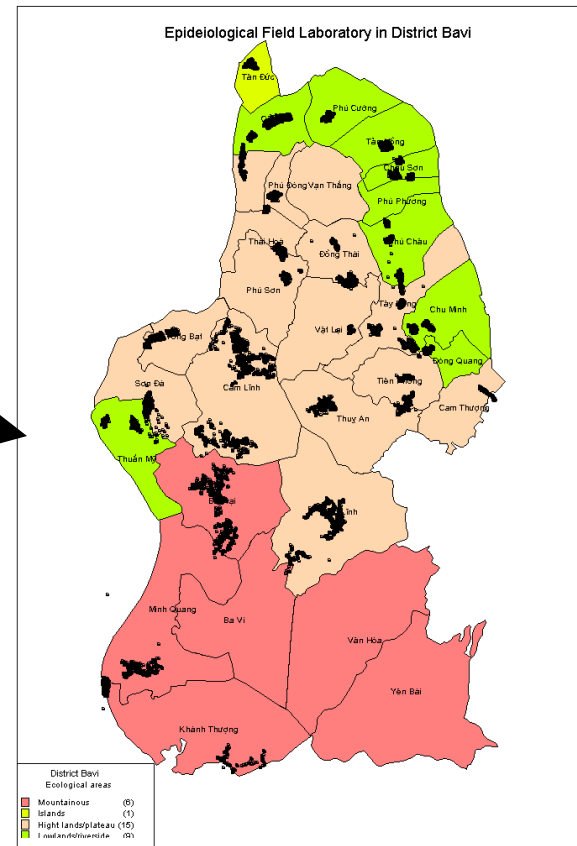

FilaBavi

HDSS

**A formal
member of
INDEPTH
Network**

Setting



- Established in 1998
- Stratified Random Cluster Sampling Cluster
- 71 of 352 clusters selected
- 15,000 from 60,000 households
- 53,000 out of 252,000 inhabitants

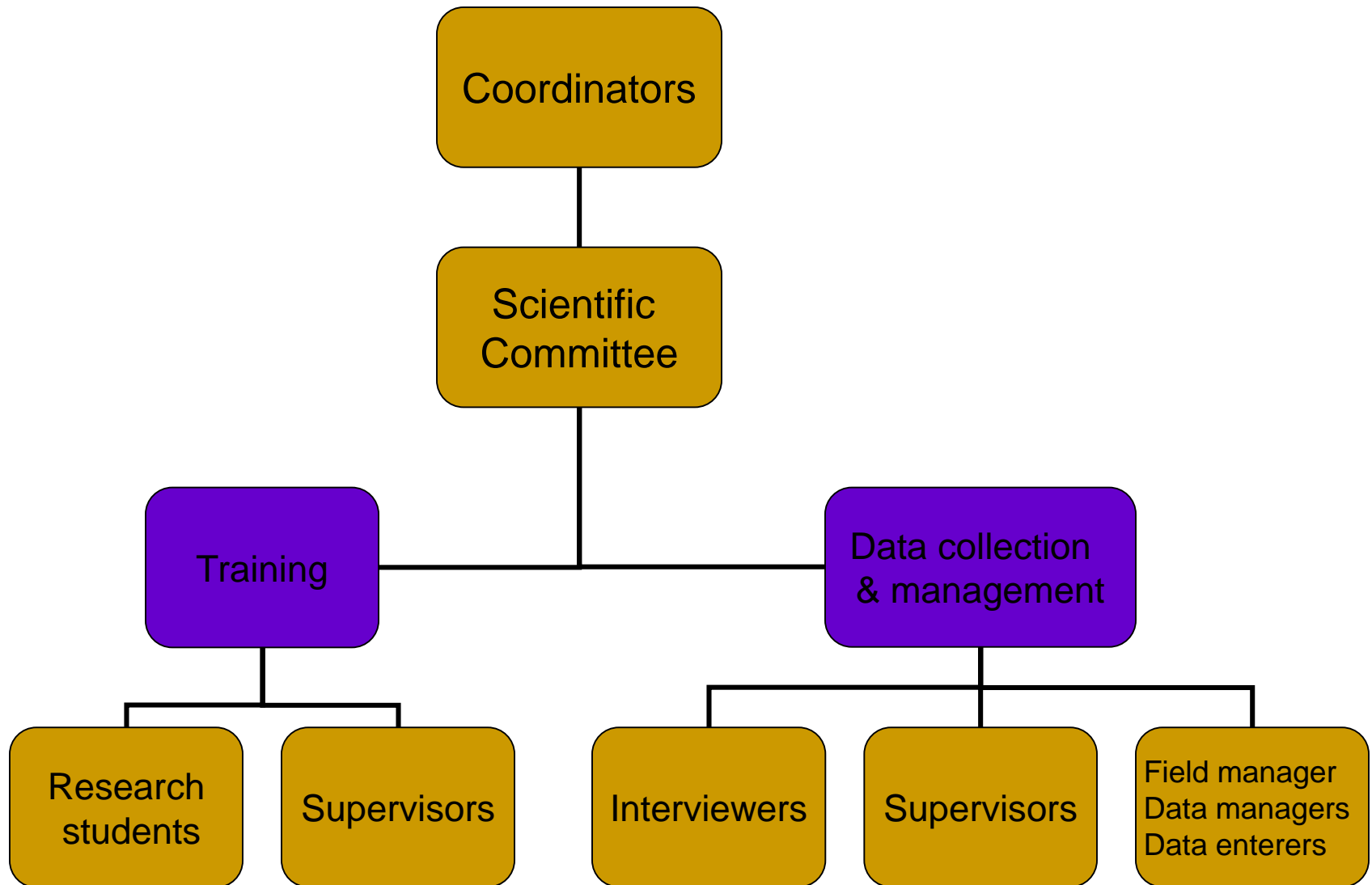
Setting: Bavi district

- > 400 Km²
 - 32 communes
 - Total population: ~250,000
 - Main occupation: Farming
 - Illiteracy rate of adults : 1.1%.
 - 32 Commune Health Station,
 - 1 District Health Center, 3 policlinics
-

