**Figure 1 - Flow chart of study design**

**Study subjects**
- Study period: 2004-2012
- First grader of each school year (elementary, junior*, senior, university)
- Four age groups: 6, 12, 15, and 18 y/o
* Data only in 2004-2006 school year
(n=16,110 records)

**Part I Epidemiology study**
- Demographics
- Trend of Anti-HBs seropositive rate
(n=13,900 records from 6,950 students)

**Part II Subgroup analysis**

**Exclusion criteria**
- Anti-HBs & HBsAg data not in pairs
- Birthday before 1987/01/01

**Vaccine type differences analysis**
(Plasma-derived v.s. Recombinant)
- At 15 y/o & 18 y/o groups
(n=1,296 & 3,870 students)

**Booster effect analysis**
- Booster & response rates, titers
- At 15 y/o group during 2007-2012
(n=1,054 students)

**Longitudinal study**
- Freshman from Tzu-chi high school v.s. Others
- At 18 y/o group during 2011-2012
(n=38 & 1,256 students)