In 2001, a report from the Centers of Disease Control and Prevention (CDC) in Atlanta projected the number of Americans with diabetes would increase from 11 million in 2000 (prevalence 4.0%) to 29 million in 2050.¹ This 165% increase was predicted to be the greatest for those 75 years of age and older. By 2014, we can see how poor those projections for the future actually were. The most recent CDC data report that 29.1 million Americans (9.3% of the population) are diagnosed with diabetes, while 8.1 million people have diabetes and are undiagnosed.² What this means is that the 2001 prediction for diabetes prevalence for 2050 was surpassed in 2014! The earlier projection did correctly note the high number of older people with diabetes. For those 65 years of age or older, more than one in four have diabetes (25.9%).² What this means is any family practice physician, internist, geriatrician, gynecologist, oncologist, surgeon, anesthesiologist, cardiologist, rheumatologist, infectious disease specialist, and certainly endocrinologist need to stay updated on all aspects of diabetes, especially updated in understanding all evidenced-based therapies.

It would be incorrect to assume this increase in diabetes is simply an American or even North American concern. The International Diabetes Federation (IDF) reports that, while North America and the Caribbean have a prevalence of diabetes of 10%, the Middle East and North Africa, Southeast Asia, South and Central America, the Western Pacific, and Europe have prevalence rates of 11%, 9%, 8%, 8%, and 7%, respectively.³ The overall world population of diabetes is 382 million, and this number is expected to increase by 55% by 2035 to 592 million.³

The burden on quality of life can be more difficult to quantitate, but mortality and economic costs are more easily captured. For example, the IDF reports that the proportion of deaths due to diabetes in people less than 60 years of age (in 2013) is 38% for North America, but as high as 76% for Africa.³ Health care expenditures are 263 billion dollars (USD) for North and Central America, and 26 billion dollars for South America. For a world-wide public health concern with such rapid growth, deadly
consequences, and unsustainable costs, one would think diabetes would be a major focus of virtually every government of the world. Unfortunately, this is not the case.

There are other issues not noted in these statistics. For example, the special needs of children and young adults with type 2 diabetes are in need of much more attention and research. This is a population that didn’t exist a few years ago, and finding effective therapies may be different in these younger patients. Associated with that is the topic of pregnancy in women with pregestational type 2 diabetes. This was quite rare in decades past. Given the large number of women of child-bearing age with type 2 diabetes, nonspecialists will need to become familiar with all of the issues required to prepare these women for pregnancy. Finally, in both Europe and the United States, there is a rapidly growing population of older adults over the age of 60 with type 1 diabetes. While these individuals were few in number 30 years ago, this is now not the case, and our health care system and clinicians caring for these patients will need to adapt to this population’s special needs.

Given the tremendous growing impact of diabetes in North America and around the world, it is appropriate that this issue of *Medical Clinics of North America* is devoted to diabetes. While there has been an incredible improvement in our understanding of the fundamental pathogenesis of diabetes and its complications, this issue is focused on strategies for diabetes therapies. Starting with an article of the current classification scheme, including an update of the various forms of monogenic diabetes, the reader will learn how Internet blood glucose monitoring systems can improve care. Nutrition and exercise fundamentals are reviewed as are our various biomarkers for assessing diabetes control in addition to specific glycemic targets. Much of the issue reviews how to best use both the older and the newer medications to treat diabetes, and strategies for insulin use for both type 1 and type 2 diabetes are presented. Screening and treatment of the various diabetes complications for the nonspecialist are reviewed, along with a discussion of polycystic ovarian syndrome. It is hoped that all clinicians caring for patients with diabetes can benefit from the expertise of our experienced authors.

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REFERENCES