Cancer in Thailand

Vol. VIII, 2010-2012

MINISTRY OF PUBLIC HEALTH

National Cancer Institute

Lampang Cancer Center

Ubon Ratchathani Cancer Center

Udon Thani Cancer Center

Lop Buri Cancer Center

Chon Buri Cancer Center

Surat Thani Cancer Center

Maha Vajiralongkorn Cancer Center

MINISTRY OF EDUCATION

Chiang Mai University

Khon Kaen University

Edited by

W. Imsamran

A. Chaiwerawattana, S. Wiangnon

D. Pongnikorn, K. Suwanrungrung

S. Sangrajrang, R. Buasom

Bangkok, 2015

ISBN : 978-616-11-260603

Produced by Cancer Registry Unit, National Cancer Institute Thailand
Rama VI Road, Ratchathewi District Bangkok 10400, Thailand

Published 2015

Print 1,000 Books

ISBN 978-616-11-260603

Printed in New Thammada Press (Thailand) Co., Ltd.
202 Soi Charoenkrung 57, Yannawa, Sathorn, Bangkok 10120 Thailand
Tel. 0 2675 6062-4
Fax. 0 2211 4113
E-mail : newthammada@gmail.com, newthammada@yahoo.com

ผลงานนี้ ใช้สัญญาอนุญาตของครีเอทีฟคอมมอนส์แบบ แสดงที่มา-ไม่ใช้เพื่อการค้า-อนุญาตแบบเดียวกัน 4.0 International.

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Foreword

The monograph "Cancer in Thailand Vol VIII", contains the available data on incidence and distribution of different cancers during 2010-2012. Included in this volume are findings from a total of 15 cancer registries, including new contributions from Krabi, Chanthaburi, Trat, Lamphun and Phitsanulok.

A major change has been made regarding population denomination. For this volume we employed data from the office of the National Economic and Social Development Board, which estimated the population projection for Thailand 2010-2040, while previously data were from the National Survey by the National Statistical Office, in which the population was calculated using the assumption of an exponential change between 1990 and 2000 censuses. At least partly because of this the adjusted incidence of cancer decreased from 156.7/100,000 to 143.3/100,000 compared to the previous volume among males and 138.2/100,000 to 131.9/100,000 among females, although the number of new cases increased from 102,786 to 112,392.

Starting from the first volume in 1993, we are pleased to continue publishing our series of Cancer in Thailand regularly. Currently, more and more Thai people are becoming aware of cancer registration and use our data for their work. Most importantly, the Ministry of Public Health is strongly supporting cancer registration as one of the most important strategies of our National Cancer Control Program, envisaging integration of findings into its service plan. This will allow us to improve the quality of our cancer registry data.

We do hope that the current volume providing an up-to-date picture of the cancer situation in Thailand and will be useful for planning and monitoring our cancer control strategies as well as for different areas of cancer research.

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Acknowledgements

This work was supported by government budget of National Cancer Institute, Department of Medical Services, Ministry of Public Health.

The authors gratefully acknowledge the institutes, hospitals, universities and all of the persons who are involved in this study for the completion of the monograph.

We would like to express our gratitude to Mr.Nisit Singhakosit and the devoted staff of cancer registry in preparation of the statistics and graphics for this volume. We are grateful to all personal in cancer epidemiology unit for their assistance in the preparation of this publication.

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CHANTHABURI
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Tassanee Bhumibhamorn
Wimonrat Phonngam
Ketsara Koedsuk
Chitchanin Niyomthai
Siriwan Manpean
Pornrat Srithong

HOSPITALS AND INSTITUTES

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1. Maharaj Nakorn Chiang Mai Hospital, University Hospital
2. Sripat Medical Center, University Hospital
3. Nakon Ping Hospital
4. McCormick Hospital
5. Lanna Hospital
6. Chiang Mai Ram Hospital
7. Chiang Mai Medical Center Hospital
8. Mckean Rehabilitation Center
9. Central Chiang Mai Memorial Hospital
10. Chiang Mai klaimor hospital
11. Changpeuk Hospital
12. Siamrad Chiang Mai Hospital
13. Theppunya Hospital
14. Rajavej Chiang Mai Hospital
15. Chom Thong Hospital
16. Mae Chaem Hospital
17. Chiang Dao Hospital
18. Doi Saket Hospital
19. Mae Taeng Hospital
20. Mae Rim Hospital
21. Samoeng Hospital
22. Fang Hospital
23. Mae Ai Hospital
24. Phrao Hospital
25. San Pa Tong Hospital
26. San Kamphaeng Hospital
27. San Sai Hospital
28. Hang Dong Hospital
29. Hot Hospital
30. Doi Tao Hospital
31. Omkoi Hospital
32. Saraphi Hospital
33. Wiang Haeng Hospital
34. Chai Prakan Hospital
35. Mae Wang Hospital
36. Mae On Hospital
37. Doi Law Hospital
38. Wat Chan Chaloem Prakiat Hospital Marking His Majesty the King's 80 Birthday
39. Chiang Mai Neurological Hospital

LAMPHUN

1. Lamphun Provincial Hospital
2. Provincial Public Health Service of Lamphun
3. Private Hospitals in Lamphun
    - 3.1. Hariphunchai Hospital
    - 3.2. Sirivej Lamphun Hospital
    - 3.3. Central Nikom Lamphun Hospital
4. Community Hospitals
    - 4.1. Mae Ta Hospital
    - 4.2. Lee Hospital
    - 4.3. Pha Sang Hospital
    - 4.4. Ban Ti Hospital
    - 4.5. Ban Hong Hospital
    - 4.6. Tung Hou Chang Hospital
    - 4.7. Wiang Nong Long Hospital

LAMPANG

1. Lampang Provincial Hospital
2. Provincial Public Health Service of Lampang
3. Private Hospitals in Lampang
    - 3.1. Khaelang-Ram Hospital
    - 3.2. Vansanwood Hospital
4. Surasakmontri Military Hospital
5. Community Hospitals
    - 5.1. Koh Kha Hospital
    - 5.2. Ngao Hospital
    - 5.3. Chae Hom Hospital
    - 5.4. Theon Hospital
    - 5.5. Mae Tha Hospital
    - 5.6. Mae Prik Hospital
    - 5.7. Mae Moh Hospital
    - 5.8. Wang Nua Hospital
    - 5.9. Sop Prap Hospital
    - 5.10. Soem Ngam Hospital
    - 5.11. Hang Chat Hospital
    - 5.12. Muang Pan Hospital

PHITSANULOK

1. Buddhachinaraj Provincial Hospital
2. Provincial Public Health Service of Phitsanulok
3. Private Hospitals in Phitsanulok
    - 3.1. Phitsanuvej Hospital
    - 3.2. Ratanavej Hospital 1&2
    - 3.3. Intervejchakarn Hospital
    - 3.4. Ruamphat Hospital
    - 3.5. Radiotherapy and Nuclear Medicine Hospital
    - 3.6. Bangkok Hospital Phitsanulok
4. Naresuan Military Hospital
5. Naresuan University Hospital
6. Community Hospitals
    - 6.1. Bang Rakam Hospital
    - 6.2. Bang Kratum Hospital
    - 6.3. Chattrakan Hospital
    - 6.4. Phompiram Hospital
    - 6.5. Wat Bot Hospital
    - 6.6. Wang Thong Hospital
    - 6.7. Noenmapang Hospital
    - 6.8. Somdet Phrayupharad Nakhonthai Hospital

UDON THANI

1. Udon Thani Cancer Center
2. Udon Thani Provincial Health Office
3. Udon Thani Provincial Hospital
4. Kai Prajuksilapakom Hospital
5. Udon Thani Analytical Population Center
6. Ban Dung Hospital
7. Ban Phue Hospital
8. Chai Wan Hospital
9. Kumphawapi Hospital
10. Kut Chap Hospital
11. Na Yung Hospital
12. Nam Som Hospital
13. Non Sa-at Hospital
14. Nong Han Hospital
15. Nong Saeng Hospital

16. Nong Wua So Hospital
17. Phen Hospital
18. Phibun Rak Hospital
19. Sang Khom Hospital
20. Si That Hospital
21. Thung Fon Hospital
22. Wang Sam Mo Hospital

KHON KAEN

1. Srinagarind Hospital, Faculty of Medicine Khon Kaen University
2. Khon Kaen Regional Hospital
3. Rachapruk Hospital
4. Khon Kaen Ram Hospital
5. Community Hospitals
    - 5.1. Ban Fang Hospital
    - 5.2. Ban Phai Hospital
    - 5.3. Ban Haet Hospital
    - 5.4. Non Sila Hospital
    - 5.5. Chonnabot Hospital
    - 5.6. Chum Phae Hospital
    - 5.7. Khao Suan Kwang Hospital
    - 5.8. Kranuan Hospital
    - 5.9. Sam Sung Hospital
    - 5.10. Mancha Khiri Hospital
    - 5.11. Khok Pho Chai Hospital
    - 5.12. Nam Phong Hospital
    - 5.13. Nong Ruea Hospital
    - 5.14. Nong Song Hong Hospital
    - 5.15. Phon Hospital
    - 5.16. Phra Yuen Hospital
    - 5.17. Phu Pha Man Hospital
    - 5.18. Phu Wiang Hospital
    - 5.19. Nong Na Kham Hospital
    - 5.20. Pueai Noi Hospital
    - 5.21. Si Chomphu Hospital
    - 5.22. Ubolratana Hospital
    - 5.23. Waeng Noi Hospital
    - 5.24. Waeng Yai Hospital

UBON RATCHATHANI

1. Ubonratchathani Cancer Hospital
2. Ubonratchathani Health Provincial Office
3. Sunpasitthiprasong Hospital
4. Khongchiam Hospital
5. Sirinthorn Hospital
6. Warin Chamrap Hospital
7. Samrong Hospital
8. Tan Sum Hospital
9. Phibunmangsahan Hospital
10. Somdej PhraYupparaj Det Udom Hospital
11. Thung Si Udom Hospital
12. Nam Yuen Hospital
13. Buntharik Hospital
14. Na Chaluai Hospital
15. Khuang Nai Hospital
16. Muang Samsip Hospital
17. Trakan Phuetphon Hospital
18. Pho Sai Hospital
19. Si Mueang Mai Hospital
20. Don Mot Daeng Hospital
21. Kut Khaopun Hospital
22. Khemarat Hospital
23. Nam Khun Hospital
24. Na Year Hospital
25. Lao Suea Kok Hospital
26. Sawang Weerawong Hospital
27. Na Tan Hospital
28. Fort Sunpasitthiprasong Hospital

LOP BURI

1. King Narai Hospital
2. King Narai Cytotechnician
3. Anandamahidol Hospital
4. Phatthana Nikhom Hospital
5. Khok Samrong Hospital
6. Tha Wung Hospital

7. Ban Mi Hospital
8. Sabot Hospital
9. Chaibadarn Hospital
10. Tha Luang Hospital
11. Khok Chareon Hospital
12. Lan Sonthi Hospital
13. Nong Muang Hospital

BANGKOK

1. Aekamarin General Hospital (Bangkae)
2. Ananta Pattana Hospital
3. Bamrasnaradura I.D. Hospital
4. Bangkok Adventist Hospital
5. Bangkok Cancer Center Hospital
6. Bangkok Chest Hospital
7. Bangkok General Hospital
8. Bangkok Metropolitan Administration General Hospital
9. Bangkok Nursing Home Hospital
10. Bangkok Pathology-Laboratory
11. Bangmod I Hospital
12. Bangmod II Hospital
13. Bangmod III Hospital
14. Bangna I Hospital
15. Bangna II Hospital
16. Bangpai Hospital
17. Bangpakok I Hospital
18. Bangpakok II Hospital
19. Bangpakok III Hospital
20. Bangpo General Hospital
21. Bhumibol Adulyadej Hospital
22. Bumrungrad Hospital
23. Burachat Chaiyakorn Hospital
24. Camilian Hospital
25. Cancer Institute, Siriraj Hospital
26. Central Chest Hospital
27. Central General Hospital
28. Chao Phraya Hospital
29. Charoenkrung Pracharaks Hospital

30. Chung Jen Hospital
31. Deja General Hospital
32. Division of Health Statistics Bureau of Health Policy and Plan Office
33. Dr. Panya General Hospital
34. Hospital for Tropical Disease
35. Hua Chiew General Hospital
36. Institute of Dermatology
37. Institute of Pathology
38. Jetanin Hospital
39. Jongjin Foundation Hospital
40. Karuna Pitak Hospital
41. Kasemrad Hospital Bang Khae
42. Kasemrad Hospital Prachachuen
43. King Chulalongkorn Memorial Hospital
44. Klongtun Hospital
45. Kluaynamthai Hospital
46. Krungdhon I Hospital
47. Krungdhon II Hospital
48. Ladkrabang Hospital
49. Ladprao General Hospital
50. Lerdsin Hospital
51. Mahachai II Hospital
52. Mahaesuk Hospital
53. Mayo Hospital
54. Metropolitan Electricity Authority Hospital
55. Mitraparp Wong Wian Yai Hospital
56. Mettapracharak Hospital
57. Mongkutwattana Hospital
58. Nakorn Thon Hospital
59. National Cancer Institute
60. Navaminthra Hospital
61. Nopparut Ratchatani Hospital
62. Pakkred Vejchakarn General Hospital
63. Paolo Memorial Hospital
64. Petcharavej Hospital
65. Piyavate Hospital Public company Limited
66. Phaya Thai I Hospital
67. Phaya Thai II Hospital

68. Phaya Thai III Hospital
69. Phra Monkutklao Hospital
70. Phranungklao Hospital
71. Police General Hospital
72. Praram 2 Hospital
73. Prasat Neurological Institute
74. Priest's Hospital
75. Prison Hospital of Ministry of Interia
76. Prommitr Hospital
77. Queen Sirikit National Institute of Child Health
78. Rajavithi Hospital
79. Rajburana Hospital
80. Ram 9 Hospital
81. Ramasuksawat Hospital
82. Ramathibodi Hospital
83. Ramkhamhaeng Hospital
84. Rattarin Hospital
85. Registration Processing Center
86. Royal Irrigation Hospital
87. Saint Louis Hospital
88. Salaya Hospital
89. Samitivej Hospital
90. Samitivej Srinakarin Hospital
91. Samrong Hospital
92. Siam Hospital
93. Sikarin Hospital
94. Sin Phaet Hospital
95. Somdej Prapinklaow Hospital
96. Srisiam Hospital
97. Srivichai I Hospital
98. Srivichai II Hospital
99. Srivichai III Hospital
100. St. Carlos Group of Health Services
101. Sukumvit Hospital
102. Surgical Pathology – Cytology Service
103. Taksin Hospital
104. Thailand Tobacco Monopoly Hospital
105. Thainakarin Hospital

106. Thammasat Chalermprakiat Hospital
107. The Bangkok Christian Hospital
108. Theptarin Hospital
109. Thon Buri I Hospital
110. Thon Buri II Hospital
111. Thain Fah Hospital
112. Vajira Hospital
113. Vejthani Hospital
114. Vejsawad Hospital
115. Veterans General Hospital
116. Vibha – Ram Hospital
117. Vibhavadi Hospital
118. Vichaiyud Hospital
119. Vichanyud Hospital
120. Yanhee General Hospital
121. Yaowarak Hospital
122. Yosae Hospital

CHON BURI

1. Chonburi Cancer Hospital
2. Chonburi Provincial Hospital
3. Banglamung Hospital
4. Botong Hospital
5. Banbung Hospital
6. Panatnikhom Hospital
7. Ko–Sichang Hospital
8. Sattahip Hospital
9. Nong Yai Hospital
10. Vibharam Laemchabang Hospital
11. Wat Yansangwararam Hospital
12. Panthong Hospital
13. Lame Charbang Hospital
14. Burapha University Hospital
15. Somdej Pranangchao Sirikit Hospital
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17. Pattaya Memorial Hospital
18. Pattaya International Hospital

19. Samitivej Sriracha Hospital
20. Phaya Thai Sriracha Hospital
21. Aikchol Hospital
22. Aikchol Hospital 2
24. Cholvaej Hospital
25. Fort Nawamintharachini Hospital
26. Queen Savangvadhana Memorial Hospital

RAYONG

1. Rayong Provincial Hospital
2. Bangkok Hospital Rayong
3. Klaeng Hospital
4. Ban Khai Hospital
5. Ban Chang Hospital
6. Pluak Daeng Hospital
7. Wang Chan Hospital
8. Map Ta Phut Hostital
9. Khao Chamao Hospital
10. Nikhom Phatthana Hospital

CHANTHABURI

1. Prapokklao Hospital
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10. Songphinong Hospital
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TRAT

1. Trat Hospital
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SURAT THANI

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8. Plai Phraya Hospital

Population differences between Volume VII and Volume VIII

There is a major difference between the population structures used in Volume VII and Volume VIII. In the former, the population denominators were estimated from 1990 and 2000 censuses published by the National Statistical Office (National Statistical Office 1994, National Statistical Office 2002), while in the latest volume they were taken from the population projections from Thailand 2010-2040 by the population working group, office of the National Economic and Social Development Board, published in 2013.

The Office of the National Economic and Social Development Board (2012) has projected changes in the Thai population during the period spanning from 2010 to 2040 using the data from the Population and Housing Census 2010 as the baseline. The projection for the next 30 years was conducted taking into account interactions of three factors: fertility, mortality, and migration. The National Cancer Registry Committee, therefore, believe that this method may provide a more accurate estimated population than if using an inter-census estimated from any two-census years.

Overall, the population only slightly increased during the period in question, from 62,636,749 people in Vol VII to 64,077,989 in Vol VIII. However, in Bangkok the increment was more marked, from 6,526,416 to 7,767,787 and similarly Chon Buri and Rayong provinces demonstrated a large increase to 344,963 and 235,724. In contrast,there were 209,531 and 72,743 fewer people in Vol VIII than in Vol VII in Udon Thani and Lampang provinces, respectively.

With the new population data, the age standardized rate (ASR) of cancer in Thailand were dropped from 156.7/100,000 to 143.3/100,000 among males and from 138.2/100,000 to 131.9/100,000 among females, despite the number of new cases increasing from 102,786 to 112,392. The ASRs for Bangkok, Chon Buri and Rayong provinces demonstrated pronounced declines as shown in Table *i*. Other factors may also have played important roles in the variation of ASR between the two volumes such as real change in incidences of major cancers in the registries.In addition, there are the different number of registries included in the estimation of cancer in Thailand in these two volume. The current volume contains the same 10 registries Chiang Mai, Lampang, Udon Thani, Khon Kaen, Ubon Ratchathani, Lop Buri, Bangkok, Chon Buri, Rayong, Surat Thani including new contributions from Lamphun, Phitsanulok, Chanthaburi, Trat and Krabi, table *ii*.

Table i. Number of cases, ASR and population comparing Vol VII and Vol VIII

Area	Cases				Mean annual ASR				Population			
	Male		Female		Male		Female		Male		Female	
	Vol VIII	Vol VII	Vol VIII	Vol VII	Vol VIII	Vol VII	Vol VIII	Vol VII	Vol VIII	Vol VII	Vol VIII	Vol VII
Thailand	**54,586**	**50,961**	**57,806**	**51,825**	**143.3**	**156.7**	**131.9**	**138.2**	**31,207,903**	**31,125,348**	**32,870,086**	**31,511,401**
Chiang Mai	1,738	1,431	1,781	1,671	156.7	152.0	144.9	165.8	822,233	763,975	861,433	781,356
Lamphun	513	-	551	-	175.9	-	171.5	-	197,667	-	209,567	-
Lampang	969	847	907	823	161.4	160.4	143.2	142.4	364,067	403,981	374,367	407,196
Phitsanulok	729	-	802	-	122.2	-	121.9	-	437,967	-	463,167	-
Udon Thani	929	1,065	1,086	1,105	125.4	161.8	129.5	143.3	623,367	747,007	653,300	739,191
Khon Kaen	1,583	1,319	1,458	1,355	145.5	148.2	117.5	127.9	836,267	885,942	889,900	893,289
Ubon Ratchathani	1,533	1,498	1,471	1,408	145.8	170.6	127.6	143.2	851,667	862,641	878,400	859,195
Lop Buri	725	765	723	862	142.7	164.7	129.7	162.7	379,833	395,762	381,267	405,166
Bangkok	5,498	5,070	6,644	5,568	146.2	176.4	136.9	170.2	3,741,502	3,158,752	4,026,285	3,367,664
Chon Buri	1,057	993	1,292	1,166	169.0	199.2	160.0	190.4	691,267	546,943	752,733	552,094
Rayong	542	515	647	527	141.5	210.1	140.5	177.2	396,267	277,057	390,333	273,819
Chanthaburi	550	-	514	-	181.9	-	149.0	-	231,267	-	241,733	-
Trat	225	-	189	-	157.2	-	124.9	-	110,867	-	108,867	-
Surat Thani	520	560	572	579	110.7	123.1	91.0	110.4	469,100	449,344	492,900	453,918
Krabi	257	-	252	-	142.4	-	125.0	-	179,867	-	181,600	-

Table ii. List of cancer registries included in Cancer in Thailand volume VII and VIII

Volume VII (2007-2009)	Volume VIII (2010-2012)
Northern region	**Northern region**
Chiang Mai	Chiang Mai
Lampang	Lampang
	Lamphun
	Phitsanulok
Northeastern region	**Northeastern region**
Udon Thani	Udon Thani
Khon Kaen	Khon Kaen
Nakhon Phanom	Ubon Ratchathani
Ubon Ratchathani	
Central	**Central**
Lop Buri	Lop Buri
Kanchanaburi	
Phra Nakhon Si Ayutthaya	
Ratchaburi	
Chon Buri	
Rayong	
Prachuap Khiri Khan	
	Eastern region
	Chon Buri
	Rayong
	Chanthaburi
	Trat
Southern region	**Southern region**
Surat Thani	Surat Thani
Songkhla	Krabi

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Chapter I

Registry Procedure and Statistical Methods

Registry Procedure and Statistical Methods

Donsuk Pongnikorn, M.D.
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The methods specific to each registry are described in the appendix. Briefly, data on cancer cases are collected from hospitals, laboratories and death certificates. The data collected for each cancer patient consist of registry number, name, residential address, date of birth, age, sex, date and method of diagnosis, topographic site, histology and extent of cancer, and vital status of cancer patient. The data collection in details may differ from one to another registry.

