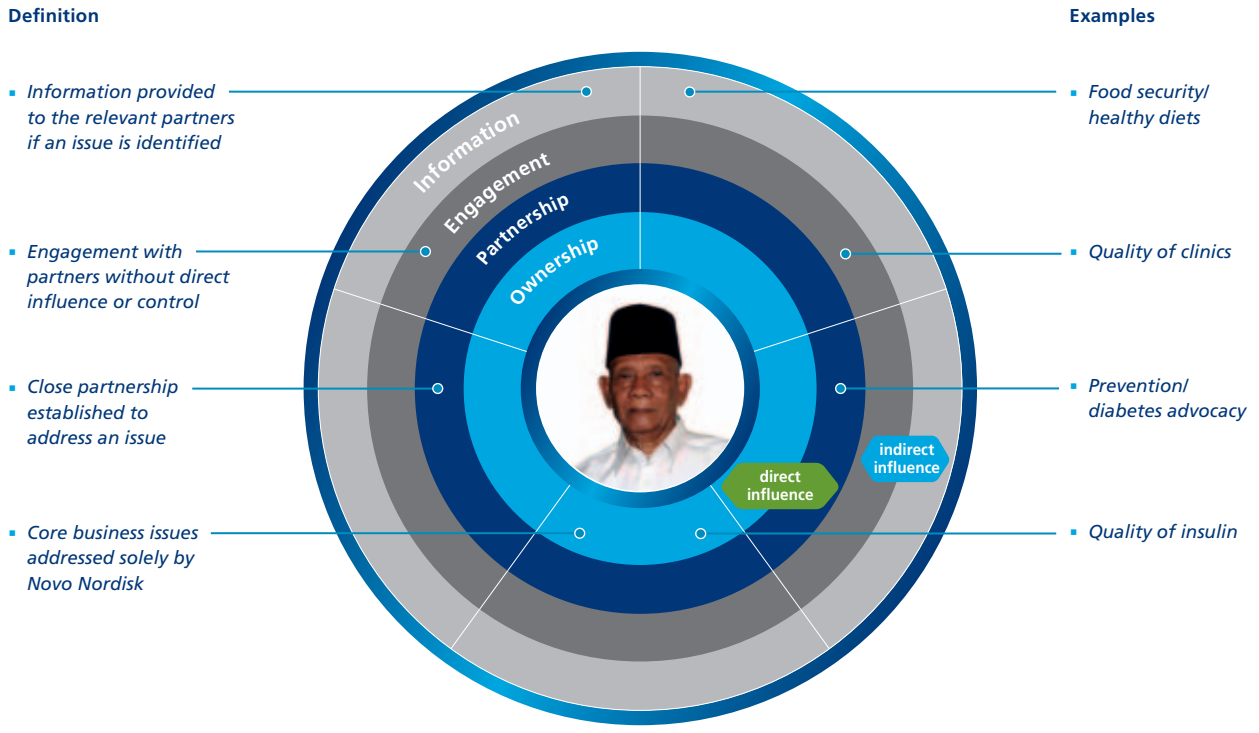
Because of this, there are actions (medication supply and accessibility, for instance) that we can take directly or in conjunction with partners. Other actions (prevention through efforts to improve nutrition, for instance) are best addressed by organisations with complementary expertise (Figure 33). Novo Nordisk's core key contribution is to discover and develop innovative biological medicines and to make them accessible throughout the world. This is where Novo Nordisk can contribute the most value, as well as working with our partners to make healthcare available and affordable.

We can play a useful role in identifying barriers that prevent people from getting diabetes and patients from reaching desired outcomes. Whether we then engage other stakeholders or act as a third-party advocate for improvement, this kind of interdependent web requires that we respect the strengths each entity brings to the value chain and understand how we can support their efforts.

In Indonesia, Novo Nordisk takes a conscious partnership approach that identifies patient needs and ensures sustainable business models throughout the value chain. It means that each partner should gain from the collaboration. This ensures a foundation for meeting long-term demand. As greater numbers of patients receive care and achieve treatment targets, population health improves and the marketplace for Novo Nordisk's products expands.

Our role and the roles of others

Figure 33



methodology

This Indonesia case study is the fifth in our Blueprint for Change Programme series.

