Report of expert and stakeholder consultations on the WHO Global Diabetes Compact

October 2020
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Acknowledgements

This report is a product of collaboration between the Department for Access to Medicines and Health Products and the Department for Universal Health Coverage/Communicable and Noncommunicable Diseases (NCDs) of the World Health Organization (WHO). WHO is grateful to the speakers, experts and stakeholders who contributed to the success of the consultations covered in this report. The consultations were held under the leadership of Dr Bente Mikkelsen, Director NCDs, with support from Dr Clive Ondari, Director Health Product Policy and Standards.
Why focus on diabetes?

Diabetes is one of the major public health challenges of the 21st century

- The global prevalence of diabetes among adults over 18 years of age rose from 4.7% in 1980 to 8.5% in 2014. Today, more than 420 million people are living with diabetes worldwide. This number is estimated to rise to 570 million by 2030 and to 700 million by 2045.

- 1 in 2 adults with diabetes are unaware of their condition. 4 out 5 adults with undiagnosed diabetes live in developing countries. People who are unaware that they are living with diabetes are at great risk of debilitating complications that can be prevented through diagnosis and proper disease management.

- Basic technologies such as tools for blood glucose testing are not available in public sector primary health care facilities in the 50 poorest countries. Limited access to primary health care professionals trained in diabetes means that high numbers of undiagnosed, untreated and uncontrolled cases will continue to inflict preventable suffering and direct and indirect financial costs in many developing countries.

- All people with type 1 diabetes and about 60 million people with type 2 diabetes need insulin. Only about 50% of people with type 2 diabetes get the insulin they need, often because their country’s health systems cannot afford it. The WHO Global Capacity Survey on Noncommunicable Diseases (NCDs) reveals that less than half of low-income countries have general availability of insulin in the public sector.

- The WHO UHC Monitoring Report shows that diabetes health services are conspicuous by their lack of progress in comparison to those for communicable diseases.

- Pathway analysis shows that every country has options, but no country can make progress on diabetes through a single intervention. Access to insulin is necessary, but not sufficient, as holistic approaches are needed to ensure access to early diagnosis and appropriate diabetes care.

- Expressing “deep concern at the lack of progress in addressing diabetes as a public health problem”, the WHO Executive Board urged Member States in January 2021 “to intensify, where appropriate, efforts to address the prevention and control of diabetes as a public health problem as part of universal health coverage by advancing comprehensive approaches on prevention, management, including its complications, and integrated service delivery, while emphasizing the importance of early and childhood prevention and ensuring that no one is left behind”.

Despite the progress made between 2000 and 2010 in reducing the risk of premature death from any one of the four main NCDs (cardiovascular diseases, cancer, chronic respiratory diseases and diabetes), the momentum has since declined, with annual reductions in premature mortality rates slowing for each of them. In high-income countries, even though the premature mortality rate due to diabetes decreased from 2000 to 2010, it increased between 2010 and 2016. In low- and middle-income countries (LMICs), the premature mortality rate due to diabetes increased across both periods.

The rising mortality rates from diabetes are associated with – among other factors – the increasing prevalence of diabetes due to the increasing prevalence of obesity. In 2016, the prevalence of obesity among adults globally had increased approximately 3 times\(^1\) and the prevalence in children and adolescents approximately five times since 1975.\(^2,3\)

Today, more than 420 million adults are living with diabetes worldwide. This number is estimated to rise to 578 million by 2030 and to 700 million by 2045. Diabetes is among the top 10 causes of death and has shown a significant increase in deaths, of 70\%, since 2000. Diabetes is also responsible for the largest rise in male deaths among the top 10 causes of death, with an 80\% increase since 2000. Losses in Gross Domestic Product worldwide due to direct medical and indirect costs of diabetes have been estimated at US$ 1.7 trillion between 2011 and 2030, and US$ 800 billion for LMICs alone. The growth of the prevalence of diabetes has been most rapid in LMICs, where health systems are to varying degrees ill-equipped to diagnose and manage diabetes. Consequently, LMICs carry the highest burden of diabetes-related premature deaths and complications.

The interplay between the diabetes epidemic and the COVID-19 pandemic

- The COVID-19 pandemic has resulted in a high proportion of people with diabetes among hospitalized patients with severe manifestations of COVID-19, and a higher mortality in hospitalized people with COVID-19 and diabetes compared to people hospitalized with COVID-19 without diabetes. In addition, the COVID-19 pandemic has caused severe disruption of diabetes services and supplies.

- A WHO Survey showed that 49\% of countries surveyed had partially or completely disrupted services for treatment for diabetes and diabetes-related complications. 40\% of countries reported unavailability of essential medicines as a result of the impact of the pandemic.

- On 15 September 2020, the United Nations General Assembly adopted a resolution on the comprehensive and coordinated response to the COVID-19 pandemic, recognizing “that people living with NCDs (including diabetes) are at a higher risk of developing severe COVID-19 symptoms and are among the most impacted by the pandemic”, and called upon Member States to strengthen efforts to address NCDs as part of primary health care and universal health coverage (UHC).

- Recovery from COVID-19 needs to go hand-in-hand with action to address diabetes. We cannot postpone the prevention, early diagnosis and treatment of diabetes.

