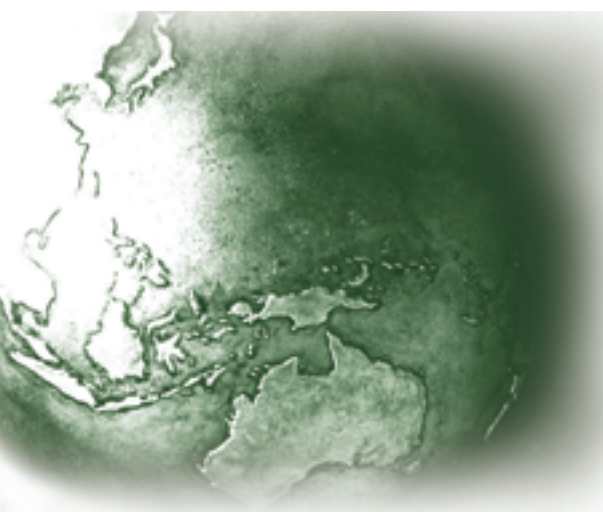


# The Western Pacific Declaration on Diabetes

We, the World Health Organization Regional Office for the Western Pacific (WHO/WPRO), the International Diabetes Federation, Western Pacific Region, and the Secretariat of the Pacific Community, the signatories of this document, unite to highlight the serious nature of diabetes, currently estimated to affect at least 30 million people in the region. We, on behalf of people affected by diabetes, jointly call upon all governments, organisations and individuals in the region to undertake the following actions, according to the needs of each country:



1. Recognise the personal, public and economic burden of all types of diabetes and establish diabetes as a priority health concern.
2. Develop and implement national strategies and programmes to prevent and control diabetes, and reduce its risks.
3. Work towards universal access to quality care, training, essential diabetes medications, and other supplies and support for all people with diabetes.
4. Encourage a strategic alliance among governments, international and regional development agencies, health and non-health sectors, mass media, industrial partners, non-governmental organisations, and other stakeholders involved in the prevention and care of diabetes.
5. Recognise and promote the importance of education for people affected by diabetes, health professionals and the general public in the prevention and management of diabetes.
6. Integrate diabetes activities with those of other non-communicable diseases in order to promote healthy lifestyles and environments for the prevention and control of diabetes and its complications.
7. Recognise and address the problem of discrimination against people with diabetes.
8. Encourage research to advance and apply knowledge about the effective prevention, delivery of care and management of diabetes.



# Foreword



The Asian-Pacific region continues to be at the forefront of the type 2 diabetes mellitus epidemic, with consequences to health which threaten to be devastating. It is also becoming increasingly apparent that younger members of our communities are not spared from this disease, with a significant problem emerging in the urbanised young in more affluent parts of the region. Lifestyle changes and urbanisation appear to be the root causes of this problem, and continue to accelerate in the new millennium.

Overwhelming evidence indicates the need for optimal glycaemic control of type 2 diabetes if the impact of long-term microvascular complications is to be minimised. The UK Prospective Diabetes Survey has also highlighted the importance of both good glycaemic control and good blood pressure control. This has been shown to be most relevant in the prevention of stroke and is, therefore, particularly important in this region where stroke is a significant cause of diabetes-related mortality.

Since publication of the second edition of *Type 2 Diabetes Practical Targets and Treatments*, new proposals for the diagnostic criteria and classification of diabetes have been put forward. This third edition produced by the Asian-Pacific Type 2 Diabetes Policy Group is, therefore, timely. It provides an opportunity to update and revise those areas covered in the first and second editions, and to add new information in other areas, particularly with regard to diagnostic criteria and classification, the role of exercise, management of type 2 diabetes in children and adolescents, and management of other cardiovascular risk factors.

These guidelines have the support of the International Diabetes Federation, Western Pacific Region, and have been produced specifically with the needs of our region in mind. It should be emphasised that they are meant to complement rather than replace individual or national guidelines, to add the authority that can be provided by a regional approach as an additional support for national guidelines, and also to provide guidelines for those countries that do not have their own.

I recommend this booklet to you and sincerely hope that it will be used widely by a variety of healthcare professionals in all countries within the region.

A handwritten signature in black ink that reads "G. Alberti".