Value appraisal

The assessment of value creation to make the business case for the Triple Bottom Line principle is based on a model developed by Novo Nordisk in collaboration with Accenture (Figure 34). We create shared value by maximising the upside and minimising the downside for both Novo Nordisk and society. *Maximising the upside* means revenue in the short term and intangible value in the long term. The path to maximising the upside involves broadening awareness; improving the accessibility, availability and affordability of diabetes care; and increasing the quality of care. *Minimising the downside* means cost reduction in the short term and mitigating risk in the long term. The path to minimising the downside involves reducing diabetes costs and prevalence; and mitigating other risks for businesses and society. Initiatives that create value for both Novo Nordisk and society are perceived to create shared value.

Scientific basis

The business case in Indonesia is the product of an inductive research approach in which we form hypotheses based on empirical data. We discover patterns in our data to identify issues and challenges, positioning us to evaluate how Novo Nordisk can address these through our Triple Bottom Line principle.

Data search

Novo Nordisk's employees collected empirical data, mainly from qualitative interviews supplemented with a quantitative survey to validate and complement the findings. Question frames are developed and validated in consultation with ReD Associates. Qualitative interviews represent three groups of stakeholders: government/society, healthcare professionals and patients. Doctors and patients represent a wide demographic sampling, including urban and rural areas, private and public sectors, and a variety of health insurance schemes. The quantitative survey is targeted at patients and HCPs.[17] The latter group is divided into two subsets: those who have participated in the INSPIRE programme and those who have not. Patients represent both groups. Novo Nordisk's employees provide information about the company's activities and historical development in Indonesia.

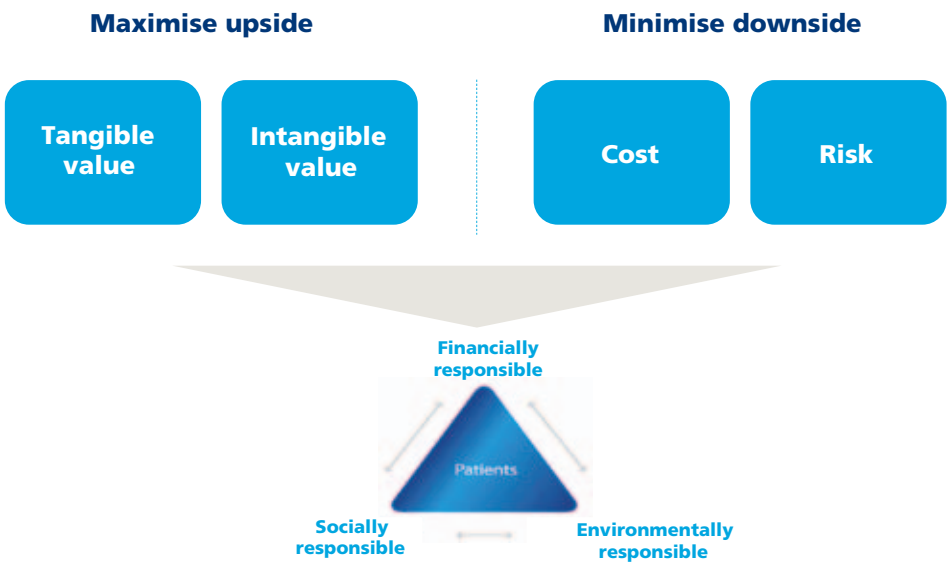
External review

External reviewers of this Blueprint for Change case:

- Associate Professor Jette Steen Knudsen, Copenhagen Business School, Copenhagen, Denmark
- Doctor Achmad Rudijanto, President of the Indonesian Society of Endocrinology, University of Brawijaya Malang, Indonesia
- Head of Sustainability Research Seb Beloc, WHEB Asset Management, London, UK
- Senior Consultant Sebastien Mazzuri, FSG, Zurich, Switzerland

Shared value creation

Figure 34



Developed by Novo Nordisk and Accenture.

glossary

Askes:
Public health insurance for civil servants in Indonesia.

