

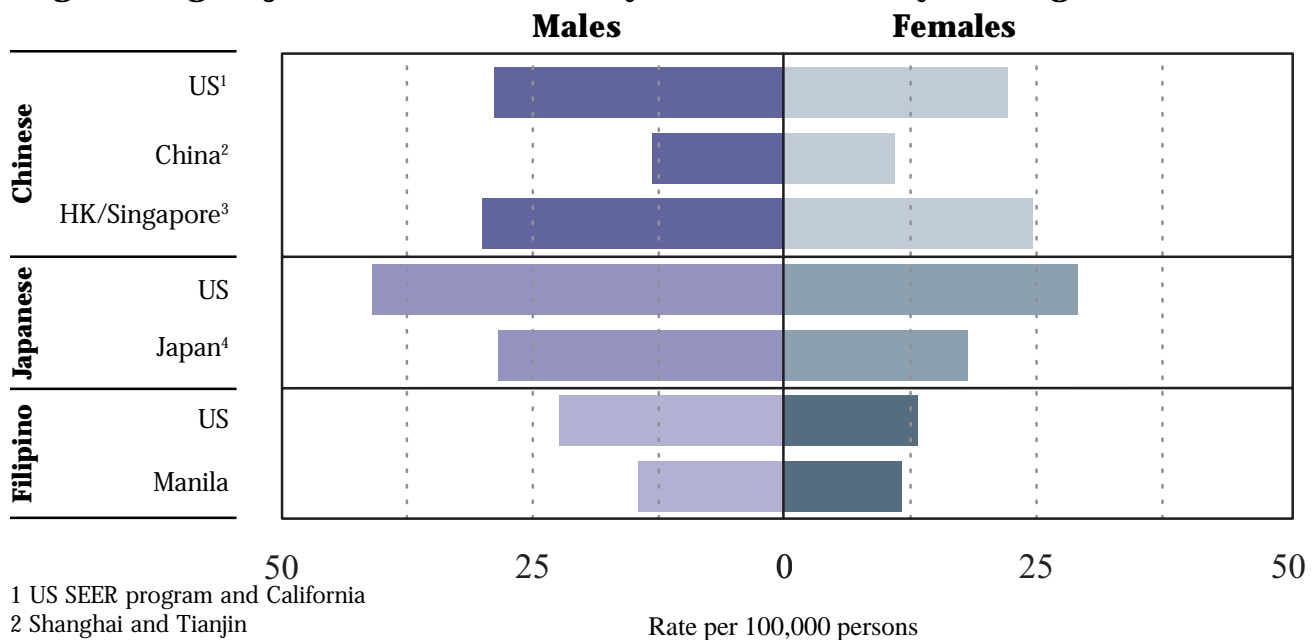
## COLON

Colon cancer is one of the most commonly diagnosed cancers in the world. In the United States, cancers of the colon and rectum are often grouped together due to the anatomic and physiologic similarities of these sites. However, because the incidence of colon cancer is approximately two and a half times that of rectal cancer in the US, and rates vary internationally to a greater extent than those of rectal cancer, it is important to consider these two cancers separately<sup>1</sup>. Worldwide, incidence rates of colon cancer are higher in males than females and higher in the US and other Western countries than in Asian countries<sup>2</sup>. Survival after diagnosis of colon cancer in the US is encouraging, due to early detection of cases through increased screening. It is estimated that the five-year survival rate from colorectal cancer in the US is 61%<sup>2</sup>. Similar trends in survival have also been observed in Japan, with a five-year survival rate that exceeds 60%<sup>3</sup>.

many of the dietary patterns listed above, led to a higher risk of colon cancer in Japanese, Chinese, and Filipinos in the US than in corresponding populations in their native countries<sup>8</sup>. In addition, places such as Japan and Hong Kong, which have adapted a more Westernized diet, have had rising incidence rates of colon cancer over time<sup>9</sup>. Along with dietary changes associated with the West, adaptation of lifestyle factors such as cigarette smoking, alcohol consumption, and limited physical activity have also contributed to the increased risk of colon cancer among the Asian populations living in the US<sup>6,8</sup>. A high body mass index (large body size), diabetes, and having a first-degree relative with colon cancer are other risk factors associated with an increased risk of colon cancer in both Asian and US Asian populations<sup>6,8</sup>.

Recent research has focused on genetic changes specific to colon cancer development. Colon cancer

