

# CHAPTER I

## INTRODUCTION

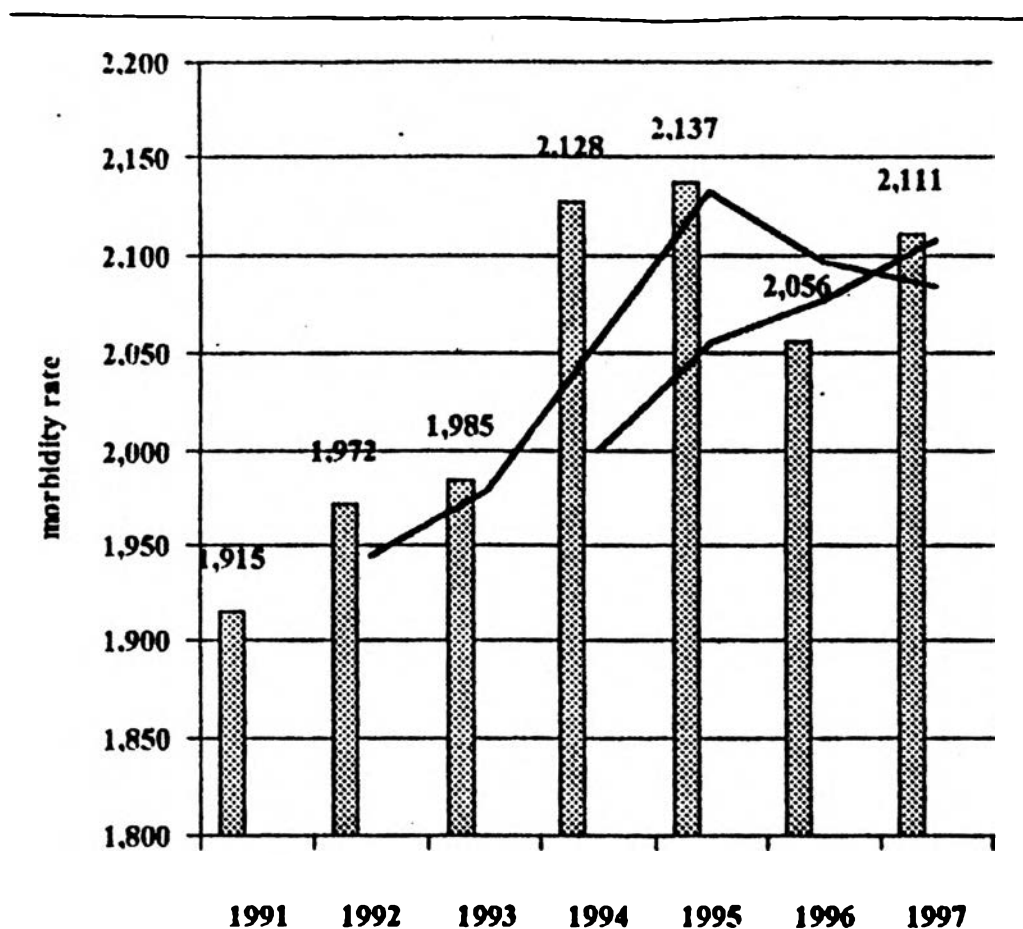
The main issue of my proposal is how to sustain required behaviors on acute diarrhea prevention and self-care among Thai people to reduce the morbidity rate of acute diarrhea. Morbidity rate is generally known as the number of acute diarrhea cases of all age groups per 100,000 population. In Chon Buri, the morbidity rate of acute diarrhea was approximately 1,900(in 1991) to 2,000 per 100,000 population (in 1997) as shown in Table 1.1 and Figure. 1.1

**Table 1.1 : Morbidity Rate of Acute Diarrhea by Year, Chon Buri**

Year	Population	Cases	Morbidity Rate
1991	917,263	17,567	1,915
1992	924,992	18,239	1,972
1993	927,458	18,412	1,985
1994	948,165	20,172	2,128
1995	962,402	20,564	2,137
1996	972,689	19,998	2,056
1997	1,009,041	21,304	2,111

