Background and aims: even though overweight and obesity (O/O) are stated diseases, there is still a claim for a so-called “healthy obese” phenotype. Only few reports have explored the presence of different metabolic phenotypes along the body mass index (BMI) range and their corresponding associations to cardiovascular risks. Methods: as of BMI, and according to the presence of metabolic syndrome (MS) features (waist circumference, blood pressure, fasting glycemia, and lipid profile), phenotypes were determined. Cardiovascular risk was estimated with atherogenic quotients: total cholesterol/ HDL-c, LDL-c/HDL-c and the triglycerides (TG)/HDL-c index. Results: in 8 405 mexican adults, 36% lean, 43% overweighed and 21% obese, nine phenotypes were identified: for each weight category there were subjects with normal metabolism (none MS factors), intermediate (2) and dysmetabolic (3). Only 10.8% of O/O had normal metabolism, and 5.8% of the lean persons were dysmetabolic. Atherogenic risk was higher in dysmetabolic obese persons, but the risk was high among all dysmetabolic people, independently of the weight status. TG/HDL-c showed the same trend. Conclusions: elevated cardiometabolic risk derives from the high prevalence of O/O. A great proportion of non-obese people have intermediate dysmetabolism. A genetic predisposition to obesity, insulin resistance, diabetes and dyslipidemia in Mexican population is blended to an unhealthy lifestyle, yielding to a catastrophic epidemic of diabetes, and cardiovascular diseases.

Keywords
Obesity, Overweight, Metabolic syndrome, Cardiovascular risk, Metabolic phenotypes.