**Figure 1: Age-adjusted incidence rates by sex, race/ethnicity, and region, 1988-1992**

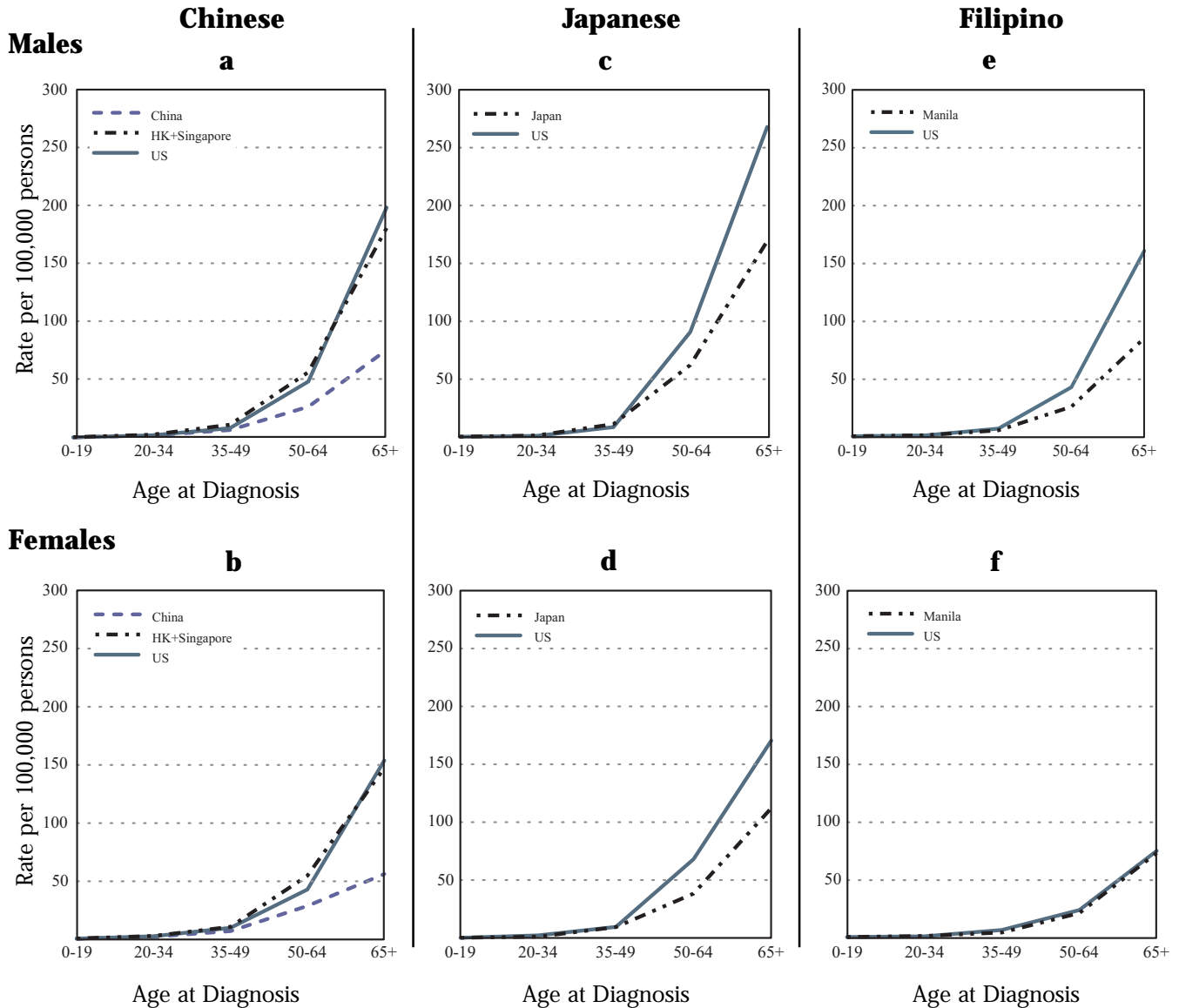


- 1 US SEER program and California
- 2 Shanghai and Tianjin
- 3 Hong Kong and Singapore-Chinese
- 4 Miyagi, Nagasaki, Osaka, Yamagata, Saga

### Risk Factors

Risk factors for colon cancer have been mainly attributed to lifestyle and dietary characteristics. Several dietary factors have been shown to be associated with an increased risk of colon cancer. These include high total energy intake (regardless of caloric source); high intake of dietary fats, protein, cholesterol, and red meat; and a low intake of vegetables, fruits, grains, and fiber<sup>1,4,7</sup>. Migrant studies have shown that change to a Western diet and lifestyle, which is characterized by

begins as a small polyp, which can undergo cell mutations, eventually enlarge, and transform into an adenocarcinoma<sup>10</sup>. Multiple mutations are needed for the adenocarcinoma to form. These mutations can either be inherited or somatic, and involve genes such as the adenomatous polyposis coli gene, the p53 tumor suppressor gene, and the Ki-ras oncogene<sup>10,11</sup>. One study has found that frameshift mutations in p53 genes were more prevalent among Chinese in Hong Kong than other locations, which may explain varying colon cancer rates between racial/ethnic groups<sup>12</sup>.

**Figure 2: Age-specific incidence rates by race/ethnicity, sex, and region, 1988-1992**

## Incidence

Among the Asian populations considered here, Japanese in the US had the highest average annual incidence rates of colon cancer (41 cases per 100,000 males, 29 cases per 100,000 females) (Figure 1). Rates were also relatively high in Chinese from Hong Kong/Singapore and Japanese from Japan, but lower in Manila and China. These differences may be attributed, in part, to the adaptation of a more Western type of diet in the US populations.

Age-specific rates of colon cancer were similar for Chinese in Hong Kong/Singapore and Chinese in the US, while incidence rates in China were lower than both (Figures 2a-2b). US Japanese over age 65 had incidence rates of colon cancer about 1.5 times greater than native Japanese over 65 (Figure 2c, 2d). Although colon cancer incidence rates for Filipino males in the

US were similar to rates for native Filipinos before age 35, the rates in US Filipino males increased dramatically after age 65, to almost double that of native Filipinos (Figure 2e). Rates in US Filipino females remained similar to rates of native Filipinas across all age groups (Figure 2f).

## CORPUS UTERI

Cancers of the corpus uteri include malignancies of the endometrium (lining of the uterus) and the myometrium (muscular tissue)<sup>1</sup>. Because endometrial cancers account for approximately 90% of corpus uteri cancers<sup>1</sup>, epidemiological studies have focused on this type; therefore, the following discussion of risk factors is limited to endometrial cancer.

Cancer of the corpus uteri is the fourth most common cancer among all women in the United States. However, survival due to corpus uteri cancer is relatively favorable; overall, about 85% of women diagnosed with this cancer survive at least five years<sup>2</sup>.