- Diabetes care is generally not covered in domestic COVID-19 strategic preparedness and response plans (SPRP). To date, only three countries have allocated a specific budget line in their SPRP for diabetes and other NCDs – all three are high-income countries.

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\(^1\) NCD Risk Factor Collaboration (NCD-RisC). Trends in adult body-mass index in 200 countries from 1975 to 2014: a pooled analysis of 1698 population-based measurement studies with 19·2 million participants. Lancet 2016;387:1377-1396

\(^2\) WHO Obesity and overweight fact sheet https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight

Why a focus on diabetes now?

In 2021, the world celebrates the 100th anniversary of the discovery of insulin, a discovery that has changed the lives of millions of people. People with type 1 diabetes need insulin for survival. However, many people globally still lack access to insulin. Moreover, unstable supplies and unaffordable out-of-pocket payments often result in rationing and inadequate dosage, ultimately leading to debilitating complications and premature death. Besides limited access to insulin, test strips, monitoring devices and other components of care are often unavailable or remain inaccessible due to their cost.

The COVID-19 pandemic has resulted in a high proportion of people with diabetes among hospitalized patients with severe manifestations of COVID-19, and a higher mortality compared to people with COVID-19 without diabetes. In addition, the COVID-19 pandemic has caused severe disruption to diabetes services and supplies. A WHO survey indicated 49% of countries surveyed had partially or completely disrupted services for treatment for diabetes and diabetes-related complications.\(^1\)

Over the past 20 years, NCDs have become the leading cause of death in most countries, resulting in 200 million premature deaths among people aged between 30 and 70 years, most living in LMICs. During the next 10 years, it is estimated that another 150 million people will die from NCDs between the ages of 30 and 70 years. Most of these premature deaths can be delayed.

The 53rd World Health Assembly in 2000 recognized for the first time that the long-term needs of people living with NCDs are rarely dealt with. Accordingly, the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of NCDs in 2011 included a commitment from governments to explore the provision of adequate resources through, inter alia, domestic and bilateral channels. In 2016, NCDs represented 27% of domestic public spending and 9% of external funds for health across a dataset including 16 low-income countries and 24 middle-income countries.

To date however, few bilateral donors have increased funding for activities specifically earmarked as addressing NCDs, to establish even the minimal critical capacity, mechanisms and mandates needed in LMICs for progress to be made.

The response to the COVID-19 pandemic must address precisely the failures that are being exposed by the pandemic. Investment in the prevention and control of NCDs as part of COVID-19 recovery is attractive, as cost-effective, high-impact interventions already exist.

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Realizing that NCDs remain the largest, most internationally-underfunded public health issue globally, where most lives could be saved or improved, and that addressing NCDs must be an integral part of the immediate response to COVID-19 and of plans to build back better, Norway announced in November 2020 that it will contribute US$ 133 million to reduce the burden of NCDs in low-income countries from 2020 to 2024.

Pathway analyses show that every country still has options today for achieving Sustainable Development Goals (SDG) target 3.4. However, no country can achieve the target by addressing only prevention or only counselling, early diagnosis or appropriate treatment of NCDs. Heads of State and Government therefore committed at the UN General Assembly “to progressively cover one billion additional people by 2023 with quality essential health services and quality, safe, effective, affordable and essential medicines, vaccines, diagnostics and health technologies, with a view to covering all people by 2030”. This commitment includes diabetes care, medicines and technologies. Results of the Lancet Commission on Diabetes show that use of a data-driven, multicomponent, integrated strategy could avert up to 800,000 premature deaths in a three-year period in the top 10 LMICs that have the largest populations of people with diabetes.¹

I hope governments all around the world can understand people with type one diabetes require insulin to survive, that without it we might not see the light of day. That diabetes has a toll on both mental and physical health. That this chronic condition requires support, education and accessibility. That insulin should be understood as a human right instead of a luxury.

Daniela Rojas-Jimenez
Person living with type 1 diabetes, psychologist, advocate

Why a WHO Global Diabetes Compact?

Launch of the WHO Global Diabetes Compact

• The 100th anniversary of the discovery of insulin is an opportunity to redress the imbalance in access to insulin in low-income countries. At the same time, countries need to strengthen primary health care capacity to adequately diagnose and treat diabetes.

• WHO will, therefore, launch the WHO Global Diabetes Compact. The overall goal of the WHO Global Diabetes Compact is to support countries in implementing effective programmes for the prevention and management of diabetes, such that fewer people get diabetes and the lives of people living with diabetes are improved.

• The WHO Global Diabetes Compact will:
  – Bring all WHO tools available for the prevention and management of diabetes together in one package, both existing and new.
  – On the prevention side, particular focus will be given to reducing obesity, especially among young people.
  – On the treatment side, emphasis will be placed on improving access to diabetes medicines and technologies as part of primary health care strengthening efforts, in particular in LMICs.

• Key to the success of the WHO Global Diabetes Compact will be alignment and united action across all sectors (public, private, and philanthropic).

• People living with diabetes will be actively involved in the development and implementation of the WHO Global Diabetes Compact.

• The WHO Global Diabetes Compact aims to close knowledge gaps and stimulate innovations to implement technology and leapfrog development for those most vulnerable, including in humanitarian settings.

