

CHAPTER 2

2.1 INTRODUCTION

Drugs use among people all over the world are a major problem; the seriousness of which is becoming more and more apparent everyday. There are millions of drug users throughout the world abusing all sorts of illegal substances. Dr. Nakajima, WHO's Director-General, in his opening address of "Global Scientific" meeting, 1996 said:

"The world is becoming increasingly concerned by the global epidemic of substance abuse, including tobacco and alcohol. In this context, amphetamine epidemics are of special interest to WHO. The production of these drugs is relatively simple and the chemicals used in their manufacture are cheap and freely available in most countries. Therefore, they can be easily produced locally, close to the source of demand. The use of these drugs has become a major public health concern in many countries and therefore, a particular concern for the World Health Organization".

Amphetamine is also a drug which is known as a stimulant and its use is a major problem which affects people of all ages, especially adolescents, in Thailand. Information collected from Office of Narcotics Control Board (1995), indicated that the prevalence rates of Amphetamine use by region are 3.8 per 1000 population in Thailand as a whole and 6.3 per 1000 population in Bangkok. There is, however, no information about how and why it has become popular among people.

Again, the information from ONCB, gathered in 1991-1995 at its treatment centre, showed that the number of Amphetamine-using students has risen but we do not know how many university students are involved in this. Therefore, it is required to collect more information on this matter, hence it made me wants to do this study at the Assumption University.

2.2. The problem situation of Amphetamine Use

2.2.1. What are Amphetamines

Amphetamines are a group of central nervous system (CNS) stimulants which include three closely related drugs: amphetamine, dextroamphetamine, and methamphetamine. They produce transitory effects including wakefulness, alertness, increased availability of energy, reduced hunger, and overall subjective feelings of well-being. Amphetamines are used for treating narcolepsy (a rare disorder marked by uncontrolled sleep episodes) and minimal brain dysfunction (MBD) in children. They are also prescribed for short-term treatment of obesity. (Jacob and Fehr, 1987)

2.2.2 What are the effects ?

Acute intoxication may cause anxiety, restlessness, tension, agitation, confusion, and irrational rage or suspicion that sometimes leads to violence. At high doses, amphetamines can produce a reaction called amphetamine delusional disorder with symptoms that resemble an acute paranoid reaction or acute paranoid psychosis. The user, who is already irritable, restless, and perceptually hypersensitive, develops

delusions of persecution and sometimes visual or auditory hallucinations (usually without the pervasively disordered thinking typical of schizophrenia). Although the most intense symptoms usually pass in a couple of days, the patient may remain suspicious and susceptible to delusions for weeks or even months. People with personality disorders or other emotional problems are especially susceptible to this reaction, but it also occurs in normal persons after short-term use at high doses.

Some physical effects of high doses are sweating, muscle tension, dry mouth, tremors, and ringing in the ears. Amphetamines may also cause fever, high blood pressure, difficulty in breathing, and loss of coordination. A rapid rise in body temperature may lead to cardiovascular shock, convulsions, and even death from cardiac arrest. Another effect is cardiac death following a sudden rise in blood pressure, circulatory collapse, irregular heartbeat, and respiratory failure. Heart muscle tissue may degenerate because of overstimulation. The danger of these reactions is greatest in people with high blood pressure or damaged arteries.

Long-term high-dose use of amphetamines creates other serious problems. Users are often nervous, irritable, self-absorbed, and hypersensitive to sound, light, and touch. They lose interest in sex; men may become impotent. Paranoia may become chronic and psychotic reactions are generated more and more easily. Some abusers are preoccupied with meaningless repetitive activities like counting and sorting objects or picking at their skin, sometimes because of formication – an itch

that resembles the sensation of insects crawling under the skin. Laboratory animals dependent on stimulants often develop analogous symptoms, especially repetitive sniffing, licking, biting, and head-turning. The suspected cause of all these symptoms, from psychoses to formication, is a long-term change in the brain's sensitivity to dopamine.

