Objective: The objectives of this study were to determine the prevalence of diagnosed and undiagnosed diabetes mellitus (DM), prediabetes and to evaluate the associated risk factors in the sample of adult Turkish population. Methods: A total of 3721 subjects (2139 women and 1582 men) aged 20 years or older participated in the study. Anthropometric and demographic data of all subjects enrolled in the study were filled in forms and the persons were invited to the local medical centers for blood examination following 12 hours of fasting. Results: The prevalences of prediabetes and DM were found to be as 6.4% and 10.4% (new diagnosed 3.6%), respectively. In multivariate logistic regression analysis, advanced age (OR:21.6 in the 60-69 age group), marriage (OR:2.05), housewives (OR:1.34), high monthly income (OR:2.52 in the group of income ≥2250TL), positive family history of diabetes (OR:2.84), overweight (OR:1.61), obesity (OR:2.25), hypertension (OR:1.42) and dyslipidemia (OR:1.38) were independent risk factors for the development of diabetes. Conclusion: DM is an important health problem in the adult population of Trabzon city. It seems that the prevalence of diabetes is increasing in our region as well as our country and the world. To control DM and associated risk factors, effective public health education and taking urgent steps are needed. These steps include serious education and teaching, providing a well-balanced diet and increasing physical activity.