In order to address the rising burden of diabetes-related morbidity and mortality and coinciding with the 100th anniversary of the discovery of insulin, WHO is developing the Global Diabetes Compact, a global initiative to achieve sustained improvements in diabetes care, with a particular focus on supporting LMICs. The WHO Global Diabetes Compact aims to bring together national governments, UN Development organizations, non-state actors (nongovernmental organizations (NGOs), private sector entities, academic institutions, and philanthropic foundations), people living with diabetes, and international donors around a shared vision of a world where all people living with diabetes can access the care they need.

The WHO Global Diabetes Compact is a response to the global commitments to reduce premature mortality due to NCDs by 25% by 2025 and 33% by 2030. Very few countries have so far been able to halt the rise in diabetes and diabetes is the only major NCD showing a 5% increase in premature deaths since 2000. By contrast, the probability of dying from any one of the four main NCDs decreased by 18% globally between 2000 and 2016.

In January 2021, the Executive Board expressed “deep concern at the lack of progress in addressing diabetes as a public health problem and recognizing that necessary efforts for the prevention and control of diabetes are hampered by, inter alia, lack of universal access to quality, safe, effective, affordable essential health services, medicines, diagnostics and health technologies, as well as a global shortage of qualified health workers.”

Encouraging the WHO and Member States to celebrate the centenary of the discovery of insulin, the Executive Board furthermore urged Member States “to intensify, where appropriate, efforts to address the prevention and control of diabetes as a public health problem as part of universal health coverage by advancing comprehensive approaches on prevention, management, including its complications, and integrated service delivery, while emphasizing the importance of early and childhood prevention and ensuring that no one is left behind”. ¹

The WHO Global Diabetes Compact is expanding on the Global Hearts Initiative² (collaboration to scale up prevention and control of cardiovascular disease) with the aim of accelerating diabetes-related interventions. Interventions to improve cardiovascular health benefit diabetes outcomes. Improved diabetes prevention and control in turn helps reduce deaths and prevent complications from cardiovascular disease.

¹ ibid
Developing the WHO Global Diabetes Compact

In order to develop the WHO Global Diabetes Compact with diverse inputs from global diabetes experts and non-state actors, the WHO Department of Noncommunicable Diseases (NCD) convened two meetings:

- **Expert consultation to develop a WHO Global Diabetes Compact, 7–8 October 2020**
- **Stakeholder consultation to develop a WHO Global Diabetes Compact, 14 October 2020**

A third workshop was co-convened by the Department for Regulation and Prequalification and the NCD Department:

- **Workshop on Access for Everybody: improving availability and affordability of insulin and associated devices, 21–25 September 2020; a report of this workshop has been published.**¹

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**A call for a collaboration**

WHO hopes to mobilize partners around global coverage targets for diabetes and to mobilize action to progressively cover an increasing number of people with the health services and medicines needed for the diagnosis and treatment of diabetes.

**Dr Ren Minghui**  
WHO Assistant Director-General for UHC/Communicable and Noncommunicable Diseases

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**Need for social health insurance**

Especially for low-and-middle income countries inclusion of diabetes treatment into social health insurance is the only way to ensure universal access. The free market and out-of-pocket payments will never achieve this.

**Professor Hans Hogerzeil**  
University of Groningen, Netherlands

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Expert consultation to develop a WHO Global Diabetes Compact

**Summary**

On 7–8 October 2020, WHO’s NCD Department convened twenty experts in diabetes from around the world, and people living with diabetes including regional advisers to a meeting to seek specific recommendations on the development of the WHO Global Diabetes Compact.

During the two days of the consultation participants discussed:

- challenges in diabetes diagnosis and care across the six WHO regions;
- key knowledge gaps in diabetes prevention and management;
- the scope and intended outcomes of the WHO Global Diabetes Compact based on latest evidence; and
- technical support functions to be developed, and innovative approaches to deliver country support and reach the most vulnerable.

**Challenges in diabetes diagnosis and care across WHO regions**

WHO staff from regional offices and headquarters provided updates on key challenges in diabetes diagnosis and care around the world and knowledge gaps in diabetes prevention and management.

While every WHO region faces unique challenges with regards to diabetes prevention and treatment, most low-resource settings across all six regions are also faced with high and increasing obesity prevalence across age groups, high proportions of undiagnosed diabetes, large gaps in treatment and low control rates.

**Obesity, diabetes prevalence and population-level prevention**

Rates of obesity and diabetes are increasing worldwide.\(^1\) Actions to address overweight and obesity, major risk factors for type 2 diabetes, are critical to prevention. The African region is seeing a rising prevalence of obesogenic risk factors leading to obesity prevalence of up to 28% in some countries. In the Americas, obesity prevalence across age groups averages at 28%. In some countries, obesity prevalence is as high as 40% and diabetes prevalence as high as 14.5%. Overall, an insufficient focus on population-level preventive interventions has been observed.

**Diabetes and co-morbidities: tuberculosis and HIV/AIDS**

Diabetes is a risk factor for tuberculosis (TB). Consequently, rates of TB are about three times higher in people with diabetes than in the general population and diabetes is a common comorbidity in

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\(^1\) WHO Obesity and overweight fact sheet https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight
people with TB. In addition, diabetes is associated with poorer TB outcomes. Since a number of countries have both a high and increasing diabetes prevalence and a substantial burden of TB, this interaction has significant implications for the management of both diseases.