The physical effects of chronic high-dose use, especially intravenous use, include exhaustion, malnutrition, and inflamed, degenerating blood vessels (necrotizing angiitis), which may cause strokes and hemorrhages. Changes in neurotransmitter systems make chronic users increasingly susceptible to seizures and cardiac irregularities. Intravenous use if needles are shared, may also spread infectious diseases, especially hepatitis, AIDS, and bacterial endocarditis (inflammation of the heart lining). (Harvard Mental Health, 1990)

2.2.3. What is the situation of Amphetamine use in Thailand ?

Thailand is one of the countries in the world that is confronted with the problem of drug production, illicit traffic and a drug epidemic. The major drugs illicitly produced in Thailand are opium, heroin, marijuana and psychotropic substances. Psychotropic substances are mostly produced in urban areas, due to the fact that raw materials for its production are also widely used essentially for medical and industrial purposes. The main trafficking route, some part of Golden Triangle (the main opium cultivated area), are located in Thailand. Traffickers take advantage

of transport conveniences in Thailand to smuggle illicit drugs from production sources to destinations in Europe, America, Australia and Asia. Formerly, the drug transited through Thailand were opium, heroin and marijuana. Later, psychotropic substances, such as amphetamines were smuggled. (Spencer & Navaratran. 1981). According to an international study (WHO, 1980) there was no reported of Amphetamine use among the sample of (300) drug users in Bangkok treatment centre (Table 2.1).

Table 2.1 Primary Drug Problem in Bangkok (1980)

Primary drug	Bangkok (N=300) %
Opium	14
Heroin	85
Other opiates	1
Cannabis	-
Cocaine	-
Hallucinogens	-
Amphetamines	-
Barbiturates	-
Other sedatives	-
Tranquillizers	-
Volatile solvents	-
Other drugs, tobacco	-
Not started	-

Source: World Health Organization (1980)

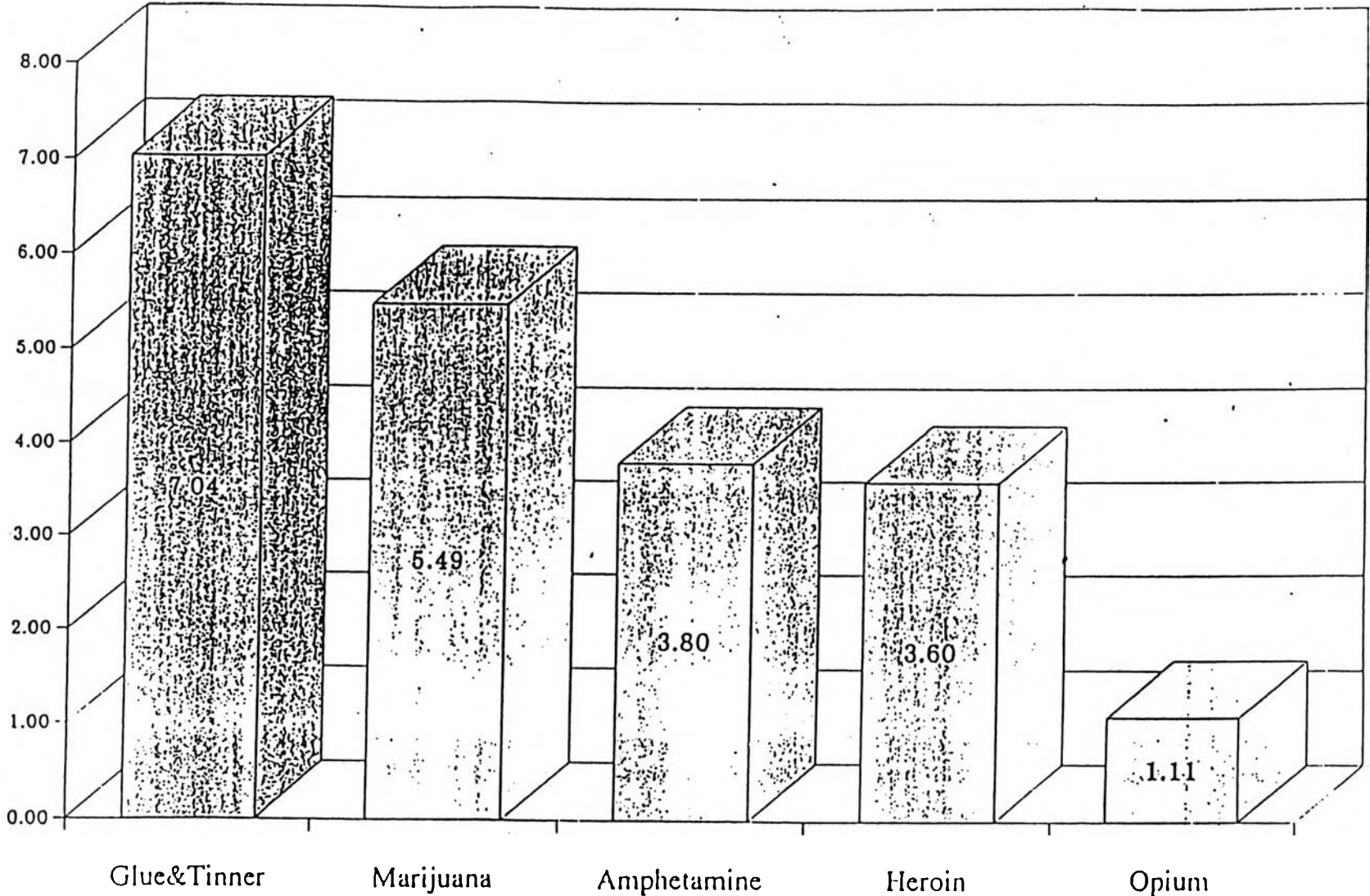
The patients listed were for heroin 85 %, and opium 14 %, etc. This means to be heroin and opium were more likely to be recognised as principal substance of dependence which given rise to the major drug dependence problem in Thailand during that period.