Source: Planning Section, Chon Buri Provincial Public Health Office

**Figure 1.1 Increasing Trend of Morbidity Rate of Acute Diarrhea (1991-1997)  
in Chon Buri.**



Source: Planning Section, Chon Buri Provincial Public Health Office

The rate is double the National target which is not greater than 1,000 per 100,000 population. Therefore, it is an important problem that I, in the position of public health expert, need to solve. However, there have been many questions in my mind, since January 1997; those were: What do the people think about acute diarrhea? Is it their health problem? If not, what is the health problem that they need to solve? Is

it related to acute diarrhea? To answer those questions, I and my co-researchers team studied on *Community Health Problem at Mou3-4 Villages of Najomthien Subdistrict, Sattahip District, Chon Buri Province* during 31 March – 4 April 1997 (Watana, et al., 1997). The results of the study, using qualitative technique, revealed that the health problem people were concerned about was “improper garbage management” which related to acute diarrhea (see Figure 3.1.1)

The complementary results were as follows:

- Nearly half (12 in 30) of the respondents did not know “Diarrhea is a communicable disease”
- Respondents perceived that stale food/contaminated food, food from street food vendors, garbage and flies, as the causes of diarrhea.
- Respondents knew how to protect themselves and their families from diarrhea.
- Respondents could use medical intervention (25 in 30) when they had diarrhea; the oral rehydration salts(ORS) solution use rate was less than 50% (11 in 30).
- They all prepared food by themselves but sometimes purchased it from street food vendors, fast food shops, and restaurants.

The interesting questions have arisen from those findings. These were:

1. Why do nearly half of target villagers not know that diarrhea is a communicable disease ?
2. Why is the utilization rate of ORS very low?
3. How safe is the medical intervention they used?

4. How complete is the scenario of diarrhea communication cycle perceived by people?
5. What did the people perceive about diarrhea (definition, prevention and self-care)?
6. Why are they unaware of their own personal hygiene concerning diarrhea?

The above results show the weak points or ineffectiveness in health education programs implementation for diarrhea prevention and control. Ratnaike and Chinner (1994) said that “These problems are worsened by the lack of basic health education. For example, a poor understanding of the ‘germ theory’ compromises good personal, domestic and environmental hygiene practices which aid in prevention of infectious disease like diarrhea.”

The weak points described above were the main topics that I presented to Chon Buri Provincial Public Health Administrative Committee on 27<sup>th</sup> October 1997. Therefore, diarrhea was ranked as the first priority of Chon Buri health problems needing to be solved and Sriracha district was selected as the target area because of having passed through the criteria suggested by the committee. Those are:

- the morbidity rate of acute diarrhea was greater than 1,000/100,000 population,
- there were cases of severe diarrhea in each year of the past three year,
- it was the target area of the “Healthy City” program in 1998,
- it had more than one governmental secondary school.

As a result, a health education program was launched. However, the target population and the strategy were different from other routine provincial health education programs. The adolescents at the first year of the governmental secondary school were used as “the channel of diarrhea message”.

In general, health education is a strategy to give knowledge, especially scientific knowledge, to people and also is an important factor fulfilling the three requirements for successful action of any public health program, like three legs of stool or Richmond and Kotelchuck’s health policy model as shown in Fig. 1.2 (Atwood, Colditz, and Kawachi, 1997)

**Figure 1.2 Richmond and Kotelchuck’s health policy model.**



A study of “The importance of health education to control diarrhea: experiences in an Australian Aborigin community” by Ratnaïke and Chinner (1994) was an example showing the complete set of this model. They used a health education program, separated into two phases, to control diarrhea. The effectiveness of the program depended on community participation and was determined by comparing variables before (1985-1987) and after (1989-1991). They found that all Aboriginal children in the community under five years of age or sample group which ranged from 69 children in 1987 to 38 children in 1991, could be separated into two groups: those who had one or more episodes of diarrhea and those who had no episode. The number of children with diarrhea decreased statistical significant after the program implementation. They suggested three critical success factors. Those were (1) participation in the health education program, (2) the health education program based on the recipients’ knowledge, attitudes, and practices regarding diarrhea will be better able to target the areas of cultural or individual ignorance in the community in a sensitive, non-patronizing manner and (3) it is important that communication problems between the educators and the recipients be minimized, because communication will be easier if the educators speak the local language, understand the culture and learning style of recipients and have a genuine empathy with the community showing the process of participatory action research (PAR) that builds on the capacity of people to think and work together for a better life and the equitable sharing of knowledge, skills and resources so as to support fair social structures, which, ultimately, are health determinants (Smith, Pyrch, and Lizardi, 1993). Such health education strategies described above will empower the people to improve personal hygiene and sanitary

facilities that would dramatically reduce diarrhea morbidity rate between 35 and 50 percent (Esrey, Feachem, and Hughes, 1985).