Integrated management of diabetes and TB and/or HIV/AIDS should be considered where there is high prevalence of these diseases.

**Primary health care and overall health system capacity**

Insufficient focus on strengthening primary health care as the key entry point for diabetes management is a challenge for many low-resource settings across WHO regions. In the African Region, the capacity of peripheral facilities to offer comprehensive diabetes prevention and care services is severely limited.

Diabetes care can be scaled-up in primary care through adapting standardized protocols, ensuring availability of blood glucose measurement devices, essential diabetes medicines and an appropriately trained workforce. WHO HEARTS diabetes (HEARTS-D) was developed specifically for use in primary health care facilities.

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Undiagnosed diabetes

Diabetes is often only diagnosed once complications arise, a problem seen particularly in the African, South-East Asian and Western Pacific Regions. WHO’s Regional Office for South-East Asia reports that more than 50% of people with diabetes are undiagnosed. There are many factors influencing late diagnosis, including but not limited to lack of awareness, lack of (integration of) diabetes services, and lack of diagnostic tools.

High cost and low access to diabetes medicines

Availability of affordable, quality medicines is a great challenge, particular in the African and South East Asian Regions. Strategies to increase access to insulin and associated devices, as well as oral glucose-lowering, blood pressure, and lipid-lowering medicines are urgently needed.

Screening of complications

Insufficient health system capacity to screen and treat for complications is putting people with diabetes at great risk of problems such as amputations, blindness and renal failure. Systematic approaches to screening and treatment are needed across regions.

Low control rates

Across all regions many countries struggle with poor glycaemic and cardiovascular risk factor control warranting innovative and context-specific approaches to improving control.

Lack of data systems for patient record systems and data monitoring for people with diabetes

Insufficient data systems for people with diabetes remains a challenge – both for clinical use and monitoring. The WHO Regional Office for Europe reported that even in the countries with diabetes registries, determining how this information could be used to improve diabetes care was challenging.

Knowledge gaps in diabetes prevention and management

Population level interventions to prevent major NCDs (health promotion strategies, policy and fiscal interventions) have yet to show that they decrease the risk of diabetes. Moreover, how best to implement these interventions has not been sufficiently studied.

The body of evidence that diabetes is preventable in people at high risk, defined as impaired glucose tolerance (IGT), is convincing. However, an oral glucose tolerance test to identify IGT can be inconvenient to the patient and the health professional, but no simpler method defining a similar level of risk for diabetes is available. There is also lack of evidence on the effectiveness of interventions for impaired fasting glucose, intermediate elevated HbA1c and other definitions of high risk of diabetes other than IGT. Moreover, there is lack of evidence on the effectiveness of interventions to prevent diabetes in reducing the risk of premature mortality, cardiovascular disease and microvascular complications. Prevention of type 1 diabetes also remains in need of research.

The benefit of population-wide diabetes screening programmes remains uncertain, particularly for LMICs. Evidence on return of investment of early detection compared to improved treatment of those already diagnosed is also lacking. If resources are available for implementing individual prevention in people at high risk, the evidence base on how best to implement screening needs strengthening.
While the evidence base for management of diabetes (glycaemic control, control of cardiovascular risk factors, screening for complications and treatment) is strong, more research is needed to strengthen the evidence base for many solutions particularly relevant for low-resource and humanitarian settings: digital solutions, self-monitoring of urine glucose compared to blood glucose, glycaemic control with insulin using pens compared to syringes, and thermostability of insulin.

Gestational diabetes mellitus (GDM) is another area where there is considerable debate. This includes the population effect of GDM, diagnostic criteria and the need for updated WHO criteria, appropriate screening strategies, type of treatment and the long-term effect of treatment on mother and child.

Research is ongoing on finding a cure for type 1 diabetes. It has been shown that type 2 diabetes can be reversed in the early stages by weight loss, but it still undocumented how this reversal can be maintained in the long-term.

Key themes from expert consultation to develop a WHO Global Diabetes Compact

Looking to address key global challenges in diabetes, participants discussed the scope and purpose of the WHO Global Diabetes Compact, priority interventions, and innovative approaches to deliver country support.

With regards to the scope of the WHO Global Diabetes Compact, participants agreed that focus should be on LMICs. As for the overall goal and objective, many participants highlighted the need to focus on improvements to diabetes treatment, while others insisted that prevention of type 2 diabetes should not be neglected. Participants formulated the following draft vision statement for the WHO Global Diabetes Compact:

To reduce premature mortality and risk of complications due to diabetes by improving access to diagnostic testing and ensuring all people who are diagnosed with diabetes have access to comprehensive, affordable and quality care.

Consequently, the following objectives describe priority areas for impact:

1. Support countries to implement population-based interventions to prevent type 2 diabetes, and enable timely diagnosis of type 1 and type 2 diabetes.

2. Support countries to scale-up patient-centred diabetes care, ensuring access to essential medicines for diabetes management including insulin, glucose-lowering, and anti-hypertensive medications, and regular screening for and management of complications.

Participants suggested priority activities should support countries to:

- scale-up treatment at primary health care level, including through training of qualified health-care providers and promotion of task shifting to capitalize on existing resources;
- improve timely diagnosis and rate of complications through screening for complications;
- address barriers to access to essential diabetes medicines and low-cost diagnostics.
priority focus should be placed on access to quality assured insulin;

- invest in comprehensive and multi-component prevention strategies for diabetes (including community, education, policy strategies);
- implement evidence-based treatment guidelines and simple algorithms; and
- establish diabetes registries.