In 1988, Mongkolsirichaikul et al. studied the incidence of Amphetamine use among truck drivers from various regions of Thailand. They found that 82.5 % of truck drivers were using Amphetamine. It is possible that a significant number of traffic accidents are attributable to the use of Amphetamine by the truck drivers.

In the past, the use of Amphetamine was popular only among truck drivers who used it to prolong their working hours but at present, its use has also spread to agriculturiers and factory workers with the same purpose. Likewise, the Amphetamine usage is spreading among students. They use it like smoking and drinking.

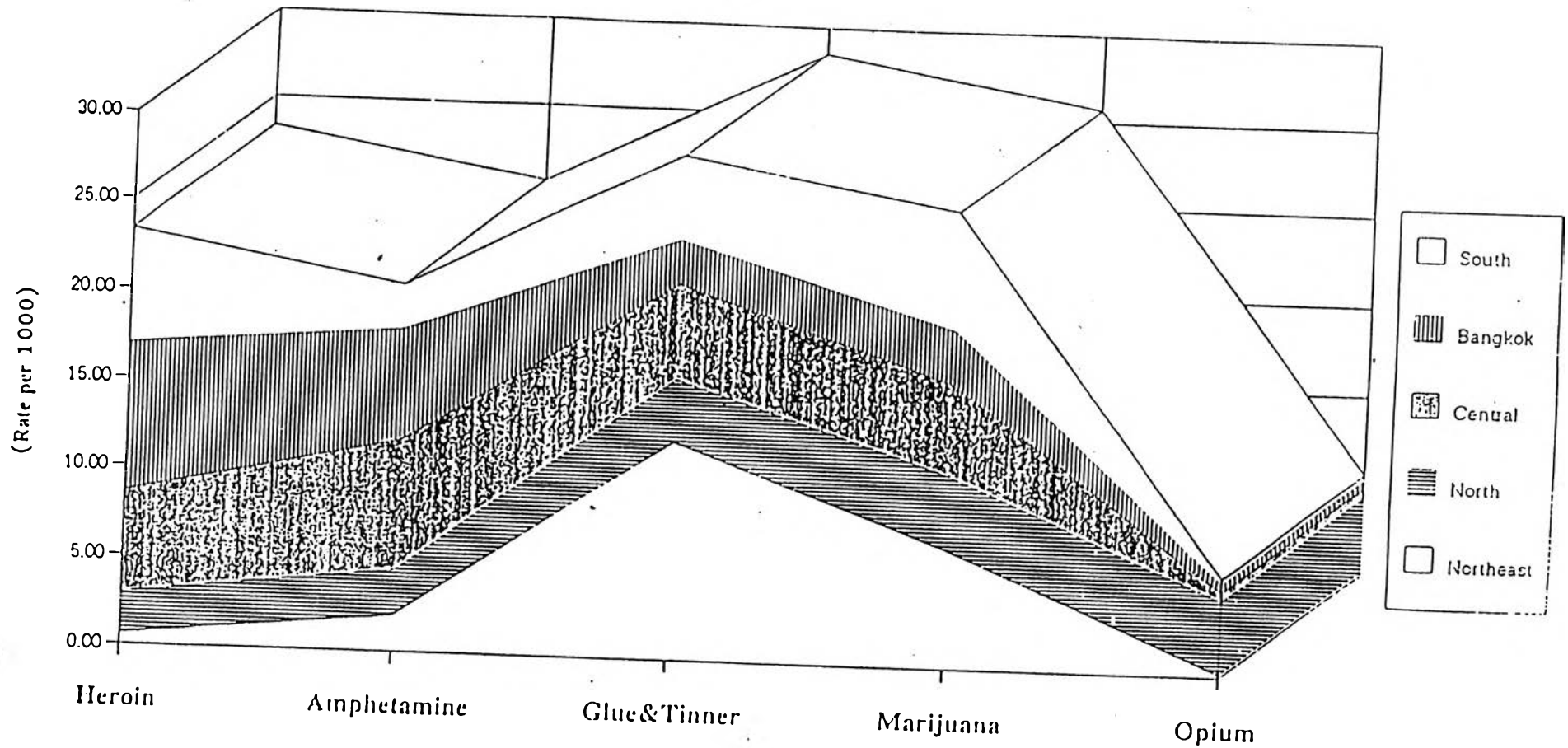
Furthermore, according to the joint study of US Embassy and Office of the Narcotic Control Board, ONCB (1995), the prevalence rate of Amphetamine users in Thailand was 3.80 persons per 1000 (Fig. 1) and, particularly in Bangkok, 6.3 persons per 1000 population (Fig. 2).

Figure 2.1 Prevalence Rates by type of Drugs (per 1000)



SOURCE: US EMBASSY AND OFFICE OF NARCOTIC CONTROL BOARD(1995)

Figure 2.2 Prevalence Rates by Type of Drugs and Region



Note : Not including fishermen, hilltribes, truckers, bus drivers, tricycle drivers, recruited soldiers, addicts treated at temples and children protection centers.

SOURCE: US EMBASSY AND OFFICE OF NARCOTIC CONTROL BOARD (1995)

Table 2.2 Students receiving treatment for Amphetamine use, 1991- 1995

Year	No. of students
1991	3
1992	19
1993	61
1994	138
1995	534

Source: Office of Narcotic Control Board, 1997, Personal communication from Mr. Sirisuk Yeunhan.

According to the Table 2.2, during the period of five years the reported number of Amphetamine-using students being treated has risen. Yet there is a possibility that there could still be a large number of addicted students who did not choose to come for treatment at ONCB centres or who have been treated and not reported. Moreover, there could be some students who use Amphetamine but had not sought treatment. Hence, the result of ONCB report was limited in terms of possible inferences under-reporting prevalence by the numbers of students who came to the center for treatment. It is a coverage for the students in general, which would include technical, high school students, etc. but did not mention the actual numbers and trends of users, percentage receiving treatment, without distinction by demographic characteristics and by level/type of schooling.

