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
Coordinators

Scientific Committee

Training
- Research students
- Supervisors

Data collection & management
- Interviewers
- Supervisors
- Field manager
  - Data managers
  - Data enterers
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

Interviewer <-> Supervisor <-> Data entry

Questionnaire

Check, analysis

Backup
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
No of HH and HH sample size

Number of households over time, showing a decrease from 11633 to 13124.

Person/household distribution, with a general trend of decrease.
Education level of adults (≥18 years old)

- High school, 24.6
- Secondary school, 48.8
- Primary school, 10.3
- Less than Primary, 2.4
- Illiterae, 1.0
- College/University, 12.9

Education
Occupational distribution among adults (%)

- Farmers: 46.2%
- Retired: 17.8%
- Office workers: 4.6%
- Business/Services: 17.6%
- Students: 9.7%
- Manual workers: 6.2%
- Others: 15.5%
Low birth weight (under 2500 g) (2005-2010)
Under-five mortality patterns by year

- Neonatal mortality rate
- Post neonatal mortality rate
- Child mortality rate (1-4)
- Underfive mortality

Year: 1999 to 2007

Child mortality rates (per 1000 live births)

- Neonatal mortality rate
- Post neonatal mortality rate
- Child mortality rate (1-4)
- Underfive mortality
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)

**Male**

CVD: 113 cases, 59%
- Stroke: 99 cases, 64%
- Heart failure: 37 cases, 19%
- Other CVDs: 40 cases, 21%

**Female**

CVD: 99 cases, 64%
- Stroke: 113 cases, 59%
- Heart failure: 37 cases, 19%
- Other CVDs: 40 cases, 21%
Heal care seeking behavior
1999-2010

Year

%
Outcomes
Dissertation

Bar chart showing the distribution of PhD, MPH, and undergraduate students by gender. The chart includes bars for Female, Man, and Total for each degree level.
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 $X_1$ through to $X_n$, PCA creates a linear weighted combination (component)

$$ PA = a_1*X_1 + a_2*X_2 + \ldots + a_n*X_n $$

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 $a_1, a_2, \ldots , a_n$ is equal to one.

- The new variable $PA$ is called Wealth Index.

- The quintiles of $PA$ classify HHs into economic groups from 1$^{\text{st}}$ to 5$^{\text{th}}$:
  
  1$^{\text{st}}$ Quintile = Poorest,
  5$^{\text{th}}$ Quintile = Least Poor
Using Wealth Index Quintile to Health researches in FilaBavi


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


Results:

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