

Chapter II

7

**STOMACH**  
ICD-10 C16

*Thiravud Khuhaprema, M.D.*  
*Petcharin Srivatanakul, Ph.D.*

**Incidence**

Stomach cancer was the fourth most common malignancy in the world in 2002, with an estimated 933 937 new cases and 700 349 deaths per year (Ferlay et al., 2004). Approximately 60% of all stomach cancers occur in developing countries. Incidence is declining worldwide. In most European countries it has fallen by more than 60% during the past 50 years. This trend is mainly due to markedly decreased consumption of salt - preserved food, increasing avoidance of a high-salt diet and availability, in many countries, of fresh fruit and vegetables throughout the year. (World Cancer Report, 2003).

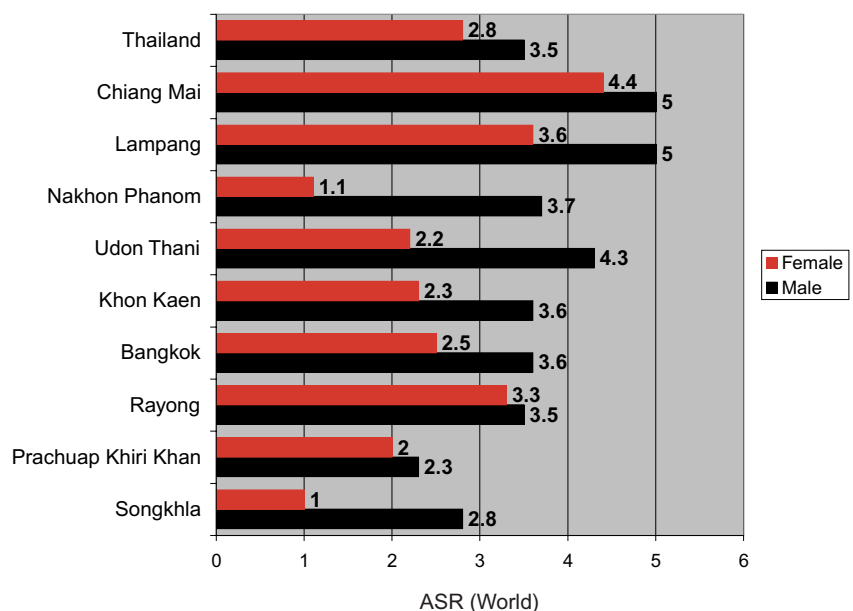
In Thailand, stomach cancer is the eight most common cancer in males and not in the ten leading sites of cancer in females in 1999. The estimated ASR was 3.5 for males and 2.8 for females. In the Northern part of Thailand, Chiang Mai had the highest incidence rates for both males (ASR = 5) and

females (ASR = 4.4) (Figure 2.7.1). Most of stomach cancer cases are adenocarcinomas. Microscopic verification for men ranges from 32% to 95% and from 20% to 100% for women from the nine cancer registries. Stomach cancer is extremely rare below age 20; thereafter incidence increases to reach the highest rates after age 60 for both sexes (Figure 2.7.2).

**Risk factors**

Dietary risk factors include inadequate intake of fresh fruits and vegetables, high salt intake and consumption of smoked or cured meats or fish. Conditions which cause an excessive rate of cell proliferation in the gastric epithelium, thus increasing the chance of fixation of replication errors induced by dietary and endogenous carcinogens, include *Helicobacter pylori* infection, gastric ulcer, atrophic gastritis and autoimmune gastritis associated with pernicious anaemia. (World Cancer Report, 2003).

**Figure 2.7.1** Stomach cancer in different regions, 1998-2000



**Figure 2.7.2** Age-specific incidence rates of stomach cancer, 1998-2000