Aims

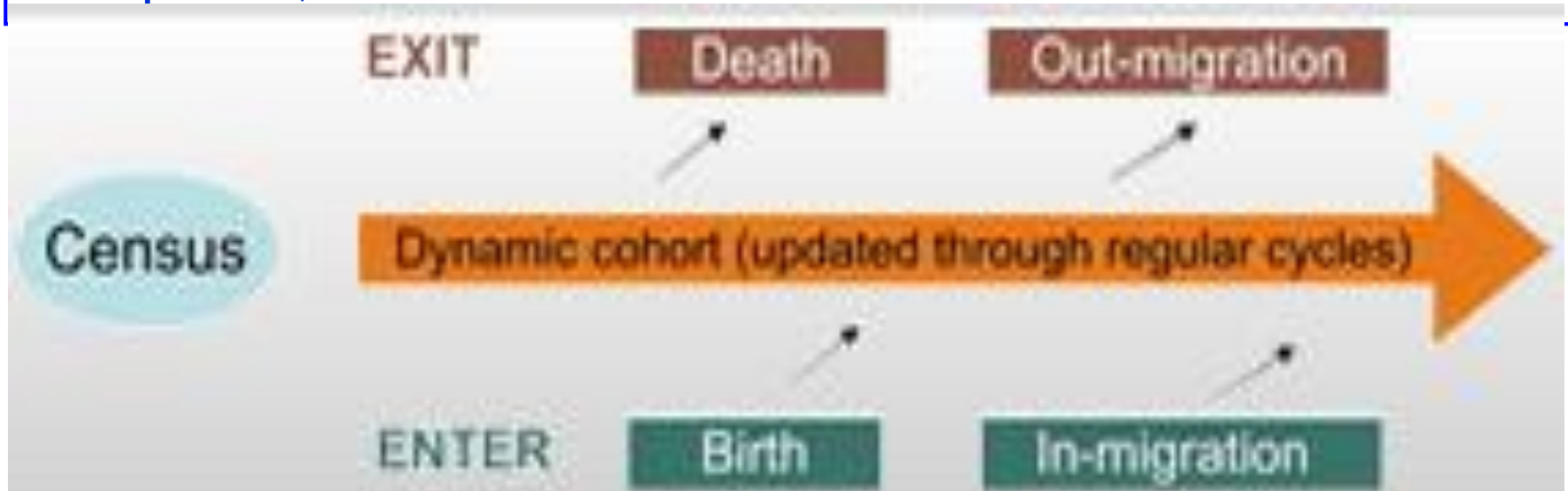
- ❖ **Collect basic data for health planning**
 - ❖ **Constitute a setting for research training**
 - ❖ **Provide sampling frames, field organization, household and individual background data for specific studies**
 - ❖ **Serve as a setting for health interventions based on generated findings**
-

Organization

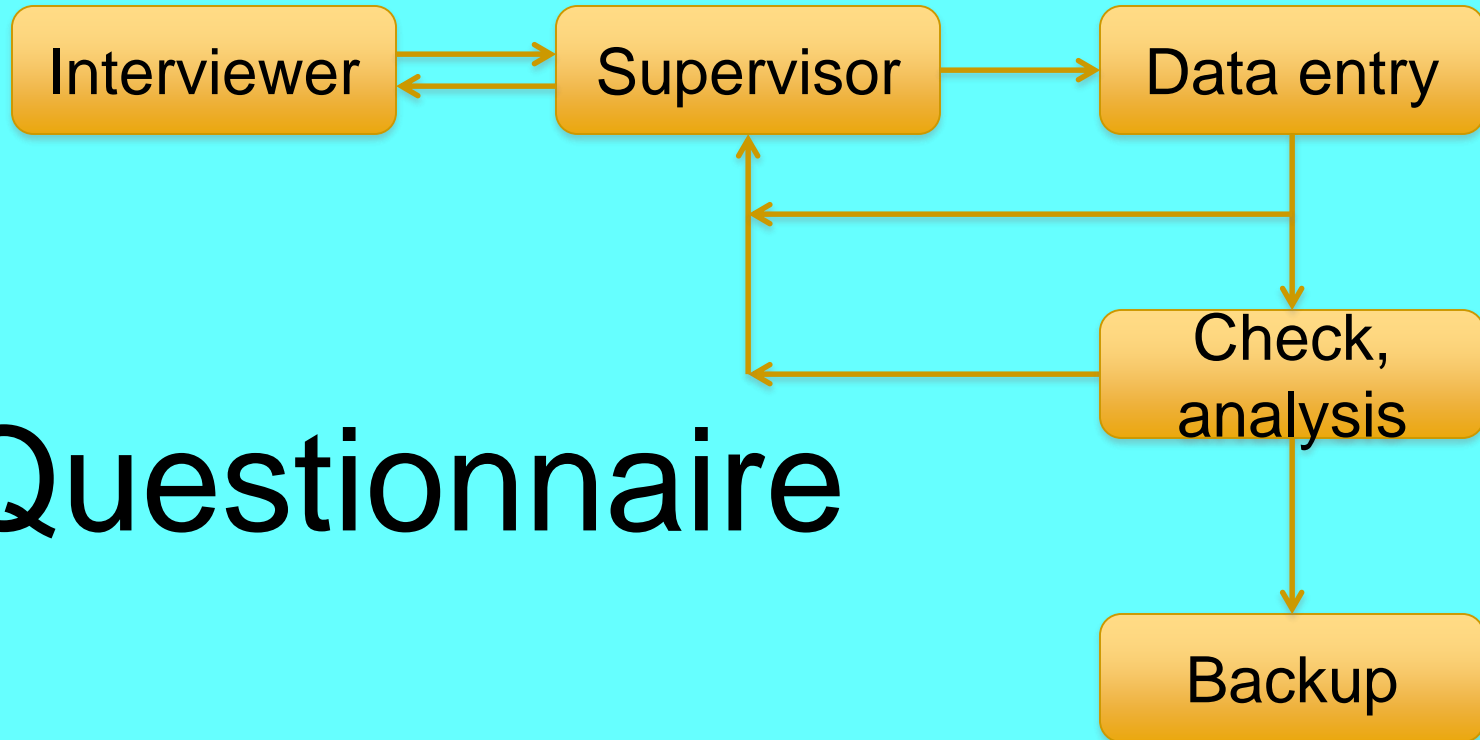


Data collection

- ❖ **Household Information:** Socio-economic status: housing status, income, expenditures, land ownership, assets; distance to health care facilities, etc.
- ❖ **Individual Information:** Age, sex, marital status, health condition, birth, death, ethnicity, religion, education, occupation, etc.



