Human Immunodeficiency Virus (HIV) infection and Acquired Immunodeficiency Syndrome (AIDS) are deadly and complicated diseases that threaten human life and cause significant morbidity and mortality. Nurses, as the world’s largest health profession, have an important role in the primary, secondary, and tertiary prevention of HIV. In the midst of an ongoing HIV/AIDS epidemic and nursing shortage, it is necessary to assess HIV knowledge, attitudes towards caring for HIV/AIDS patients among senior nursing students. This study uses a descriptive, comparative design to examine, describe, and compare HIV knowledge and attitudes towards caring for HIV/AIDS patients among senior baccalaureate nursing students in the United States of America and Thailand. The results of this study identified that U.S. students, regardless of HIV/AIDS prevalence area, had significantly greater HIV/AIDS knowledge than Thai students. Only the U.S. students practicing in the high HIV/AIDS prevalence area had significantly better attitude and caring scores when compared to Thai students who also practicing in the high HIV/AIDS prevalence area. Thai students in the low HIV/AIDS prevalence area had more knowledge than Thai students in the high HIV/AIDS prevalence area whereas their attitudes and caring towards HIV/AIDS patients were not significantly different at the .01 level. In contrast, HIV knowledge of U.S. students in the high and in the low HIV/AIDS prevalence areas was not significantly different, but U.S. students in the high HIV/AIDS prevalence area had better attitude scores and higher caring scores in relation to HIV/AIDS patients than did U.S. students in the low HIV/AIDS prevalence area. Implication of the research: Longitudinal studies regarding HIV knowledge and attitudes towards caring HIV/AIDS patients among nursing students through their education may be helpful in evaluating the progress and learning process of students. It will also be an opportunity for a faculty to evaluate the HIV/AIDS content, experiential learning, and teaching styles in order to maintain the quality of curriculum.