Copies of death certificates are collected from the Chief Medical Officer's Offices. All certificates of death are reviewed and matched with the incident case records of the registries. The cases with no matching record are tracked back to the data sources for relevant information. Cases unable to be traced are registered as diagnosed by death certificate only.

The primary site and histology of cancer are coded according to the ICD-O 3rd edition (Fritz *et al*., 2000). Second and subsequent primary cancers are also registered. A new registration number is given for each new primary and subsequent cancer as indicated by the 3-digit code as specified in the ICD-O manual.

Cases of carcinoma in situ are registered but not included in the calculation of incidence rates. Those carcinoma in situ cases later become invasive cancers are registered as malignant and included in the calculation of incidence rates. The most valid basis of diagnosis is recorded for all registered cases.

All registered cases are followed up by passive and active procedures. Registered cases are matched with death certificates. For the remaining cases, follow up information was obtained by scrutiny of hospital records, postal enquiries, and through the network of health care system.

Population denominators

The population denominators used for the calculation of rates were taken from the Population Projections report for Thailand 2010-2040 by the Population Projection Working Group, Office of the National Economic and Social Development Board, published in 2013 which provided annual estimate by age group and sex for each province in Thailand.

The annual populations at risk were calculated for the period 2010-2012 in each registry area. They are shown in the section of each particular registry. The populations of the whole country and the five regions of Thailand for the period 2010-2012 were also estimated from the Office of the National Economic and Social Development Board.

National estimate

The data from the four Northern cancer registries of Chiang Mai, Lampang, Lamphun and Phitsanulok were first pooled by adding together the cases and the person-years at risk from the four registries. The expected incidence cases of the whole Northern region were calculated by adjusting the pooled incidence cases with the ratio of cancer deaths by sex and age groups of the four cancer registries to cancer deaths of the whole Northern region during 2010-2012 using the data from Ministry of Public Health. The same procedure was done in the Northeastern region by adding together cases and person-years at risk from Udon Thani, Khon Kaen and Ubon Ratchathani. Chon Buri, Rayong, Chanthaburi and Trat were representatives of the Eastern region while Lop Buri was representative of central region. The data of the Southern region was conducted from Surat Thani and Krabi.

Then the age (five-year age groups) and sex specific rates for the five regions excluding Bangkok were calculated. When expected cases for the five regions and the actual cases of Bangkok were combined together, the expected number of cases and estimated ASRs for the period 2010-2012 by sex and site for the whole Kingdom of Thailand were finally obtained.

Crude incidence rate (CR)

Crude incidence rate is the number of new cancer cases observed during a defined period of population divided by the population at risk in the same period. It is expressed per 100,000 population.

Age-specific incidence rate

Age-specific incidence rate is the incidence rate in a specific age group. The age-specific rates are calculated by dividing the number of cancer cases in each five years age and sex structure of population in the age group multiplied by 100,000. The rates are expressed per 100,000 populations.

AR = Ni/Pi x 100,000

Ni = Number of new cancer occurring in the age group

Pi = Population of the age group

Age-standardized incidence rate (ASR)

The age-standardized incidence rate is a summary measure of a rate that a population will have if it has a standard age structure. It is calculated first by estimating the age-specific incidence rates and applying these rates to the standard population. The world standard population is used in this book (O.M. JENSEN et al., 1991). It is alsoexpressed per 100,000 populations. Standardization is necessary when comparing several populations that differ with respect to age because it has powerful influence on the risk of cancer.

Cumulative rate

The cumulative rate is the summation of the age-specific rates over each year of age from birth to a defined upper age limit. As age-specific incidence rates are usually computed for five-year age intervals, the cumulative rate is five times the sum of the age-specific rates calculated over the five-year age groups, assuming the age-specific rates are the same for all ages within the five-year age stratum (Bray, 2002).

Quality control was carried out through the following indices:

1. Percentage of morphologically verified cases (%MV): The percentage of cases where diagnosis was based on cytology or histology examination of tissue from primary site or from metastatic site, bone morrow, cytology and peripheral blood for leukemia.

2. Percentage of death certificate only cases (%DCO): The percentage of cases where diagnosis was based on information obtained from a death certificate.

Chapter II

Cancer Incidence in Thailand

Cancer Incidence in Thailand

Donsuk Pongnikorn, M.D.
Krittika Suwanrungruang, Ph.D
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The first population-based cancer registry started in 1986 in Chiang Mai, followed by Khon Kaen in 1988, Bangkok in 1990 and Lampang in 1993. The first volume of Cancer in Thailand was published in 1993 with co-operation of the registries of Chiang Mai, Khon Kaen,, the National Cancer Institute (Bangkok), and the International Agency for Research on Cancer (Vatanasapt *et al.,* 1993). The second (Deerasamee *et al.,* 1999) and third (Sriplung *et al*., 2003) volumes were published in series.

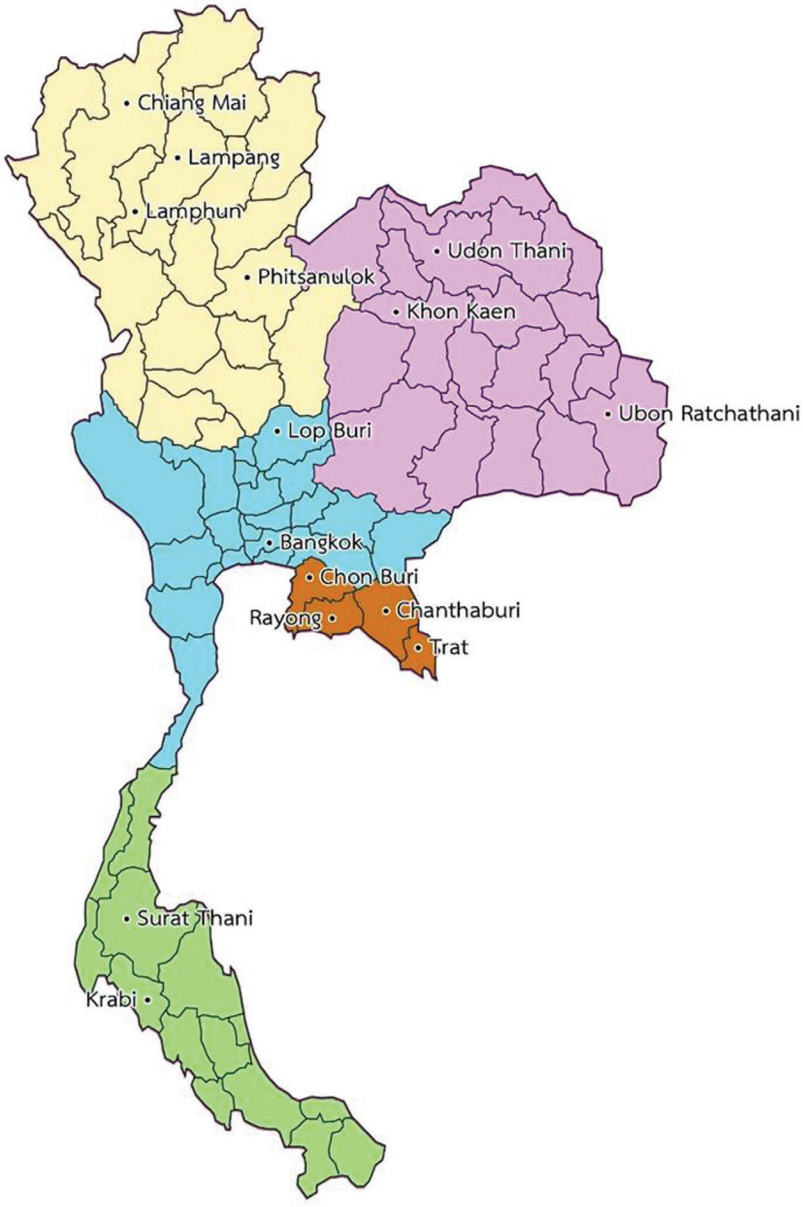
Registration area

Thailand is located in Southeast Asia between latitudes 5:37 N and 20:27 N and between longitudes 97:22 E and 105:37 E, It is bordered to the north by Laos and Burma, to the east by Laos and Cambodia, to the south by the Gulf of Thailand and Malaysia, and to the west by the Andaman Sea and Burma. Its maritime boundaries include Vietnam in the Gulf of Thailand to the southeast and Indonesia and India in the Andaman Sea to the southwest. The total area is 513,155 square kilometers. The climate of the country as a whole is tropical and characterized by monsoons. Thailand is divided into 77 provinces, within five geographical regions: the Northern, Northeastern, Central, Eastern and Southern. The geographic area covered by the fifteen population based cancer registries are shown in Figure 2.1.1 and the estimated population in each province by sex is shown in Table 2.1.1

Table 2.1.1 Land area and estimated population in 2011 (average 2010-2012)

Provinces	Population Density (person / km^2)	Land area (km^2)	Estimated population Male	Estimated population Female
Chiang Mai	83.74	20,107	822,233	861,433
Lamphun	90.40	4,505	197,667	209,567
Lampang	58.91	12,534	364,067	374,367
Phitsanulok	83.31	10,816	437,967	463,167
Udon Thani	108.84	11,730	623,367	653,300
Khon Kaen	158.57	10,886	836,267	889,900
Ubon Ratchathani	109.88	15,745	851,667	878,400
Lop Buri	122.76	6,200	379,833	381,267
Bangkok	4,950.79	1,569	3,741,502	4,026,285
Chon Buri	330.96	4,363	691,267	752,733
Rayong	221.45	3,552	396,267	390,333
Chanthaburi	74.63	6,338	231,267	241,733
Trat	77.95	2,819	110,867	108,867
Surat Thani	74.63	12,891	469,100	492,900
Krabi	76.78	4,708	179,867	181,600
Thailand	**124 .87**	**513 ,155**	**31,207,903**	**32,870,086**

Figure 2.1.1 Thailand regions and area covered by the cancer registries.



Population pyramid, Thailand, 2011
estimated population in 2011 (average 2010-2012)

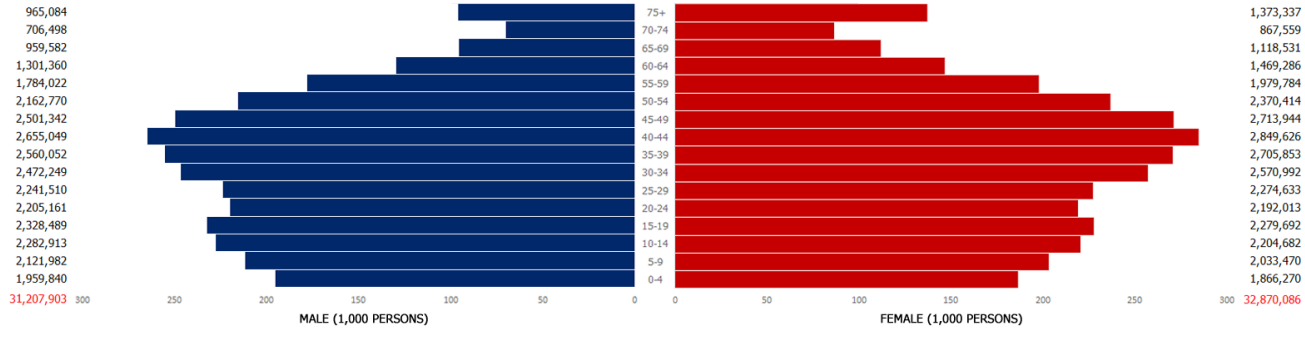


Table 2.1.2 Mean annual age-standardized incidence rate (ASR per 100,000), all sites, 2010-2012

Area	Male		Female	
	Cases	ASR (per 100,000)	Cases	ASR (per 100,000)
Thailand	**54,586**	**143.3**	**57,806**	**131.9**
Chiang Mai	1,738	156.7	1,781	144.9
Lamphun	513	175.9	551	171.5
Lampang	969	161.4	907	143.2
Phitsanulok	729	122.2	802	121.9
Udon Thani	929	125.4	1,086	129.5
Khon Kaen	1,583	145.5	1,458	117.5
Ubon Ratchatani	1,533	145.8	1,471	127.6
Lop Buri	725	142.7	723	129.7
Bangkok	5,498	146.2	6,644	136.9
Chon Buri	1,057	169.0	1,292	160.0
Rayong	542	141.5	647	140.5
Chanthaburi	550	181.9	514	149.0
Trat	225	157.2	189	124.9
Surat Thani	520	100.0	572	91.0
Krabi	257	142.4	252	125.0

The age-standardized incidence rates (ASR) of cancer at all sites ranged from 100.0 (Males) in Surat Thani and 91.0 (Females) in Surat Thani to 181.9 (Males) in Chanthaburi and 171.5 (Females) in Lampang (Table 2.1.2, Figure 2.1.2).

Figure 2.1.2 Mean annual age-standardized incidence rate (ASR per 100,000), all sites, 2010-2012

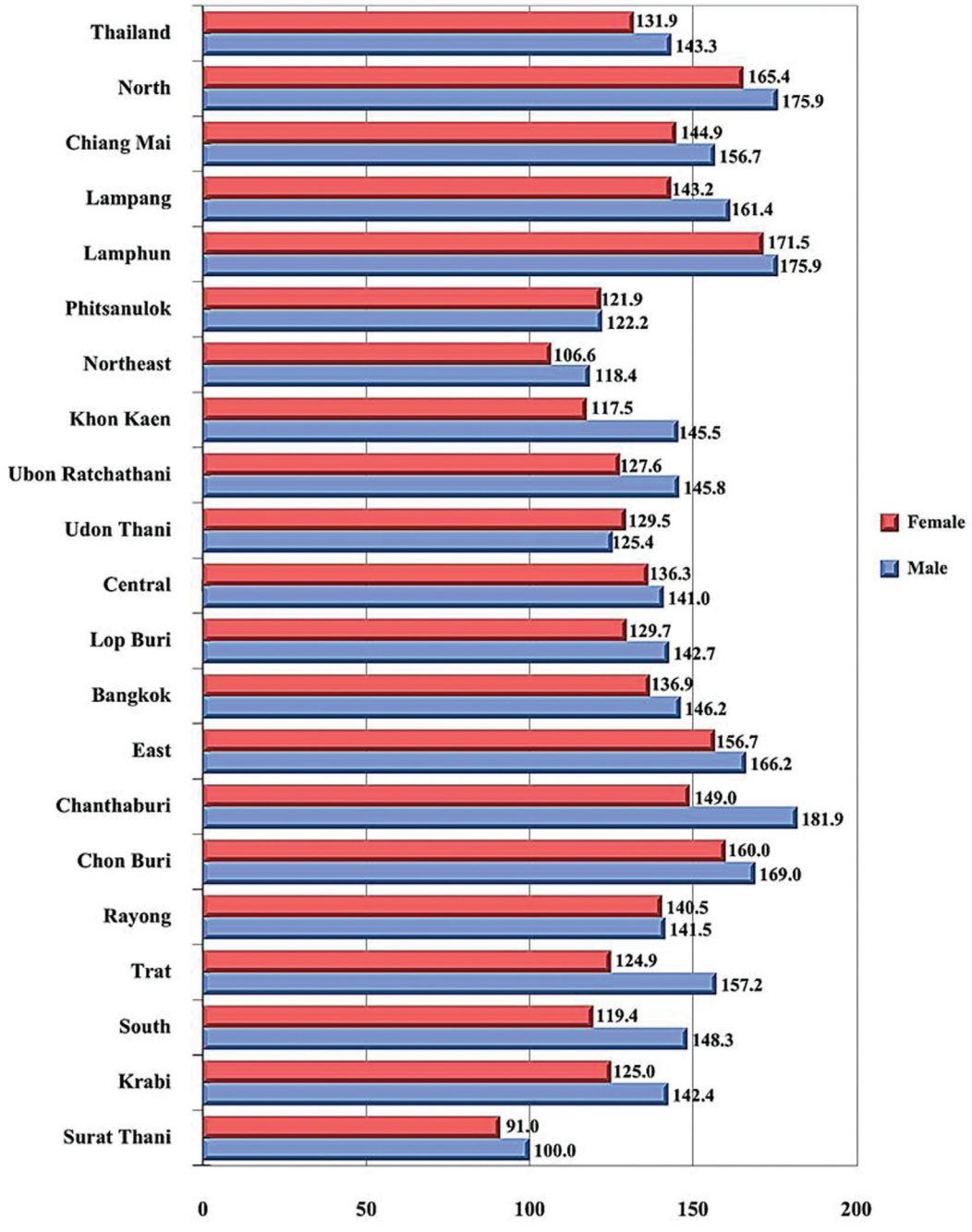
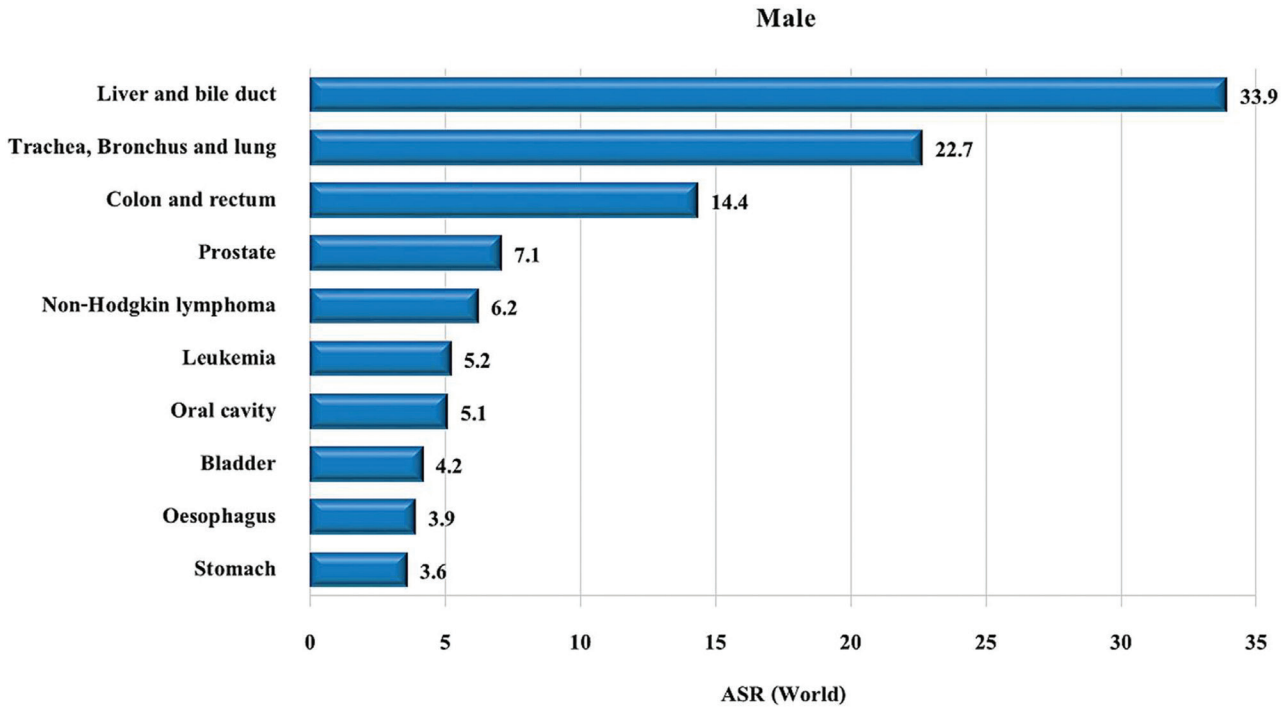