Data Control



Questionnaire

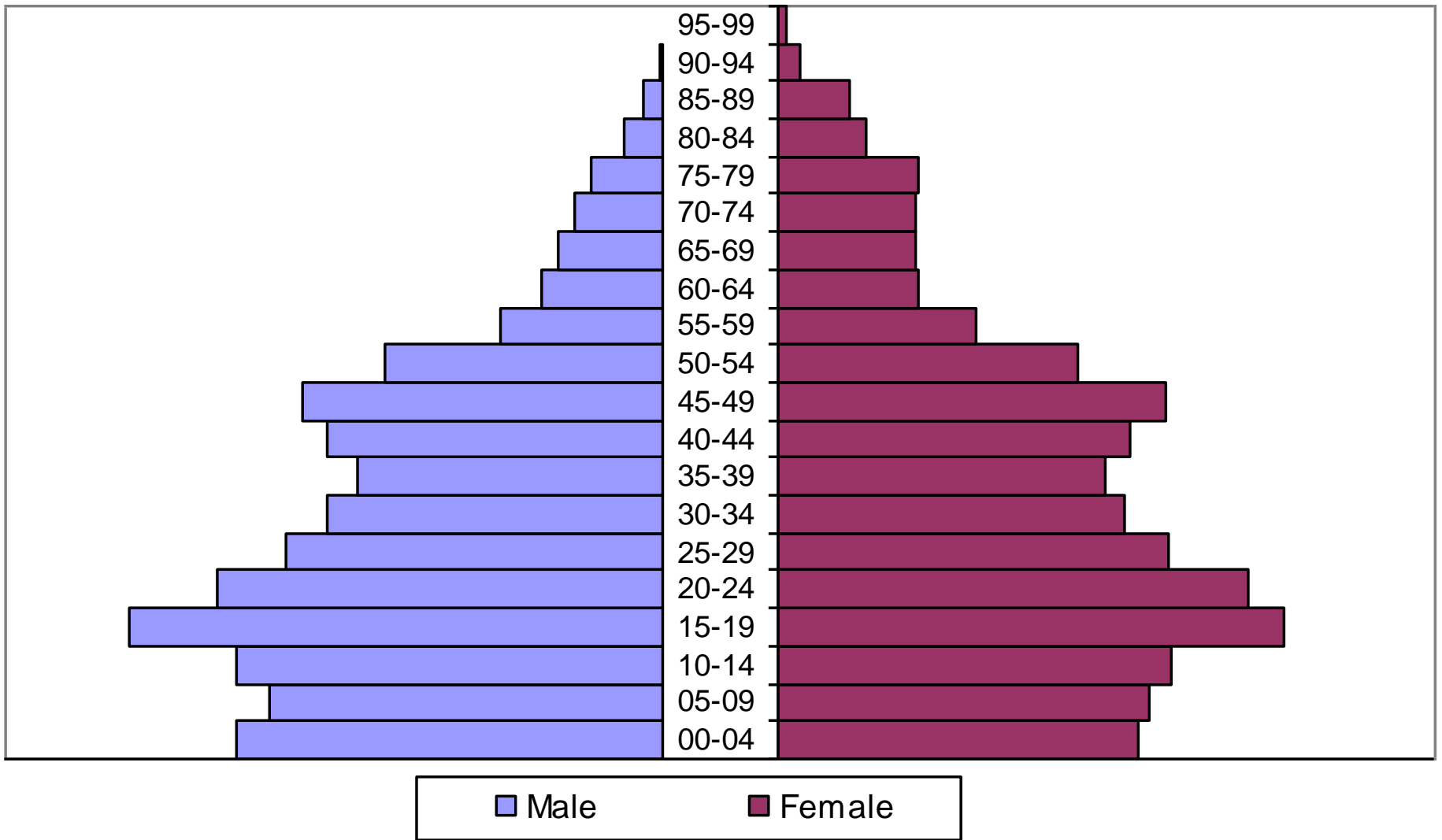
Research Groups

1. Epidemiology of NCDs
 2. Epidemiology of communicable diseases
 3. Health care utilization and equity in health
 4. Health Economics
 5. Rational use of drugs/drug policies
 6. Reproductive health
 7. Infectious diseases
-