There was broad agreement that coverage targets for diabetes would be beneficial to drive progress similar to the HIV (90-90-90) and cervical cancer (90-70-90) targets. While participants made several suggestions on such targets, no specific targets were agreed and modelling was recommended. There was, however, some consensus around the need for separate targets for type 1 and type 2 diabetes.

With regard to mobilizing resources for diabetes, participants agreed that a global price tag/investment case was needed, projecting the return on investment of diabetes-related direct and indirect costs. This would help mobilize international and domestic financing.

Recommendations from the meeting are summarized under Key recommendations from expert and stakeholder consultations.
Stakeholder consultation to develop a WHO Global Diabetes Compact

Summary

Forty global stakeholder organizations, representing NGOs, youth and professional associations, global health partnerships and industry federations, participated in the consultation, selected based on area of expertise.

Discussions focused on how stakeholders represented at the meeting could contribute to the goals of the WHO Global Diabetes Compact. Specifically, how stakeholders can contribute to:

- the development of a shared narrative for advocacy purposes and public engagement campaigns;
- improving access to quality diabetes care in LMICs and closing the equity gap;
- improving access to insulin and associated devices, as well as other medicines and technologies for people with diabetes;
- strengthening the collection of data, advising on coverage targets, and promoting accountability;
- closing the knowledge gaps and accelerating innovation, including the development of low-cost technologies and digital solutions for diabetes care.

Key themes from stakeholder consultation to develop a WHO Global Diabetes Compact

Global and national advocacy

In order to create a shared narrative for massive scale up of action, participants emphasized the need to integrate diverse perspectives from people living with both type 1 diabetes and type 2 diabetes, and adequate representation of people living with diabetes in LMICs. There was broad support for ensuring that people living with diabetes are at the decision-making table in countries.

Primary health care and universal health coverage

Participants underlined the need for a life course approach to diabetes through primary health care, inclusion in universal health coverage, and integration into existing vertical programs. Emphasis was also placed on supporting countries to develop context-specific integrated responses and coherent efforts building on existing initiatives and systems.

Great importance was given to building capacity among health-care workers and the democratization of information i.e. to enable more people to understand knowledge relevant to diabetes prevention and care.
Access to essential diabetes medicines and technologies

A number of issues relating to access to medicines and technologies were discussed. Various strategies were proposed. These included: engaging both governments and the private sector in improving data on needs; reducing the cost of insulin (including biosimilars) and diagnostic tools e.g. through establishing fixed prices of insulin and low-cost monitoring options for LMICs; addressing regulatory barriers.

Global targets to monitor progress

There was strong support for the development of diabetes coverage targets and agreement that these targets should be realistic and achievable. Participants also agreed that separate targets for type 1 and type 2 diabetes were needed.

Better data, advancing the research agenda and promoting innovation

Participants saw the need to improve data quality on diabetes prevalence, access to care and essential medicines, and patient outcomes.

There was agreement that more implementation research on improving diabetes care, access to medicines and technologies and diabetes outcomes in LMICs was needed and should be led by people from LMICs. With regard to access to insulin, participants proposed that current efforts by several NGOs and academic groups to improve the knowledge base and corresponding strategies on thermostability should culminate in guidelines on the thermostability of insulin.

With regard to promoting innovation, participants emphasized that the interests of people living with diabetes should inform the design of technology and that “local solutions” should be encouraged.
Key recommendations from expert and stakeholder consultations

The following recommendations, based on the inputs received from the expert and stakeholder consultations held on 7-8 October 2020 and 14 October 2020, will guide the development of the WHO Global Diabetes Compact:

1. Scale-up global and national advocacy

   • There is an urgent need for unified global advocacy to highlight the lack of access to affordable, high quality treatment of diabetes, in particular in LMICs. This advocacy work should capitalize on the celebrations of the centenary of the discovery of insulin and highlight COVID-19 as a wake-up call for urgent and decisive action on diabetes.

   • People living with diabetes, governments, civil society, academia, UN organizations, celebrities, the media, philanthropies and the private sector can all play a role in advocating for greater emphasis on the prevention and treatment of diabetes.

2. Meaningfully engage people living with diabetes

   • People living with diabetes, particular from LMICs, should be meaningfully involved in the development and implementation of the WHO Global Diabetes Compact. They should become co-creators of solutions and sit at the decision-making table when global, regional, and national initiatives are developed.

   • Active involvement of health-care professionals is equally urgently needed.

3. Close priority knowledge gaps and develop normative products

   • WHO should, in collaboration with academic and research institutions, articulate a research agenda for 2021-2030 to address priority knowledge gaps.

   • In the short-term, priority should be given to developing normative guidance on interventions with the fewest knowledge gaps (control of glycaemia and cardiovascular disease risk factors, screening for early stages of complications and prevention and management to prevent outcomes such as cardiovascular disease, blindness, amputation, and kidney failure).

   • New normative guidance that can be adapted to country contexts should be developed by WHO e.g. guidelines on screening for type 2 diabetes and hyperglycaemia in pregnancy, updated treatment guidelines and simple algorithms, guidelines on insulin procurement, and a package for type 1 diabetes management.

