At present. Acquired Immune Deficiency Syndrome is one of the important problems in fertile women. The number of infected HIV women increasing rapidly at a high rate. It is believed that fertile is women can prevent HIV infection and avoid risk behavior, if they have good perception of AIDS risk behavior. Knowledge about modes of transmission. AIDS prevention and safety sex will promote fertile women's right perception of risk behavior which can prevent them from HIV transmission. According to the significance mentioned above, the researcher therefore, was interested in studing the relationship between knowledge of AIDS and perception of risk behavior. The sample composed of 406 fertile women who were identified as high risk was group (sex workers and drug intravenous women) and medium risk group (married women and pregnant women). The sample was clients who attended at Maharaj Nakorn Chiangmai hospital, Health Promotion Center Division 5, Venereal Disease Center Division 10 and prostitutes in one brothel at Chiangmai. Instruments used in collecting data included two questionaires, i.e., knowledge of AIDS and perception of risk behavior questionaires. Data were analyed by using Pearson's product

moment correlation coefficient, multiple correlation coefficient and the stepwise multiple regression.

The results were found as the following

- 1. There was a significantly positive correlation between knowledge of AIDS and perception of risk behavior at the .001 level (r=.5659)
- 2. Educational level and sexually transmitted disease were significantly correlated with perception of risk behavior at the .001 and .01 level (r=.1856, r=.1338) respectively.

However, age and AIDS risk level were found no significant correlation with perception of risk behavior.

3. The results of the stepwise multiple regression analysis showed that 33.22 present of variances of perception of risk behavior was accounted for by two significant predictors, i.e., knowledge of AIDS and educational level. The regression equation in raw score was as follows:

$$\hat{Y}(PER) = 112.1850 + 2.7084(KN) + 2.1293(EDU)$$

The rusults of this study demonstrate that fertile women who had good knowledge demonstrated good perception of risk behavior. Women who had high educational level and had experience of sexually transmitted disease also demonstrated good perception of risk behavior. As the results of this study, it is suggested that health personnels should provide service in clinics for fertile women by giving sufficient knowledge of AIDS in order to promote good perception of risk behavior in these women which can help them to select safe practice for AIDS transmission. Recommendation for further study is to study the two variables comparing among different occupations such as housewives and working women, or women who live in differnt regions in the country such as in urban and rural areas.