Figure 2.1.3 Leading cancer in Thailand (mean annual ASR 2010-2012)



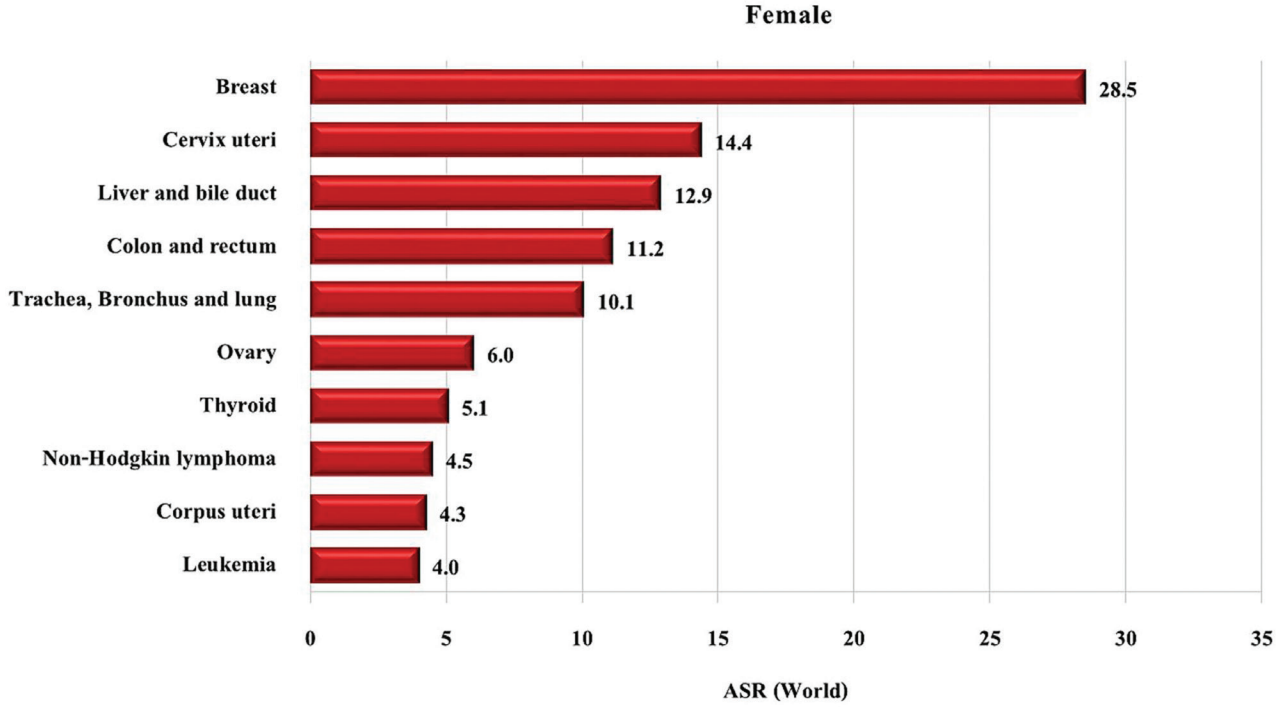


Table 2.2.1 Thailand (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	73	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.7	0.4	0.2	0.4	0.7	1.7	1.6	0.1	0.2	C00
Tongue	854	0.3	0.5	0.0	0.1	0.0	0.2	0.3	2.1	2.1	3.8	5.7	7.0	7.9	9.0	12.9	9.2	0.9	2.2	C01-02
Mouth	865	0.2	0.0	0.1	0.0	0.2	0.1	0.2	1.0	1.1	2.8	6.2	6.4	7.6	9.8	15.7	17.7	0.9	2.2	C03-06
Salivary glands	197	0.1	0.1	0.2	0.2	0.1	0.1	0.5	0.2	0.4	0.9	0.8	1.0	1.9	3.3	2.9	1.6	0.2	0.5	C07-08
Tonsil	421	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.7	1.1	2.4	4.5	2.6	2.6	4.5	5.0	4.8	0.5	1.1	C09
Other oropharynx	136	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.9	0.6	1.5	1.6	1.0	1.5	2.5	0.1	0.3	C10
Nasopharynx	1,080	0.0	0.0	0.4	0.4	0.4	0.7	1.0	2.0	3.0	6.6	8.2	11.3	9.4	10.7	9.8	5.0	1.2	2.8	C11
Hypopharynx	589	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	1.2	3.2	4.9	6.1	5.8	5.4	6.7	7.2	0.6	1.5	C12-13
Pharynx unspecified	62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7	0.6	0.5	1.0	0.6	0.7	0.1	0.2	C14
Oesophagus	1,531	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.7	8.2	9.8	14.1	17.4	21.9	24.0	19.5	1.6	3.9	C15
Stomach	1,409	0.0	0.0	0.0	0.1	0.1	0.2	0.8	1.5	2.4	5.7	7.1	11.1	15.9	19.0	25.2	22.5	1.5	3.6	C16
Small intestine	153	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.5	0.2	0.5	0.4	1.3	2.3	1.3	1.8	3.0	0.2	0.4	C17
Colon	3,117	0.1	0.0	0.1	0.2	0.4	1.2	2.1	4.2	5.0	7.9	15.9	24.8	31.3	42.5	67.1	53.0	3.3	8.0	C18
Rectum	2,333	0.0	0.0	0.0	0.1	0.1	0.6	1.8	3.2	4.2	5.9	12.3	19.2	27.4	31.7	45.3	35.5	2.5	6.0	C19-20
Anus	127	0.1	0.0	0.0	0.0	0.0	0.1	0.7	0.3	0.5	0.2	0.7	0.9	0.3	1.4	2.0	1.8	0.1	0.3	C21
Liver and bile duct	13,152	0.7	0.1	0.6	0.4	0.4	2.8	7.4	15.5	26.6	55.9	85.2	123.2	144.8	176.9	226.6	117.2	14.0	33.9	C22,C24
Gallbladder	309	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.2	0.5	1.2	2.4	3.3	5.6	9.9	4.5	0.3	0.8	C23
Pancreas	709	0.0	0.0	0.0	0.0	0.0	0.5	0.7	0.3	1.1	3.0	3.3	5.2	6.5	10.7	13.1	12.9	0.8	1.8	C25
Nose, sinuses etc.	181	0.1	0.0	0.3	0.0	0.0	0.1	0.1	0.2	0.8	0.8	1.0	1.4	1.4	1.8	3.1	1.9	0.2	0.5	C30-31
Larynx	1,040	0.3	0.1	0.0	0.0	0.0	0.1	0.1	1.1	1.3	3.5	5.3	7.8	13.0	15.4	18.8	18.1	1.1	2.7	C32
Trachea, Bronchus and lung	8,724	0.3	0.0	0.0	0.2	0.5	1.1	3.1	6.3	8.6	19.6	33.8	61.3	92.4	145.9	220.3	180.1	9.3	22.7	C33-34
Other thoracic organs	137	0.0	0.1	0.1	0.4	0.3	0.1	0.0	0.6	0.2	0.3	0.8	1.5	0.8	0.9	1.2	1.1	0.1	0.4	C37-38
Bone	340	0.3	0.5	0.8	2.3	0.7	0.2	0.3	0.4	0.9	1.0	1.3	1.9	2.6	1.5	3.6	3.2	0.4	1.0	C40-C41
Melanoma of skin	189	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2	0.5	1.7	0.9	0.7	1.9	1.9	3.3	2.6	0.2	0.5	C43
Other skin	1,372	0.3	0.1	0.0	0.2	0.1	0.8	1.9	1.6	1.7	2.6	3.5	8.5	11.5	16.5	27.6	42.2	1.5	3.5	C44
Mesothelioma	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.1	0.0	0.0	0.2	0.0	0.0	C45
Kaposi's sarcoma	29	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.3	0.0	0.0	1.1	0.0	0.2	0.0	0.1	C46
Connective tissue	410	1.0	0.6	0.2	0.3	0.4	0.3	0.8	0.9	0.8	2.1	2.0	3.1	1.8	5.1	2.4	4.6	0.4	1.2	C47,C49
Breast	189	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.3	0.5	0.7	0.5	1.3	1.8	2.3	3.9	3.6	0.2	0.5	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	480	0.1	0.1	0.1	0.0	0.0	0.1	0.4	0.9	1.4	2.2	2.1	3.5	4.4	4.8	8.8	7.7	0.5	1.2	C60
Prostate	2,762	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.6	0.3	1.1	4.0	10.4	24.0	48.1	93.5	103.5	2.9	7.1	C61
Testis	217	0.9	0.1	0.2	0.6	0.6	1.1	1.5	1.0	0.4	0.8	0.8	0.5	0.3	0.5	0.3	1.3	0.2	0.7	C62
Other male genital organs	60	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.1	0.4	0.2	0.4	0.3	0.5	0.1	0.2	C63
Kidney	592	0.9	0.6	0.2	0.0	0.0	0.2	0.7	0.7	0.6	2.0	2.5	5.1	7.2	8.1	11.4	5.6	0.6	1.6	C64
Renal pelvis	41	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.6	0.6	0.7	1.0	0.0	0.1	C65
Ureter	28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.4	0.4	0.9	0.0	0.1	C66
Bladder	1,651	0.0	0.2	0.0	0.1	0.1	0.1	0.2	1.5	1.1	2.9	5.0	10.5	18.1	19.2	42.0	50.1	1.8	4.2	C67
Other urinary organs	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.7	0.1	0.2	0.4	0.0	0.1	C68
Eye	97	1.6	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.1	0.3	0.4	0.7	0.2	1.1	1.5	0.1	0.4	C69
Brain, nervous system	958	2.4	3.2	1.0	0.8	1.3	1.3	2.6	2.0	2.2	3.1	4.3	4.3	8.2	6.8	11.3	7.7	1.0	2.9	C70-72
Thyroid	560	0.1	0.0	0.2	0.7	0.4	1.6	1.1	1.6	1.7	2.6	3.3	2.8	4.3	4.4	7.4	4.2	0.6	1.5	C73
Adrenal gland	40	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.2	0.2	0.0	0.2	C74
Other endocrine	41	0.0	0.2	0.4	0.5	0.0	0.1	0.1	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	C75
Hodgkin disease	115	0.1	0.4	0.3	0.2	0.4	0.2	0.3	0.3	0.5	0.3	0.4	0.6	0.5	0.7	0.8	0.8	0.1	0.3	C81
Non-Hodgkin lymphoma	2,300	1.2	3.1	1.1	1.2	1.1	2.3	1.9	4.1	5.3	8.5	10.0	17.8	20.9	27.7	35.1	26.5	2.5	6.2	C82-85,C96
Multiple myeloma	388	0.2	0.0	0.0	0.1	0.0	0.5	0.1	0.3	0.9	0.8	2.1	3.8	3.9	4.9	8.5	4.9	0.4	1.0	C90
Lymphoid leukemia	418	5.1	3.2	2.3	0.9	0.3	0.8	0.4	0.3	0.4	1.0	0.4	0.9	1.3	2.0	3.1	1.9	0.4	1.7	C91
Myeloid leukemia	760	1.2	1.0	0.7	0.7	0.8	1.4	3.3	1.7	1.5	2.1	2.9	4.0	5.9	8.5	7.7	7.3	0.8	2.2	C92-94
Leukemia unspecified	440	2.3	1.4	0.5	0.5	0.2	0.5	0.8	0.7	0.7	1.2	1.4	2.0	3.6	3.5	5.5	5.3	0.5	1.4	C95
Myelodysplastic disease	359	0.2	0.1	0.0	0.2	0.3	0.3	0.4	0.4	0.6	0.9	1.8	2.3	3.1	5.1	5.6	7.4	0.4	0.9	D45-D47
Other and unspecified	2,517	0.6	0.2	0.2	0.3	0.7	1.4	3.0	2.5	5.4	6.6	11.6	18.2	27.6	34.8	52.5	36.9	2.7	6.6	O&U
All sites	**54,586**	**21.7**	**16.6**	**10.2**	**12.0**	**10.9**	**21.3**	**39.6**	**65.2**	**89.7**	**178.3**	**270.9**	**414.9**	**550.3**	**729.4**	**1052.3**	**853.4**	**58.3**	**143.3**	**ALL**

Table 2.2.2 Thailand (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	341	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.4	0.3	0.1	1.1	2.7	4.4	6.8	9.8	0.3	0.7	C00
Tongue	432	0.1	0.0	0.0	0.1	0.1	0.1	0.5	0.4	0.8	1.9	2.1	2.3	4.0	4.5	4.8	5.9	0.4	1.0	C01-02
Mouth	728	0.1	0.0	0.3	0.0	0.0	0.1	0.2	0.6	0.6	1.0	1.9	2.6	7.8	7.2	10.7	19.5	0.7	1.5	C03-06
Salivary glands	189	0.1	0.1	0.0	0.2	0.1	0.3	0.2	0.5	0.7	0.5	0.9	0.7	0.8	2.1	2.1	2.1	0.2	0.4	C07-08
Tonsil	114	0.1	0.0	0.0	0.1	1.0	0.1	0.0	0.2	0.4	0.5	0.2	0.5	0.5	0.5	1.1	1.3	0.1	0.3	C09
Other oropharynx	27	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.4	0.0	0.0	0.5	0.0	0.1	C10
Nasopharynx	393	0.0	0.0	0.1	0.1	0.2	0.7	0.9	0.9	1.1	1.5	3.0	2.4	4.3	2.6	2.1	1.6	0.4	0.9	C11
Hypopharynx	62	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	1.3	0.3	0.5	0.6	0.6	0.1	0.1	C12-13
Pharynx unspecified	28	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.1	0.5	0.2	0.0	0.1	0.1	0.0	0.1	C14
Oesophagus	303	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	1.2	2.3	2.1	4.7	5.3	6.1	0.3	0.6	C15
Stomach	1,134	0.0	0.0	0.0	0.0	0.0	0.6	1.0	1.6	2.6	4.5	4.8	6.6	7.0	12.9	17.6	14.8	1.2	2.5	C16
Small intestine	141	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.7	0.3	1.2	2.2	1.5	1.3	1.8	0.1	0.3	C17
Colon	3,038	0.1	0.0	0.0	0.4	0.5	0.6	1.2	2.7	5.1	7.2	12.7	19.7	29.0	35.3	51.1	43.8	3.1	6.6	C18
Rectum	1,901	0.0	0.0	0.0	0.0	0.2	1.5	1.1	1.6	3.1	6.0	9.3	11.9	20.3	23.2	27.1	20.9	1.9	4.3	C19-20
Anus	108	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.1	0.2	0.2	0.5	0.6	1.5	0.9	1.1	1.2	0.1	0.2	C21
Liver and bile duct	5,765	0.5	0.0	0.2	0.1	0.1	0.7	2.1	3.9	7.7	12.9	22.9	42.2	60.4	84.6	107.0	63.1	5.8	12.9	C22,C24
Gallbladder	475	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	1.3	1.3	3.0	6.3	4.7	9.9	7.6	0.5	1.0	C23
Pancreas	624	0.0	0.2	0.0	0.1	0.1	0.1	0.2	0.6	0.9	2.0	1.6	3.5	6.5	8.0	10.5	9.3	0.6	1.4	C25
Nose, sinuses etc.	133	0.0	0.0	0.1	0.0	0.1	0.1	0.4	0.2	0.5	0.5	0.5	1.2	0.5	0.5	1.3	1.8	0.1	0.3	C30-31
Larynx	97	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.5	0.7	0.7	1.0	2.1	1.7	0.1	0.2	C32
Trachea, Bronchus and lung	4,624	0.1	0.0	0.0	0.1	0.3	1.3	1.5	3.7	5.6	10.4	17.7	28.5	46.7	56.9	80.0	73.0	4.7	10.1	C33-34
Other thoracic organs	90	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.5	0.1	0.2	0.3	0.4	0.6	1.2	0.7	1.1	0.1	0.2	C37-38
Bone	328	0.0	0.6	0.8	1.3	1.3	0.9	0.6	0.3	0.6	1.2	1.1	1.0	1.7	3.1	2.2	1.4	0.3	0.9	C40-C41
Melanoma of skin	240	0.1	0.0	0.0	0.2	0.9	1.2	0.1	0.3	0.5	0.5	0.6	1.2	2.0	2.9	1.7	2.7	0.2	0.6	C43
Other skin	1,554	0.1	0.1	0.1	0.5	1.2	0.5	0.9	0.9	1.2	3.4	5.3	6.5	12.3	15.1	23.8	37.3	1.6	3.3	C44
Mesothelioma	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	C46
Connective tissue	412	0.5	0.2	0.4	0.7	0.5	0.7	1.0	0.7	0.9	1.4	2.0	2.6	2.0	2.1	4.3	3.6	0.4	1.0	C47,C49
Breast	12,613	0.0	0.0	0.1	0.2	5.1	11.9	18.3	32.9	53.0	84.9	82.4	87.5	95.1	70.8	74.4	38.6	12.8	28.5	C50
Vulva	148	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5	0.2	0.5	0.7	1.5	0.8	1.5	1.2	1.8	0.2	0.3	C51
Vagina	89	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.2	0.3	0.5	0.4	0.8	0.8	1.7	0.1	0.2	C52
Cervix uteri	6,426	0.0	0.0	0.1	0.1	3.1	4.0	9.4	19.9	29.6	39.5	38.2	41.6	41.5	37.3	49.9	27.4	6.5	14.4	C53
Corpus uteri	1,904	0.0	0.0	0.0	0.1	0.2	0.8	0.7	1.7	4.1	8.8	15.9	19.6	21.0	14.9	13.8	7.2	1.9	4.3	C54
Uterus unspecified	146	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.2	0.9	0.3	0.9	1.1	1.6	1.2	0.7	0.6	0.1	0.3	C55
Ovary	2,593	0.0	0.5	1.1	1.6	2.1	3.3	3.9	6.2	9.2	14.3	15.5	15.3	17.9	20.0	17.2	12.9	2.6	6.0	C56
Other female genital organs	50	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.3	0.3	0.3	1.0	0.1	0.3	0.1	0.1	0.1	C57
Placenta	48	0.0	0.0	0.0	0.1	0.2	0.8	0.3	0.1	0.1	0.0	0.2	0.1	0.0	0.0	0.2	0.0	0.0	0.1	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	309	0.5	0.1	0.0	0.1	0.9	0.1	0.2	0.4	0.3	0.6	1.3	1.8	2.6	3.0	5.5	3.2	0.3	0.8	C64
Renal pelvis	38	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.6	0.5	1.2	0.0	0.1	C65
Ureter	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.8	0.0	0.0	C66
Bladder	493	0.3	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.5	0.8	1.6	2.2	3.5	5.4	8.2	13.0	0.5	1.0	C67
Other urinary organs	36	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.0	0.1	C68
Eye	96	1.2	0.0	0.1	0.0	0.0	0.6	0.1	0.3	0.0	0.4	0.3	0.3	0.4	0.6	0.4	0.7	0.1	0.3	C69
Brain, nervous system	1,065	1.5	3.2	1.5	0.9	1.8	1.8	2.5	2.1	3.9	5.7	3.6	4.5	5.7	5.1	7.7	5.1	1.1	2.9	C70-72
Thyroid	2,105	0.0	0.1	0.3	2.5	4.0	7.4	6.3	7.7	7.7	9.2	10.6	9.3	10.9	9.0	16.0	8.0	2.1	5.1	C73
Adrenal gland	52	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.4	0.2	0.2	0.0	0.1	0.1	0.2	C74
Other endocrine	19	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.1	C75
Hodgkin disease	80	0.1	0.0	0.3	0.1	0.3	1.0	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.2	0.1	0.2	0.1	0.2	C81
Non-Hodgkin lymphoma	1,920	0.9	0.4	0.6	1.1	2.0	3.9	4.2	2.7	4.4	6.3	7.8	12.9	12.2	17.9	19.8	18.7	1.9	4.5	C82-85,C96
Multiple myeloma	379	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.4	0.8	1.7	3.1	3.5	5.6	6.7	4.8	0.4	0.8	C90
Lymphoid leukemia	309	3.3	2.8	1.3	0.7	0.1	0.4	0.2	0.3	0.5	0.4	0.7	0.8	0.5	1.9	1.3	1.8	0.3	1.2	C91
Myeloid leukemia	637	1.4	0.6	0.8	1.4	0.6	0.6	0.8	1.3	1.6	2.0	2.5	4.1	5.3	3.2	5.6	4.7	0.6	1.7	C92-94
Leukemia unspecified	455	1.1	0.9	0.3	0.7	0.5	0.4	0.8	0.8	1.0	1.4	1.7	1.8	2.3	3.5	4.4	5.4	0.5	1.2	C95
Myelodysplastic disease	436	0.2	0.0	0.3	0.3	0.3	0.2	0.4	0.4	0.4	0.8	1.3	1.8	3.3	4.2	8.1	8.6	0.4	1.0	D45-D47
Other and unspecified	2,047	0.7	0.1	0.4	0.3	1.3	1.9	1.5	3.3	3.7	5.0	8.6	11.4	17.7	20.7	36.4	24.8	2.1	4.7	O&U
All sites	**57,806**	**14.1**	**10.5**	**9.4**	**14.6**	**30.3**	**49.8**	**63.2**	**101.8**	**155.9**	**241.3**	**288.8**	**367.3**	**470.9**	**508.5**	**655.3**	**525.0**	**58.6**	**131.9**	**ALL**