Amphetamine use is an emotional topic in our society that we sometimes forget that it is a form of behaviour that has many things in common with other behaviour. There is also a tendency to put all drug use into a single category. Before making any attempt to explain or understand Amphetamine use, we must be careful to specify exactly who are the people using Amphetamine, why they are using it and so forth. We should also keep in mind that any individual drug may have various health effects, depending on who has taken. Therefore I need to consider how it might be possible to control in our society? What strategies could be used to attempt to stop the number of Amphetamine user? There are many ways of attempting to measure the extent of use of Amphetamine and influencing factors for using Amphetamine. The greatest amount of information probably come from survey which can be done in Assumption University. Through this survey we can monitor the extent of Amphetamine use and their influencing factors among students which will be helpful for our future intervention program in Assumption University.

2.2.4 Why do students use Amphetamines?

The use and misuse of drugs can not be understood outside the context of peoples' lives, and the social framework in which they live. When looking at the particular case of drugs, several authors have examined the social context in which the recent growth in use and misuse has occurred. A variety of other studies have looked in detail at the actual lives of people who use drugs, and explored the possible reasons

why this should apparently be such an attractive option for many young people. Ahuja (1982), found that a large number of students use drugs for recreation and to seek pleasure, excitement, and sensations and only few consume to escape from their lives. Also he found that peer group culture is the principal socializing agency in drug use behaviour.

Krohn et al (1995) examined that dropping out of school is used to predict subsequent delinquency and drug use. They found that adolescents with higher GPA and who are more committed to school are less likely to drop out. Those adolescents who do not expect to go to school are more likely to drop out and adolescents who have used drugs are more likely to subsequently drop out of school.

Witters and Witters (1983) found that those who will try illicit drugs usually precede by history of poor school performance. Drug behaviour and drug-related attitudes of peers are usually among the most potent predictors of subsequent drug involvement. Parents' behaviours, attitudes, and closeness to the children usually have varying influence at different stages of their children's involvement in drugs.

Kandel(1990) found that both parents and peers were influential, but each have their domains of influence. In certain areas, peers are most influential such as participation in a drug subculture and association with drug using peers. And in other areas, such as educational aspirations, parents are much more important than peers.

The above research studies showed that the peer and family were the sources of greatest influence for the students' drug use. Those investigators found that there were relationships between students' drug use and their parent's use and there was relationships between student users and their close friends' use of drugs.

The media also said that parental pressure for academic excellence is turning a large number of students in expensive schools into amphetamine addicts. Most Bangkok students at the clinic in Sing Buri said that their parents wanted them to maintain a grade point average "A" and will settle for nothing less. Students felt despondent when they fail to meet parents' expectation and resort to amphetamines to endure long hours of study which have long term physical and mental repercussions. (Bunnay, 1996)

At first, Amphetamine might be taking as a reason of curiosity on the part of the user. At present, they might also be taking as a substitute for the achievement of a goal, such as the satisfaction of the need for affection and a sense of belonging or for a feeling of self-confidence. Some reasons for taking drugs may be; "to feel good", "to relax or relieve tension", "because of boredom, nothing else to do", "to get away from problems", and "because of anger or frustration". While this sort of Amphetamine is sometimes seen as beneficial to the user over the short run, there is danger for students and they might be turned into Amphetamine addicts. Therefore, I should not be carried away into thinking this is necessarily a typical experience for students who

take Amphetamine. My task is to try to find out the Amphetamine use and its related factors among Assumption University students.

2.2.5 What is the situation at Assumption University

There are approximately 16,000 students in Assumption University during this Academic year (1/1997). It seems to be that they came from well-to-do families by looking at their school fees i.e., total costs are about 200,000 Baht for four years schooling. Some of them came back from overseas and some who cannot pass the entrance exam of the Government University are studying at Assumption University. As an instructor, I observed that when they first come to Assumption University, they think that it will be easy to pass in Assumption University but later they found that it is not so easy. In the mean time, some of the ambitious parents would like their children to get good grades, so they push their children. When some of the students could not achieve as their parent expected they naturally get frustrated. I suspect that there is a possibility of their using Amphetamine, just to relieve the frustration or to keep themselves alert. It may be that in some cases their friends might talk them into using Amphetamine just to have a good time. But I do not know these facts for certain and Assumption University should have quantitative evidence of Amphetamine use that is number of students' Amphetamine use which is classified by male, female and age, number of first time Amphetamine use and so forth. Therefore, I need to find out

whether my assumption is correct or not by doing research study since there had been no research in this field for our Assumption University students.

