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CARE OF ELDERLY IN THE YEARS 1997-2017 BY SYSTEM DYNAMO
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The purpose of this study was to forecast the demand for institutional care of elderly in the years 1997-2017 by system dynamo modeling. The health behavior of elderly population was modeled and the numbers of elderly patients in different types of health care institutes were estimated. "Stella Software for Windows 95" was used to create the simulation model.

System dynamo modeling technique is appropriate for complex systems that are dynamic and have feedback. There are 7 steps in approaching the problem; problem identification and definition, system conceptualization, model formulation, data collection, model evaluation, policy analysis, and model use or implementation. The advantages of computer simulation model are as follow; 1. computer modeling computations is reliable, 2. computer simulation language is clear and simple, 3. computer instructions have clarity of meaning, 4. The computer model can be easily understood, 5. concepts stated in ordinary language can be translated into computer model language.

In the model created in this research when the healthy elderly become sick, they might be sent to government hospital, private hospital, terminal illness unit, home or nursing home. The number of elderly patients in each health care sector was dependent on a selection fraction, developed based on information found during the literature review.

All variables were put into the model and the normal behavior of the system was simulated. The demand and supply of beds for elderly patients in government hospitals and private hospitals were compared to find out when problems occurred. Some policies could be developed in order to create strategies for controlling problems in the system in the future. Users can change some variables via the user interface created by the researcher to test the effects of alterations to the system.

The results of this study can be used as a tool for developing health care policy guidelines for the elderly population in Thailand and for establishing a plan to cope with the demand for geriatric care in the future.