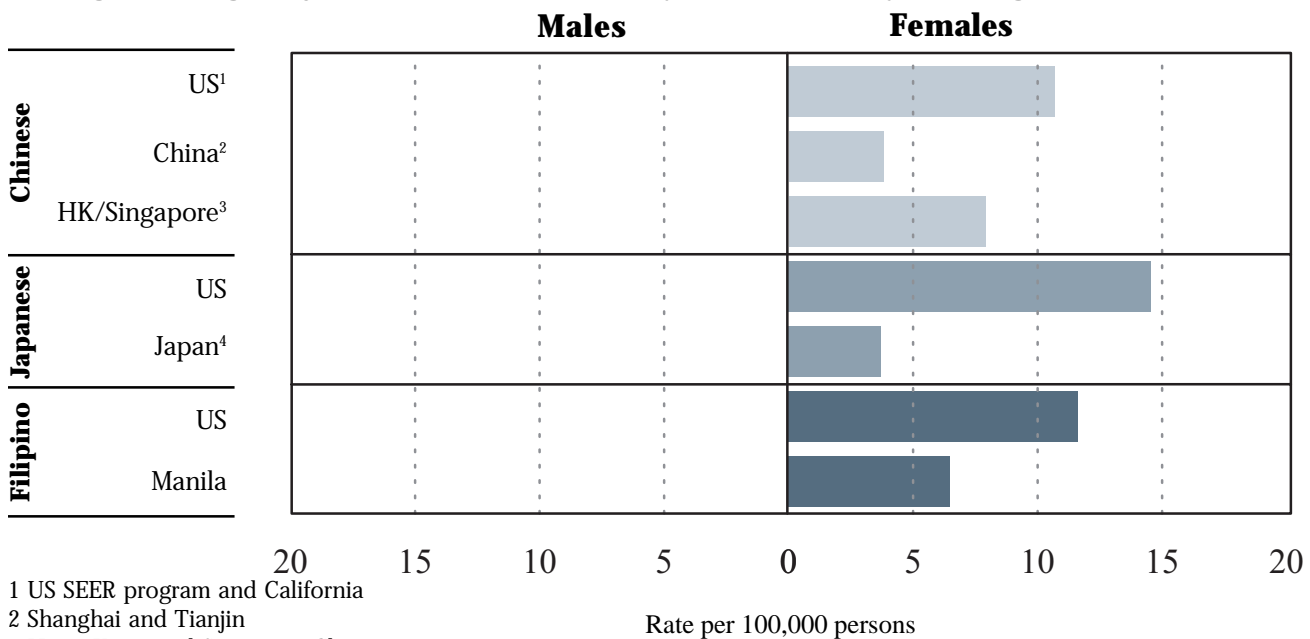
### Risk Factors

The most well-established risk factor for endometrial cancer is prolonged use of high-dose unopposed estrogens (estrogens without progestins), which were prescribed often in the 1970s in estrogen replacement therapy for postmenopausal women, but are less commonly used today<sup>3</sup>. Another recent source of external

interval. Higher body size (body mass index), irregular menses, earlier age at menarche, and later age at menopause may also be associated with an increased risk of endometrial cancer<sup>3</sup>. These risk factors may increase unopposed exposure to estrogens, causing continuous cell division and incomplete shedding of endometrial tissue<sup>3</sup>. Increased cellular division may result in more opportunities for the occurrence of mutations, thereby increasing the risk of carcinogenesis. Asian females experience an increased risk of endometrial cancer with migration to the US, possibly as a consequence of their increased prevalence of estrogen-related risk factors. Supportive evidence comes from data showing that urinary estrogen levels may be higher in US Asians than in Asians in Asia but lower than in US whites<sup>5,6</sup>.

An increased risk of endometrial cancer has also been associated with hypertension, diabetes mellitus, and history of gallbladder disease. Cigarette smoking, alcohol use<sup>3</sup>, and physical activity<sup>7</sup> may reduce risk of

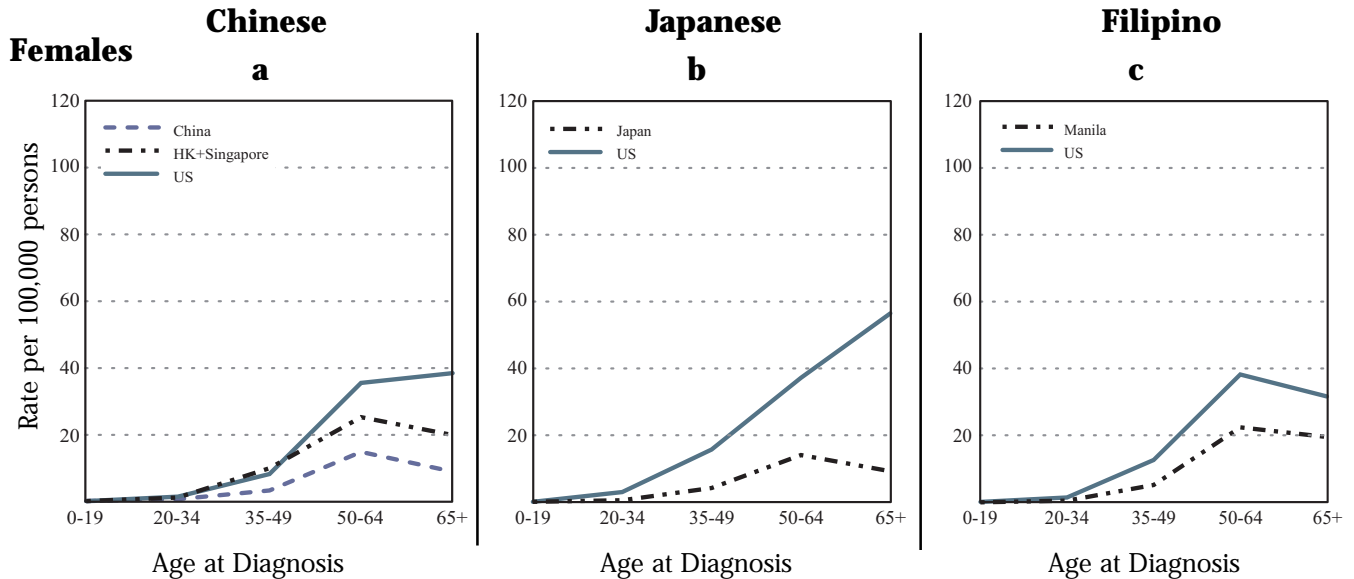
**Figure 1: Age-adjusted incidence rates by race/ethnicity and region, 1988-1992**



