Human capital is known to have an important contribution to economic growth; however most of the empirical studies determine human capital as number of years of schooling. In this thesis human capital is analyzed in terms of health. General demographic situation with its problems, including low life expectancy, premature mortality, negative population growth, and economic performance of Ukraine and Russia are discussed. Extra-high mortality in these countries resulted roughly in yearly losses of 5.9 billion US Dollars for Russia, and 1.5 billion US Dollars for Ukraine. Economic and political measures can prevent the countries from demographic catastrophe and economic losses.