### **CHAPTER V**

### **PRESENTATION**

I presented the overview of my thesis on the topic "A strategy for Improving Sanitation Program in Sub-district Namson Socson in Northern Vietnam".

The Presentation included three following parts:

### 1. Essay

- The main content of an Essay is as follows:
- Diseases due to poor sanitation practices in rural Vietnam
- The most serious problem and the causes of the problem
- Conceptual frame work of factors affect to sanitation program
- The proposed project to improve sanitation practices at rural households

### 2. Proposal

The presentation of Proposal focus on the followings:

- Introduction
- Objectives
- Project description
- Strategy to Improving Sanitation Program

- Major phases in implementation of project
- Work plan and estimated budget

### 3. Data Exercise

- In this part there are:
- Objectives
- Methodology of Data Exercise
- Results
- Summary of findings and Lesson learned

The slides were prepared on Microsoft PowerPoint program and use for the Presentation. The slides are enclosed here with as follows sequentially as shown to the Examination Committee

# A strategy for Improving Sanitation Program at household's level in Sub-district Namson, Socson in Northern Vietnam

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## Diseases due to poor sanitation practices in rural Vietnam

· Worm infection rate: more than 90%

Diarrhea rate : 1,227 per 100,000 population
 Malnutrition rate : 36.7% of all children < 5 years</li>

Source: Vietnam MOH .1999

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## Accessibility to safe water and adequate sanitation in rural areas in the world

| Country  | Accessibility to safe water supply (%) | Accessibility to adequate samitation facility (%) |  |
|----------|--|---|--|
| Vietnam  | 34                                     | 18  |  |
| Cambodia | 25                                     | 10  |  |
| China    | 66                                     | 24  |  |
| Thailand | 77                                     | 96  |  |
| Europe   | 87                                     | 74  |  |
| Africa   | 47                                     | 45  |  |

The most serious problem

"lack of proper sanitation practices at households in rural Vietnam"

Source: UNICEF Vietnam . Reports. 2001

### Gap between target and achievement

Target for the year 2000

Accessibility to safe water : 6

Accessibility to adequate sanitation: 50%

Achievement (Statistics of the year 1999)

Accessibility to safe water :39 %

Accessibility to adequate sanitation: 18%

Source: The National Program for Rural Water supply and Sanitation (1995-2000) Reports. 1999.

Problem statement

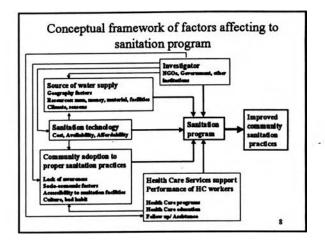
"low adoption of proper sanitation practices of households in rural Vietnam"

Source: UNICEF Vietnam .Reports.2001

### Causes of the problem

- · Poor community socio-economic status
- Lack of community awareness and comprehensive knowledge and information on sanitation
- · Old culture and bad habits still exist
- · Not suitable sanitation facility
- · Not enough safe water supply
- Lack of Health Care support and government commitment

Source : UNICEF Vietnam . Reports. 2001

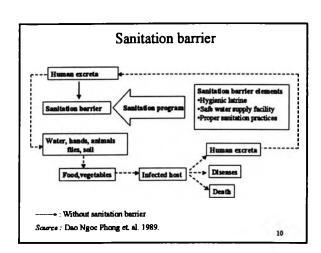


#### What should be done?

To create an Improving Sanitation Program by giving a strategy to improve sanitation practices at rural households including:

- 1. Promotion program
- 2. Curative program

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### Proposal

A strategy for Improving Sanitation Program at households in Sub-district Namson, Socson, Northern Vietnam

### General objective

To improve sanitation practices at rural households in Sub-district Namson, Socson, Northern Vietnam and then improve household's health

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### Specific objectives

- To change the old habit and behaviors of households toward living with proper sanitation practice
- To increase adoption to proper sanitation practice of households and their accessibility to hygienic facilities
- To establish the field-work site for staff and students
- To test the Improving Sanitation Program for its expanding all over the rural areas in the future

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### Project description

- Principle investigator: Faculty of Public Health, Hanoi Medical
   University
- 2.Location:Sub-district Namson ,Socson , Northern Vietnam
- 3. Activities:

Providing sanitation education
Introduction and promotion of facility
Mass-treatment of worm infection

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# Principles for Improving Sanitation Program

- To provide housewives of Sub-district Namson a comprehensive knowledge and information on proper sanitation practice
- The program should base on community demand& community participation
- The program should be a component of the Healthpromoting or Disease control program
- Samitation facilities should be sustainable, suitable, financially affordable for the households

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### Implementation of proposed project