- 1 US SEER program and California
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estrogenic exposure is Tamoxifen, which is generally used in the prevention of breast cancer recurrence<sup>3</sup>. Recently, results from the National Surgical Adjuvant Breast and Bowel Project initiated by the Breast Cancer Prevention Trial found that women at high risk for breast cancer who were taking Tamoxifen had a 2.5-fold increase in risk of developing endometrial cancer<sup>4</sup>. Other factors implicated in the etiology of endometrial cancer include bearing no children (nulliparity) and using oral contraceptives over a long

the disease, although findings regarding these factors have been inconclusive<sup>3</sup>. Early correlational analyses linked dietary fat and animal protein with an increased risk for corpus uteri cancer<sup>8,9</sup>. More recent studies have found that increased consumption of fat<sup>10,11</sup>, protein, meat, eggs, and fresh fish<sup>11</sup> may be associated with increased risk for endometrial cancer, while increased consumption of fiber, vitamin A, vitamin C, soy products, and legumes may decrease risk<sup>10</sup>. These dietary associations may partly explain the differences in en-

**Figure 2: Age-specific incidence rates by race/ethnicity and region, 1988-1992**

ometrial cancer rates between Asians in native and host countries.

### Incidence

Globally, cancer of the corpus uteri ranked eighth among cancers in females, though it was twice as common in developed countries as developing countries<sup>12</sup>. Although in general Asians experienced the lowest rates of corpus uteri cancer in the world, the age-adjusted incidence rates were higher in US Asians than in their Asian counterparts (Figure 1). Thus, among Filipinas, rates were almost twice as high in the US as in Manila, and among Japanese, rates were almost three times higher in the US than in Japan. Among Chinese females, the age-adjusted incidence rate was lowest in China, intermediate in Hong Kong/Singapore, and highest in the US. These rate differences imply that environmental factors such as diet and reproductive factors, associated with adaptation of a more Western lifestyle, may play an important role in the development of this disease.

The risk of corpus uteri cancer increased until age 50, after which it declined slightly or stayed constant (Figures 2a-2c). The notable exception was that risk among US Japanese continued to increase beyond age 50 (Figure 2b), in a manner similar to the age-specific incidence patterns for whites and blacks in the US<sup>3</sup>. This similarity, and its occurrence only for US Japanese, may be attributed to the longer residence of Japanese in the US, and the higher proportion of US-born Japanese compared to Chinese and Filipinos<sup>13</sup>. However, incidence rates of endometrial cancer must be interpreted with particular caution, as women with hysterectomies (removal of the uterus) are no longer at risk for cancer of the corpus uteri<sup>1</sup>. Because hyster-

ectomies may be more common in the US than in Asia, US rates, which are based on the entire female population irrespective of hysterectomy status, may be low. Thus, differences in incidence rates between countries may be underestimated<sup>3</sup>.

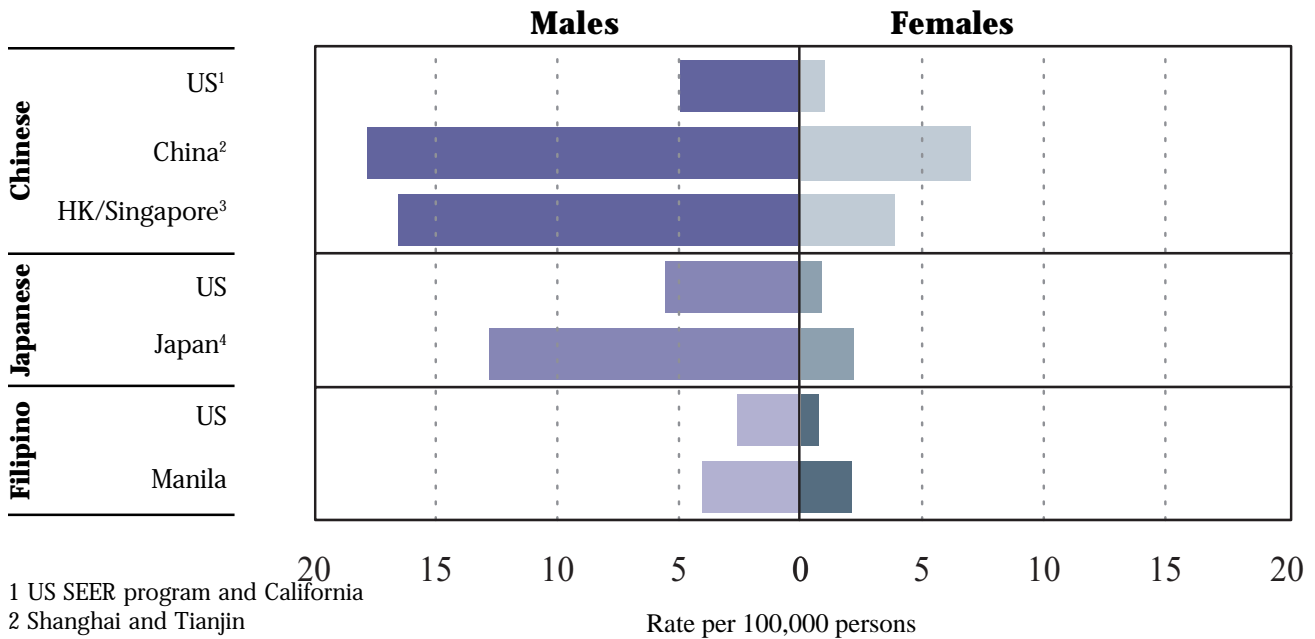
## ESOPHAGUS

Esophageal cancer is the fourth most commonly diagnosed cancer in developing nations and among the ten most common in the world<sup>1</sup>. Each year, half of all new cases occur in China, where esophageal cancer is the most frequently diagnosed malignancy after stomach cancer; in contrast, in the United States, esophageal cancers of all histologic types are uncommon<sup>2</sup>. Incidence rates of squamous cell carcinoma, which previously accounted for almost 90% of esophageal cancers<sup>2</sup>, have remained stable over time. However, rates of adenocarcinomas have increased rapidly in recent years; in 1992, 33% of esophageal cancers were adenocarcinomas, compared to only 12% in 1980<sup>3</sup>. Unfortunately, the prognosis for persons diagnosed with esophageal cancer is poor regardless of histology or access to medical care; US data show only 11% of patients survive five or more years after diagnosis<sup>3</sup>.