4. Improve care and increase access to essential diabetes medicines and technologies

   • WHO should help countries improve care for diabetes and associated cardiovascular risk factors, including diagnosis, treatment and routine screening for complications, as part of health insurance coverage packages.
Improvements in access to essential medicines for diabetes management (e.g. insulin and other glucose-lowering medicines, blood pressure medicines) and associated devices is an urgent priority.

Consider developing tools to monitor the price and availability of insulin.

Propose strategies to overcome the global challenges related to procurement and supply chains of insulin and diagnostic technologies.

Build the capacity of the health workforce, including through task-shifting strategies, and seek out opportunities for the integration of diabetes care within existing programmes.

Support self-management interventions to educate and empower people living with diabetes.

5. Develop global coverage targets and monitor progress

Global coverage targets for diabetes, similar to the 90-90-90 target for HIV and 90-70-90 target for cervical cancer, are needed as they help mobilize action and promote accountability. These targets will have to be formulated by modelling. Separate targets should be considered for people with type 1 and type 2 diabetes.

Indicators should be defined to evaluate and monitor progress. The assessment of service delivery and outcome data on diabetes complications could be used to support evaluation and monitoring.

6. Improve availability and quality of data

Improve the accuracy and availability of data on the prevalence of diabetes, access to care and essential medicines and patient outcomes.

Facilitate regular national STEPS surveys.

7. Promote innovation

Promote and award innovation, including for the development and evaluation of low-cost technologies and digital solutions for diabetes care, with a focus on serving low-resource settings.

8. Mobilize international and domestic resources

Develop a global price tag and investment case to guide the mobilization of resources.

Act as a pledging platform to mobilize of resources to support countries improve the care of people with diabetes, including by leveraging funds earmarked for universal health coverage.

If I have HIV, I will get streamlined care and three months’ supply of medicines with specially trained nurses to manage my condition. None of that is available for diabetes, and sadly little has changed in the over 40 years since I was a pioneering diabetes nurse specialist. I never guessed that I too one day would need person-centred care like my patients. Today nurses shake their heads and openly say, “Ah well, we will see them when they come back to have a leg amputated.”

Vicki Pinkney-Atkinson, person living with type 2 diabetes, diabetes nurse, NCD activist
South Africa
### Agenda for the expert consultation to develop a WHO Global Diabetes Compact

#### 7 October 2020

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<td>1. Welcome, meeting logistics &amp; group photo&lt;br&gt;2. Opening remarks&lt;br&gt;3. Contours of the Global Diabetes Compact, overview of the meeting and intended outcomes</td>
<td>Bente Mikkelsen&lt;br&gt;Ren Minghui&lt;br&gt;Bente Mikkelsen</td>
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<td>13:15–13:30</td>
<td><strong>SESSION 1</strong>&lt;br&gt;Setting the Scene: Challenges and knowledge gaps&lt;br&gt;1. What are the biggest challenges countries face in addressing diabetes?&lt;br&gt;2. What are the knowledge gaps that need to be addressed to accelerate action on diabetes?</td>
<td>WHO Regional Advisers, NCD&lt;br&gt;Gojka Roglic</td>
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<tr>
<td>13:30–14:45</td>
<td><strong>SESSION 2</strong>&lt;br&gt;Scope and intended outcomes of the Global Diabetes Compact&lt;br&gt;<strong>Part 1:</strong>&lt;br&gt;• What should be the goal and objectives of the compact within a 10-year timeframe?&lt;br&gt;• Which priority interventions should the compact focus on, and why?&lt;br&gt;<strong>Part 2:</strong>&lt;br&gt;• What results should the compact aim to achieve by 2030?&lt;br&gt;• Is it possible to articulate a coverage target similar to targets for HIV/AIDS (90-90-90) and cervical cancer (90-70-90)? If yes, what could it be?&lt;br&gt;• How should the compact measure results (i.e. WHO/SDG indicators, additional indicators)?&lt;br&gt;<strong>Part 3:</strong>&lt;br&gt;• Do we need a global price tag to mobilize international finance to accelerate technical support to low- and lower-middle income countries?</td>
<td>Breakout groups facilitated by:&lt;br&gt;(1) Prof Stephen Colagiuri&lt;br&gt;(2) Prof Justine Davies</td>
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<td>14:45–15:00</td>
<td>Groups return to share summaries of their findings</td>
<td>Cherian Varghese&lt;br&gt;Gojka Roglic</td>
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<td>15:00–15:30</td>
<td>Moderated discussion</td>
<td>Cherian Varghese&lt;br&gt;Gojka Roglic</td>
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<td>15:30</td>
<td>Conclusion of Day 1</td>
<td>Bente Mikkelsen</td>
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### 8 October 2020

