Thesis Title   Pharmacist Manpower Planning and Management
within the Next 20 Years, 1991 - 2010
System Dynamic Approach

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Degree   Doctor of Public Health

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ABSTRACT

The objective of this study, Pharmacist manpower planning, was to analyse the goal, the number exist and the discrepancy between these two of the whole pharmacy system and individual system during 1991-2010, thus to obtain the benefit in manpower planning of the organization concerned. The pharmacy system consisted of 6 subsystems : hospital, community, manufacturing, consumer protection mission, educational and pharmaceutical marketing.

The system dynamo modeling technic which provided clear view of changes in each parameter by the time studied was used in this thesis. The dynamo equations were constructed to be the representative of the systems. The data used was obtained from 2

sources : secondary and primary data. The first one provided the data concerning in the supply of pharmacist by the ministry of university affair. The latter was obtained from the questionaire and personal interview of 9 specialists performed by the researcher , thus gave the information of the ratio in choosing the career , the change work pattern and the distribution of pharmacist in each subsector by age and sex ; also the forcasting in future demand of pharmacist. The sampling group of the study was selected by stratified simple random from the pharmacists in every subsector in the number of 612. The data was collected during the first of February and the 10th. of April 1991.

The analysis of data showed that 30 % of the pharmacist were more than 40 years of age which meant in the next 20 years 30 % of the number of today pharmacist would retire. The community , educational and manufacturing pharmacist were the major subsectors of this retirement.

The pharmacist demand was the sum of the demand in each subsector. The number of the pharmacists existed could be changed by the number of new pharmacists, lost from death ,retire and quit and the change of work area.

It was found from the standard run of the system behavior that : 1. The shortage of pharmacist would end in 1994.

2. The number of hospital pharmacist under the program of government contract would over the demand in 1992.

3. The community pharmacist would still far beyond the number demanded.

4. The manufacturing pharmacist was under the same situation as 3.

5. The pharmacist in consumer protection mission would meet the number demand in 1996.

6. The educational pharmacist was below the number needed. The goal would meet in 2003.

7. The pharmaceutical marketing pharmacist would be far above the goal needed.

The pharmacist student enrollment plan should be adjusted to the number that produce pharmacists according to the demand so as to keep the pharmacist manpower system equilibrium.

6 policy options were suggested and studied in their impact to the system :

1. Give up the government contract program in 1993

2. Give up the government contract program in 1997

3. Change the demand of pharmacist in consumer protection mission to 5 % peryear.

4. Policy 1 + 3

5. Policy 2 + 3

6. Give up the new faculty of pharmay plan.

In conclusion , it can be seen that

1. The number of the whole pharmacist in the country was enough for the expansion of demand estimated in this study.

2. The problem was the distribution of individual pharmacist in each career.

The short and long term plan to alleviate the problem were also mentioned.