

CHAPTER II

RESEARCH DESIGN

Research questions

1. Primary question

Do Thai males who developed laryngeal carcinoma have a history of greater exposure to hand-rolled cigarettes than persons who do not have this disease ?

2. Secondary questions

2.1 Is the risk effect for laryngeal cancer of hand-rolled tobacco smoking higher than that of manufactured cigarettes smoking ?

2.2 Does excessive alcohol consumption in the presence of smoking have a synergistic risk effect in developing laryngeal cancer ?

Research objectives

1. To determine whether hand-rolled tobacco smoking is associated with laryngeal carcinoma.

2. To compare the risk effect of laryngeal cancer between hand-rolled tobacco and commercial cigarettes.

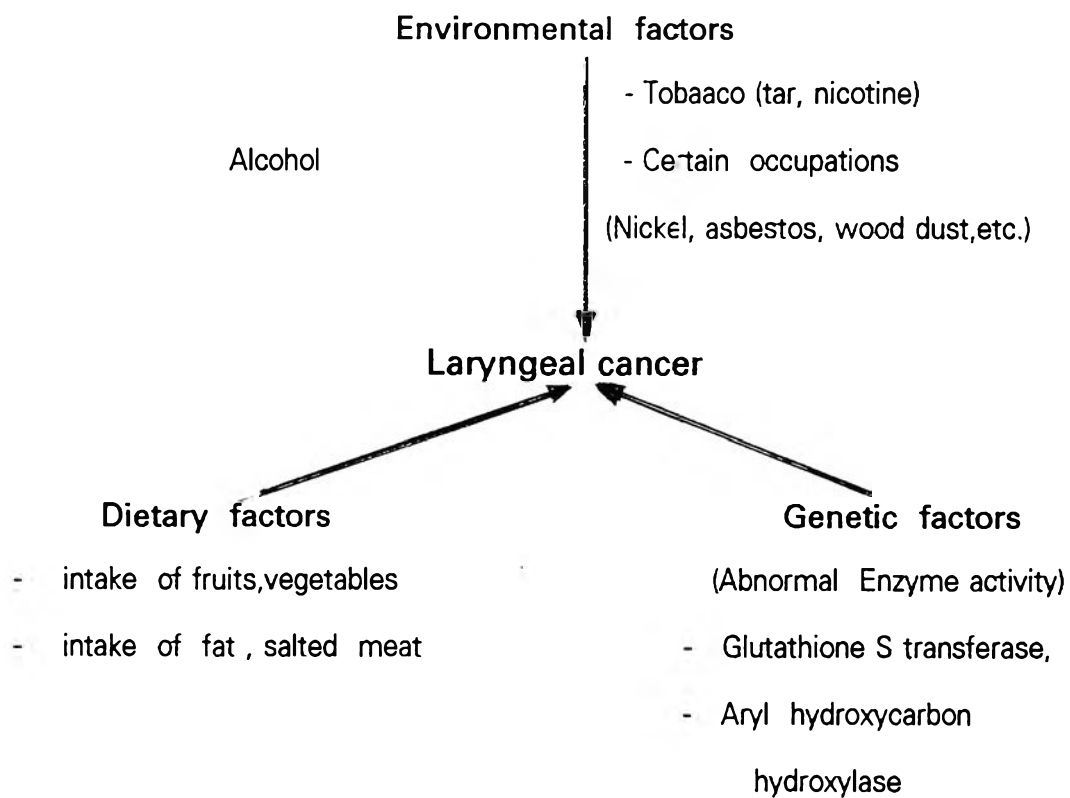
3. To evaluate the joint effect of alcohol consumption and smoking in increasing the risk of laryngeal cancer.

Hypothesis

1. Laryngeal cancer cases have a higher proportion in history of exposure to tobacco and alcohol than controls.

2. Hand-rolled smoking has a higher risk for laryngeal cancer than manufactured tobacco smoking.

Conceptual framework



Research design

Since it is not practical to conduct a cohort study to observe the outcome of developing cancer due to time limitation and the infrequent outcome of this disease. It is also unethical to perform an experimental study on this topic. Therefore, a case-control study is the method of choice. For the feasibility of this study, cases and controls were obtained from two university hospitals.