Oral cavity

Figure 2.2.1 Oral cavity cancer in different regions, mean annual ASR per 100,000 (2010-2012)

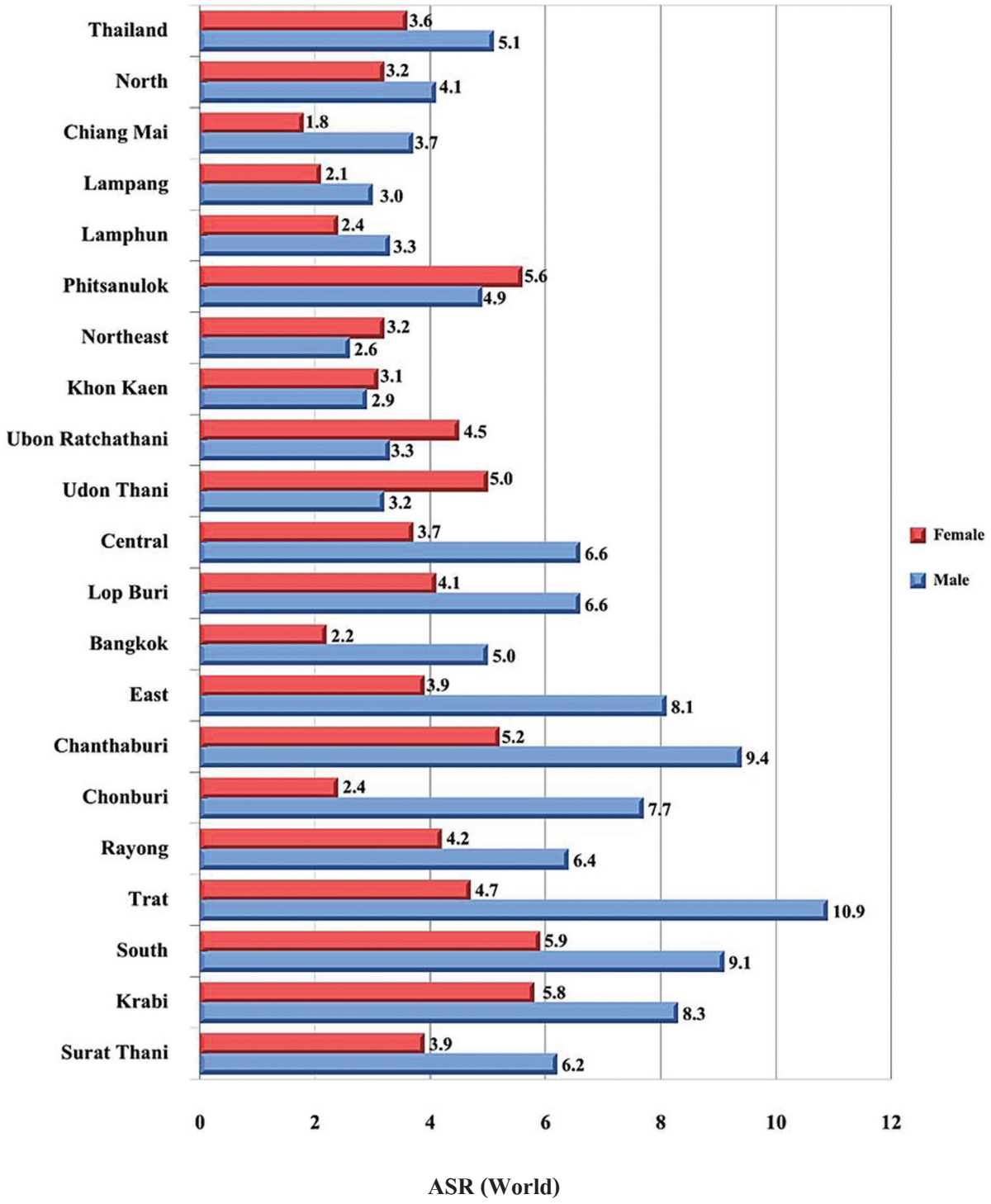


Figure 2.2.2 Age - specific incidence rates of oral cavity cancer, mean annual rate per 100,000 (2010-2012)

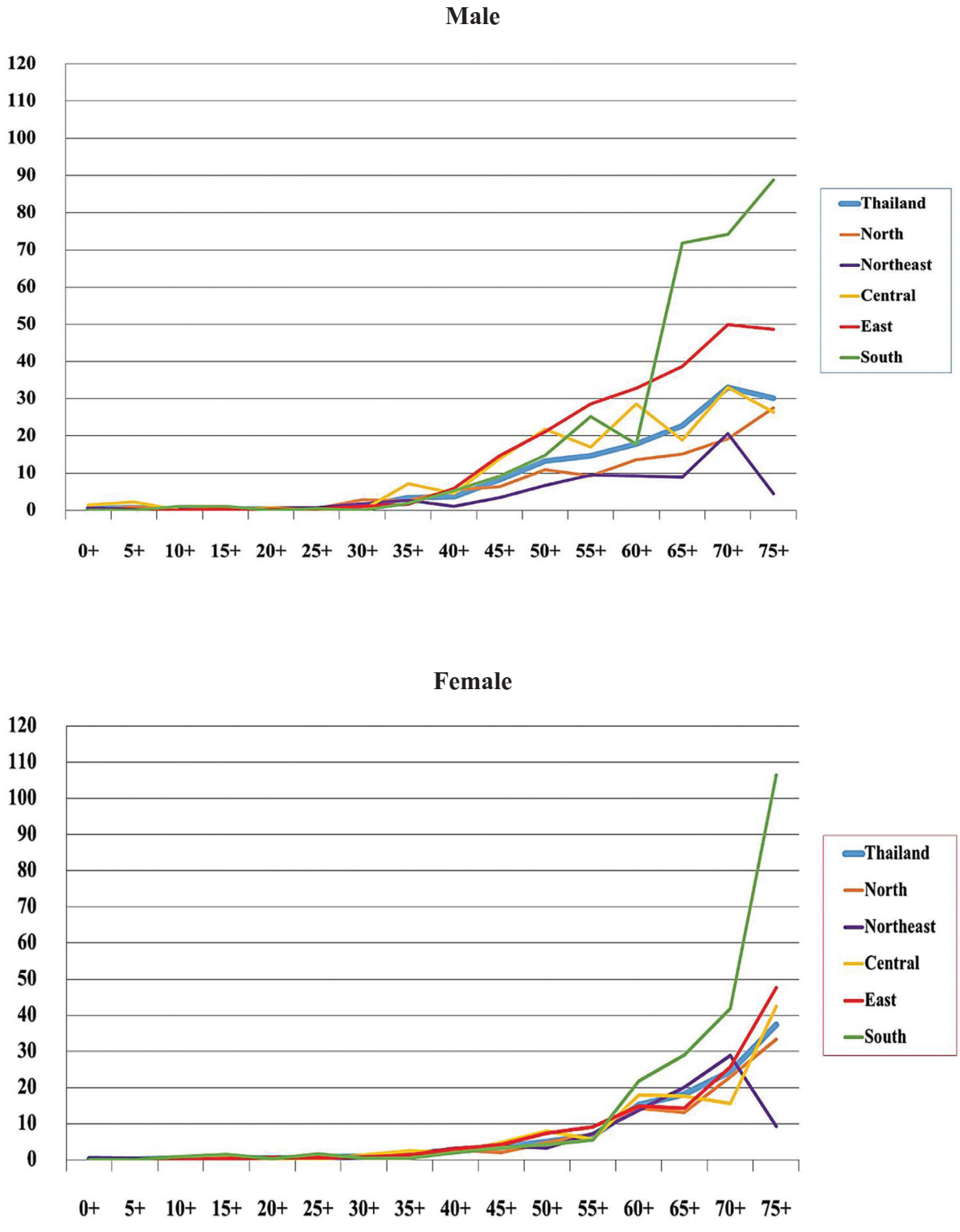
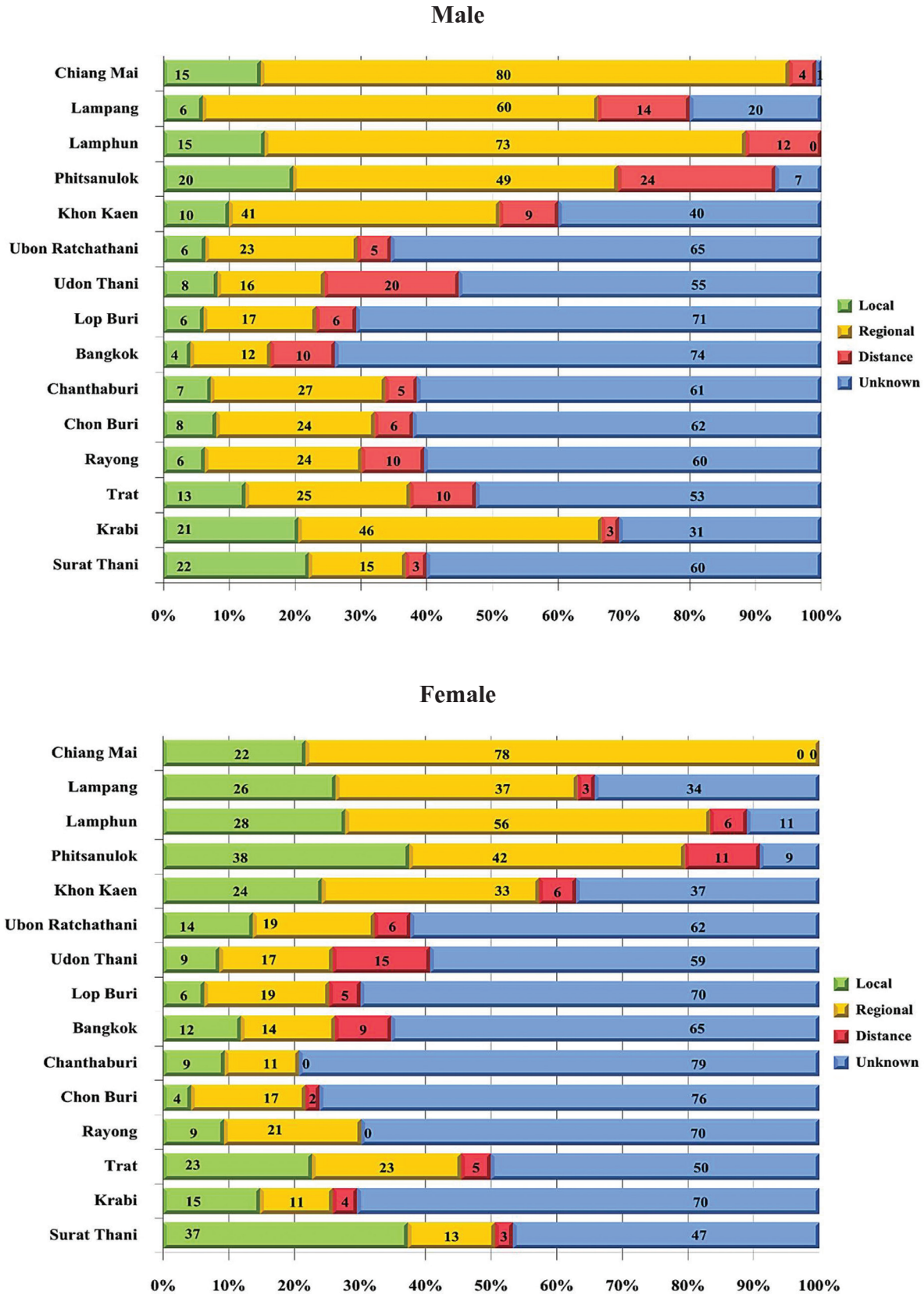


Figure 2.2.3 Stage distribution of oral cavity cancer (2010-2012)



Oropharynx

Figure 2.3.1 Oropharynx cancer in different regions, mean annual ASR per 100,000 (2010-2012)

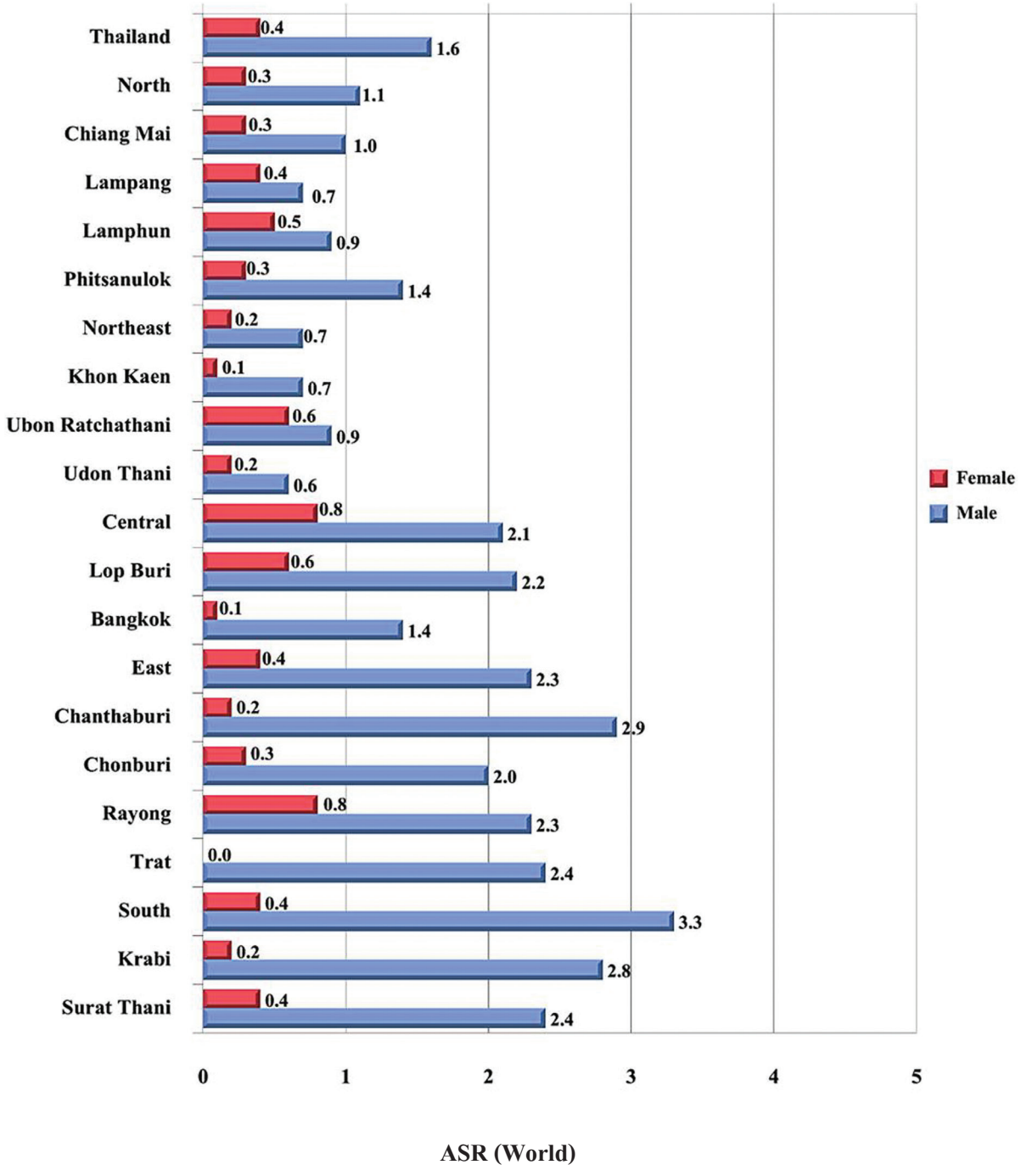
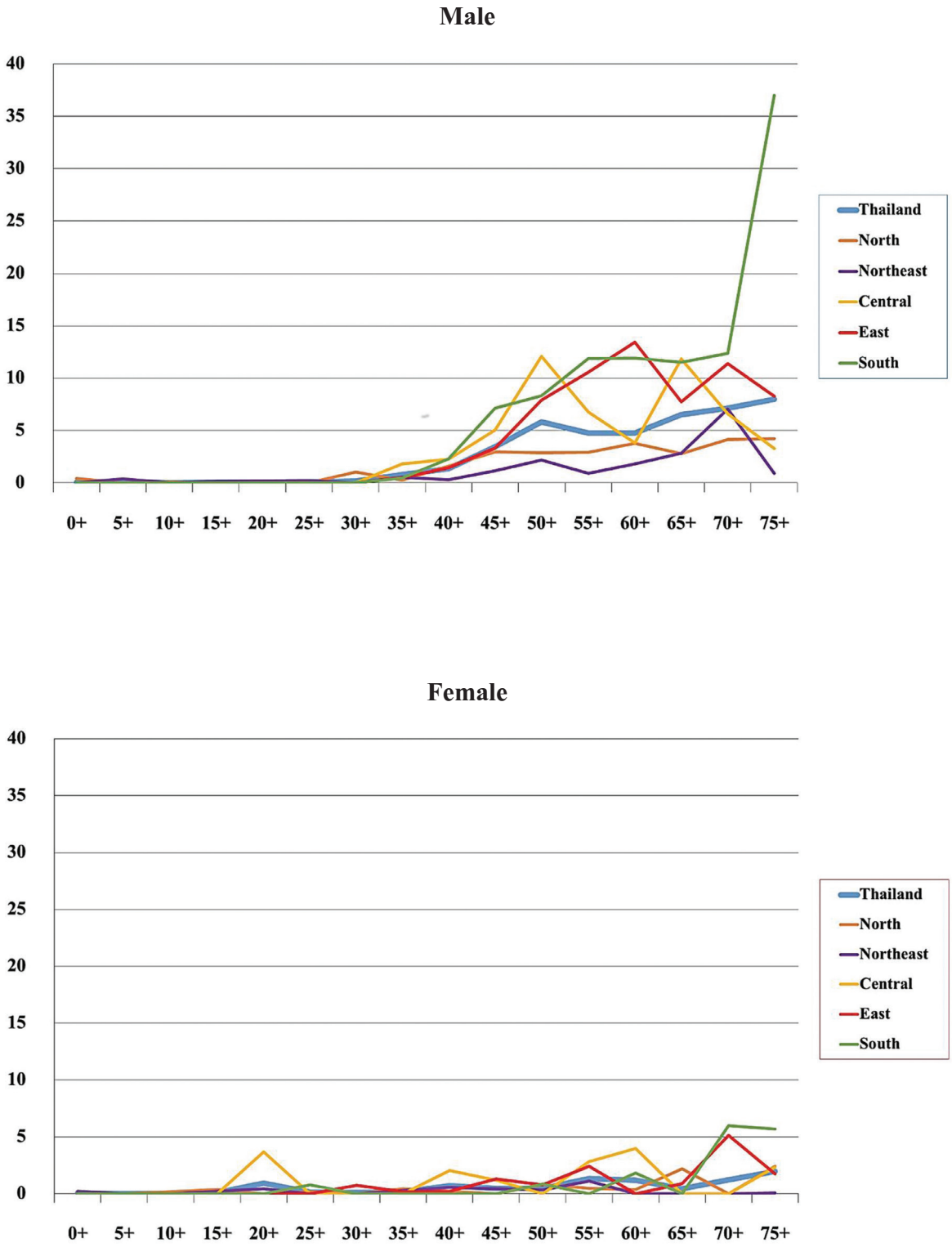


Figure 2.3.2 Age - specific incidence rates of oropharynx cancer, mean annual rate per 100,000 (2010-2012)



Nasopharynx

Figure 2.4.1 Nasopharynx cancer in different regions, mean annual ASR per 100,000 (2010-2012)

