Objective: To analyze glycemic control as measured by glycosylated hemoglobin A1c (HbA1c) in diabetic patients from the Central Valley in Costa Rica. Material and Methods: HbA1c was measured in diabetic patients between the ages of 20 and 100, who were attended in the public health care setting during 2012 in Costa Rica, and the subsequent data was analyzed by gender, age and according to HbA1c levels. Results: The population consisted of 16437 diabetics (5987 males, age 61 ± 12.5 years old, 10450 females, age 61 ± 12.5 yo), 667 were between 18 - 40 yo; 9697 between 40 - 65 yo and 6073  65. HbA1c 7.0 %, between 7.0 - 8.5% and  8.5% were seen in 48%, 32% and 21 % of males, and in 47%, 33% and 20 % of females, respectively. Overall, 48 % had HbAc  7.0 %; 32 % between 7.0 – 8.5 % and 20 %  8.5%. Patients aged 20 to 40, 40 to 65 and  65 had HbA1c of 44%, 56% and 51%. No differences in HbA1c levels were observed between genders. Glycemic control as assessed by HbA1c was inadequate as  50% of the patients an optimal HbA1c was not achieved. In older diabetics, HbA1c  7.0 % may increase the risk for cardiovascular events. Individualization of glycemic goals must be implemented to prevent potential complications associated with hypoglycemic episodes.