Professor Sir George Alberti  
International Diabetes Federation

# Contents

	The Western Pacific Declaration on Diabetes	1
	Foreword	2
	Contents	3
	Preface	4
	Chairmen's Statement	6
	Asian-Pacific Type 2 Diabetes Policy Group	7
<b>Introduction</b>	Type 2 Diabetes – The Price of Social Change	8
<b>Guide to the Classification of Diabetes</b>	Initial Diagnosis Based on Venous Plasma	10
	Type 1 or Type 2?	11
	Type 2 Diabetes in Childhood and Adolescence	11
<b>Management</b>	Essentials of Management	13
	Monitoring of Glucose Levels	14
	Food Planning	15
	Physical Activity	16
<b>Treatment</b>	Treatment of Hyperglycaemia	18
	Treatment of Other Cardiovascular Risk Factors	20
<b>Obese/Non-Obese</b>	Selection (Phenotyping) for Appropriate Oral Hypoglycaemic Therapy	21
	The Overweight or Obese Person with Diabetes	21
	The Non-Obese Person with Diabetes	22
<b>Targets</b>	Targets for Control	23
<b>Special Situations</b>	Special Situations	23
<b>Hypoglycaemia</b>	Hypoglycaemia	25
<b>The Metabolic Syndrome</b>	The Metabolic Syndrome	26
<b>Complications</b>	Chronic Complications	28
	Retinopathy	29
	Nephropathy	29
	Diabetic Foot Problems	30
	Macrovascular Disease	32
<b>Prevention of Type 2 Diabetes</b>	Lifestyle and Pharmacological Approaches	34
<b>Protocols</b>	Initial Visits	36
	Clinical Monitoring Protocol	37
<b>Appendices</b>		38

# Preface



The non-communicable diseases (NCD) epidemic has overwhelmed the historical health problems of the Western Pacific Region (WPR) and is now the leading cause of mortality. Within the cluster of NCD, diabetes has become one of the most daunting causes of sickness and death. The current number of people with diabetes in the region is estimated to be 30 million and this number will increase to at least 55 million by the year 2025. Recent data show that the prevalence of diabetes is increasing rapidly in countries where significant socioeconomic changes are occurring, and there is a particularly high prevalence in Pacific Island countries.

However, the news is not all bad. There is now irrefutable evidence that diabetes can be prevented in people at high risk, and that the progression of many of the complications associated with diabetes can be halted. Appropriate diet and physical activity, maintaining a healthy body weight, refraining from tobacco smoking, and proper control of diabetes and blood pressure in people with diabetes will help prevent diabetes and reduce its complications. The means to do this are within the reach of most countries' budgets. The issue is now not *whether* but *how* to deliver these solutions to the people of the region. Each country needs to develop appropriate guidelines for the prevention and control of diabetes, and set up systems to ensure that its guidelines are adhered to.

In some developing countries in the WPR, as many as three out of every four people with diabetes remain undiagnosed. Even when diagnosed, only about two-thirds are undergoing optimal management (non-drug and drug), even in developed countries; and of those undergoing treatment, only one-third are properly controlled.

In partnership with Member States and with the International Diabetes Federation, Western Pacific Region (IDF-WPR) and the Secretariat of the Pacific Community, the World Health Organization (WHO) supported the development of the *Western Pacific Declaration on Diabetes* in 2000, as well as its associated *Plan of Action*. As part of this collaboration, the WHO is supporting the development of customised clinical management guidelines for diabetes in Member States. This has now been achieved with WHO support in China, Mongolia, Vietnam and many Pacific Island countries. Other countries and other partners have proceeded with this work such that clinical guidelines will soon be within the reach of most primary-care workers in the region. The next challenge will be to ensure that they are trained in the application of these guidelines, they have the appropriate tools to work with, and that effective control is achieved and sustained.

As an important resource in this work, I am pleased to present this third edition of *Type 2 Diabetes Practical Targets and Treatments*. This publication is a joint enterprise of the Type 2 Diabetes Policy Group, the IDF-WPR and the WHO Regional

Office for the Western Pacific. I would like to thank the Policy Group, which has been working on the revised version of the original 1995 statement and the 1999 second edition. This book will be a valuable tool for governments, the WHO, the IDF-WPR, the Secretariat of the Pacific Community, and other regional and national organisations in the region, as we aggressively tackle this insidious disease with its propensity for striking at the many productive members of our society.