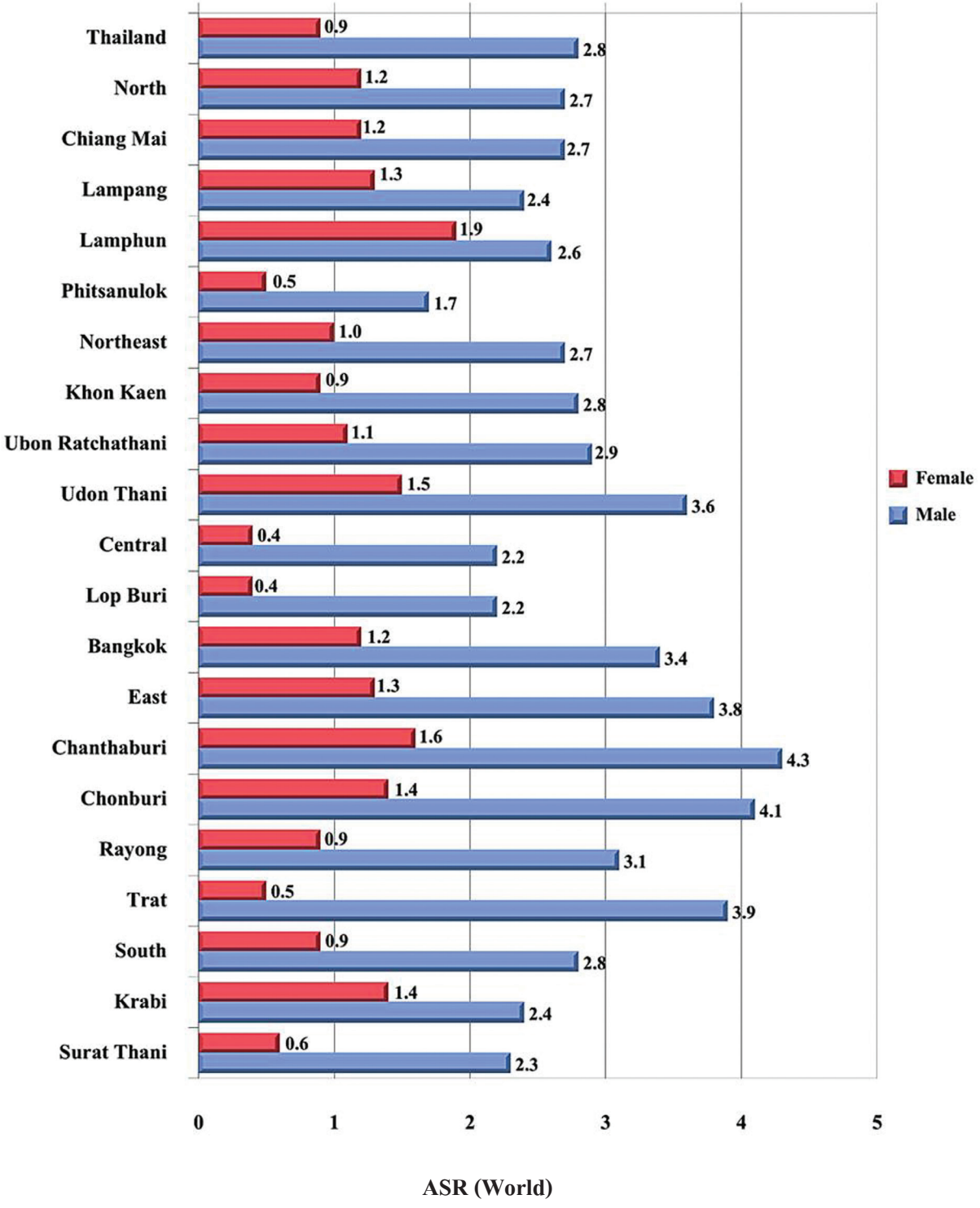


Figure 2.4.2 Age - specific incidence rates of nasopharynx cancer, mean annual rate per 100,000 (2010-2012)

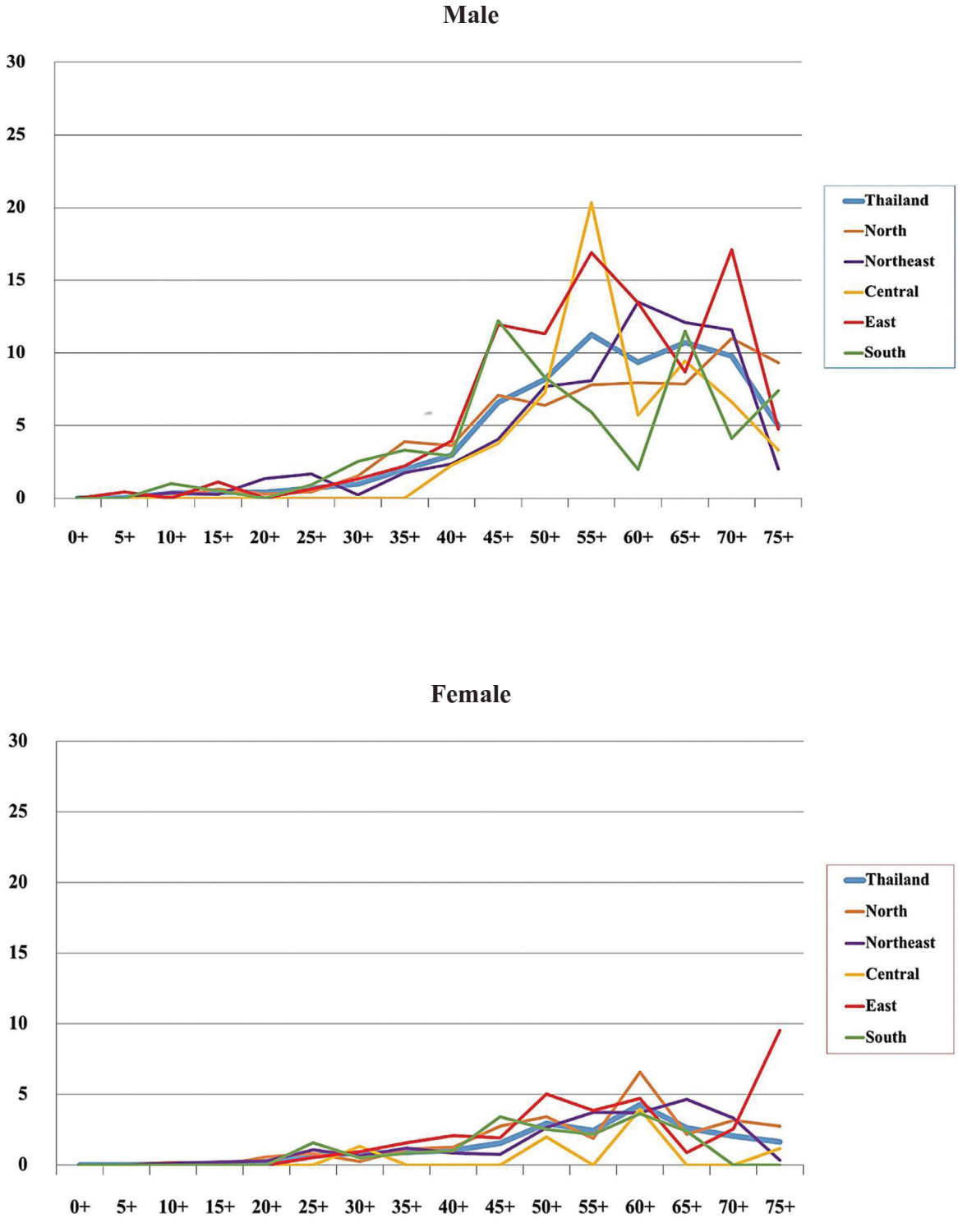
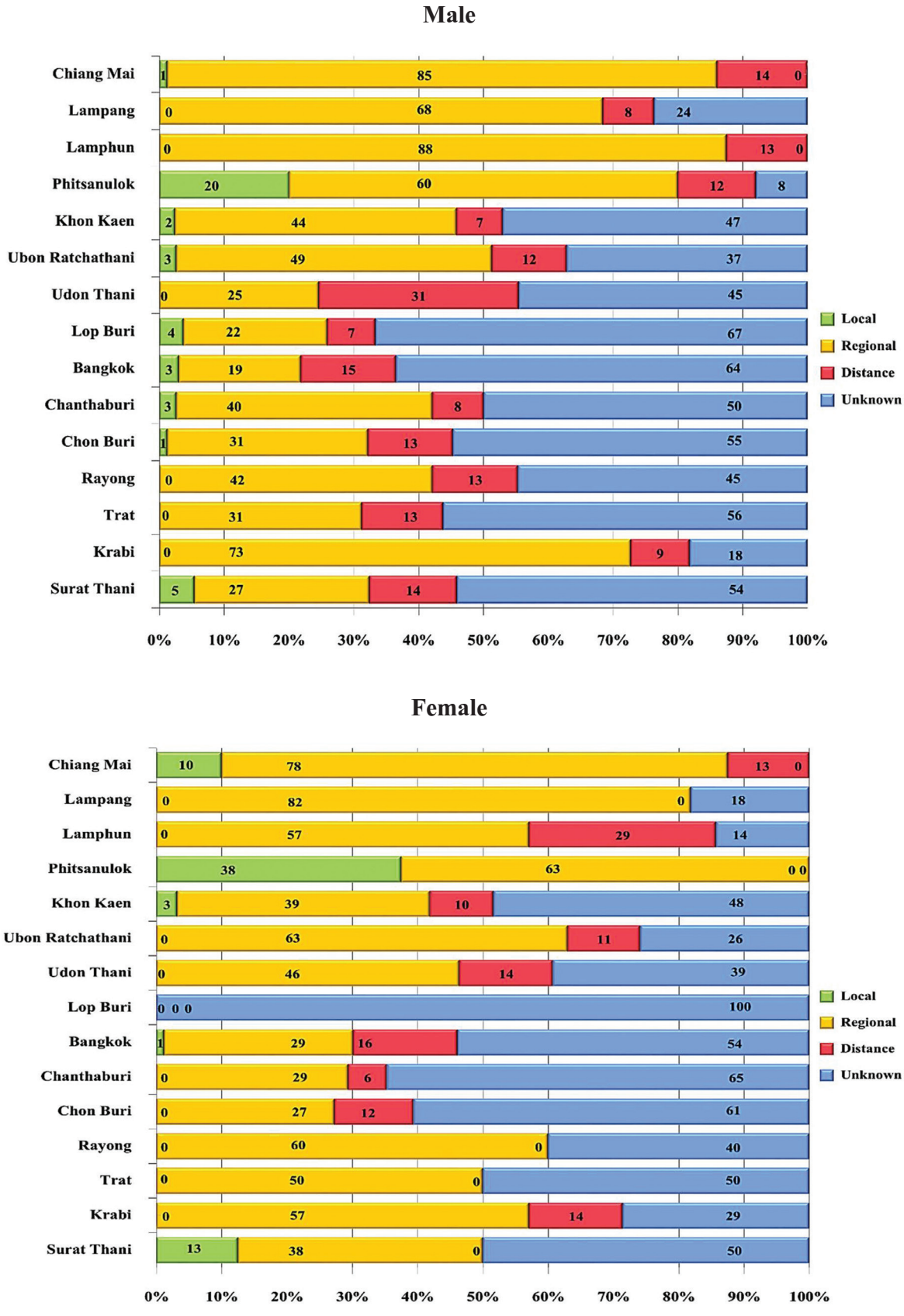


Figure 2.4.3 Stage distribution of nasopharynx cancer (2010-2012)



Hypopharynx

Figure 2.5.1 Hypopharynx cancer in different regions, mean annual ASR per 100,000 (2010-2012)

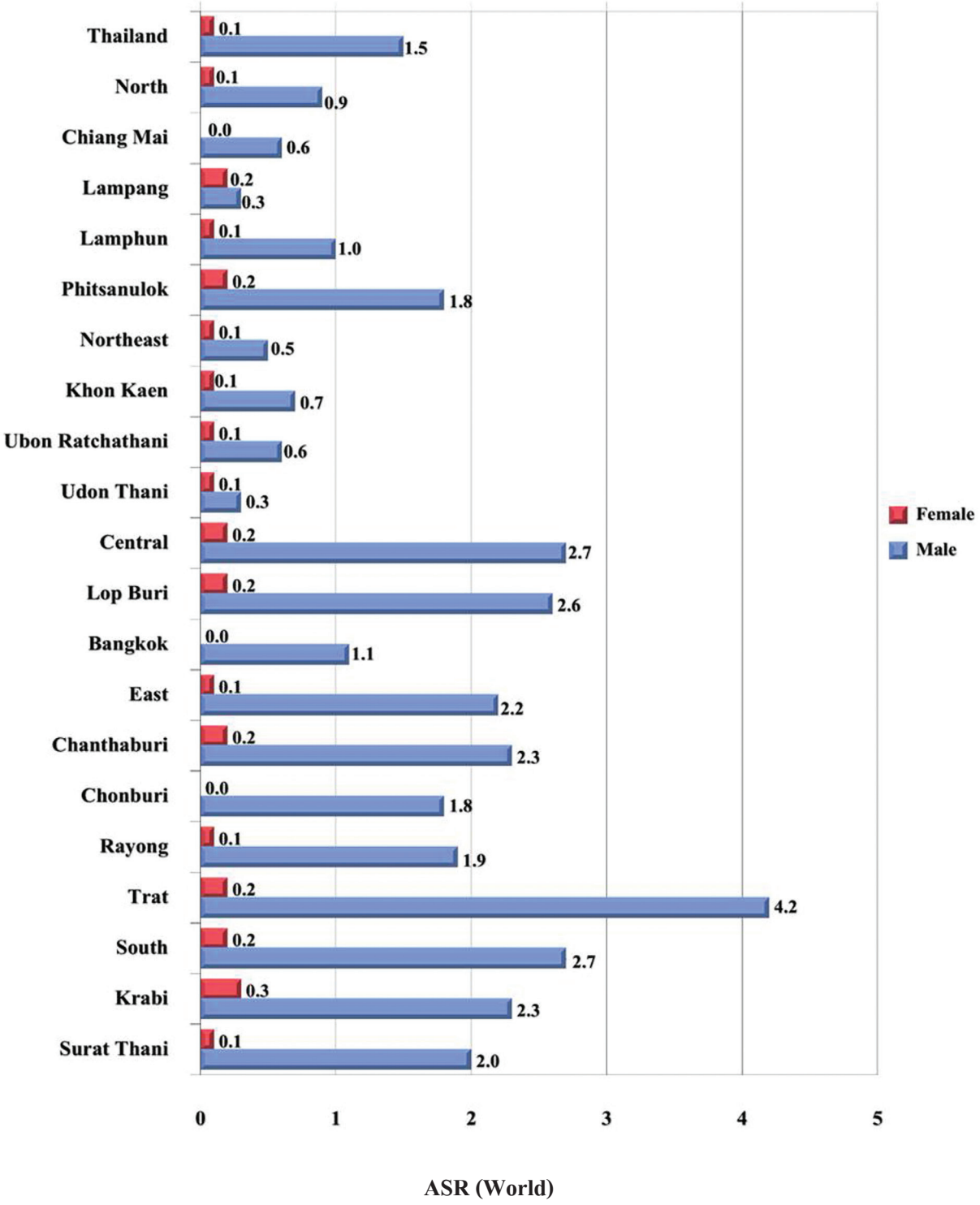
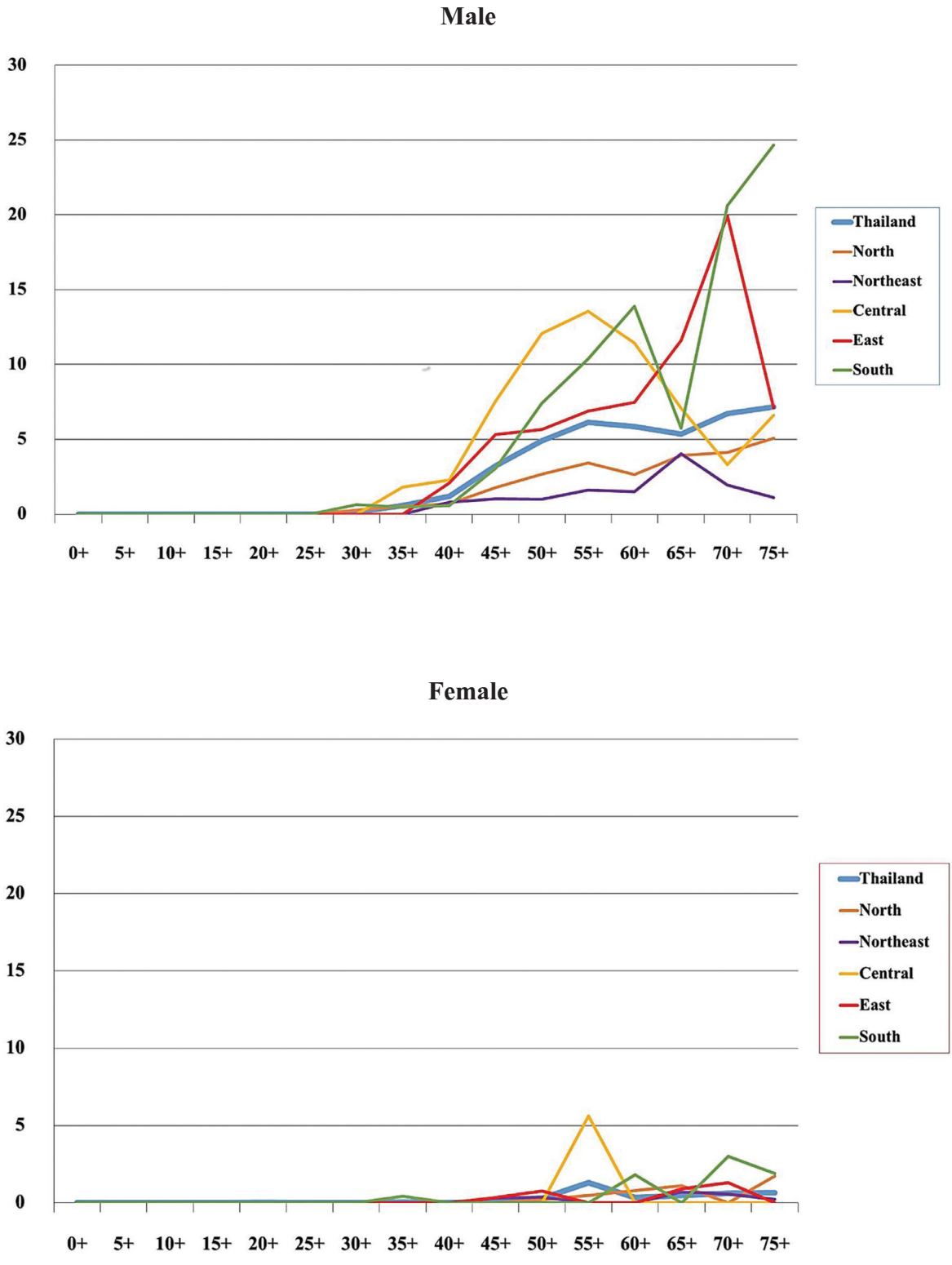


Figure 2.5.2 Age - specific incidence rates of hypopharynx cancer, mean annual rate per 100,000 (2010-2012)



Esophagus

Figure 2.6.1 Esophagus cancer in different regions, mean annual ASR per 100,000 (2010-2012)