Project consist of 4 phases:

- 1. Baseline survey
- 2. Pilot project
- 3. Expansion of project
- 4. Evaluation of project

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### Baseline survey

- 1. To identify knowledge and practice of households
- 2. To provide pretest results for evaluation later on
- 3. Preliminary data are obtained by households' interview and observation

### Pilot project

- 1.It is normally required for new sanitation project
- 2.To investigate whether a proposed approach will work effectively
- 3.Experiences and lesson learned are used to develop the expansion of project

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### Expansion of project

- 1. Project activities will cover the whole area
- 2. Training of educators
- 3. Meeting and visit of educators to households
- 4. Construction of facilities at households with financial support
- 5. De-worming program

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### Design of project's evaluation

Longitudinal evaluation with self-control group

(Before and after design

or pretest and posttest design)

Source: Arlene Fink, Evaluation Fundamentals.1993

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#### Indicators for evaluation

- The percentage of households regularly using hygienic latrine
- The percentage of households have access to safe water supply facilities
- The percentage of households have knowledge and practice improvement on sanitation practice
- The health impact of project (reduction in worm infection rate)

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### Expected outcomes from the intervention

- To increase adoption to proper sanitation practice of households:
  - 1. Number of household regularly using hygienic latrine
  - 2. Number of household access to safe water supply facility
- · To decrease parasitic infection rate (worm infection)

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#### Data Exercise

A descriptive statistics on factors affecting to sanitation program in Dong Ha village, Sub-district Namson, Socson, Northern Vietnam

### **Objectives**

- To test an instrument: wording, structure, cultural barrier, understanding of respondents
- To test the process of the survey: time, logistic, administration
- To determine sanitation knowledge & practices of housewives to be used in the development of the proposed project

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### Data collection & analysis

• Methodology : Cross-sectional survey

· Study location : Dong Ha village

• Instrument for data collection: Structured questionnaire and check lists

• Sample size: 40 households

· Sampling: Systematic sampling

Analysis: SPSS software was used for analysis

| Finding on general information of households |           |            |  |  |  |
|--|-----------|------------|--|--|--|
| Occupation& income                           | Frequency | Percentage |  |  |  |
| 1. Occupation                                |           |            |  |  |  |
| • Farmer                                     | 32        | 94.1       |  |  |  |
| <ul> <li>Small business</li> </ul>           | 2         | 5.9        |  |  |  |
| 2. Income                                    |           |            |  |  |  |
| <ul> <li>Have saving</li> </ul>              | 10        | 29.4       |  |  |  |
| Are in debt                                  | 6         | 17.6       |  |  |  |
| <ul> <li>No saving no debt</li> </ul>        | 18        | 52.9       |  |  |  |
|  |           | 26         |  |  |  |

| Latrine                                 | Frequency | Percentage |
|---|-----------|------------|
| 1. Households                           |           |            |
| <ul> <li>Have latrine</li> </ul>        | 27        | 79.4       |
| <ul> <li>Do not have latrine</li> </ul> | 7         | 20.6       |
| <u>Total</u>                            | 34        | 100        |
| 2. Type of latrine                      |           |            |
| <ul> <li>One vault</li> </ul>           | 25        | 92.6       |
| <ul> <li>Two vaults</li> </ul>          | 2         | 7.4        |
| Total                                   | 27        | 100        |

| Finding on feces as fertilizer at households |           |            |   |  |  |
|--|-----------|------------|---|--|--|
| Feces as fertilizer                          | Frequency | Percentage |   |  |  |
| Type of using feces                          |           |            |   |  |  |
| Fresh feces                                  | 27        | 100        |   |  |  |
| <ul> <li>Decomposed feces</li> </ul>         | 0         | 0          |   |  |  |
| <u>Total</u>                                 | 27        | <u>100</u> |   |  |  |
|  |           |            | 2 |  |  |

| ***                                   | fection                     |            |
|---------------------------------------|-----------------------------|------------|
| Activities can prevent worm infection | Frequency of correct answer | Percentage |
| Construct hygienic latrine            | 6                           | 27.3       |
| Do not use fresh feces                | 0                           | 0          |
| Using safe water                      | 2                           | 9.1        |
| Having safe food                      | 16                          | 72.7       |
| Wash hands                            | 0                           | 0          |
| Fly control                           | 3                           | 13.6       |
| De-worming                            | 0                           | 0          |
| Do not know                           | 3                           | 3.61       |