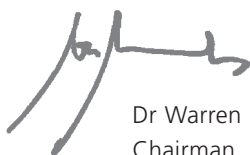
Shigeru Omi MD, PhD  
Regional Director  
WHO Regional Office for the Western Pacific

I welcome this new edition of the International Diabetes Federation, Western Pacific Region (IDF-WPR) *Type 2 Diabetes Practical Targets and Treatments* guidelines.

The IDF-WPR is a vast region, with tremendous variation in living standards and availability of medical services. Yet it has the world's largest potential and existing number of people with diabetes.

We need to acknowledge that providing a recognised process of care to everyone with diabetes or at risk of diabetes in the Western Pacific Region is a daunting process, and that any set of guidelines must necessarily take into account the vast differences extant in the region in order to be relevant and useful.

Nevertheless, guidelines help to point the way ahead. No matter what our limitations, and no matter how successful we feel we currently are in the fight against diabetes, we must focus on ensuring that we deliver a recognised process of care to as many people with diabetes as possible, and help them all to reach their appropriate treatment goals.



Dr Warren Lee  
Chairman  
International Diabetes Federation  
Western Pacific Region

# Chairmen's Statement



The number of people with diabetes worldwide currently is believed to be about 150 million. By 2025, this number is expected to increase to over 300 million, with the majority of people having type 2 diabetes.

It is well known that most patients with diabetes have type 2. The Asian-Pacific region holds one-third of the world's population, and includes a variety of ethnic groups. The type of diabetes in this region is predominantly type 2; however, a large pathophysiological difference exists when comparing type 2 diabetes in other ethnic groups with type 2 diabetes in Caucasians.

Following the publication of the European NIDDM Policy Group's *Desktop Guide for the Management of Non-insulin-dependent Diabetes Mellitus* in Europe, the Asian-Pacific NIDDM Policy Group met on 1 April 1994 with the aim of producing a document for this region. Information was obtained from all of the regional Diabetes Associations and from many key diabetologists. Our aim was to reach a consensus for all the countries involved; it was a difficult task to produce an agreement that has something in common with all of the nations.

However, our ultimate goal was to target the prevention and management of type 2 diabetes, and, thus, a first edition of *Type 2 Diabetes Practical Targets and Treatments* was published. This was updated in 1999 as a result of new suggestions from the World Health Organization (WHO) and the American Diabetes Association (ADA) for diagnostic criteria and classification. Now, in 2002, with the availability of new medications and new data on the prevention of type 2 diabetes, a revised version has become essential. A similar procedure to gain consensus has been followed, and we sincerely hope that this third edition will be an important and useful reference for clinicians and other health professionals involved in caring for people with diabetes.

It has been noted that there is an increasing occurrence of type 2 diabetes in younger age groups than previously, and this issue has been addressed in the current publication. We are fortunate to have the distinguished paediatrician, Professor Martin Silink, provide a youthful perspective on the growing international problem of type 2 diabetes.

In addition, the Western Pacific Declaration on Diabetes 2000–2005 is another new and welcome initiative that will help set the stage for greater awareness of, and action on, type 2 diabetes in this region.

Finally, we would like to extend our sincere thanks to Dr Shigeru Omi, Regional Director of the WHO, Western Pacific Region, and Dr Warren Lee, Chairman of the International Diabetes Federation, the Western Pacific Region, for their active support and collaboration in assisting with the revised guidelines.



A handwritten signature in black ink, appearing to read 'Clive Cockram'.

Professor Clive Cockram  
Vice-President of the International Diabetes Federation  
Hong Kong

A handwritten signature in black ink, appearing to read 'Paul Zimmet'.

Professor Paul Zimmet AO  
Director, International Diabetes Institute  
Melbourne, Australia

### Asian-Pacific Type 2 Diabetes Policy Group

<i>Chairmen</i>	Professor Clive Cockram, Hong Kong Professor Paul Zimmet AO, Australia
<i>Honorary Chairman</i>	Professor Shigeaki Baba, Japan
<i>Members</i>	Professor BA Khalid, Malaysia Dr Warren Lee, Singapore
<i>Advisers</i>	Professor Sir KGMM Alberti, United Kingdom Professor Martin Silink, Australia  Dr Gauden Galea (Observer), (WHO-WPRO) Ms Jimaima Schultz (Observer), (SPC)
<i>Contributors</i>	Please see Appendix I