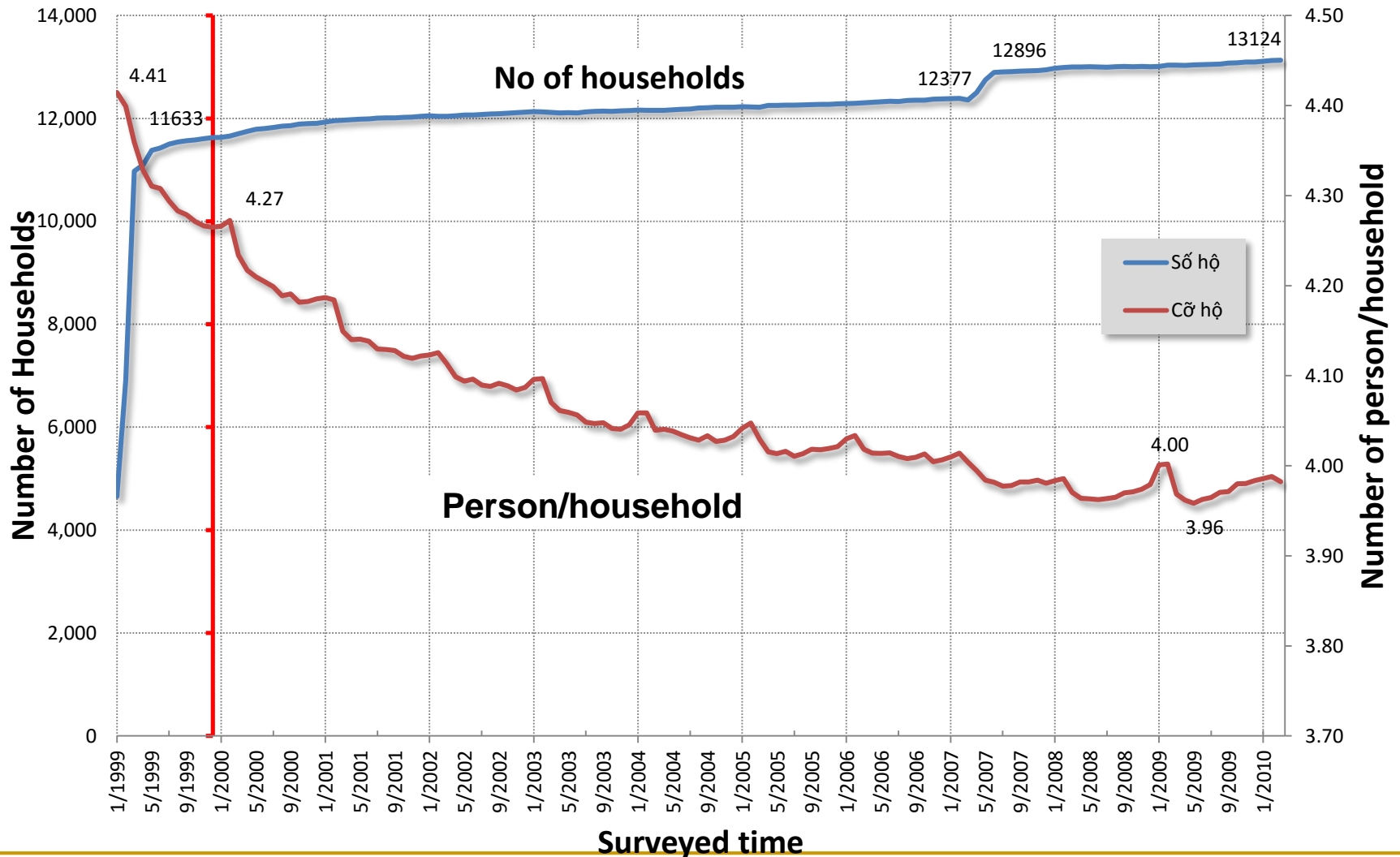
Some

Figures

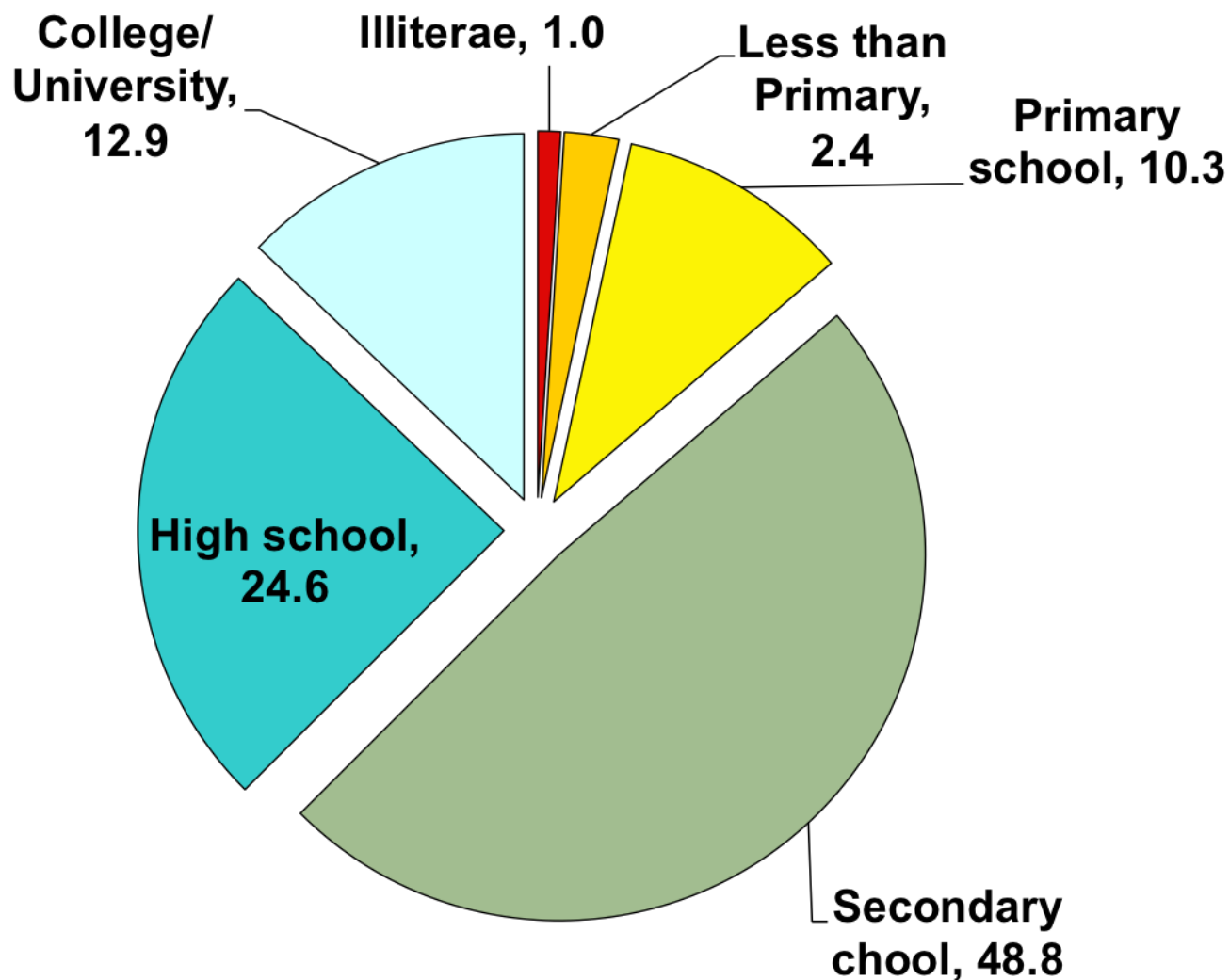
Bavi Population pyramid (2008)