| Washing hands after defecation & drinking boiled water |           |            |    |  |  |
|--|-----------|------------|----|--|--|
| Practices  | Frequency | Percentage |    |  |  |
| 1. Washing hands                                       |           |            |    |  |  |
| <ul> <li>Never</li> </ul>                              | 4         | 18.2       |    |  |  |
| <ul> <li>Some time</li> </ul>                          | 18        | 81.5       |    |  |  |
| 2. Drinking water                                      |           | • • • •    |    |  |  |
| Not usually  | 22        | 100        |    |  |  |
|  |           |            |    |  |  |
|  |           |            | 30 |  |  |

| The most serious illness of household |
|---------------------------------------|
| during last year                      |

| The illness           | Frequency | Percentage |
|-----------------------|-----------|------------|
| Diarrhea              | 15        | 44.1       |
| Worm infection        | 1         | 2.9        |
| Common cold           | 7         | 20.6       |
| Respiratory infection | 7         | 20.6       |
| Chest pain            | 1         | 2.9        |
| Stomach ache          | 3         | 8.8        |
| Other                 | 0         | 0          |
|                       |           |            |

| bservation     | Frequency | Percentage |
|----------------|-----------|------------|
| ne vault       | 25        | 92.6       |
| wo vaults      | 2         | 7.4        |
| <u>Total</u>   | <u>27</u> | 100        |
| ery hygienic   | 0         | 0          |
| Tygienic       | 2         | 7.4        |
| ather hygienic | 11        | 40.7       |
| lot hygienic   | 14        | 51.9       |
| <u>Total</u>   | <u>27</u> | <u>100</u> |
| <u>IDIAI</u>   | <u>*/</u> | 100        |

Knowledge and hygiene of latrine at households

|                                     |                 | Knowledge of criteria of<br>hygienic latrine |        | Total |    |  |
|-------------------------------------|-----------------|--|--------|-------|----|--|
|                                     |                 | Low  | Medium | High  | ]  |  |
| Hygiene of latrine<br>(observation) | Hygienic        |  |        | 2     | 2  |  |
|                                     | Rather hygienic |  | 4      | 1     | 11 |  |
|                                     | Not hygienic    | 5  | 1      | 2     | 14 |  |
| Total                               |                 | 5  | 11     | 11    | 27 |  |

Knowledge and hygiene of latrine at households

| •                                      |             | Hygiene of latrine<br>(observation) |              | Total |
|--|-------------|-------------------------------------|--------------|-------|
|  |             | Hygienic                            | Not hygienic |       |
| Knowledge of disposal of human excreta | Know        | 11                                  | 9            | 20    |
|  | Do not know | 2                                   | 5            | 7     |
| Total                                  |             | 13                                  | 14           | 27    |

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Knowledge and having latrine at households

|  |             | Have latrine<br>(observation) |    | Total |
|--|-------------|-------------------------------|----|-------|
|  |             | Yes                           | No |       |
| Knowledge of disposal of human excrets | Клож        | 20                            | 2  | 22    |
|  | Do not know | 7                             | 5  | 12    |
| Total                                  |             | 27                            | 7  | 34    |

Diarrhea and hygiene of latrine at households

|   |     | Hygiene of latrine<br>(observation) |              | Total |
|---|-----|-------------------------------------|--------------|-------|
|   |     | Hygienic                            | Not hygienic |       |
| Diarrhea at households<br>during last 2 weeks | Yes | 7                                   | 13           | 20    |
|   | No  | 6                                   | 1            | 7     |
| Total   |     | 13                                  | 14           | 27    |

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### Washing hand after defecation and hygiene of latrine at 20 households who have diarrhea

|                                     | -               | Wash hand after defecation |           | Total |
|-------------------------------------|-----------------|----------------------------|-----------|-------|
|                                     |                 | Never                      | Some time |       |
| Hygiene of latrine<br>(observation) | Hygienic        |                            | 2         | 2     |
|                                     | Rather hygienic | 1                          | 8         | 9     |
|                                     | Not hygienic    | 2                          | 7         | 9     |
| Total                               |                 | 3                          | 17        | 20    |

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### Summary of findings

- 1. Most of households are at low socio-economic status
- 2. High rate of using fresh feces as fertilizer
- 3.Lack of knowledge and practice about diseases related to human excreta disposal
- 4. Even when people have knowledge they often fail to put this knowledge in their daily life practice
- 5. Poor Health Care service at the village
- 6. The most serious disease at households is diarrhea
- 7. Most latrines and water supply sources are not hygienic and safe

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### Lessons learned

- 1. Testing standard of observer should be done before
- 2. More time for training interviewers
- 3. Checking data in the field daily
- 4. The questionnaire should be short, clear, well designed
- 5. Timing to carry out data collection should be considered
- 6. Duration of data collection should be longer
- Results of Data Exercise can help to develop our proposed project

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