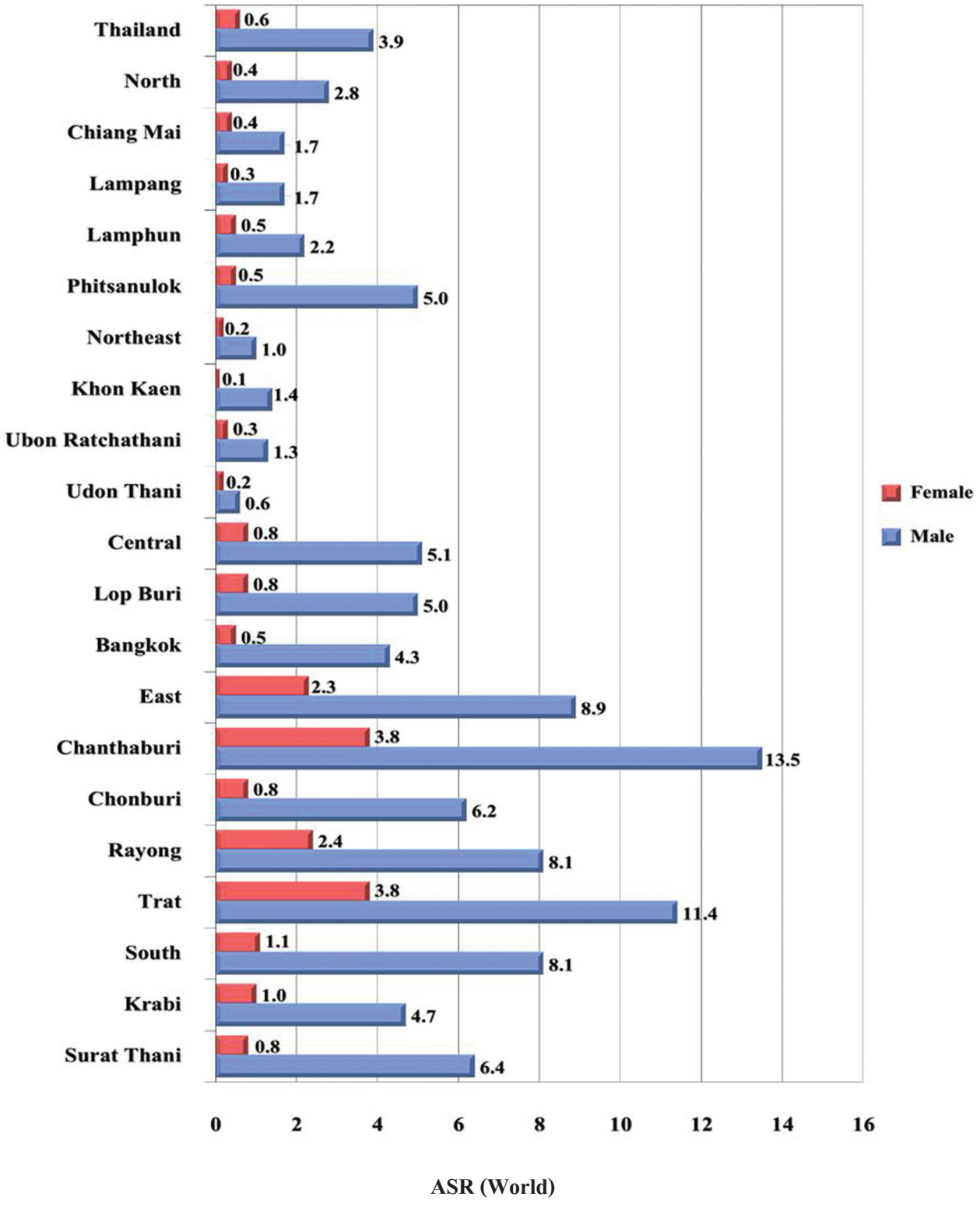


Figure 2.6.2 Age - specific incidence rates of esophagus cancer, mean annual rate per 100,000 (2010-2012)

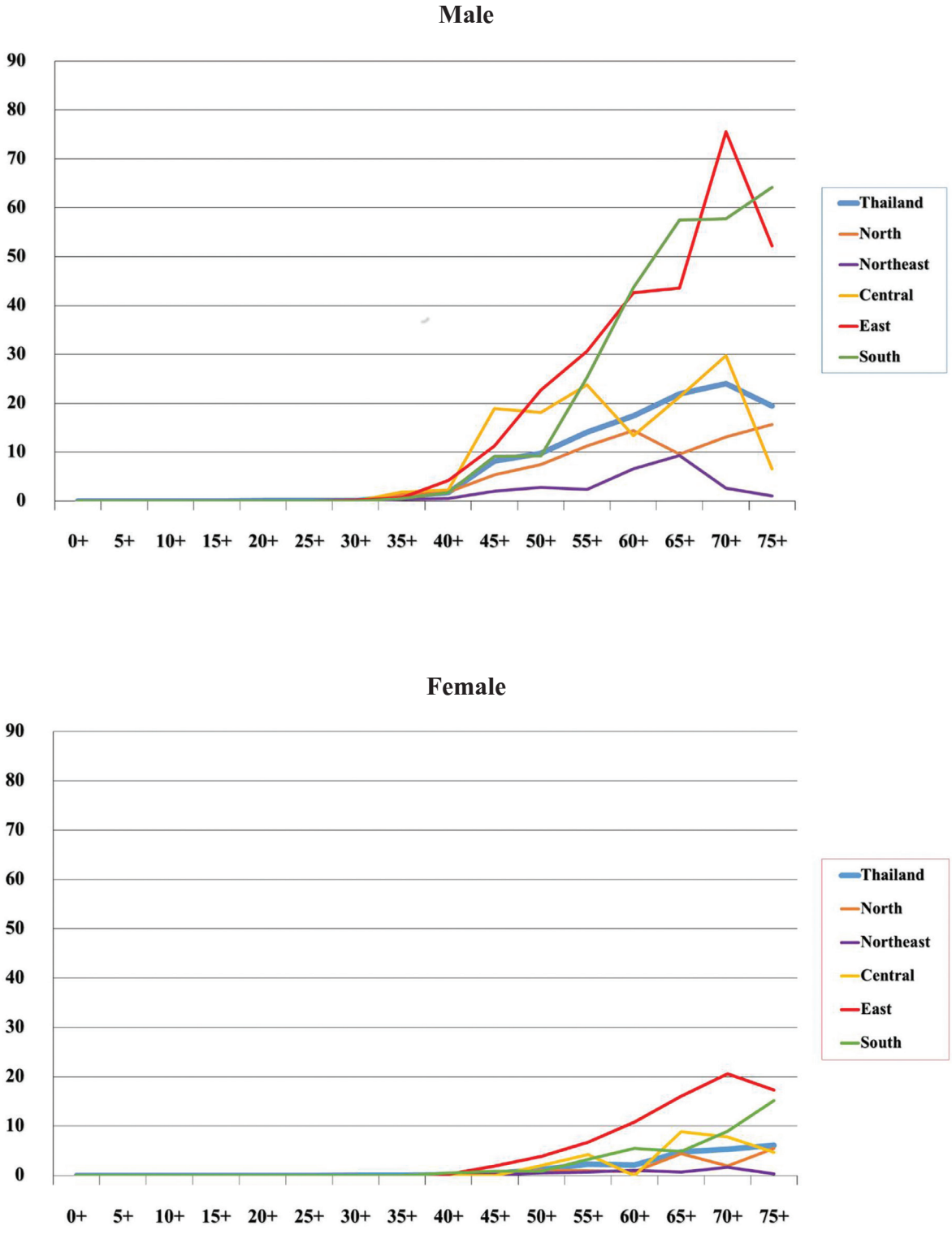
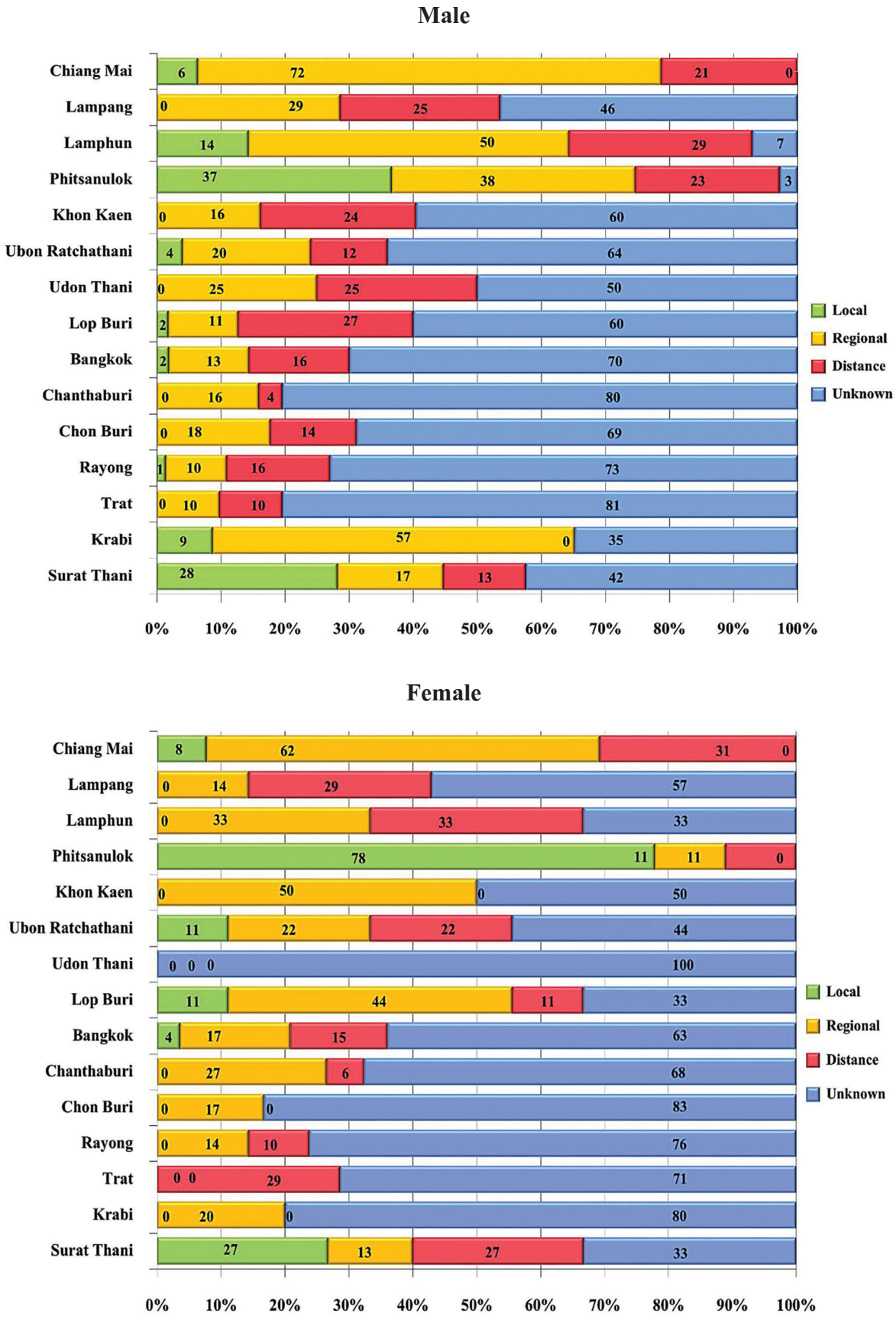


Figure 2.6.3 Stage distribution of esophagus cancer (2010-2012)



Stomach

Figure 2.7.1 Stomach cancer in different regions, mean annual ASR per 100,000 (2010-2012)

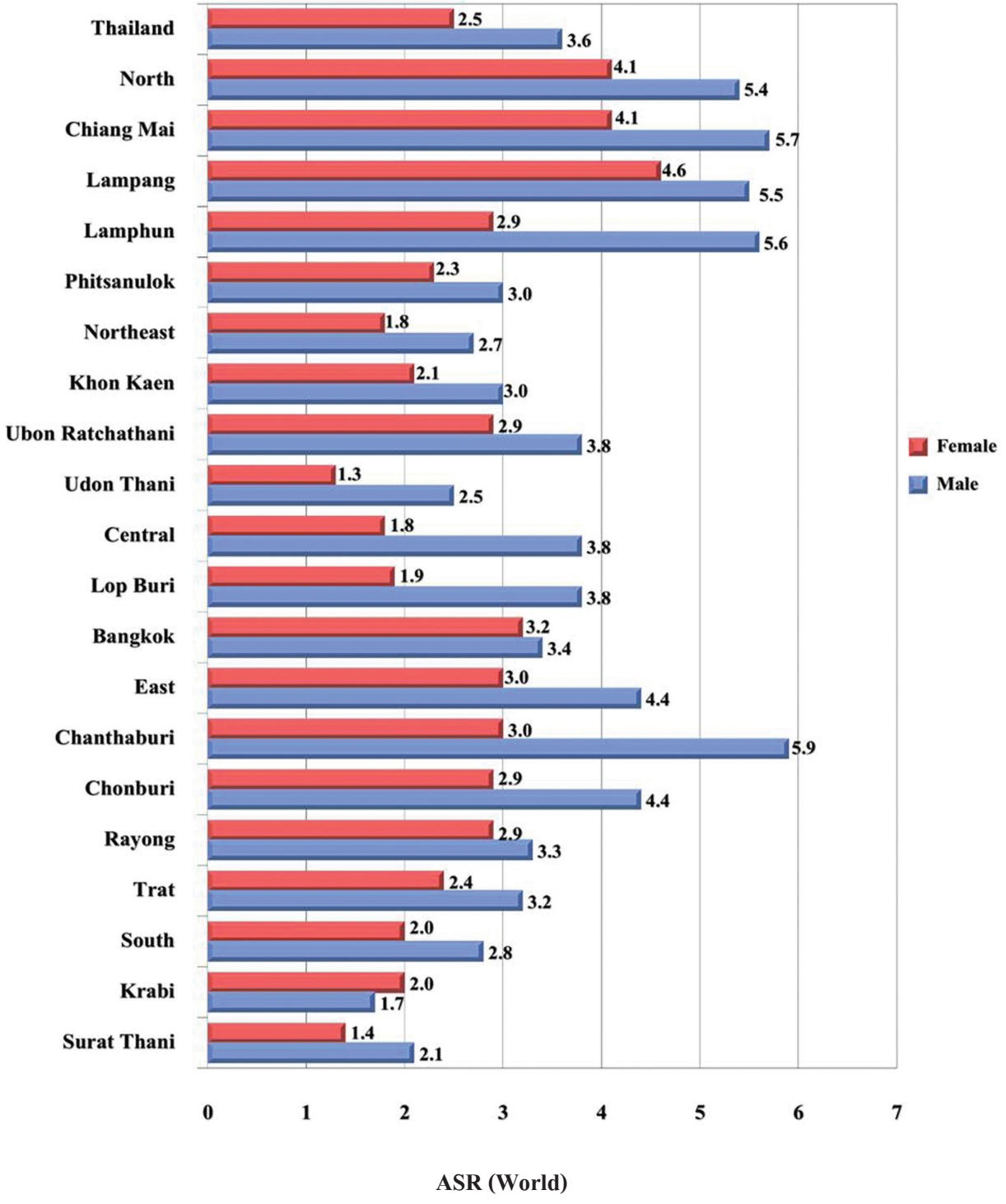
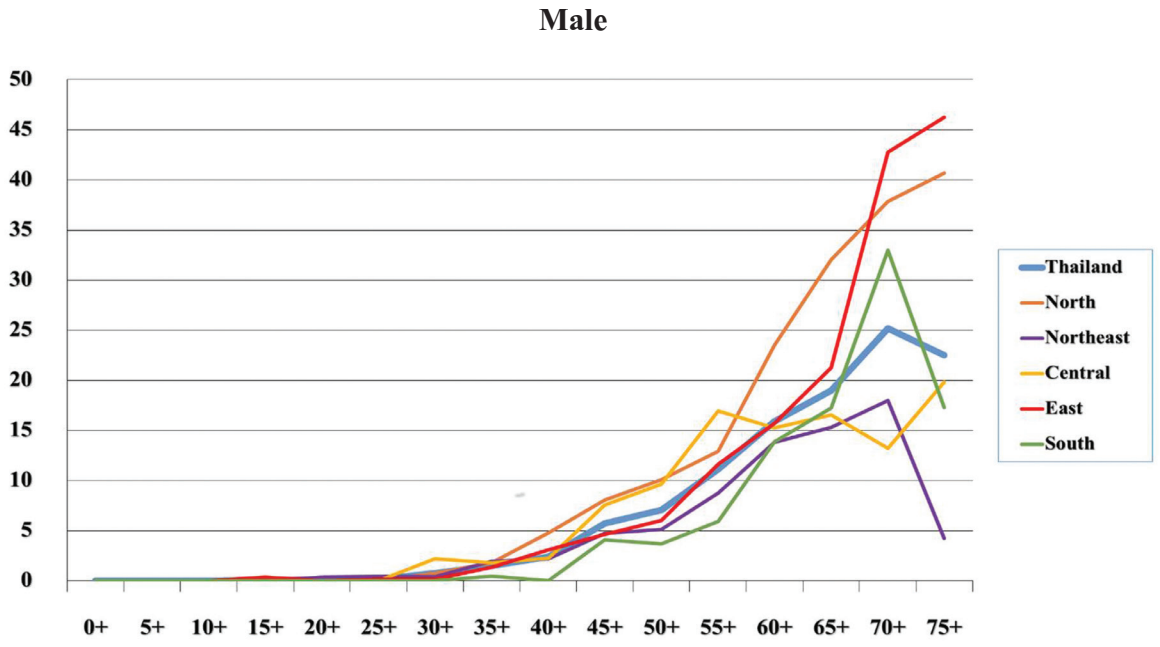


Figure 2.7.2 Age - specific incidence rates of stomach cancer, mean annual rate per 100,000 (2010-2012)



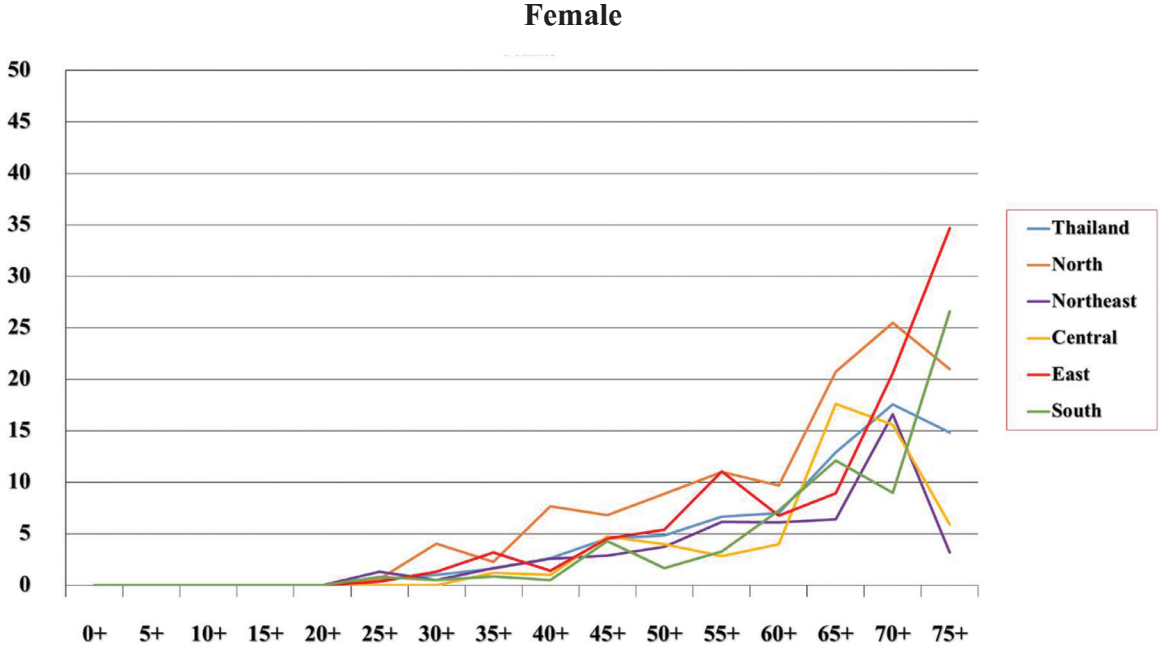
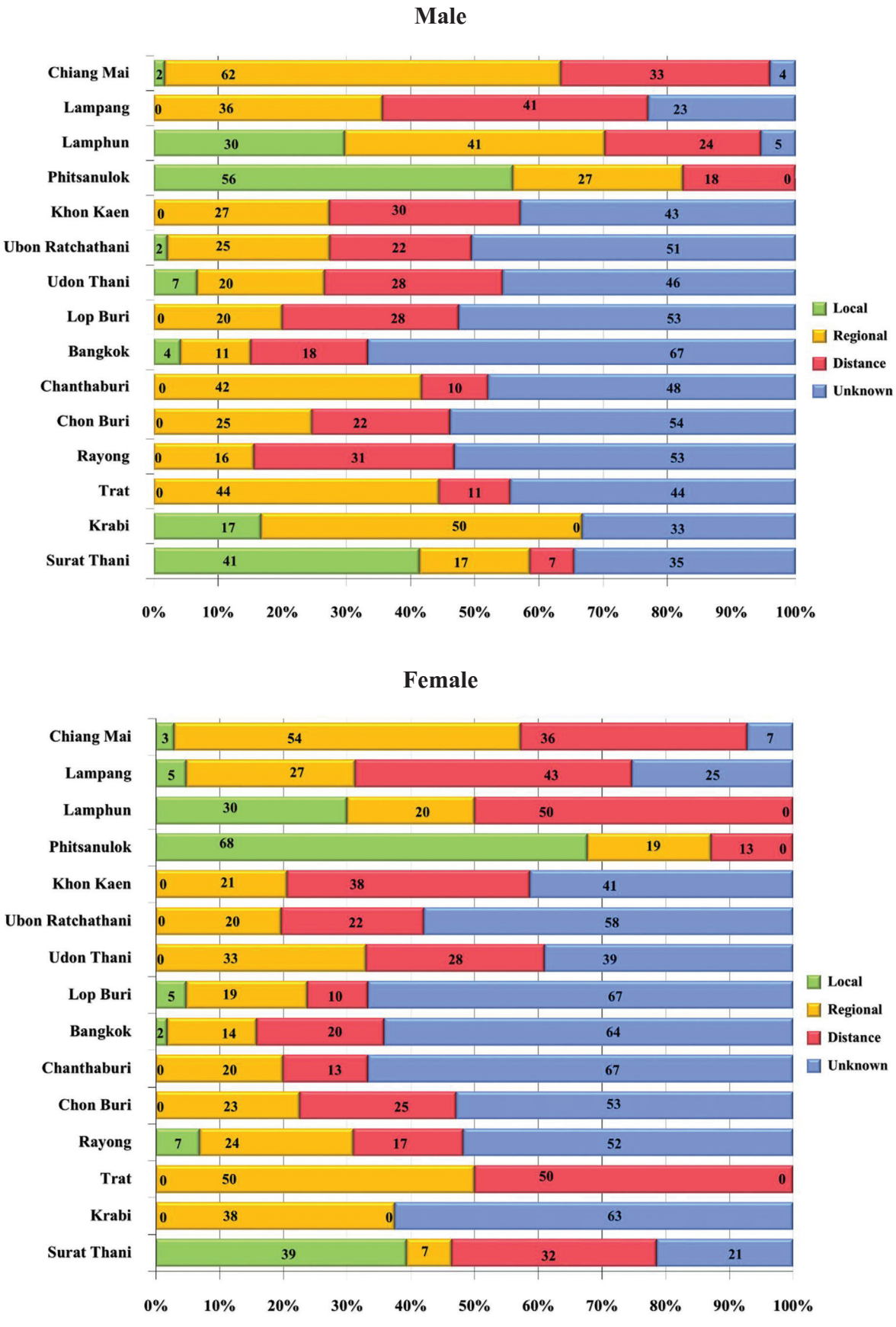