No of HH and HH sample size

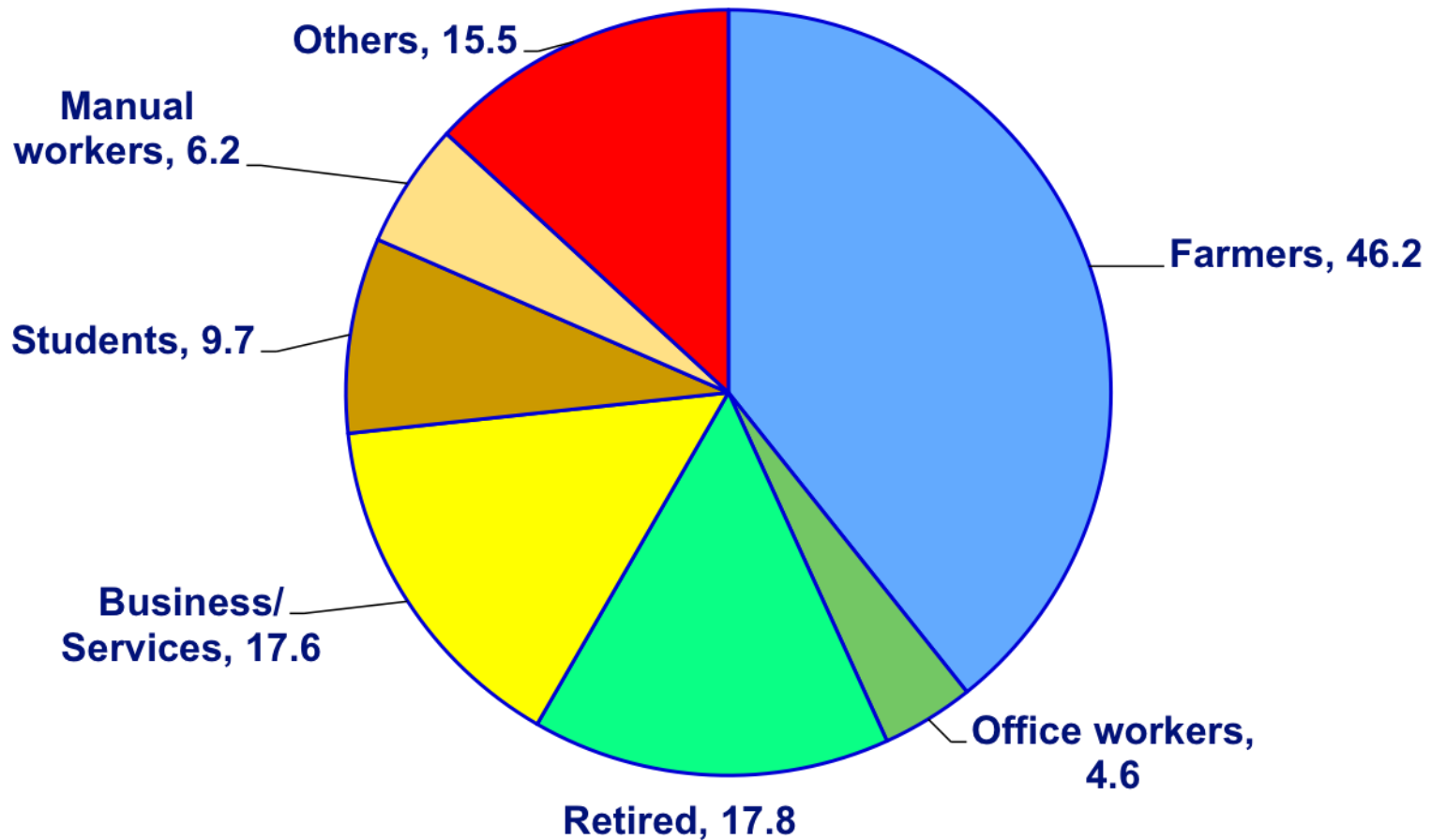


Education



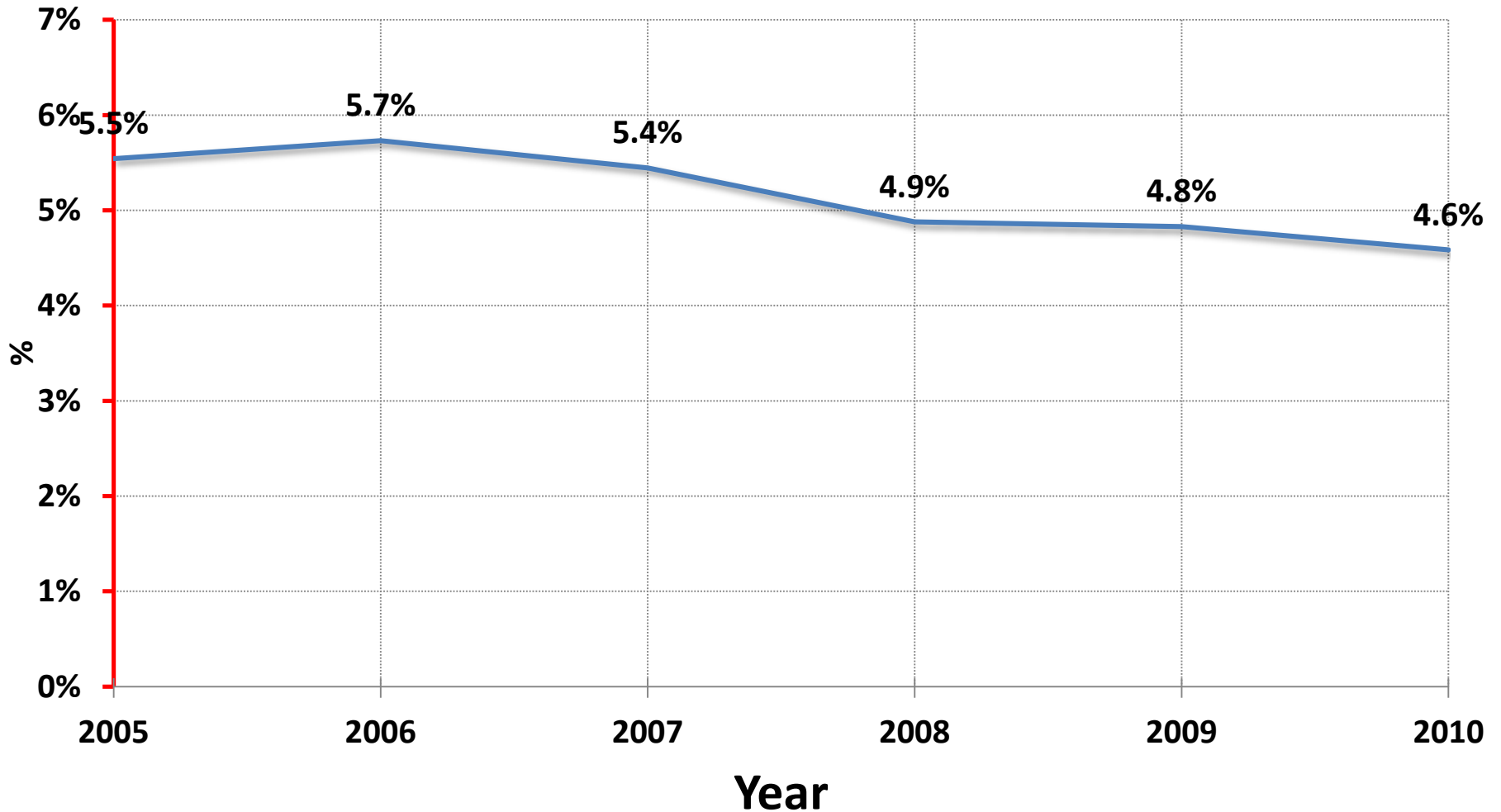
Education level of adults (≥18 years old)

