

Chapter II

8

COLON AND RECTUM
ICD-10 C18-C21

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Incidence

Cancer of the colon and rectum are rare in developing countries, the high incidence rates occur in countries of Europe, North America, Australia and Japan. Colorectal cancer was estimated 1 023 152 new cases occurring annually worldwide and is responsible for 528 978 deaths (Ferlay *et al.*, 2004).

The highest incidence rates of colon cancer for males (ASR = 55.54) was in Japan, Nagasaki city and for females (ASR = 28.61) in New Zealand. The highest incidence rates of rectal cancer for males (ASR = 27.40) was in Japan, Hiroshima and for females (ASR = 12.10) in Singapore Chinese (Parkin *et al.*, 2002).

The incidence rate of colorectal cancer in Thailand is low when compared to other countries. It is the third in frequency in males after liver cancer and lung cancer, and the fifth after cancer of the cervix, breast, liver and lung for females (Figure 2.1.11). The high-

est incidence for both sexes is in Bangkok (ASR = 12.4 for males and 9.6 for females) and the lowest incidence rate is in Nakhon Phanom (ASR = 5.5 for males and 4.8 for females). The estimated incidence rate in Thailand is 8.8 for males and 7.6 for females (Figure 2.8.1).

Most cases of colorectal cancer were diagnosed at an advanced stage. For example, of cases with known stage in Chiang Mai, only 10.4% were diagnosed with localized, disease while 29.2% had metastatic disease. The sex ratio (male: female) varied from 1:1 to 1.24:1. Age-specific incidence rates of colorectal cancer are shown in Figure 2.8.2. The percentage of cases registered with histological verification of diagnosis ranged between 27.1-93.2% for males and 31.3-93.1% for females. Adenocarcinoma is the most common histological type.