Figure 2.7.3 Stage distribution of stomach cancer (2010-2012)



Colon and Rectum

Figure 2.8.1 Colon and rectum cancer in different regions, mean annual ASR per 100,000 (2010-2012)

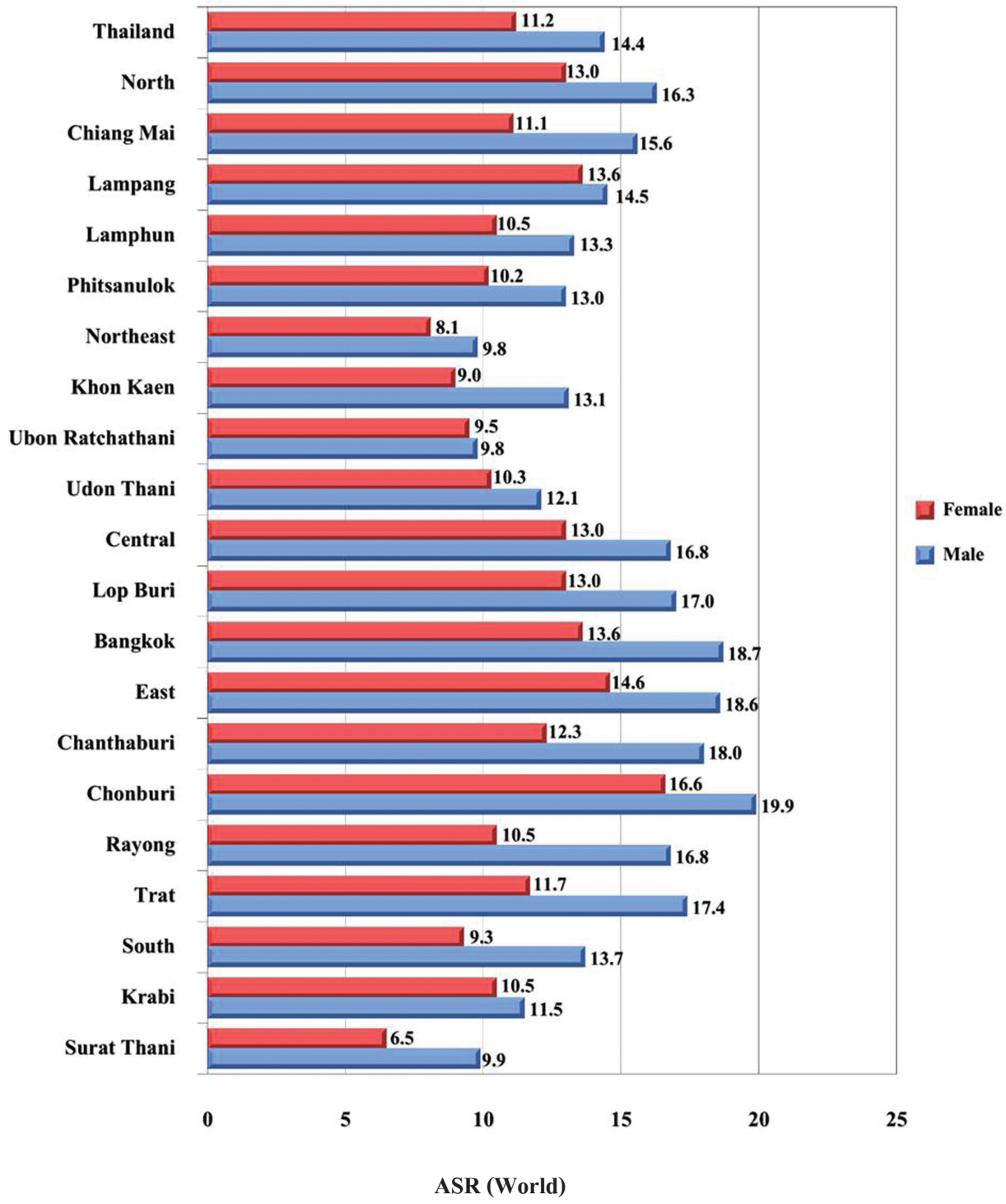


Figure 2.8.2 Age - specific incidence rates of colon and rectum cancer, mean annual rate per 100,000 (2010-2012)

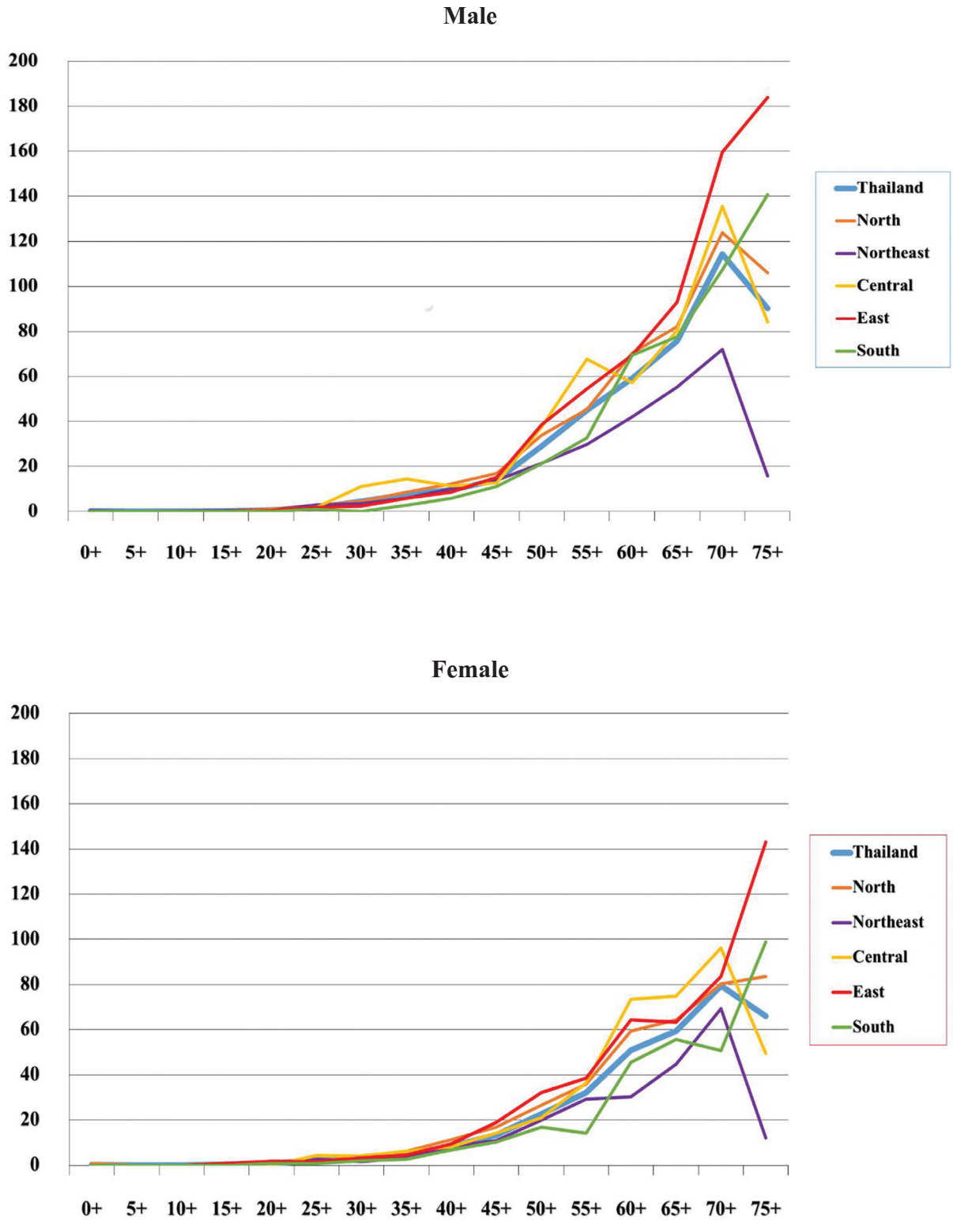
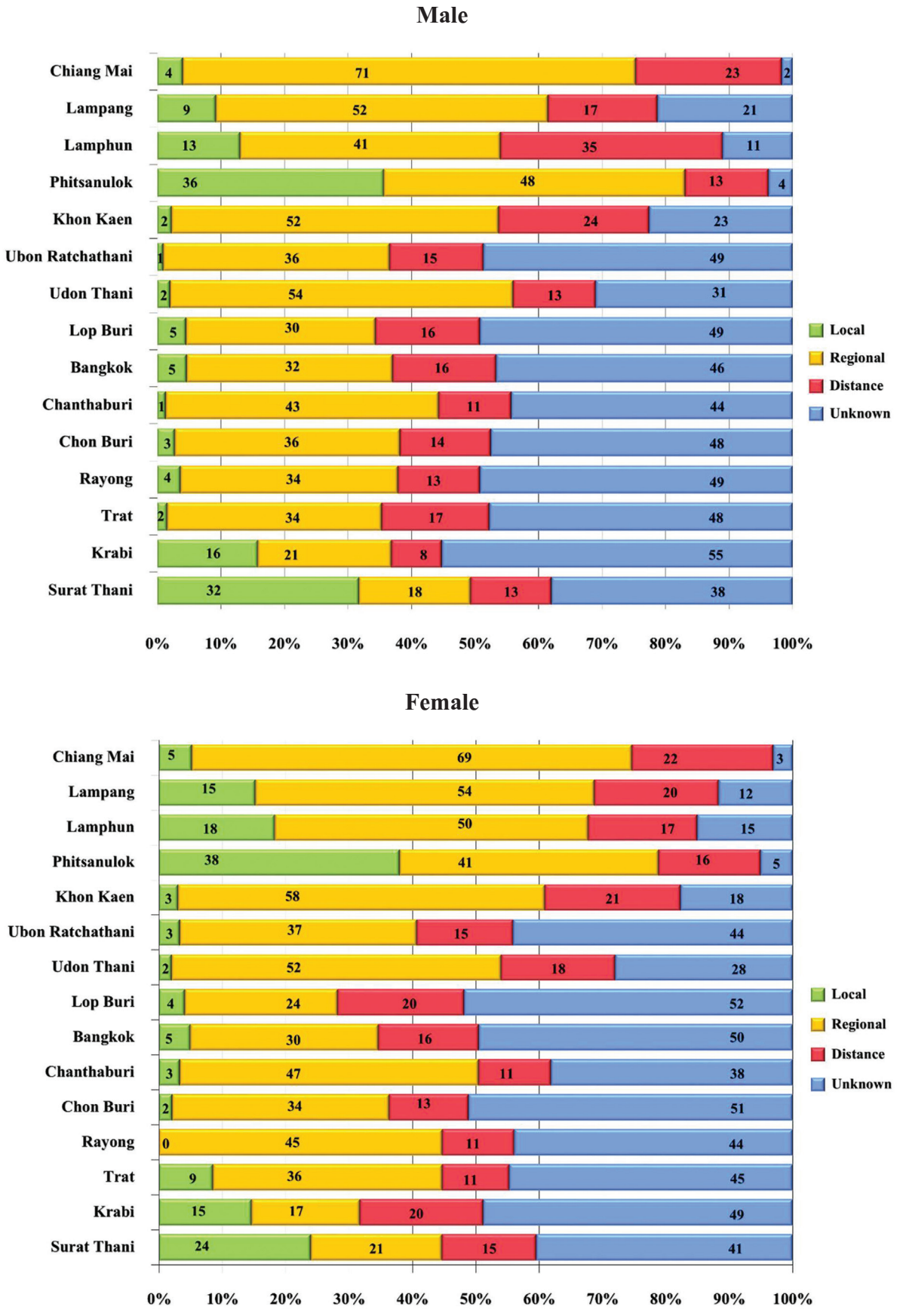


Figure 2.8.3 Stage distribution of colon and rectum cancer (2010-2012)



Liver and bile duct

Figure 2.9.1 Liver and bile duct cancer in different regions, mean annual ASR per 100,000 (2010-2012)

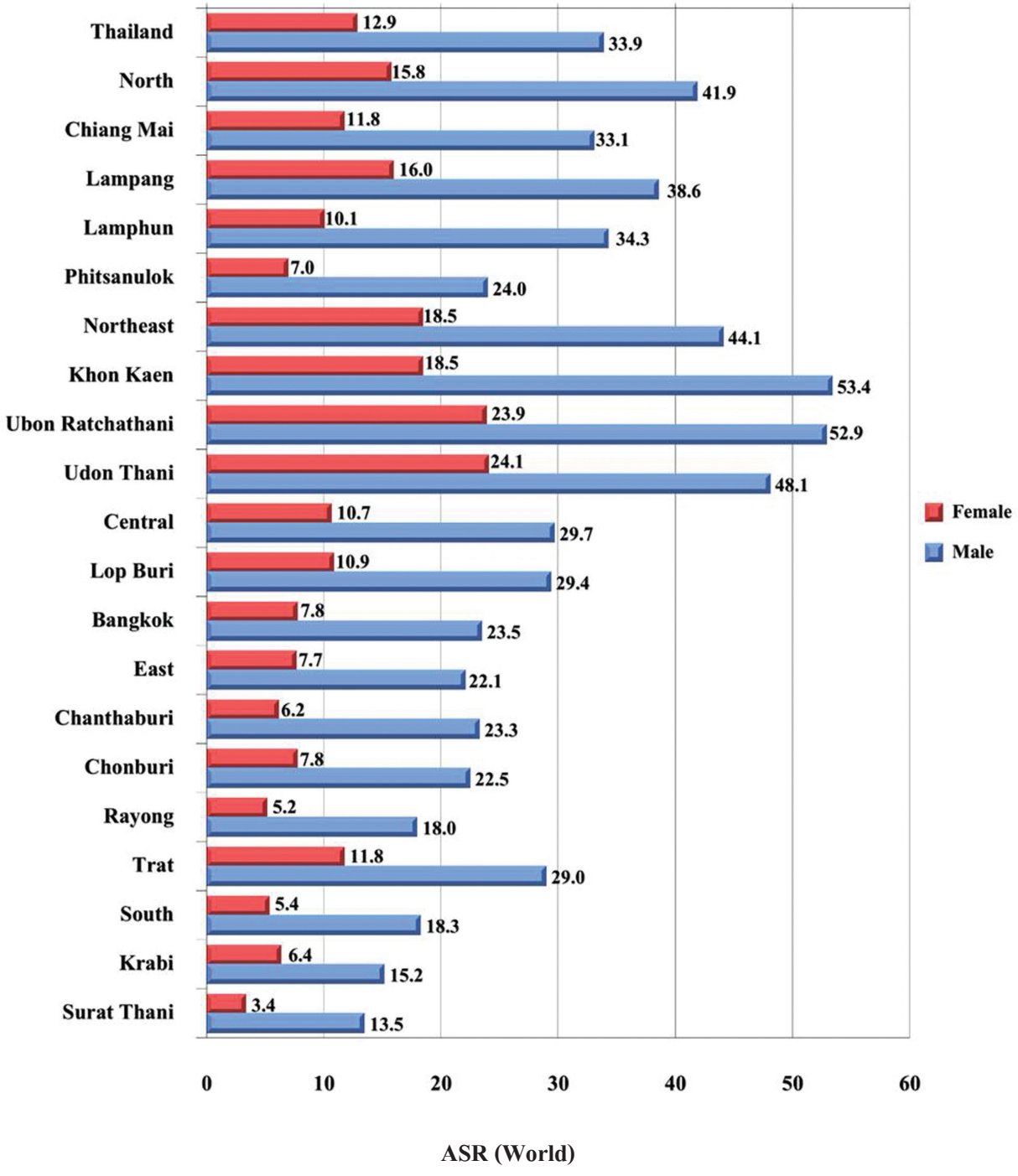


Figure 2.9.2 Age - specific incidence rates of liver and bile duct cancer, mean annual rate per 100,000 (2010-2012)