Occupation

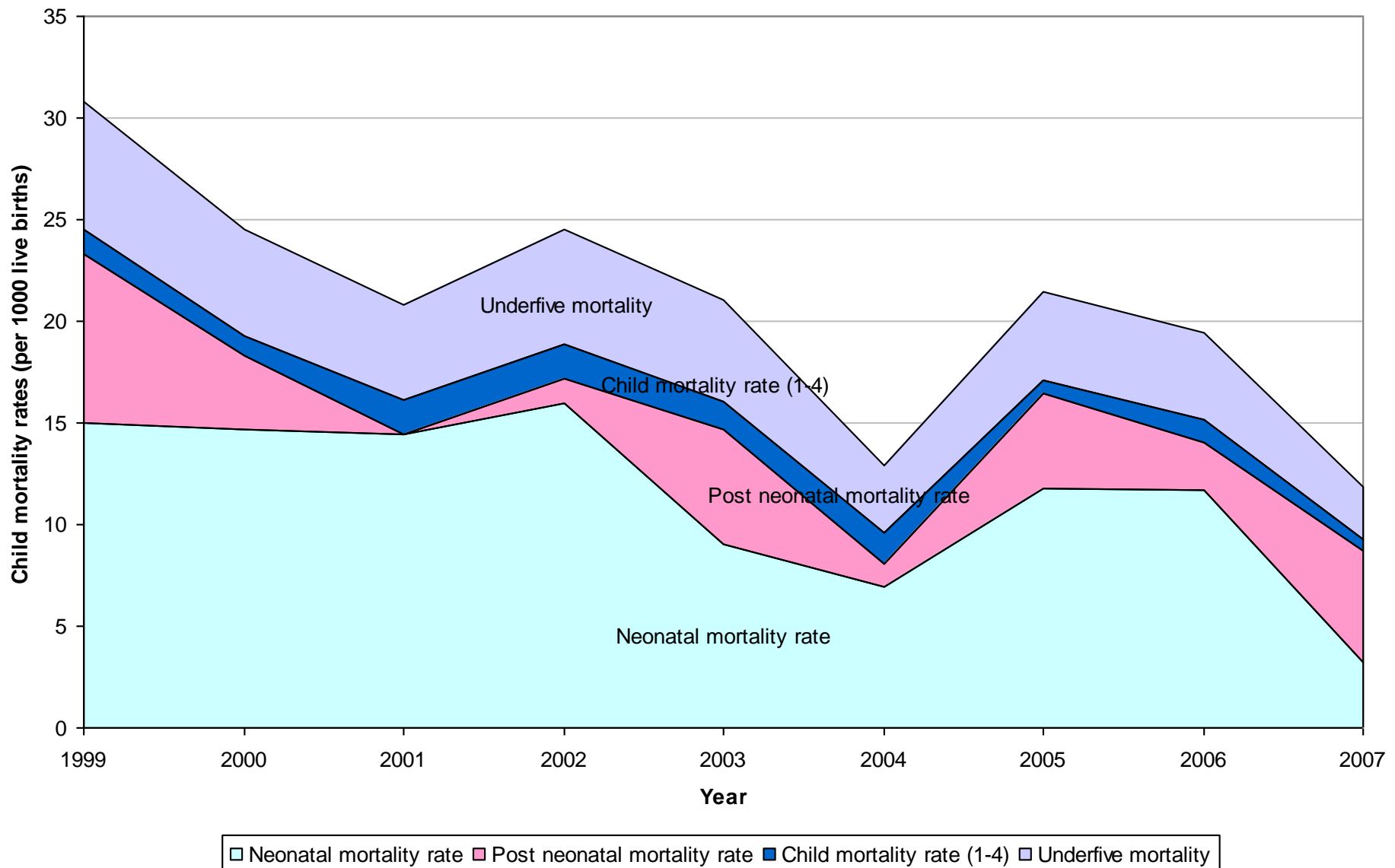


Occupational distribution among adults (%)

Low birth weight (under 2500 g) (2005-2010)



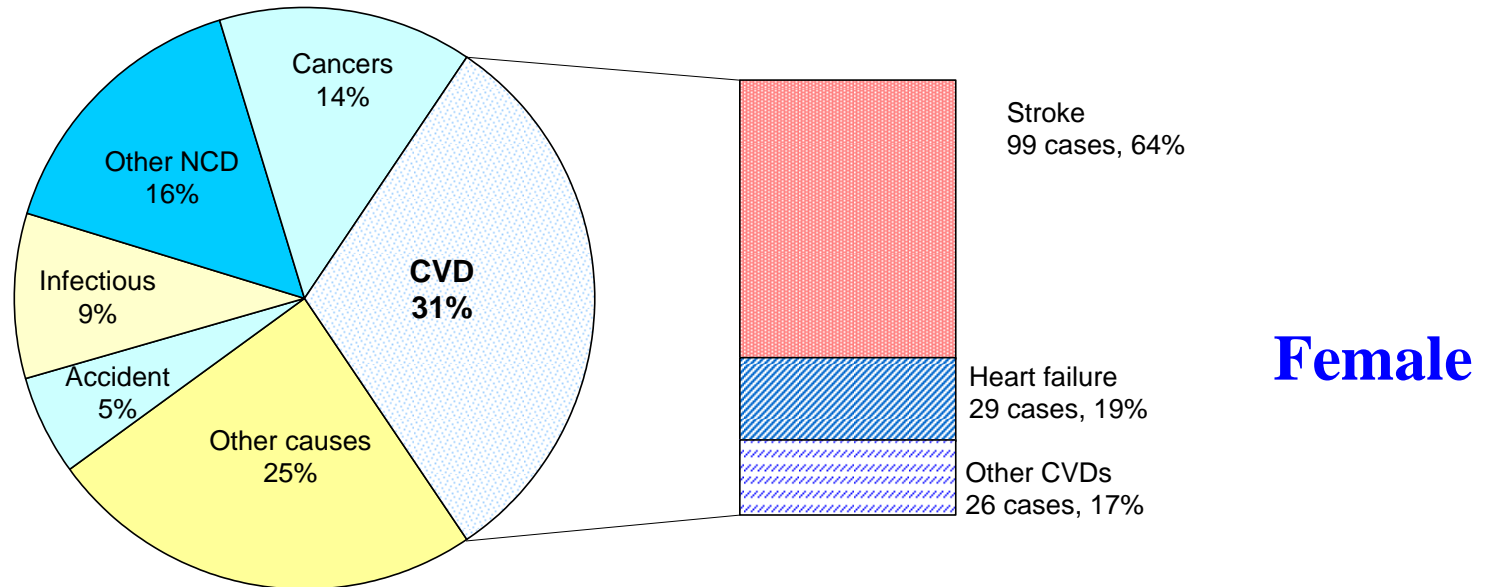
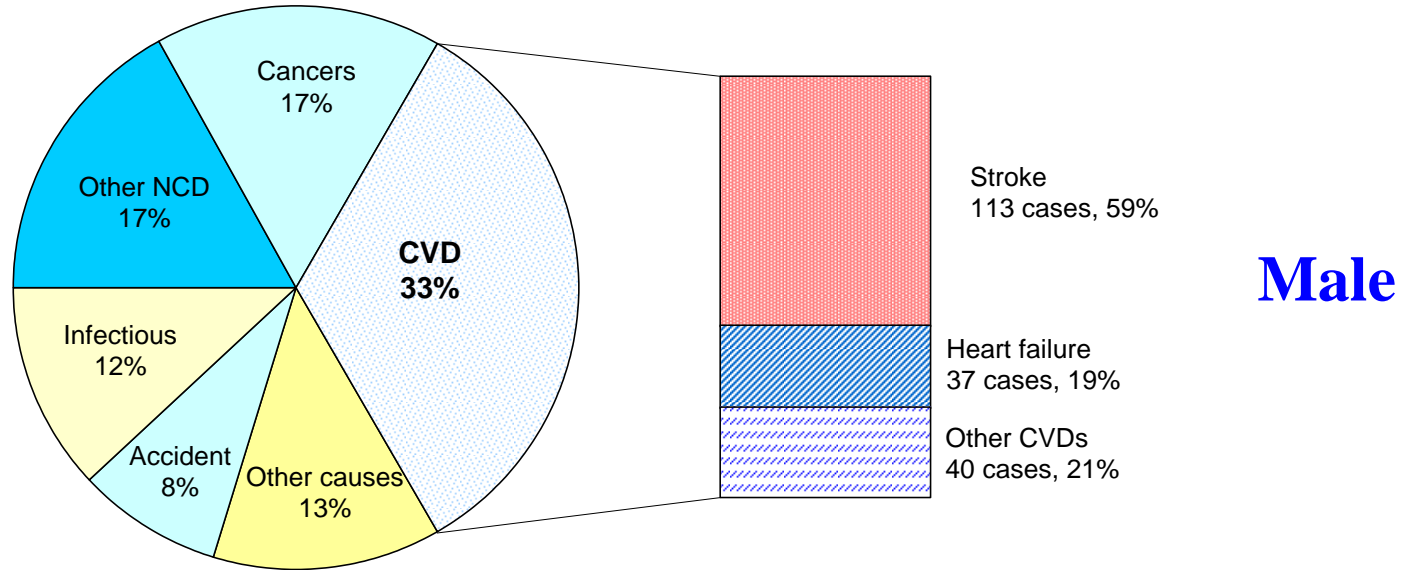
Under-five mortality patterns by year



