**435 PHCL**

name: ------------------------------------------------------------

**Q1:** Through December 31, 1999, 12 students started using albuterol 3 months into the study, and 18 students started using albuterol 6 months into the study. Of the remaining students in the study, 300 drop out after 4 months, and 600 drop out after 8 months.

* Calculate the incidence rate in person-time unit.
* What does your answer means?

**Q2:** In the past month, Town A reported five new cases of HIV/AIDS. This brings the total number of HIV/AIDS cases this year to 26. In Town B, there were 10 new cases and over 100 total cases during the same time periods.

* Which town has more HIV/AIDS disease?
* Would the answer change if they were told the total population in Town A was 10,000 and Town B was 10 million?

**Q3:**  Five new cases of HIV/AIDS were reported. This brings the total number of active HIV/AIDS cases this year (2006) to 56; total population is 100,000 and population at risk of HIV/AIDS is 20,000

Suppose the actual time at risk for any one individual is estimated at 183 days per year (= 0.5 years per individual).

* Calculate Prevalence rate.
* What is the Cumulative Incidence for one year?
* what is Incidence Rate for person-years?

**Q4:** In the study of diabetics, 100 of the 189 diabetic men died during the 13-year follow-up period.

* Calculate the risk of death for these men.

**Q5:**  The diabetes follow-up study included 218 diabetic women and 3,823 nondiabetic women. By the end of the study, 72 of the diabetic women and 511 of the nondiabetic women had died. The diabetic women were observed for a total of 1,862 person years; the nondiabetic women were observed for a total of 36,653 person years.

* Calculate the cumulative incidence and incidence rates of death for the diabetic and non-diabetic women.

**Q6:** Using same university X as an example.

Assume that 3000 students are enrolled. 300 students have asthma before starting the year.

Of the 2700 remaining students, 1400 students live in the city and 1300 students live in the country.

Of the students who live in the city, 200 develop asthma during the school year.

Of the students who live in the country, 100 students develop asthma during the school year.

* Calculate the cumulative incidence using 2 x 2 contingency table.
* Draw the table, and specify A, B, C and D.