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Presenters / speakers / panelists</th>
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<tbody>
<tr>
<td>13:00–13:10</td>
<td>Overview of discussions from Day 1</td>
<td>Bente Mikkelsen</td>
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<td>Cherian Varghese</td>
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<tr>
<td>13:10–14.00</td>
<td>SESSION 3: Technical support functions, country support, partnership modalities</td>
<td>Breakout groups facilitated by:</td>
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<tr>
<td></td>
<td></td>
<td>(1) Prof Stephen Colagiuri</td>
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<td></td>
<td></td>
<td>(2) Prof Justine Davies</td>
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<tr>
<td></td>
<td>1. What are the main technical support functions that WHO should provide through the Compact?</td>
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<td>a. What normative work (global goods) should WHO prioritize?</td>
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<td>b. How can the compact most effectively provide country support?</td>
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<td>c. How could the compact drive innovation in delivering diabetes care to the most vulnerable?</td>
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<td>2. What are tried-and-tested approaches or programs the initiative can learn from, adapt or further develop?</td>
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<td>3. What partnership modalities should the compact adopt to ensure agility and impact?</td>
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<td>14:10–14:25</td>
<td>Groups return to share summaries of their findings.</td>
<td>Cherian Varghese</td>
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<tr>
<td>14:25–15:25</td>
<td>Moderated discussion on findings from Day 2 and outstanding issues from Day 1. Do we need a global price tag for diabetes?</td>
<td>Cherian Varghese</td>
</tr>
<tr>
<td>15:25–15:30</td>
<td>Conclusion of meeting &amp; next steps</td>
<td>Bente Mikkelsen</td>
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</table>

**List of participants for the expert consultation to develop a WHO Global Diabetes Compact**

**DR ABDUL BADI ABOU-SAMRA**  
Professor of Medicine  
Weill Cornell Medicine – Qatar (WCM-Q)  
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Executive Director  
Mehtl Zindag  
Living with type 1 diabetes  
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Researcher and Lecturer  
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**MS JOHANAH CO**  
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Diabetes Philippines, Member  
Living with type 1 diabetes  
IDF Young Leader 2017-2019  
Philippines

**DR JENNIFER COHN**  
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Resolve to Save Lives  
Switzerland

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Boden Collaboration, Faculty of Medicine and Health  
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Australia

**DR JUSTINE DAVIES**  
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**DR MARGARET EWEN**  
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Health Action International  
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**DR EDWARD GREGG**  
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Chair in Diabetes and Cardiovascular Disease Epidemiology  
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Imperial College London  
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**DR HANS HOGERZEIL**  
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**DR JENNIFER MANNE-GOEHLER**  
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Brigham & Women’s Hospital  
Massachusetts General Hospital  
Harvard Medical School  
United States of America
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<thead>
<tr>
<th>Name</th>
<th>Title/Role</th>
<th>Organization/Region</th>
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<tr>
<td><strong>DR VISWANATHAN MOHAN</strong></td>
<td>Diabetes Specialities Centre</td>
<td>IDF Centre of Excellence in Diabetes Care and Madras Diabetes Research Foundation, ICMR Centre for Advanced Research on Diabetes, India</td>
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<td><strong>DR K.M. VENKAT NARAYAN</strong></td>
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<td><strong>PROF BRIAN OLDENBURG</strong></td>
<td>Director, NHMRC CRE in Digital Technology to Transform Chronic Disease Outcomes</td>
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<td><strong>DR KAUSHIK RAMAIYA</strong></td>
<td>Chief Executive Officer and Consultant Physician</td>
<td>Sri Mandal Hospital, Tanzania</td>
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<td>Professor, School of Medicine, Federal University of Rio Grande do Sul</td>
<td>Brazil</td>
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<td><strong>WHO participants</strong></td>
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<td><strong>DR SVETLANA AKSELROD</strong></td>
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<td>WHO/HQ</td>
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<td>Medical Officer, NCD</td>
<td>WHO/AFRO</td>
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<td><strong>DR FRANCESCO BRANCA</strong></td>
<td>Director, NFS</td>
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<td><strong>MR BASHIER EHOOS</strong></td>
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<td><strong>DR JILL FARRINGTON</strong></td>
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<td>WHO/EURO</td>
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<td>Quality Officer, GMP</td>
<td>WHO/HQ</td>
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<tr>
<td><strong>DR SILVANA LUICIANI</strong></td>
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<td><strong>MS ALENA MATZKE</strong></td>
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<td><strong>DR SLIM SLAMA</strong></td>
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<td>WHO/EMRO</td>
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<td><strong>DR HICHAM EL BERRI</strong></td>
<td>Medical Officer</td>
<td>WHO/EMRO</td>
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<td><strong>DR ANTHONY SOLOMON</strong></td>
<td>Medical Officer, NTD</td>
<td>WHO/HQ</td>
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<td><strong>DR KLAJA TISOCKI</strong></td>
<td>Team Lead, AAP</td>
<td>WHO/HQ</td>
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<tr>
<td><strong>MR MENNO VAN HILTEN</strong></td>
<td>Senior External Relations Officer, NCD</td>
<td>WHO/HQ</td>
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<tr>
<td><strong>DR CHERIAN VARGHESE</strong></td>
<td>Cross-Cutting Lead, NCD</td>
<td>WHO/HQ</td>
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<tr>
<td><strong>DR TEMO WAGANIVALU</strong></td>
<td>Programme Officer, ISD</td>
<td>WHO/HQ</td>
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Annex 2: Agenda and list of participants for the stakeholder consultation to develop a WHO Global Diabetes Compact