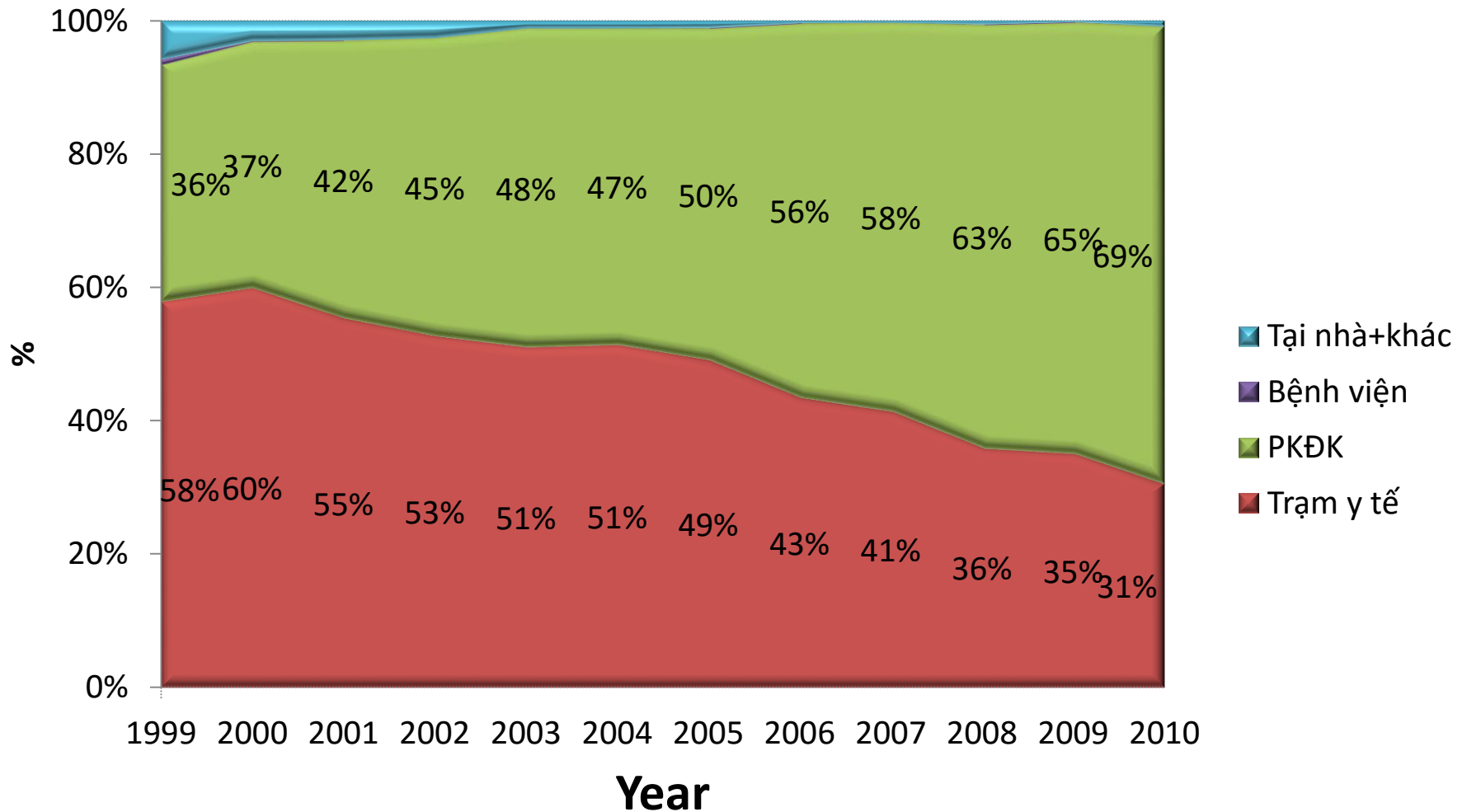
Infant mortality by year (U1 death per 1000 live births)



Distribution of causes of death among adults aged 20 years +, FilaBavi 99-03 (identified by Verbal Autopsy methods)