Risk factors

Colorectal cancer most com-

Figure 2.8.1 Colon and rectum cancer in different regions, 1998-2000

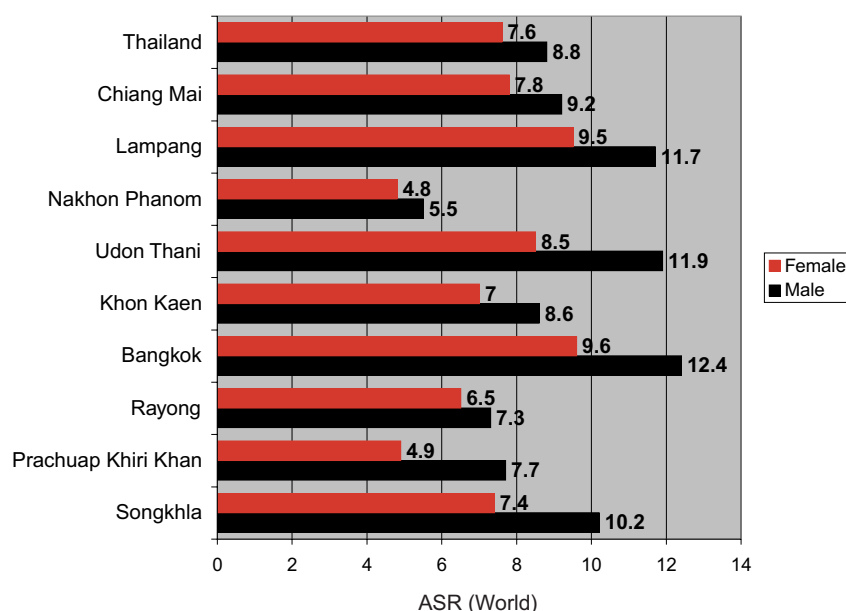
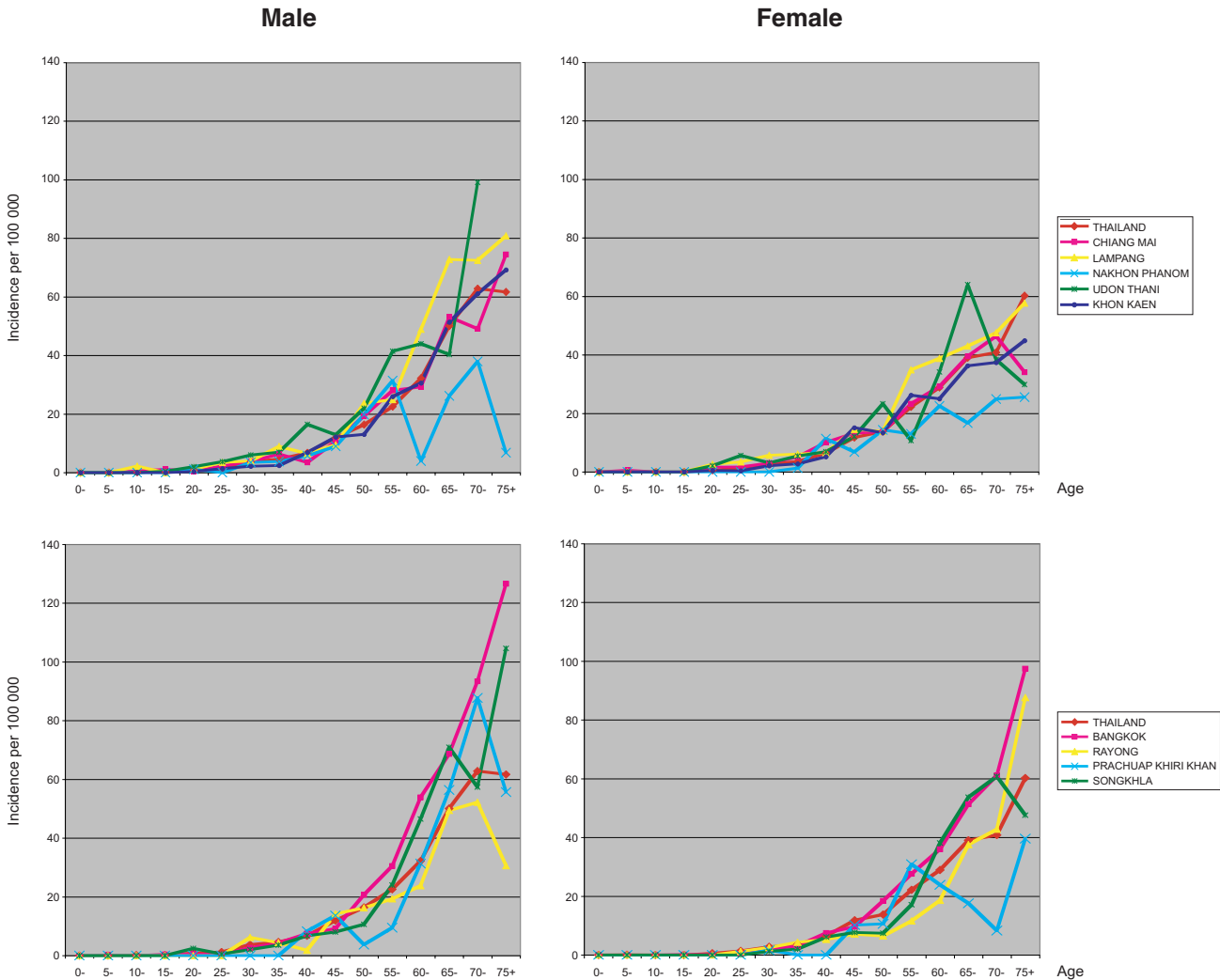


Figure 2.8.2 Age-specific incidence rates of colon and rectum cancer, 1998-2000



monly occurs sporadically and is inherited in only 5% of cases. Diet is the most important exogenous factor so far identified in the etiology of colorectal cancer (Tomatis *et al.*, 1990). There is convincing evidence that a diet high in calories and rich in animal fats, most often as red meat, and poor in vegetables and fibre is associated with an increased risk of colorectal can-

cer. Alcohol intake and smoking (for polyps only) have also been suggested to increase risk. Conversely, a low fat, high vegetable and possibly high fibre diet has a protective effect. Physical activity is also protective. The chronic use of non-steroidal anti-inflammatory drugs (NSAIDs) and aspirin is associated with a significant risk reduction in certain groups (Clapper

et al., 2001). Sequential genetic alterations mediate development of colon cancer, the earliest such change being mutation of the APC gene. Familial clustering has usually a genetic basis. Typical syndromes include familial adenomatous polyposis (FAP) and hereditary non-polyposis colon cancer (HNPCC) (World Cancer Report, 2003).