ageal cancer two to five times that of nonsmokers, with risk increasing with the number of cigarettes smoked per day<sup>2</sup>. Higher body mass index has been associated with an increased risk of esophageal adenocarcinoma, particularly among nonsmokers and younger age groups<sup>6</sup>.

Adenocarcinomas occasionally arise from a condition known as Barrett's esophagus, which may result from gastroesophageal reflux disease<sup>7</sup>, in which the normal squamous epithelium is replaced by metaplastic columnar epithelium. Esophageal cancer has been shown to be inversely related to socioeconomic status<sup>8</sup>. Increased genetic susceptibility to esophageal cancer has been linked with having tylosis (a congenital thickening of the hands and feet), possibly controlled by a single dominant autosomal gene<sup>2</sup>, and with having celiac disease (an inherited absorption disorder of the small intestine), which may result from a combination of nutritional and genetic factors.

**Figure 1: Age-adjusted incidence rates by sex, race/ethnicity, and region, 1988-1992**



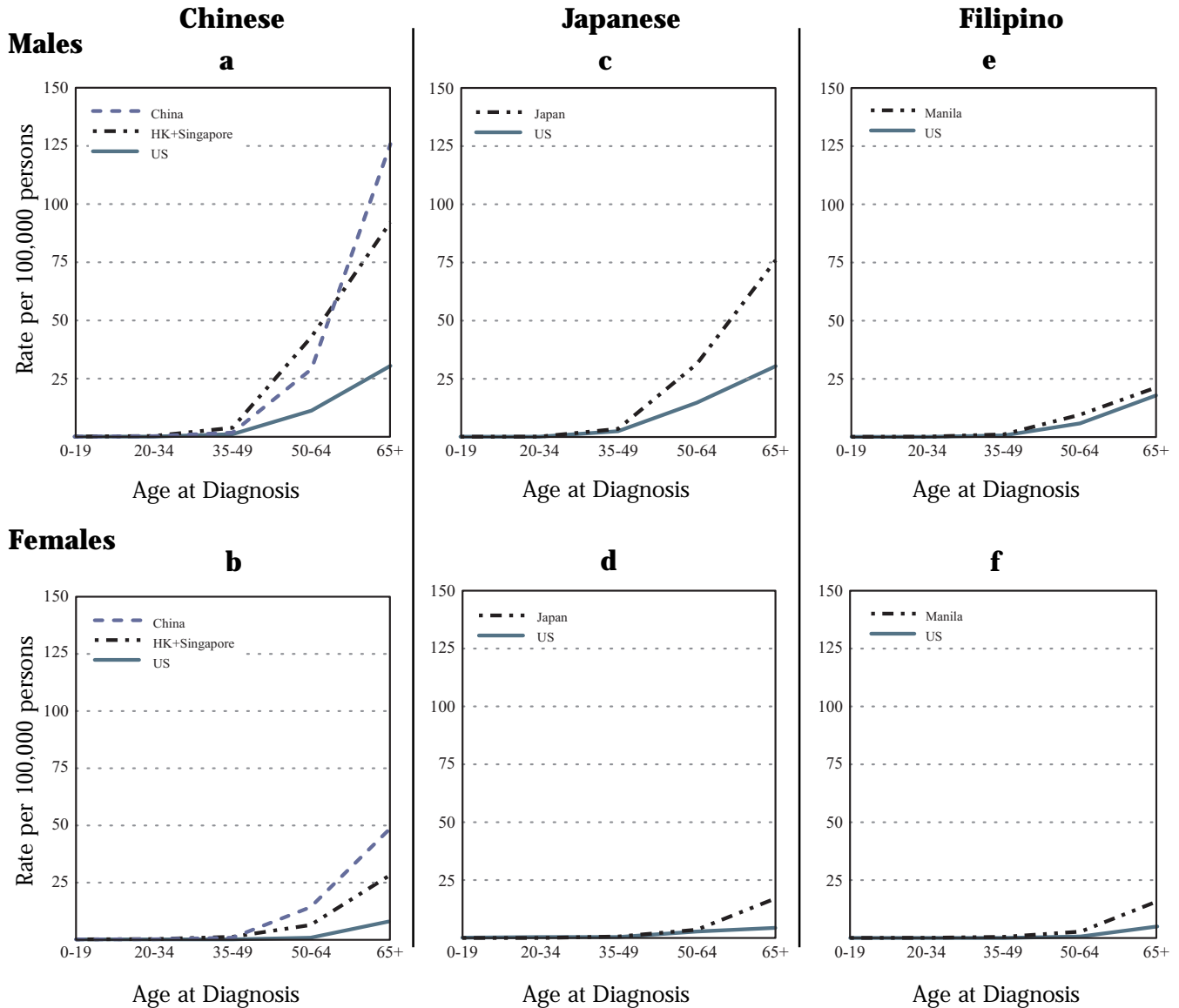
1 US SEER program and California  
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 4 Miyagi, Nagasaki, Osaka, Yamagata, Saga

