Medical records of 666 suicide attempters, who were admitted to a teaching hospital in January 2004 - December 2006, were examined. Of the sample, 69.2% were female, 30.8% were male. 63.8% were Chinese, 15.8% were Indian, 15.0% were Malay and 5.4% were Eurasian. Significant ethnic differences were seen in suicide risk and protective factors. The Malays reported more protective factors and less risk factors as compared to the Chinese and Indians. Ethnic influences were also seen in the prediction of lethality measures. Compared to the Indians and Chinese, Malays made up the lowest proportion of attempters with high lethality attempts. The Chinese differ from the Indians and Malays in the prediction models for lethality. Cultural influences are discussed with implications for suicide assessments and interventions. Suicide prevention efforts could be targeted at promoting strengths to buffer against the impact of the identified vulnerabilities, and suicide assessment could also be improved by utilising empirical study of the local population.