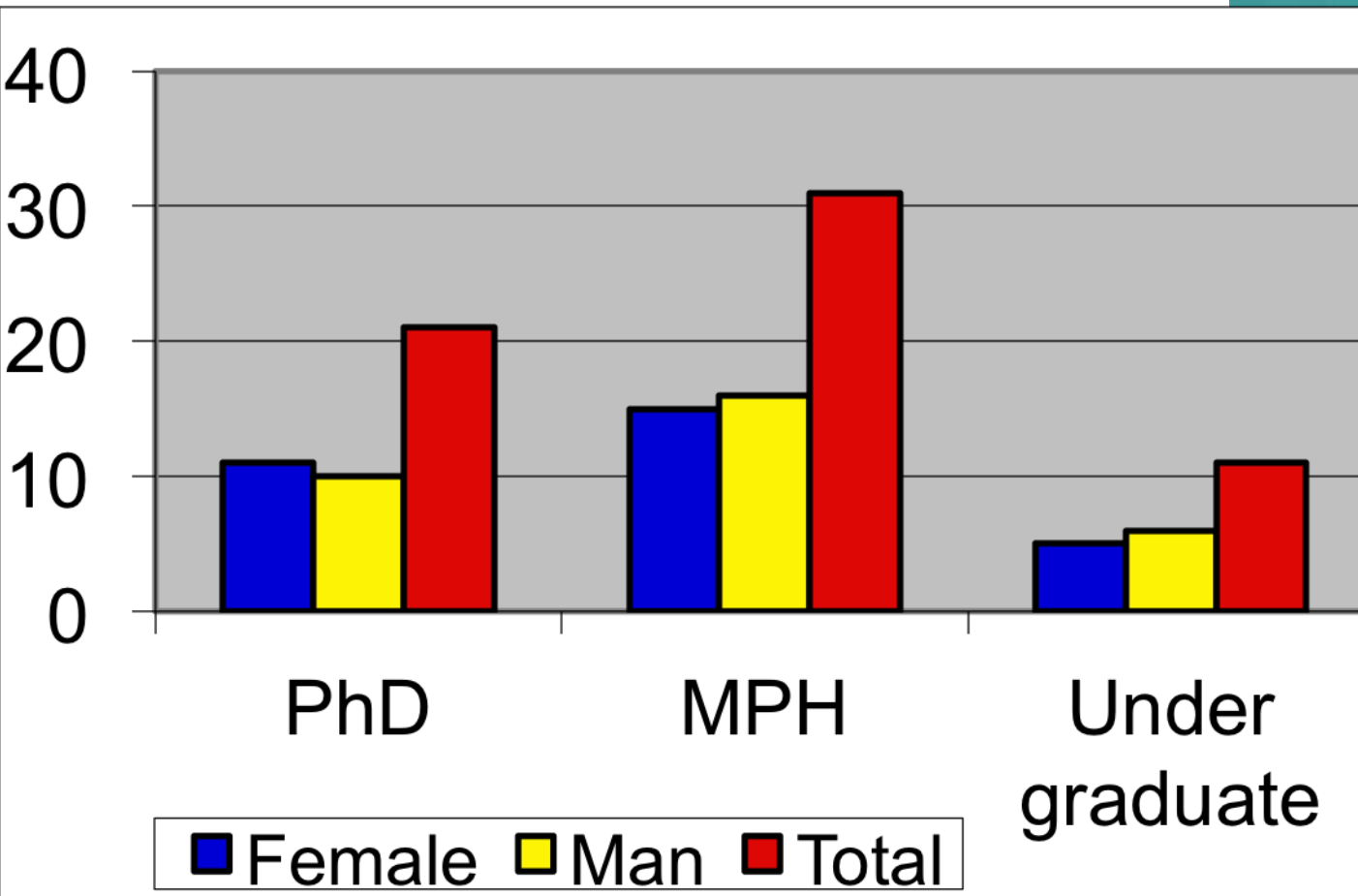


Heal care seeking behavior 1999-2010



Outcomes

Dissertation



Publications (up to 2013)

- 200 articles published on international journals.
- 100 articles published on Vietnamese journals

Wealth Index calculated from economic variables in FilaBavi Data

❖ **HH income data** (quantitative)

Incomes from Agriculture, Garden, Forestry, Handicraft Making, Services, Salary, ...

❖ **HH expenditure data** (quantitative)

Expenditures for Food, Education, Health, Production activities, Occasional gifts, ...

❖ **HH Assets** (binary)

TV, Radio, Telephone, Motorbike, Car, Bicycle, Personal computer, Buffalos, Furniture, ...

...

PCA (Principal Component Analysis)

- ❖ From HH economic/ asset variables **X1** through to **Xn**, PCA creates a linear weighted combination (component)

$$PA = a1*X1 + a2*X2 + \dots + an*Xn$$

The component explains the **largest possible amount of variation** in the original data, subject to the constraint that the sum of the squares of weights **a1**, **a2**, ..., **an** is equal to one

- ❖ The new variable **PA** is called **Wealth Index**
- ❖ The quintiles of **PA** classify HHs into economic groups from 1st to 5th :

1st Quintile = Poorest,

5th Quintile = Least Poor

Using Wealth Index Quintile to Health researches in FilaBavi

❖ N.D. Khe; P.H. Dung; H.D. Phuc; H.V. Minh; N.X. Thanh; B. Eriksson; V. Diwan; N.T.K. Chuc. **Health and Health Care: Equity Aspects in FilaBavi, Vietnam**, chapter 8 in *“Measuring Health Equity in Small Areas, Finding from Demographic Surveillance Systems”* / INDEPTH Network 2005, Ashgate Publishing Ltd, 127-142.

Results: The Gini's Index across Wealth Index showed the **inequity** in mortality rate and in health care utilization in FilaBavi population, the poorer people are in the more vulnerable groups

Using Wealth Index Quintile to Health researches in FilaBavi

- ❖ H.D. Phuc; N.X. Thanh; N.T.K. Chuc. Migration and Under Five Morbidity in Bavi, Vietnam, chapter 8 in *“The Dynamics of Migration, Health and Livelihoods”* / INDEPTH Network 2009, Ashgate Publishing Ltd, 169-184.

Results:

- The people in HHs of higher economic groups are more likely to have migration
- Children of migration mother get sick more often the children in the counterpart

Using Wealth Index Quintile to Health researches in FilaBavi

- ❖ P.T. Lan; C.S. Lundborg; H.D. Phuc; A. Sihavong; M. Unemo; N.T.K. Chuc; T.H. Khang; I. Mogren. Prevalence and determinants of RTI's and STI's: a population-based study of women in reproductive age in a rural district of Vietnam. *Sex. Transm. Inf.* 84 (2008), 126-132.
- ❖ L.V. Hoi; H.D. Phuc; T.V. Dung; N.T.K. Chuc; L. Lindholm. Remaining life expectancy among older people in a rural area of Vietnam: trends and socioeconomic inequalities during a period of multiple transitions. *BMC Public Health* 9: 471 (2009). DOI 10.1186/1471-2458-9-471
- ❖ D. Granlund; H.D. Phuc; N.T.K. Chuc; L. Lindholm. Inequality in mortality in Vietnam during a period of rapid transitions. *Social science & medicine* 70: 2 (2010), 232-239. ISSN: 0277-9536

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- ❖ N.Q. Hoa; N.T.K. Chuc; H.D. Phuc; M. Larsson; B. Eriksson; C.S. Lundborg; Unnecessary antibiotic use for mild acute respiratory infections during 28-day follow-up of 823 children under five in rural Vietnam. *Transactions of the Royal Society of Tropical Medicine and Hygiene* 105 (2011), 628–636.
- ❖ O.J. Dyar; N.Q. Hoa; N.V. Trung; H.D. Phuc; M. Larsson; N.T.K. Chuc; C.S. Lundborg. High prevalence of antibiotic resistance in commensal *Escherichia coli* among children in rural Vietnam Vietnam: a community study. *BMC Infectious Diseases* 12: 92 (2012), ISSN: 1471-2334
- ❖ A. Nielsen; P.T. Lan; G. Marrone; H.D. Phuc; N.T.K. Chuc; C.S. Lundborg. Reproductive Tract Infections in Rural Vietnam, Women's Knowledge and Health Seeking Behaviour: A Cross-Sectional Study. *Health Care For Women International* 05/2014, 35, DOI: 10.1080/07399332.2014.920021