### Risk Factors

Risk factors for esophageal cancer differ markedly between the US and Asian countries. In the US, the strongest risk factors are alcohol consumption and tobacco use; 93% of esophageal tumors in blacks and 86% in whites have been estimated to be attributable to these factors<sup>4</sup>. The association with alcohol, which is stronger for squamous cell carcinoma than adenocarcinoma, has been observed consistently even after smoking status is accounted for<sup>5</sup>. Smokers have a risk of esoph-

In Asia, diet and nutritional status appear to be important risk factors for esophageal cancer<sup>2,9,10</sup>, although one study in China did find smoking and alcohol to be major risk factors in that population<sup>11</sup>. Studies of squamous cell esophageal cancer strongly support a protective effect of fruit and vegetable consumption, and increased risk with hot drinks such as soup or tea, although green tea consumption may be protective<sup>11,12</sup>. Vitamins (A, C, E), riboflavin, folic acid, molybdenum, selenium, and zinc have all been found to decrease the risk of esophageal cancer, while alcohol, pickled

Figure 2: Age-specific incidence rates by race/ethnicity, sex, and region, 1988-1992



vegetables, and nitrates, nitrites and nitrosamines may increase risk<sup>2</sup>. In addition, countries with elevated consumption of dried, salted or smoked foods have higher incidence rates of esophageal cancer<sup>2</sup>. Mycotoxin exposure<sup>2</sup> and human papillomavirus infection<sup>13</sup> also have been associated with increased risk of this cancer in Asia.

**Incidence**

As shown in Figure 1, males had substantially higher rates of esophageal cancer than females across all racial/ethnic groups. Overall, Chinese had higher incidence rates than other groups: 1.4 times the Japanese rates and 4.5 times the Filipino rates for males, and three times the rates of both Japanese and Filipino females. The US incidence rates for each race/ethnicity were considerably lower than the rates for those living in Asia. Incidence rates for US Chinese males were

about four times lower than those of Chinese males, and rates for US Chinese females were about seven times lower than the rates for Chinese females. For Japanese in the US, rates were approximately half those of Japanese in Japan. US Filipino males had an incidence rate of esophageal cancer one-third that of Filipino males, and the rate in US Filipinas was only about two-thirds as large as that in Filipinas in Manila. The age-specific curves reveal that after about age 50, the incidence rates in the Asian countries were one and a half to two times higher than those in the US (Figures 2a-2f). As it appears that alcohol and tobacco are not the major risk factors for esophageal cancer in Asia, the higher incidence rates in Asia as compared to the US may be due to some environmental exposure which is present in Asian countries but not in the US<sup>2</sup>.

## COLON

### Five-Year Counts, Average Annual Age-Adjusted Incidence Rates and 95% Confidence Intervals by Registry Group and Sex, 1988-1992<sup>1</sup>

Registry Group	Count	US Standard		World Standard	
		Rate	95% CI	Rate	95% CI

#### TOTAL

<b>Chinese</b>					
US <sup>2</sup>	1047	25.1	23.4-26.8	18.8	17.6-20.0
China <sup>3</sup>	6646	11.8	11.5-12.1	9.5	9.3-9.7
HK <sup>4</sup> /Singapore	8959	26.8	26.2-27.4	20.7	20.3-21.2
<b>Japanese</b>					
US	1519	34.2	32.3-36.1	26.0	24.6-27.4
Japan <sup>5</sup>	19913	22.5	22.2-22.8	17.4	17.2-17.7
<b>Filipino</b>					
US	722	17.6	16.3-19.0	13.0	12.0-14.1
Manila	1017	12.9	12.0-13.8	9.8	9.2-10.5

#### MALES

<b>Chinese</b>					
US	538	28.6	26.0-31.4	21.1	19.3-23.1
China	3363	13.0	12.5-13.4	10.2	9.8-10.5
HK/Singapore	4524	29.8	28.9-30.7	22.7	22.1-23.4
<b>Japanese</b>					
US	803	40.7	37.6-43.8	30.7	28.5-33.1
Japan	10715	28.2	27.7-28.8	21.8	21.3-22.2
<b>Filipino</b>					
US	457	22.2	20.1-24.5	16.6	15.0-18.3
Manila	512	14.4	13.0-15.9	11.0	10.0-12.0

#### FEMALES

<b>Chinese</b>					
US	509	22.2	20.2-24.4	16.9	15.3-18.5
China	3283	11.0	10.6-11.4	9.0	8.7-9.3
HK/Singapore	4435	24.7	23.9-25.4	19.2	18.6-19.8
<b>Japanese</b>					
US	716	29.1	26.7-31.5	22.2	20.5-24.0
Japan	9198	18.2	17.8-18.6	14.1	13.8-14.4
<b>Filipino</b>					
US	265	13.3	11.6-15.1	9.9	8.7-11.2
Manila	505	11.7	10.6-12.8	8.9	8.1-9.7

<sup>1</sup> Data are not shown for rates based on fewer than 5 cases.

<sup>2</sup> US = SEER + California

<sup>3</sup> China = Shanghai + Tianjin

<sup>4</sup> HK = Hong Kong + Singapore Chinese

<sup>5</sup> Japan = Miyaki, Osaka, Saga, Yamagata, Nagasaki

## COLON

### Five-Year Counts, Average Annual Age-Specific Incidence Rates and 95% Confidence Intervals by Registry Group, Age, and Sex, 1988-1992<sup>1</sup>

Age Group	MALES			FEMALES		
	Count	Rate	95% CI	Count	Rate	95% CI

#### US<sup>2</sup>-Chinese

0-19	<5	-	-	<5	-	-
20-34	10	1.7	0.8-3.2	12	2.0	1.0-3.5
35-49	38	8.0	5.7-11.0	48	9.3	6.9-12.4
50-64	125	48.3	40.2-57.5	116	42.2	34.9-50.6
65+	365	198.7	178.8-220.1	333	153.0	137.0-170.4