According to the figures obtained from ONCB I am fairly certain that there is a problem of Amphetamine use in all regions of Thailand. But they have not specified how many students or University students are addicted to Amphetamine and why they are using it. Recognising the problem of Amphetamine use, I need to understand the real problem of Amphetamine use in its specific context. It needs enormous amounts of information of Amphetamine use and its related factors. If I know that Assumption University students are definitely using Amphetamine then I have to find a way to intervene and I should try to take measures to help them.

2.3. The interventions to control Amphetamine use

2.3.1 What can be done ?

A person's choice of drugs will always depend on his reason for taking them. The most controversial drugs these days are psychoactive or mood altering drugs. They may or may not have legitimate medical uses but they are usually taken to change mood, perception and consciousness. They will make you relaxed and less conscious of things around you. They will speed up mental processes, making people feel more alert. Just as there are many different types of drugs, there are also many different types of drug problems. Some of these problems are medical while some are

social. All can be serious. Many drugs can also be linked with injuries and death in a variety of ways such as criminal or other high-risk behaviour. People who use illegal drugs are also at risk because they never know exactly what they are taking. Drug use may also be linked to mental and emotional problems. Drugs may also pose a number of social and legal problems.

With regard to these points, most of the students will have some experience with Amphetamine. Most will experience it and stop or continue without significant problems. Some will use regularly with varying degrees of physical, emotional and social problems. Some may develop a dependency and be destructive to themselves. But there is no certain way to predict which students will develop serious problems and all should be considered as dangerous. Therefore I need to consider what I can do for them?

The legal system has set up laws to prevent the repeated offenses of distributing drugs or for being involved in drug dealing . Enforcement and punishment are designed to minimize the overall damage. Even though some substances are tightly regulated, there will be attempts to escape those controls. Therefore a need for enforcement in some cases should be included imprisonment.

In Thailand, maximum punishment for Amphetamine was increased from 20 years to death sentence. The law stipulates that those who produce, import, export or

possess with intent to sell more than 20 grammes of amphetamine or its derivative will face (charge) the maximum sentence (Povaree, 1996).

Another way of protection is drug testing in body fluids. It can be an effective way to discourage illicit drug use. It is also an important tool to help people to identify who need help. University can also provide the university counseling service which will assist the students in analysing situations, problems. Counselors can help students to develop a sense of their own self-worth, self-confidence and a capacity to have an impact on problems affecting their lives. Counselors can also work with students individually (or) in groups to overcome problems that hinder the achievement of academic goal. University can organize the university substance abuse prevention program. The purpose of this is to maximize the effectiveness of University role in preventing and reducing the incidence of drug abuse among students. Intervention service can identify individual students with early substance abuse problems and can also help them to assess their problems. It can provide the emotional support and practical guidance during the early stages of use.

Counseling and health education as intervention program would be more suitable for University students because the severe legal punishment can hinder the moral and behavioural growth in them. Since the goal of the program is to educate Assumption University students by providing with the knowledge, experience, and

skills on drug abuse, Assumption University should create a health education program plan for the Assumption University students with Amphetamine use.

In this aspects, PRECEDE - PROCEED model can be applied as shown in Figure 2.3. This is a model which combines community assessment and health educational planning (Smith & Maurer, 1995). There are five phases in PRECEDE portion and four phases in PROCEED portion. Phase 1 through 4 of PRECEDE - PROCEED model involve assessment, which is essential to plan for health education program, phase 5 is priority setting and planning, phase 6 is implementation and phase 7 is evaluation. Since phase 1 through 4 involve assessment, first I need to know the nature and magnitude of the problem. The questions that I would ask are on how major the problem is, how many are affected, who are in risk groups, who is the target population, how can compare its problem with national statistics. This is the first step in problem identification and I can obtain these information statistically by doing descriptive research. After that I can describe the amount and distribution of Amphetamine use within the target group.

