Background and Aim: Inflammatory Bowel Disease (IBD) is increasing among Bedouin Arabs. This population is known to have a high rate of consanguinity. NOD2/CARD15 mutations are well studied in IBD, with the association to the disease phenotype. The aim of the study was to investigate the frequency of NOD2/CARD15 mutation in IBD Bedouin patients and mutation relationship to the disease phenotype. Methods: The IBD-Arab Cohort in southern Israel included 68 patients, of which 25 Crohn’s disease (CD) patients and 25 ulcerative colitis (UC) patients consented to participate (72%). Blood samples were obtained from all participants, who were genotyped for NOD2/CARD15 variants, Arg702Trp, Gly908Arg and Leu1007fsinsC. Results: The NOD2/CARD15 mutation frequency was higher in Crohn’s disease than in ulcerative colitis patients. Carrier frequency for Gly908Arg mutation in CD and UC patients was 8/25 (32%) and 3/25 (12%) respectively (p=0.08). Neither the Arg702Trp nor Leu1007fsinsC mutation was observed in this population. No homozygous/compound heterozygote mutations were found. Genotype-phenotype analysis revealed that CD mutation carriers are younger at diagnosis, 22.8±4.5 vs. 28.8±9.1 years (p=0.04). Another finding is mutation positivity is associated with male gender, 100% in mutation carriers versus 41% in non-carriers (p=0.005). No other associations regarding disease localization or other clinical parameter were found. Conclusion: The frequency of NOD2/CARD15 gene mutation is high in CD and UC among Arab Bedouin, and associated with younger age at onset and male gender.