Agenda for the stakeholder consultation to develop a WHO Global Diabetes Compact

14 October 2020

<table>
<thead>
<tr>
<th>Session title</th>
<th>Speakers</th>
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<tbody>
<tr>
<td>13:00–13:45</td>
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<tr>
<td>1. Welcome</td>
<td>Bente Mikkelsen</td>
</tr>
<tr>
<td>2. Opening remarks</td>
<td>Ren Minghui</td>
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<tr>
<td>3. Highlights from the workshop on Availability and affordability of quality-assured insulin and associated devices (21–25 September 2020)</td>
<td>Emer Cook</td>
</tr>
<tr>
<td>4. Highlights from the WHO Expert Consultation on the development of a WHO Global Diabetes Compact (7–8 October 2020)</td>
<td>Bente Mikkelsen</td>
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<tr>
<td>5. Q &amp; A</td>
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<tr>
<td>13:45–15:00 BREAKOUT SESSION</td>
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<tr>
<td>Partnering for impact</td>
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<tr>
<td>How can the Global Compact become an accelerator for the meaningful contributions of non-State actors to:</td>
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<tr>
<td>1. Improve access to insulin and associated devices, as well as other medicines and technologies for people with diabetes?</td>
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<tr>
<td>2. Create a shared narrative to meet the health-care needs of people with diabetes (advocacy, engagement, WDD)?</td>
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<td>3. Improve access to quality diabetes care in LMICs and close the equity gap?</td>
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<td>4. Strengthen collection of person-oriented data, set coverage targets, and promote accountability?</td>
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<tr>
<td>5. Close the knowledge gaps and accelerate innovation, including the development of low-cost technologies and digital solutions for diabetes care?</td>
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<tr>
<td>Breakout Groups</td>
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15.00–15.25

Report back
Discussions (time permitting)

15.25–15:30

Conclusions and next steps

List of participants for the stakeholder consultation to develop a WHO Global Diabetes Compact

**DEFEAT-NCD PARTNERSHIP**
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Programme Coordinator in Rwanda

**FIND**
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Scientific Officer

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ACCISS Study Project Manager

**HELMSLEY CHARITABLE TRUST**
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Program Director
Type 1 Diabetes (T1D) Program

**HUMANITARIAN INITIATIVE**
Dr Sylvia Kehlenbrink
Director
NCDs in conflict program at the Harvard

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Dr Fabrizio D’Esposito

**INTERNATIONAL COUNCIL OF NURSES (ICN)**
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ICN Associate Director
Nursing & Health Policy

**INTERNATIONAL DIABETES FEDERATION (IDF)**
Mr Phil Riley
Campaign Director

**INTERNATIONAL FEDERATION OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE (IFCC)**
Prof Khosrow Adeli
President

**INTERNATIONAL FEDERATION OF GYNECOLOGY AND OBSTETRICS (FIGO)**
Prof Mary Ann Lumsden
Chief Executive Officer
INTERNATIONAL FEDERATION OF MEDICAL STUDENTS ASSOCIATION (IFMSA)  
Dr Po-Chin Li  
President

INTERNATIONAL FEDERATION OF PHARMACEUTICAL MANUFACTURERS AND ASSOCIATIONS  
Dr Vanessa Peberdy  
Manufacturers and Associations

INTERNATIONAL INSULIN FOUNDATION (IIF)  
Prof Kaushik Ramaiya

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Dr Jonathan Klein  
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INTERNATIONAL PHARMACEUTICAL FEDERATION (FIP)  
Ms Ema Paulino

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CEO  
Global Project

LIFE FOR A CHILD  
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Dr Esteban Burrone  
Head of Policy

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NCD ALLIANCE  
Dr Nina Renshaw

NCD CHILD  
Dr Marie Hovarsiev  
Chair

NCD SYNERGIES  
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NOSSAL INSTITUTE FOR GLOBAL HEALTH  
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PATH  
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RESOLVE TO SAVE LIVES  
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Senior Vice President for Cardiovascular Health

SANTÉ DIABÈTE  
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Director-General

THE UNION  
Mr José Luís Castro  
Executive Director

T1INTERNATIONAL  
Ms Elizabeth Pfiester  
Director

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Dr Shigeo Kono  
Director

WHO COLLABORATING CENTRE FOR RESEARCH, EDUCATION AND TRAINING IN DIABETES  
Dr Vijay Viswanathan  
Director

WHO COLLABORATING CENTRE FOR TREATMENT, EDUCATION AND RESEARCH IN DIABETES AND DIABETIC PREGNANCIES  
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Programme Executive for Health

WORLD DIABETES FOUNDATION  
Mr Bent Lautrup-Nielsen  
Head of Global Development and Advocacy

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Dr Belma Malanda  
Consultant Diabetes

WORLD HYPERTENSION LEAGUE (WHL)  
Prof Gianfranco Parati  
Secretary-General

WORLD MEDICAL ORGANISATION  
Dr Julia Tainijoki-Seyer  
Advocacy and Medical Advisor

WORLD OBESITY  
Ms Johanna Ralston  
Chief Executive Officer

WORLD ORGANIZATION OF FAMILY DOCTORS (WONCA)  
Prof Domingo Orozco Beltran

Observers

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MÉDECINS SANS FRONTIÈRES INTERNATIONAL (MSF)  
Dr Amulya Reddy
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<td>DR GUIDO PANTEN</td>
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<td>DR JITENDAR KUMAR SHARMA</td>
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