Then I begin to answer the questions for behavioral diagnosis about cause-and-effect relationship between potential risk factors and a specific disease condition. In this matter hypotheses are used to predict the causal association among the variables. I can test the hypotheses through cross-sectional studies. Then I can know the basic causes of the problem and the related factors that contribute to Amphetamine

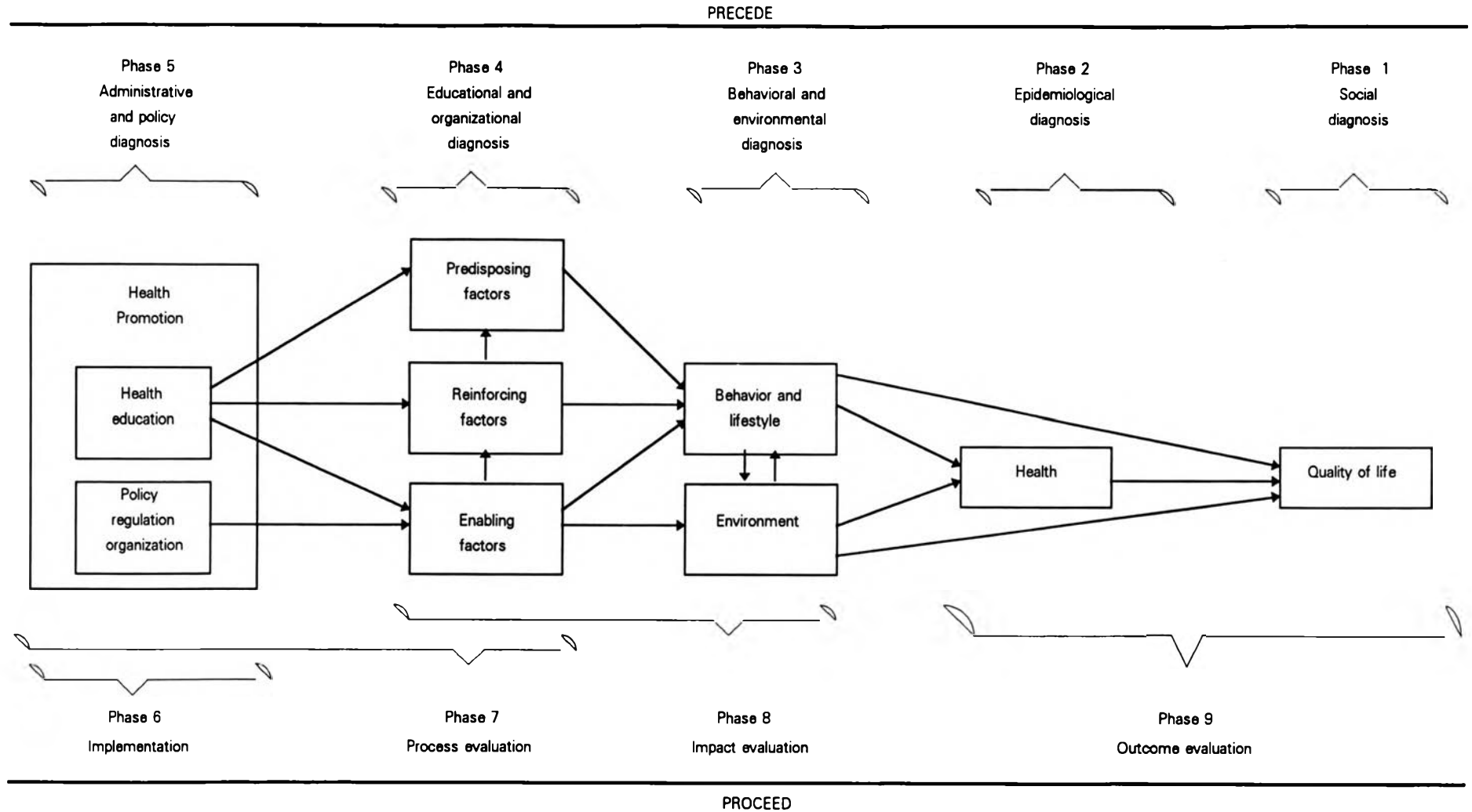
use. Also I can know the signs and symptoms of the health problem in individuals and also as a community.