#### China<sup>3</sup>

0-19	<5	-	-	<5	-	-
20-34	140	1.7	1.4-2.0	125	1.7	1.4-2.0
35-49	407	6.4	5.8-7.0	376	6.5	5.9-7.2
50-64	1121	26.5	24.9-28.1	1250	28.1	26.6-29.7
65+	1693	74.7	71.2-78.3	1529	55.5	52.8-58.4

#### Hong Kong/Singapore Chinese

0-19	13	0.2	0.1-0.4	6	0.1	0.0-0.2
20-34	135	2.3	1.9-2.7	134	2.3	2.0-2.8
35-49	465	11.0	10.0-12.0	392	10.2	9.2-11.3
50-64	1457	56.4	53.5-59.3	1290	54.1	51.2-57.1
65+	2454	181.0	173.9-188.3	2613	146.7	141.1-152.4

#### US-Japanese

0-19	<5	-	-	<5	-	-
20-34	<5	-	-	8	2.1	0.9-4.1
35-49	28	8.3	5.5-12.0	34	9.5	6.5-13.2
50-64	205	90.7	78.7-104.0	231	68.1	59.6-77.4
65+	567	268.0	246.4-291.0	443	170.5	155.0-187.2

#### Japan<sup>4</sup>

0-19	6	0.1	0.0-0.1	<5	-	-
20-34	80	1.1	0.9-1.3	72	1.0	0.8-1.2
35-49	925	11.0	10.3-11.7	792	9.3	8.6-9.9
50-64	4085	62.1	60.2-64.0	2651	38.2	36.8-39.7
65+	5619	169.2	164.8-173.7	5680	112.1	109.2-115.1

#### US-Filipino

0-19	<5	-	-	<5	-	-
20-34	5	0.8	0.3-2.0	<5	-	-
35-49	33	6.7	4.6-9.5	37	6.1	4.3-8.4
50-64	103	42.5	34.7-51.6	73	23.4	18.3-29.4
65+	315	160.6	143.3-179.3	151	74.7	63.3-87.6

#### Manila

0-19	5	0.1	0.0-0.2	<5	-	-
20-34	32	1.0	0.7-1.4	33	0.9	0.6-1.3
35-49	89	5.3	4.2-6.5	67	3.9	3.1-5.0
50-64	186	25.7	22.1-29.6	167	20.8	17.7-24.2
65+	200	85.0	73.7-97.7	235	72.9	63.9-82.8

<sup>1</sup> Data are not shown for rates based on fewer than 5 cases.

<sup>2</sup> US = SEER + California

<sup>3</sup> China = Shanghai + Tianjin

<sup>4</sup> Japan = Miyaki, Osaka, Saga, Yamagata, Nagasaki

## CORPUS UTERI

### Five-Year Counts, Average Annual Age-Adjusted Incidence Rates and 95% Confidence Intervals by Registry Group, 1988-1992<sup>1</sup>

Registry Group	Count	US Standard		World Standard	
		Rate	95% CI	Rate	95% CI

#### FEMALES

<b>Chinese</b>					
US <sup>2</sup>	232	10.7	9.3-12.1	9.2	8.0-10.5
China <sup>3</sup>	1136	3.8	3.6-4.0	3.4	3.2-3.6
HK <sup>4</sup> /Singapore	1403	7.9	7.5-8.3	7.0	6.6-7.4
<b>Japanese</b>					
US	332	14.5	12.9-16.2	12.2	10.9-13.6
Japan <sup>5</sup>	1781	3.7	3.5-3.9	3.3	3.1-3.4
<b>Filipino</b>					
US	279	11.6	10.2-13.0	10.2	9.0-11.4
Manila	362	6.5	5.8-7.2	5.7	5.1-6.3

1 Data are not shown for rates based on fewer than 5 cases.

2 US = SEER + California

3 China = Shanghai + Tianjin

4 HK = Hong Kong + Singapore Chinese

5 Japan = Miyaki, Osaka, Saga, Yamagata, Nagasaki

## CORPUS UTERI

### Five-Year Counts, Average Annual Age-Specific Incidence Rates and 95% Confidence Intervals by Registry Group and Age, 1988-1992<sup>1</sup>

Age Group	FEMALES		
	Count	Rate	95% CI

#### US<sup>2</sup>-Chinese

0-19	<5	-	-
20-34	8	1.4	0.6-2.7
35-49	42	8.2	5.9-11.0
50-64	98	35.7	28.9-43.5
65+	84	38.6	30.8-47.8

#### China<sup>3</sup>

0-19	<5	-	-
20-34	44	0.6	0.4-0.8
35-49	186	3.2	2.8-3.7
50-64	660	14.8	13.7-16.0
65+	245	8.9	7.8-10.1

#### Hong Kong/Singapore Chinese

0-19	<5	-	-
20-34	62	1.1	0.8-1.4
35-49	382	9.9	9.0-11.0
50-64	604	25.3	23.3-27.4
65+	355	19.9	17.9-22.1

#### US-Japanese

0-19	<5	-	-
20-34	11	2.9	1.4-5.1
35-49	55	15.3	11.5-19.9
50-64	123	36.2	30.1-43.2
65+	143	55.0	46.4-64.8

#### Japan<sup>4</sup>

0-19	<5	-	-
20-34	35	0.5	0.3-0.7
35-49	345	4.0	3.6-4.5
50-64	947	13.7	12.8-14.6
65+	453	8.9	8.1-9.8

#### US-Filipino

0-19	<5	-	-
20-34	10	1.5	0.7-2.8
35-49	79	13.1	10.3-16.3
50-64	123	39.4	32.8-47.0
65+	66	32.6	25.3-41.5

#### Manila

0-19	<5	-	-
20-34	19	0.5	0.3-0.8
35-49	91	5.4	4.3-6.6
50-64	186	23.1	19.9-26.7
65+	65	20.2	15.6-25.7

<sup>1</sup> Data are not shown for rates based on fewer than 5 cases.