Diabetes:
Diabetes mellitus is a syndrome of disordered metabolism, usually due to a combination of hereditary and environmental causes, resulting in abnormally high blood sugar levels.

eVoice:
Novo Nordisk's web-based employee survey. eVoice gives an overview of what we as employees think about relevant issues regarding Novo Nordisk as a workplace.

HbA1c:
Glycated haemoglobin, the average plasma glucose concentration over prolonged periods of time. Lowering HbA1c to around or below 7% is associated with reduced risk of microvascular and macrovascular complications of diabetes.[51]

Healthy people with diabetes:
Patients who not only achieve treatment targets but also receive ongoing, high-quality diabetes care.

INSPIRE:
Diabetes education for HCPs in two tracks – one for internists and another for GPs.

Internist:
Physician specialising in internal medicine dealing with the prevention, diagnosis and treatment of adult diseases.

Jamkesmas:
Public health insurance for the poor population in Indonesia.

Non-communicable diseases (NCDs):
Non-infectious diseases such as diabetes, autoimmune diseases, heart disease, stroke, some cancers, asthma and osteoporosis.

Posbindu:
Integrated health post for non-communicable diseases.

Shared value:
About realising synergies between business and society.

SQAT:
STENO Quality Assurance Tool, a software program that helps HCPs track a person's condition.

Triple Bottom Line:
Our business principle of balancing financial, social and environmental considerations.

Universal Declaration of Human Rights, article 25 (1):
Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

World Diabetes Day (WDD):
November 14. A day on which people worldwide are engaged in diabetes advocacy and awareness.

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about the Blueprint for Change Programme

Society increasingly expects companies to engage in global and local sustainability issues, challenging us to go beyond monetary value creation. We meet this challenge with our Triple Bottom Line business principle, which balances value creation and driving us towards a sustainable future.

The Blueprint for Change Programme aims to enhance our understanding of how we as a business create value. Through business cases analysing the Triple Bottom Line principle applied in practice, we illustrate sustainable business approaches and examine ways to optimise our approach. We do this by identifying the drivers of shared value and their significance to each party.

By definition, a blueprint is a guide or plan that gives instructions on how to take an idea and turn it into action. The Blueprint for Change Programme integrates a knowledge-based approach with actions to inspire leaders to implement innovative and sustainability-driven solutions to complex societal issues. We use empirical data to make the business case for the Triple Bottom Line principle and its contribution to a sustainable future. Our intent is not to present a final answer, but rather to present a work in progress that invites stakeholders to share their own innovative views related to the specific Blueprint for Change theme.

Through a series of case studies, we have provided insight into current and emerging approaches, as well as best practices for creating positive shared value (Figure 35). Previous reports in this series have focused on climate change and CO_2 reduction; changing diabetes in China; creating shared value in the United States; and working with local partners to change diabetes in Bangladesh.

We aspire to set new standards for measuring and optimising the impact of sustainability-driven investments rooted in our Triple Bottom Line business principle.

The Blueprint for Change series Figure 35

Since the launch of the Blueprint for Change Programme, we have published case studies on our climate action strategy, our market entry strategy for China, shared value creation in the United States, and changing diabetes in Bangladesh through sustainable partnerships.

Sustainability

At Novo Nordisk, we are changing diabetes by working sustainably towards a healthier future for everyone. We apply the Triple Bottom Line business principle when we make decisions, and we are accountable for our social and environmental performance as well as our financial performance. By obliging us to consider the impact of our actions on people, communities and the environment, the Triple Bottom Line approach ensures that we pursue business solutions that maximise value for all of our stakeholders and engage with society at large as we continue our work to prevent, treat and defeat diabetes.

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About Novo Nordisk

Headquartered in Denmark, Novo Nordisk is a global healthcare company with 90 years of innovation and leadership in diabetes care. The company also has leading positions within haemophilia care, growth hormone therapy and hormone replacement therapy. Novo Nordisk strives to conduct its activities in a financially, environmentally and socially responsible way. The strategic commitment to corporate sustainability has brought the company onto centre stage as a leading player in today's business environment, recognised for its integrated reporting, stakeholder engagement and consistently high sustainability performance. In 2013, Novo Nordisk received the Pharmaceuticals and Biotechnology industry group top ranking on Corporate Knight's list of Global 100 Most Sustainable Corporation
For more information, visit novonordisk.com.

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