



MICRODIS



MICRODIS FIELD STUDY: Hanoi, Vietnam

LEAD INSTITUTION: Hanoi School of Public Health

PARTNER INSTITUTION(S): Hue University


WHEN AND WHY?

WHEN?

- 31/10/08 to 7/11/08 (some areas flooded for 1 month)

WHY?

- Heavy rain started at evening 30/10/2008 to 2/11/08, up to 817mm
- Incorrect weather forecast
- Reduced areas of dyke, natural lakes, increased pavement and concreted areas
- Rapidly increased population: 40 times in the last 100 years while drainage system is not much improved
- Rapid urbanization without appropriate planning...



STUDY OBJECTIVES

- 1 Identify differences in selected social-economic indicators between flood affected and non-affected households in Hanoi
- 2 Identify the differences in morbidity patterns (dengue, diarrhoea, red eye diseases, and skin diseases) between flood affected and non-affected households in Hanoi
- 3 Identify the relationships between social-economic factors and health related problems among flood affected and non-affected households in Hanoi

METHODOLOGY 1

- 1 Study design: cross-sectional study with control group (non/less severely affected population is used as control)
- 2 Study size and sample size: 817 households
 - Hoang Mai district: urban district of Hanoi
 - Thinh Liet precinct: severely flooded precinct: 222 HH
 - Thanh Tri precinct: less severely flooded precinct: 250 HH
 - Chuong My district: rural district of Hanoi
 - Nam Phuong Tien precinct: severely flooded precinct: 205 HH
 - Dong Son precinct: less severely flooded precinct: 194 HH

METHODOLOGY 2

- 1 Pretest: 2 times
 - Quang Dien district, Thua Thien Hue province
 - Chuong My district, Hanoi capitol city
- 2 Training of numerators
 - 3 days
 - 4 trainees, 24 numerators



PLEMININARY DATA ANALYSYS

	Rural area of Hanoi		Urban area of Hanoi		Total
	Dong son (non-flooded)	Nam P. Tien (flooded)	Thanh tri (non-flooded)	Thinh Liet (flooded)	
No. of household	194	205	250	222	871
Average No. of person/hh	4.49	4.91	4.23	4.34	4.48
Income/person /month (1USD~17,318V ND)	583.820 ~\$32.8	462.130 ~\$26	1.111.160 ~\$62.4	1.096.710 ~\$61.6	822.030

PLEMININARY DATA ANALYSYS

	Rural area of Hanoi		Urban area of Hanoi		Total
	Dong son (non-flooded)	Nam P. Tien (flooded)	Thanh tri (non-flooded)	Thinh Liet (flooded)	
Mortality	1	3	1	2	7
When the death occurred					
The day of the flood	0	0	0	1	1
During the week following the disaster	0	0	0	1	1
During the month following the disaster	0	1	1	0	2
More than one month after the disaster	1	2	0	0	3

PLEMININARY DATA ANALYSYS

	Rural area of Hanoi		Urban area of Hanoi		Total
	Dong son (non-flooded)	Nam P. Tien (flooded)	Thanh tri (non-flooded)	Thinh Liet (flooded)	
Injured	2	13	4	8	27
Type of Injury					
Bone fracture	1	2	0	0	3
Laceration/Contusion	0	7	2	3	12
Cuts	0	1	0	5	6
Multiple trauma	0	0	1	0	1
Other	1	3	1	0	5

OTHER FINDINGS

- Lack of preparedness of health system/weak of Surveillance system
- Difficult in implementation of vertical health programs
- Environmental condition: water and sanitation, damage to environment
- Access to health services: difficult for management of chronic conditions
- Problems on early warning for disasters
- Lack of awareness/preparedness of people of disaster
- Increase household /individual expenditures for health

RESEARCH TEAMS

1. LA NGOC QUANG, MD, MPH, Dept. of Epidemiology, HSPH
2. LE THI THANH HA, MSC, Dept of Epidemiology, HSPH
3. TRAN THI TUYET HANH, MPH, Dept of Environmental Health, HSPH
4. TRAN THI DUC HANH, BPH, Dept of Epidemiology, HSPH
5. DO THI HANH TRANG, BPH, Dept of Disaster management, HSPH