<sup>2</sup> US = SEER + California

<sup>3</sup> China = Shanghai + Tianjin

<sup>4</sup> Japan = Miyaki, Osaka, Saga, Yamagata, Nagasaki

## ESOPHAGUS

### Five-Year Counts, Average Annual Age-Adjusted Incidence Rates and 95% Confidence Intervals by Registry Group and Sex, 1988-1992<sup>1</sup>

Registry Group	Count	US Standard		World Standard	
		Rate	95% CI	Rate	95% CI

#### TOTAL

<b>Chinese</b>					
US <sup>2</sup>	109	2.8	2.3-3.4	2.0	1.7-2.5
China <sup>3</sup>	6206	11.8	11.5-12.1	8.7	8.5-9.0
HK <sup>4</sup> /Singapore	3236	9.8	9.5-10.1	7.7	7.4-8.0
<b>Japanese</b>					
US	127	2.9	2.4-3.5	2.3	1.9-2.7
Japan <sup>5</sup>	5970	6.8	6.6-6.9	5.3	5.1-5.4
<b>Filipino</b>					
US	64	1.6	1.2-2.0	1.2	0.9-1.5
Manila	224	3.0	2.6-3.4	2.3	2.0-2.6

#### MALES

<b>Chinese</b>					
US	90	4.9	3.8-6.0	3.7	2.9-4.5
China	4214	17.7	17.2-18.3	12.9	12.5-13.3
HK/Singapore	2540	16.5	15.8-17.1	12.9	12.4-13.4
<b>Japanese</b>					
US	105	5.5	4.4-6.6	4.3	3.5-5.2
Japan	4853	12.7	12.3-13.1	9.9	9.6-10.2
<b>Filipino</b>					
US	52	2.5	1.8-3.3	1.9	1.4-2.5
Manila	140	4.0	3.3-4.7	3.1	2.6-3.7

#### FEMALES

<b>Chinese</b>					
US	19	1.0	0.6-1.5	0.6	0.3-0.9
China	1992	7.0	6.7-7.3	5.2	5.0-5.4
HK/Singapore	696	3.9	3.6-4.2	2.9	2.7-3.1
<b>Japanese</b>					
US	22	0.9	0.5-1.3	0.7	0.4-1.1
Japan	1117	2.2	2.0-2.3	1.6	1.5-1.7
<b>Filipino</b>					
US	12	0.7	0.4-1.2	0.5	0.3-0.8
Manila	84	2.1	1.7-2.6	1.6	1.2-1.9

<sup>1</sup> Data are not shown for rates based on fewer than 5 cases.

<sup>2</sup> US = SEER + California

<sup>3</sup> China = Shanghai + Tianjin

<sup>4</sup> HK = Hong Kong + Singapore Chinese

<sup>5</sup> Japan = Miyaki, Osaka, Saga, Yamagata, Nagasaki

## ESOPHAGUS

### Five-Year Counts, Average Annual Age-Specific Incidence Rates and 95% Confidence Intervals by Registry Group, Age, and Sex, 1988-1992<sup>1</sup>

Age Group	MALES			FEMALES		
	Count	Rate	95% CI	Count	Rate	95% CI

#### US<sup>2</sup>-Chinese

0-19	<5	-	-	<5	-	-
20-34	<5	-	-	<5	-	-
35-49	5	1.1	0.3-2.5	<5	-	-
50-64	29	11.2	7.5-16.1	<5	-	-
65+	56	30.5	23.0-39.6	17	7.8	4.6-12.5

#### China<sup>3</sup>

0-19	<5	-	-	<5	-	-
20-34	16	0.2	0.1-0.3	5	0.1	0.0-0.2
35-49	110	1.7	1.4-2.1	42	0.7	0.5-1.0
50-64	1231	29.1	27.5-30.7	627	14.1	13.0-15.3
65+	2857	126.0	121.4-130.7	1318	47.8	45.3-50.5

#### Hong Kong/Singapore Chinese

0-19	<5	-	-	<5	-	-
20-34	15	0.3	0.1-0.4	8	0.1	0.1-0.3
35-49	162	3.8	3.3-4.5	43	1.1	0.8-1.5
50-64	1111	43.0	40.5-45.6	150	6.3	5.3-7.4
65+	1252	92.3	87.3-97.6	494	27.7	25.3-30.3

#### US-Japanese

0-19	<5	-	-	<5	-	-
20-34	<5	-	-	<5	-	-
35-49	8	2.4	1.0-4.7	<5	-	-
50-64	33	14.6	10.0-20.5	9	2.7	1.2-5.0
65+	64	30.3	23.3-38.6	11	4.2	2.1-7.6

#### Japan<sup>4</sup>

0-19	<5	-	-	<5	-	-
20-34	<5	-	-	<5	-	-
35-49	284	3.4	3.0-3.8	52	0.6	0.5-0.8
50-64	2053	31.2	29.9-32.6	237	3.4	3.0-3.9
65+	2513	75.7	72.7-78.7	827	16.3	15.2-17.5

#### US-Filipino

0-19	<5	-	-	<5	-	-
20-34	<5	-	-	<5	-	-
35-49	<5	-	-	<5	-	-
50-64	14	5.8	3.2-9.7	<5	-	-
65+	35	17.8	12.4-24.8	10	4.9	2.4-9.1

#### Manila

0-19	<5	-	-	<5	-	-
20-34	<5	-	-	<5	-	-
35-49	18	1.1	0.6-1.7	8	0.5	0.2-0.9
50-64	69	9.5	7.4-12.1	22	2.7	1.7-4.1
65+	50	21.3	15.8-28.0	51	15.8	11.8-20.8

<sup>1</sup> Data are not shown for rates based on fewer than 5 cases.

<sup>2</sup> US = SEER + California

<sup>3</sup> China = Shanghai + Tianjin

<sup>4</sup> Japan = Miyaki, Osaka, Saga, Yamagata, Nagasaki