



**Longer Life Foundation:  
An RGA/Washington University Partnership**

## **Diabetes and the Future**

**January 22, 2003 – St. Louis, Missouri, USA**

The Longer Life Foundation: A RGA/Washington University Partnership (LLF), Reinsurance Group of America, Incorporated (RGA), sponsored a thought provoking lecture from Dr. Kenneth Polonsky on “Diabetes and the Future” in St. Louis, Missouri on January 22, 2003. The presentation was well attended by academics, physicians, medical underwriters, business executives and actuaries from many insurance companies.

Dr. Philip Smalley, Managing Director of the not-for-profit Longer Life Foundation, began with a brief overview of the Foundation. In 1998, the School of Medicine at Washington University in St. Louis, a world leader in academic medicine and medical research, joined with RGA to co-sponsor The Longer Life Foundation: RGA/Washington University Research Partnership. The Foundation's Board of Advisors consists of a diverse group of physicians and researchers from the University, as well as medical directors and underwriting experts from RGA and other life insurance organizations. The Foundation’s mission is to fund research that evaluates scientific and social factors that help predict longevity and promote quality and quantity of life. More can be learned about the Foundation’s sponsored events, research results, and ongoing funded projects at <http://www.longerlife.org>.

Dr. Kenneth Polonsky is the Busch Professor and Head of the Department of Internal Medicine at Washington University in St. Louis. He is well published and has won many awards for his outstanding work. He is a world-renowned diabetes researcher and his presentation was well received by the audience. He responded to many questions throughout his presentation. He successfully explained some complex medical issues into easily understandable content that has immediate relevance to the insurance industry and public health.

Dr. Polonsky started his talk discussing the epidemiology of Type II Diabetes showing the dramatic increase in prevalence in USA and internationally. In USA, there has been a 33% increase in diabetes prevalence from 1990 to 1998. Of particular concern is the increase in diabetes in children and adolescents. He reviewed the new diagnostic criteria for labeling someone as a diabetic as published in Diabetes Care 1997. This is a lower fasting glucose cutoff point than what was used in the past. Dr. Polonsky does not feel that this lower cutoff point for the diagnosis of diabetes will dramatically impact the long-term prognosis of diabetics, i.e. how diabetes is underwritten. Although, it will allow patients to get appropriate treatment at an early stage, hoping to prevent complications and improve public health.

Dr. Polonsky then reviewed some of the literature that shows that diabetes can be prevented. Lifestyle modification seems to work best although medications also can prevent the onset of diabetes. He then discussed the pathophysiology of diabetes and some of the cutting edge genetic research that is partially responsible for the disease. He mentioned some of the rare forms of diabetes that are strongly linked to single gene defects with high penetrance. Dr. Polonsky said that the prognosis of these specific types of diabetes has not yet been proven to be different than the more common form of diabetes. Dr. Polonsky stressed that diabetes is a multi-factorial disease. A large percentage of the general population carry one or more genetic defects that are associated with diabetes but usually the disease is not manifested. Lifestyle, diet and obesity are common underlying etiological factors that interact with the genetic predisposition leading to the diagnosis of diabetes with all its serious complications.

Dr. Polonsky then finished his lecture with a review of the treatment of diabetes. He showed studies underscoring the importance of good diabetic glycemic control. He also showed the importance of good blood pressure control to improve diabetes prognosis. It is common that single therapies are not sufficient to manage diabetes so underwriters should not be surprised to see multiple therapies being used in the same patient. Dr. Polonsky then touched on some of the new therapies such as Islet Cell and pancreatic transplantation to treat diabetes. Due to the shortage of organs, much research is ongoing looking at stem cell and genetic therapies but it will still be quite a few years before these forms of therapy are used routinely in clinical practice.

Written by Dr. Philip Smalley, Managing Director, Longer Life Foundation: An RGA/Washington University Partnership, on January 24, 2003.