However, the design of the first purpose study “The 1998 Provincial Diarrhea Education Program of Health Behavior Promotion to Reduce Diarrhea Morbidity Rate, in Sriracha District, Chon Buri” was designed by the participation of the public health committee only at provincial level adapting the strategy that Klepp Knut et al. (1994) used in their study on “The school-based program, AIDS education program for primary school in Tanzania: an evaluation study”. They concluded that HIV/AIDS education for sixth and seventh graders (average age, 14.0 years) could foster increased knowledge about and communication regarding HIV/AIDS; and the program appeared to have succeeded in making AIDS a topic of discussion outside as well as in the school setting with their parents, other relatives and religious leaders following the intervention, and they suggested that a health education program might increase the community’s awareness of HIV/AIDS.

The question is what strategy will be effective to sustain the required behaviors, PAR at all levels of community or the provincial trained diarrhea educators using their own teaching materials for the adolescents’ health education with the hope that they will transfer the messages to their parents or their caretakers and act as “family health reminders and communicators” to develop and sustain their parents’ health behaviors. This led me to form a data exercise to get enough information for deciding on an appropriate strategy.

The assessment data exercise was done together with the 1998 provincial diarrhea education program in which 12 provincial trained diarrhea educators were selected to teach target groups of the first year pupils (12-15 years old age group) of the secondary school (Mathayom-1 classes of the four governmental secondary school in Sriracha district) with the following objectives: expected that they would transfer the diarrhea prevention and self-care messages to their parents or caretakers and hope they would serve continuously as “family health leaders” (see specific definition in Item 3.4, Chapter III) sending health or diarrhea information and practicing as good personal hygiene reminders/models, leading to a long term store of memory and required health behaviors practiced by anyone in their family or neighborhood. The instruments of the exercise, such as teaching context and questionnaires for assessment, were constructed by adaptation from WHO’s student manual on diarrhea (1992), WHO’s health workers manual for the treatment of diarrhea (1984) and Sukhosit, Leksunsern and Treedhanyasarp (1996) .

However, from the data exercise (see the detail in Chapter IV), it was found that there were the problems in communication. Those were:

**1. Chance to talk with their parents/caretakers.** Some of them said “There was no chance to talk with my parents because my rest time was their working time.” or “I only gave the manual to them.” or “The letter in the manual is too small for my parents to read easily.” or “I forgot, because it was a long time waiting for them getting good temper.” or “I had many duties at home to do thus, I forgot to tell them.” or “I played a lot and then forgot.”

**2. Their parents /caretakers pay less attention to what they had said.** One of them said “I had told my grandparents, but they did not listen to me.” The other one



said “I reminded my grandmother about hand washing with soap and water, but she ignored what I had told her.”

The observation data for provincial trained educators collected by the participant observers:

The 12 provincial trained educators had different styles in teaching; some forgot to explain the objectives, while some prepared too much content and spoke very quickly to finish the lesson in time and some of them were good experienced educators.

There was advice from the observers as follows:

1. The educators should emphasize the role of the pupils expected by the program.
2. They should advise adolescents about who are the persons who can help them for further information.
3. They should have used a louder and clearer voice or audiovisual devices.
4. They should stimulate participatory learning.
5. They should beware of context sequence and conclusion of what concern to the program objectives.

This advice was compatible with Dalis (1994)

Effective health instruction hinges on two issues – what to teach and how to teach it. Both of these are Interrelated . . . When considering what and how to teach, we need to continue to remind ourselves that the central thrust of health instruction must be to promote health enhancing behaviors and diminish or extinguish health compromising behaviors within the context of a democratic society.

Besides the constraints of communication, there were other weak points (from my own observation) in the proposed provincial health education program. Those could be divided into two parts. Firstly, most of provincial diarrhea educators have no skill and art in teaching because of time limitations on training and teaching experience on diarrhea. Second, there is no intentional monitoring and evaluating after program implementation which are important factors initiating scientific participatory mental and rational thinking skills among health personnel because of time and budget limitations.

Thus, to address my issue, I decided to choose PAR in developing and sustaining the required behaviors on diarrhea prevention and self-care among Thai people in Chon Buri to reduce acute diarrhea morbidity rate. Chapter II is about theories and literature review concerning my data exercise and purposed study; Chapter III about my proposal and finally about data exercise with discussion in Chapter IV.

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