The continuing global epidemic of diabetes exacts huge costs both in terms of human suffering and economics, and the importance of understanding the origins of the epidemic and the development of methods to abate it has never been higher. The Public Health and Epidemiology Stream at the World Diabetes Congress Vancouver 2015 will cover a broad range of topics of high relevance to the understanding of the causes of the global diabetes epidemic and potential means to stall or reverse its progression. In addition, a major focus of this stream will be to consider the risks of diabetes complications, both traditional and newly emerging, and the prediction and prevention of these adverse outcomes.

Several symposia will provide general updates on the worldwide progress of the diabetes epidemic but also focus on particular sub-groups and regions. One symposium topic will specifically focus on the impact of diabetes on women in developing countries, while another will cover the subject of diabetes in youth. Also, international trends in diabetes complications will be described and discussed, as well as the appropriateness of diabetes guidelines for testing and treatment in all countries. A symposium will feature the latest version of the International Diabetes Federation Diabetes Atlas where updates and developments in the global diabetes epidemic will be presented.

Paths to prevention of diabetes will be presented from several perspectives. Given that nutrition has been implicated as a culprit in the diabetes epidemic, a symposium will present and discuss the public health approaches that several countries have taken to effect healthier eating. Debates will address the effectiveness of diabetes screening and the community-wide approach to preventive interventions. Also, the role of the built environment and the means to transform it to promote health will be presented.

New developments in technology and connectivity have spread around the globe and have the potential to assist in efforts to control the diabetes epidemic. Open forums will take place at the World Diabetes Congress on the role of social media, the Internet, and mobile technologies in promoting diabetes epidemiology and prevention research. “Big Data” is a term increasingly used to describe the accumulation of data from electronic health records, database linkages, national health care systems, and health insurance plans. A symposium will help to provide a better understanding of the nature of big data and its role in understanding the epidemiology of diabetes and potentially providing means to lessen its impact.

Symposia and lectures will take place on new and emerging aspects of diabetes etiology and complications. Advances in medical research provide new opportunities to identify risk
factors for both types 1 and 2 diabetes. These include the study of epigenetics, the microbiome, microRNAs, and also the potential for probiotics in diabetes prevention. A primer will be presented on new methods such as Mendelian Randomization to better identify potential causal factors for the development of diabetes. Evidence continues to accumulate on oral complications associated with diabetes, and these will be discussed as well as treatments and associations with other metabolic disorders.

Several current controversies will be discussed in symposia and debated. The role of sugar consumption in chronic diseases will be one such topic, and the obesity paradox another. Also, the latest findings of ACCORDION (the ACCORD Trial Follow-Up Study) will be presented in a special symposium.

Last, but certainly not least, the second ever IDF Public Health and Epidemiology Award Lecture will be presented by Edward Gregg of the Centers for Disease Control and Prevention, United States.

We look forward to your participation in the exciting Public Health and Epidemiology programme at the World Diabetes Congress Vancouver 2015.

About the Author

Edward J. Boyko is Professor of Medicine and Adjunct Professor of Epidemiology at the University of Washington and Staff Physician at VA Puget Sound Health Care System in Seattle, Washington, USA. He is also the Stream Lead: Public Health and Epidemiology for the World Diabetes Congress Vancouver 2015.