In the educational diagnosis I need to know the predisposing, enabling and reinforcing factors for Amphetamine use? Predisposing factors are the characteristics of the students which include knowledge, attitudes and perceptions that motivate health-related behaviours, e.g., students desire to belong to peer groups. Enabling factors are environmental resources and students skills that facilitate attainment of health behaviours. e.g. cigarettes, alcohol and drug can be purchased. Reinforcing factors are actual or rewards and feedback of a students who receives following a health behaviour. e.g. students who do not use Amphetamine are excluded by other students. These three factors can be rated due to their seriousness and consequences. Then I need to consider the most appropriate educational and behavioural objectives and the most appropriate medical intervention for our students. I need to think about the kind of facilities and services available in Assumption University.

Phase 7 to Phase 9 are the evaluation diagnosis, these phases can be done only after the implementation has begun.

Since the goal of the Assumption University is to maintain safe, disciplined, and drug-free university we need to establish a university prevention program to assess drug problems including Amphetamine use. Therefore counseling and prevention programs will be the best way to help Assumption University students.

FIGURE 2.3 The PRECEDE-PROCEED model for health promotion planning and evaluation. (Source. Kaplan, Robert M. Et al, 1993)



2.3.2. What has been done

Prevention is the most important measure to reduce the demand for drugs. A preventive programme usually focuses on people's awareness of different types of drugs through education and creation of a drug-free environment. The main objective is to prevent non-users from experimenting with drugs. The best strategy is to enable people to live in the society full of drugs without abusing or depending on them. In 1978, Office of Narcotic Control Board (ONCB) and various concerned agencies have organised many programmes of prevention in drug abuse. The programmes already carried out by Office of Narcotic Control Board (ONCB) and various concerned agencies are:

1. The National Workshop on Drug abuse Prevention Education in 1978.
2. A programme that is aimed at community involvement in drug abuse prevention in 1982.
3. Training programmes for provincial instructors on drug prevention in 1984.
4. Workshops to formulate guidelines for drug abuse prevention in the community and the work place in 1991.

Based on the outcomes of the workshop on drug abuse prevention education in 1978, five target groups were set up: in-school youth group, parents group, out-of-school youth group, community group, and hill tribes group. Ministry of Education was responsible for in-school youth group and hill tribes group and ONCB was

responsible for parents group, out-of-school youth group, and community group (Machaco, 1994). But Assumption University has never done the above programmes. Therefore Assumption University needs to do some programmes for preventing on Amphetamine use.

2.3.3 What should be done

Although many schools and colleges have conducted surveys of their drugs problems, most of the surveys are inadequate because they do not collect enough information to allow schools to design specific education and prevention programs. Since they are not conducted regularly, as a result, schools cannot measure their progress toward becoming drug-free. The president of the University and authorities concerned should establish a committee to give a drug education and also to take responsibility for prevention task to assess drug problems, concerning with students and the relevant policies.

It should be included a group of people from university community; such as, teachers, parents, administrators, members and students to ensure that assessments are comprehensive and objective. The primary instrument used to assess the drug problem of the university should be a survey. The survey should be conducted every two or three years and should be provided information on the extent of Amphetamine use and

the factors that will contribute to Amphetamine use. The survey results will also be useful for a drug education and prevention strategy.

Parents should cooperate with university to develop and enforce drug policies. Parents should be included in University anti drug policy and to make sure by making that their cooperation should be consistent with policies. The view of parents on policies are often ignored by University. No drug policy should be developed without parental involvement. A majority of schools have drug education and prevention program, but many programs might be ineffective because they began too late, long after drug use has started. They might not be properly implemented. They might not be based on research and evaluation. Parent-teacher association should be involved in drug prevention. Local police departments should work with schools and colleges to develop and enforce university policy on drugs because most of the school and college treat violations of law merely as violations of school policy and do not refer them to local police. Therefore cooperation between school officials and local police is essential to be effective for drug policies. University and their local police department should have agreements on specific responsibility of University.