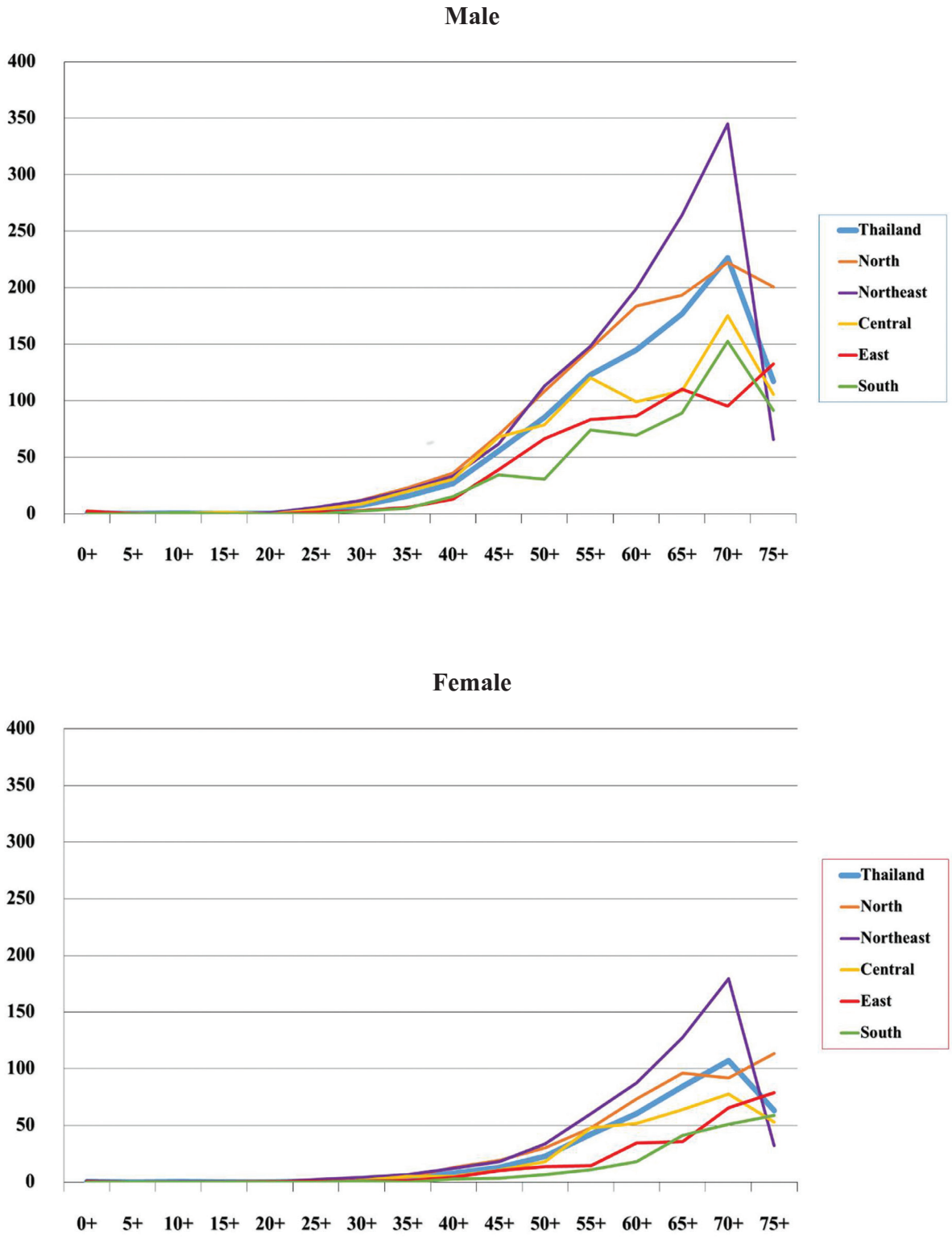
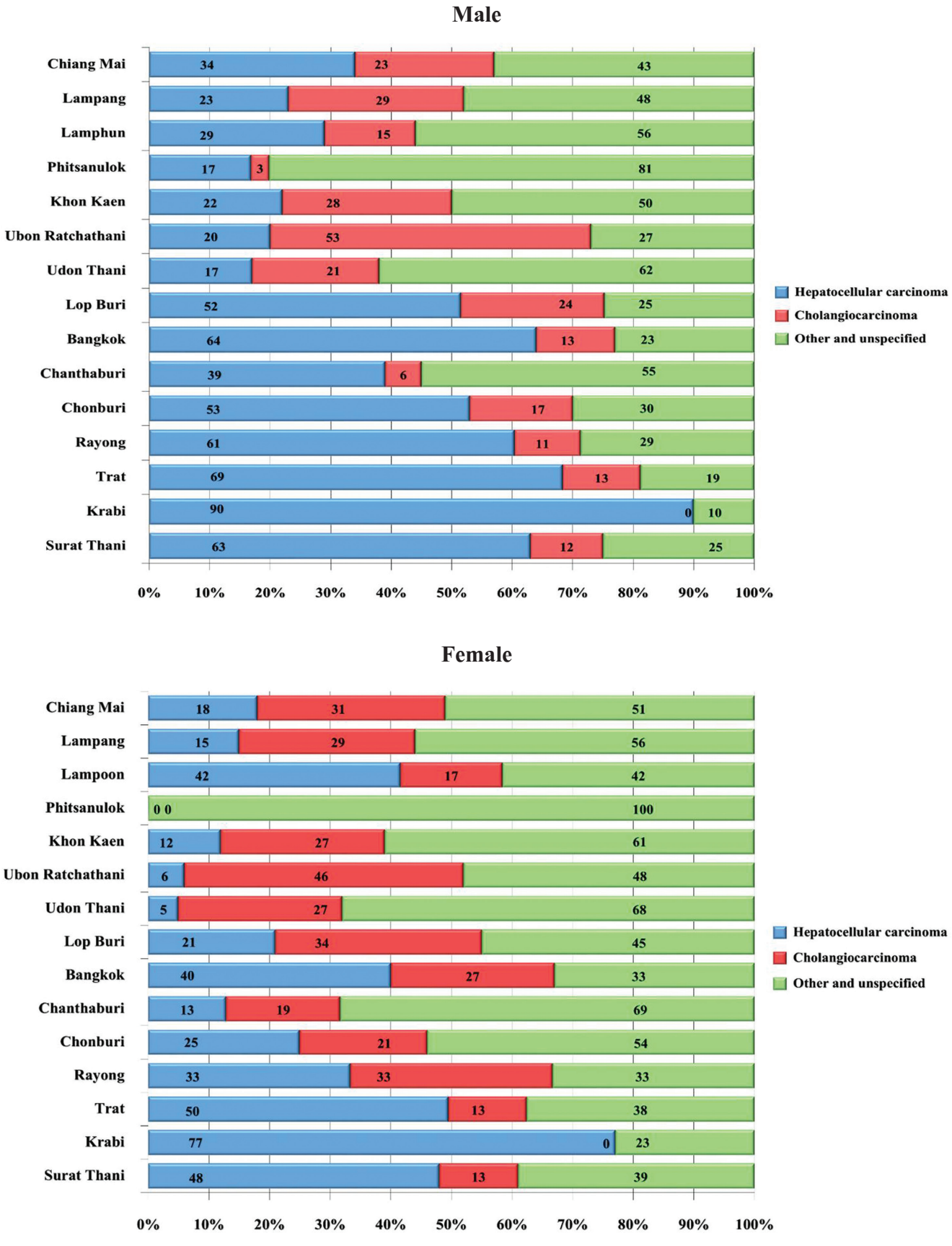


Figure 2.9.3 Histological types of liver and bile duct cancer (2010-2012)



Larynx

Figure 2.10.1 Larynx cancer in different regions, mean annual ASR per 100,000 (2010-2012)

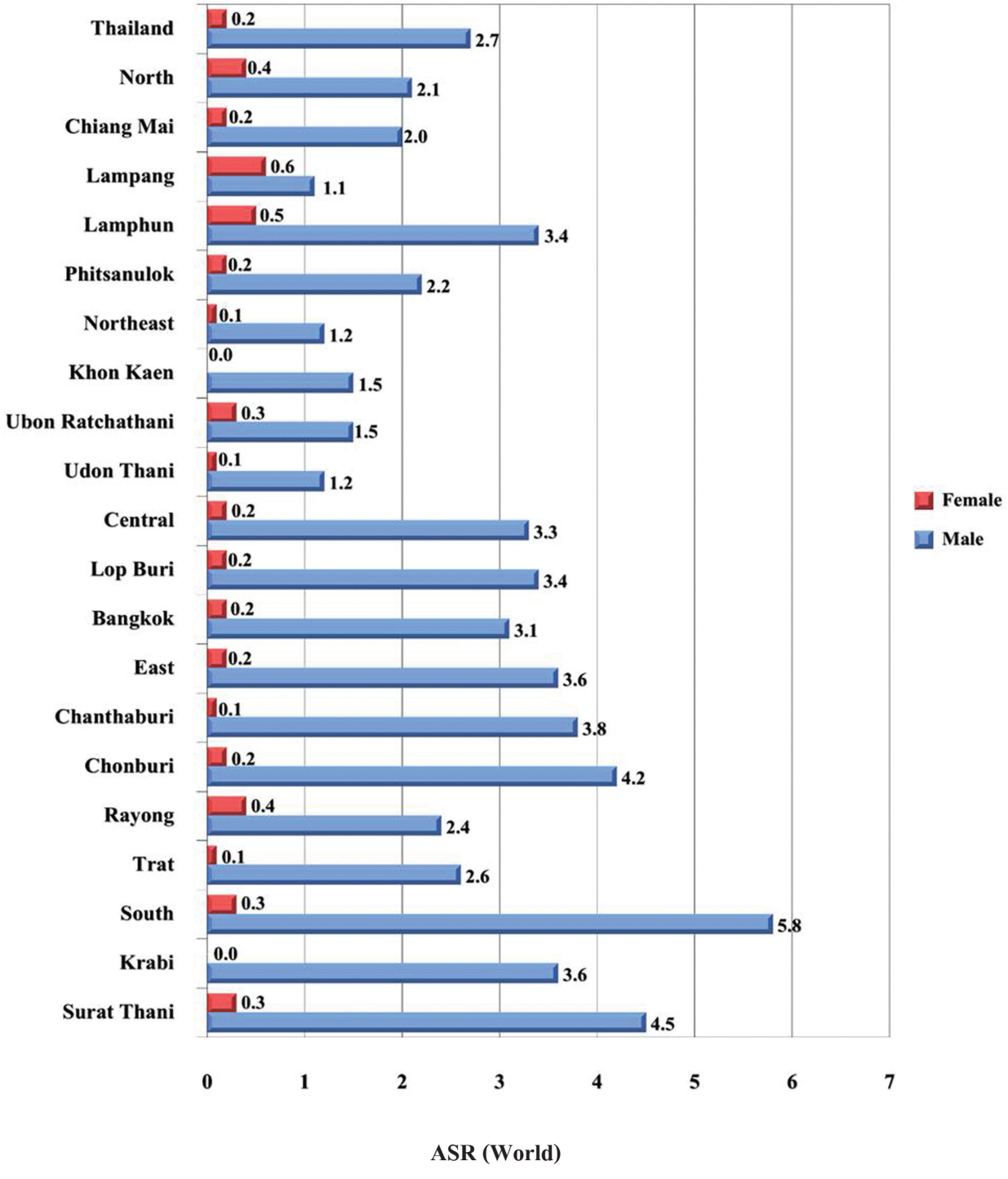
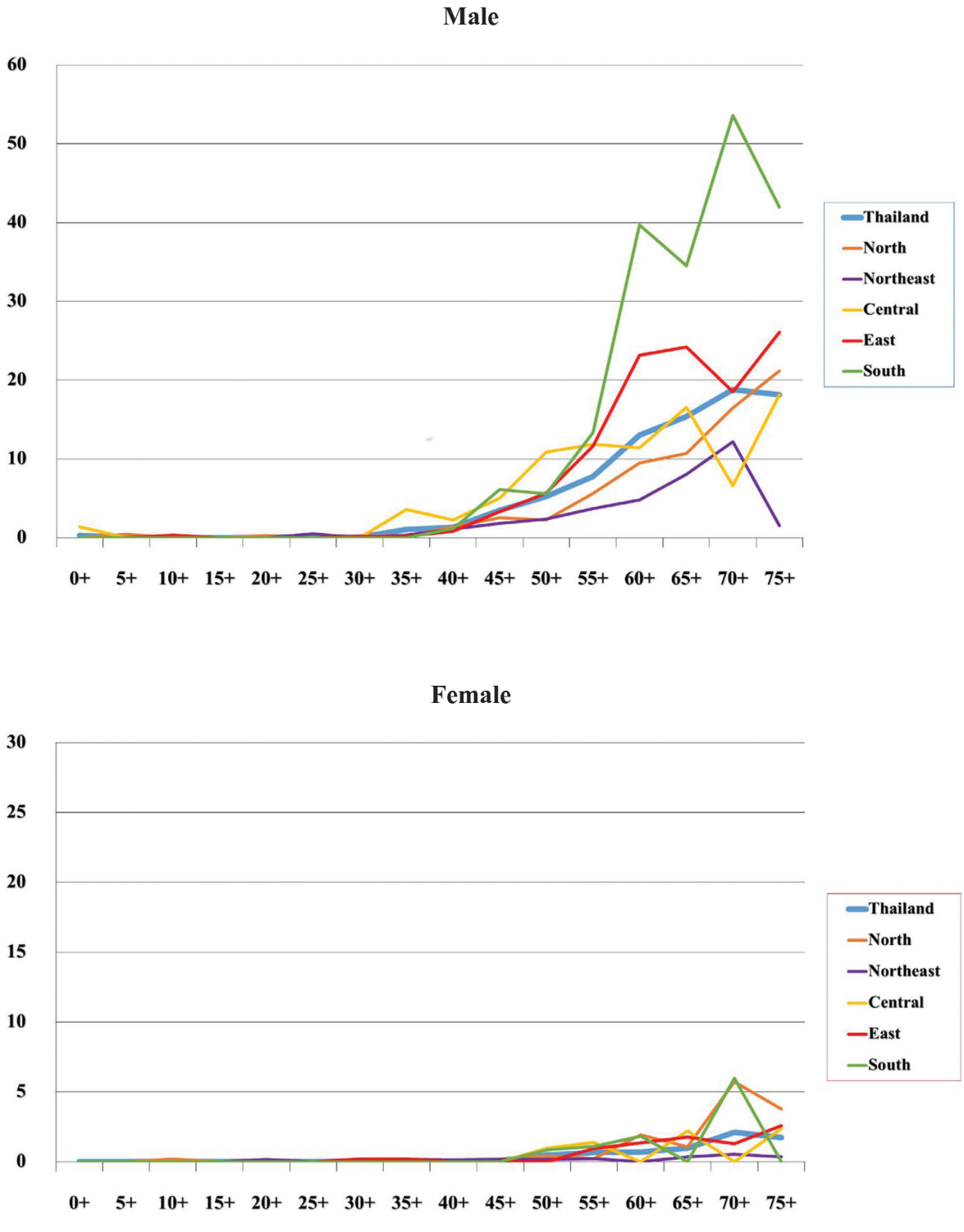


Figure 2.10.2 Age - specific incidence rates of larynx cancer, mean annual rate per 100,000 (2010-2012)



Trachea, bronchus and lung

Figure 2.11.1 Trachea, bronchus and lung cancer in different regions, mean annual ASR per 100,000 (2010-2012)

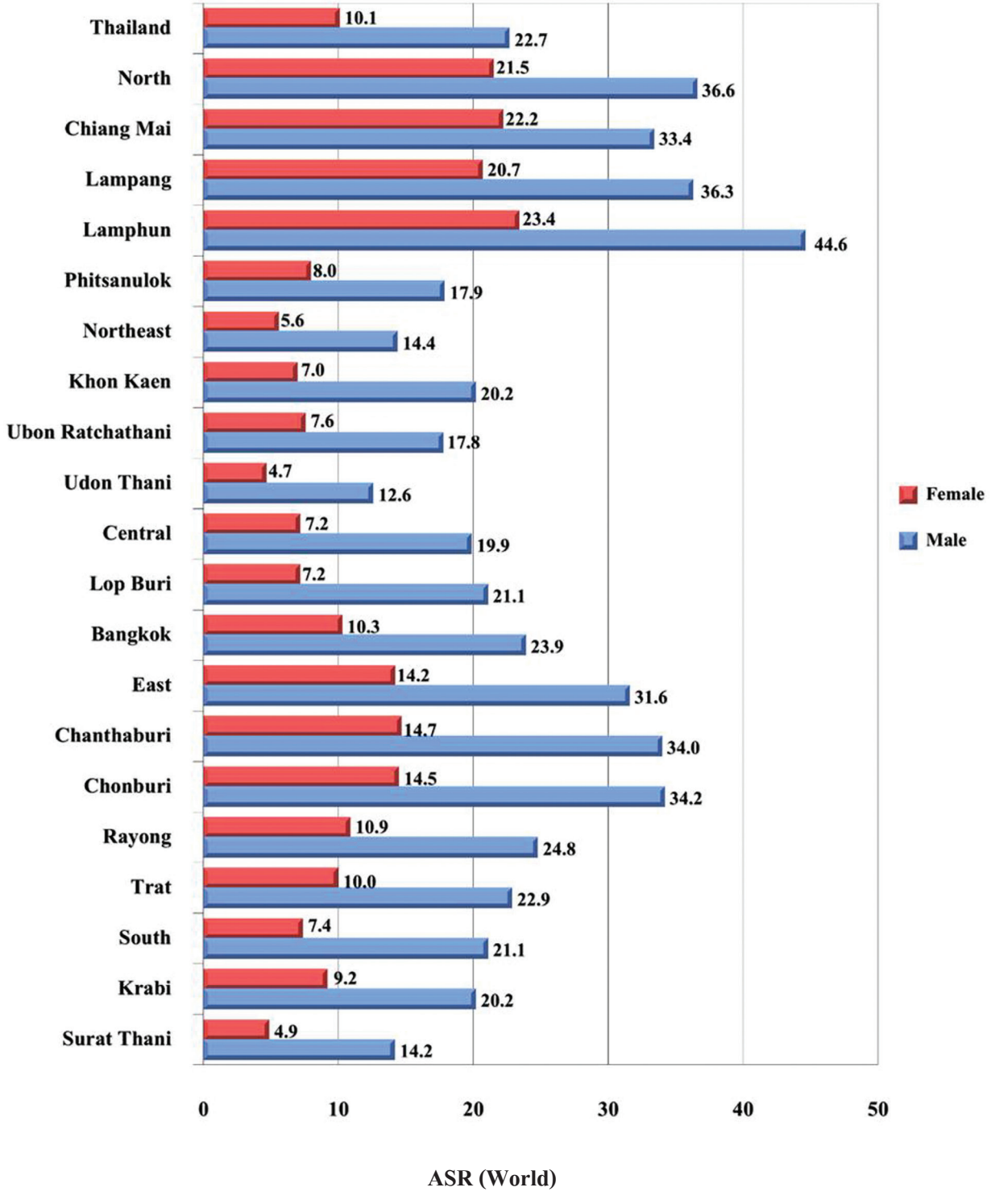
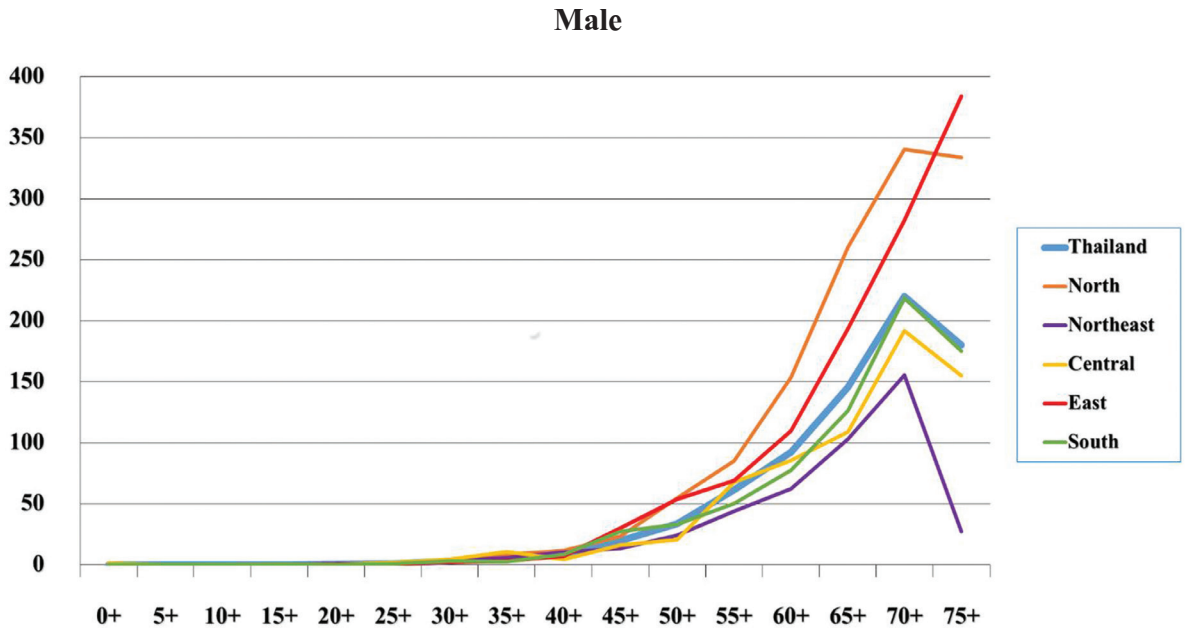


Figure 2.11.2 Age - specific incidence rates of trachea, bronchus and lung cancer, mean annual rate per 100,000 (2010-2012)



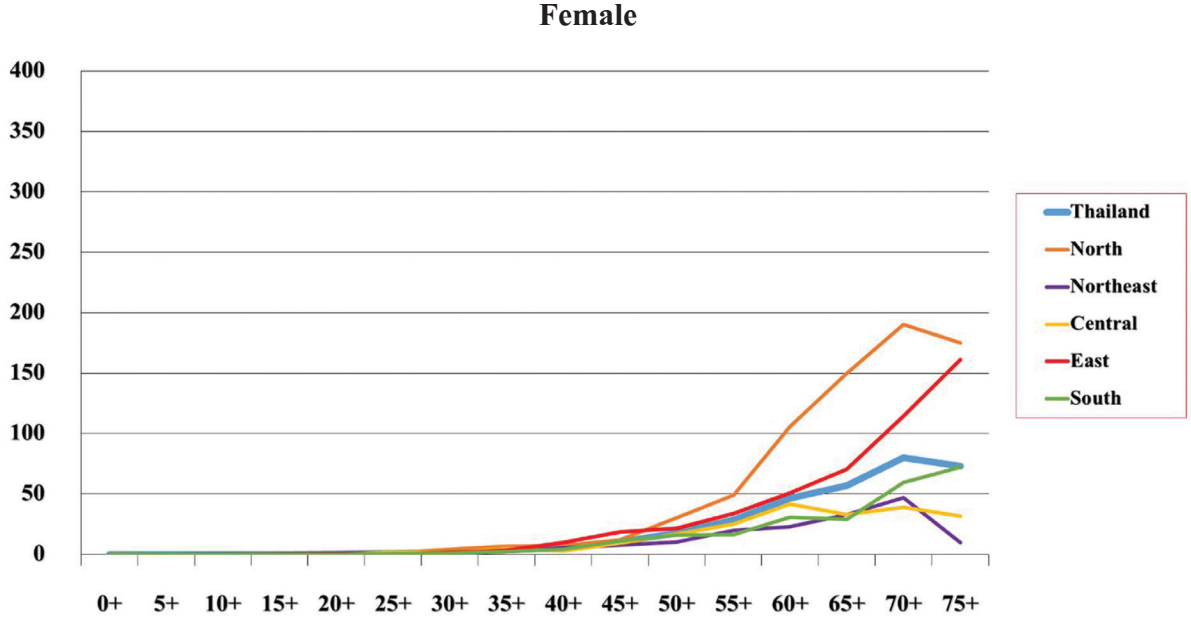


Figure 2.11.3 Histological types of trachea, bronchus and lung cancer (2010-2012)

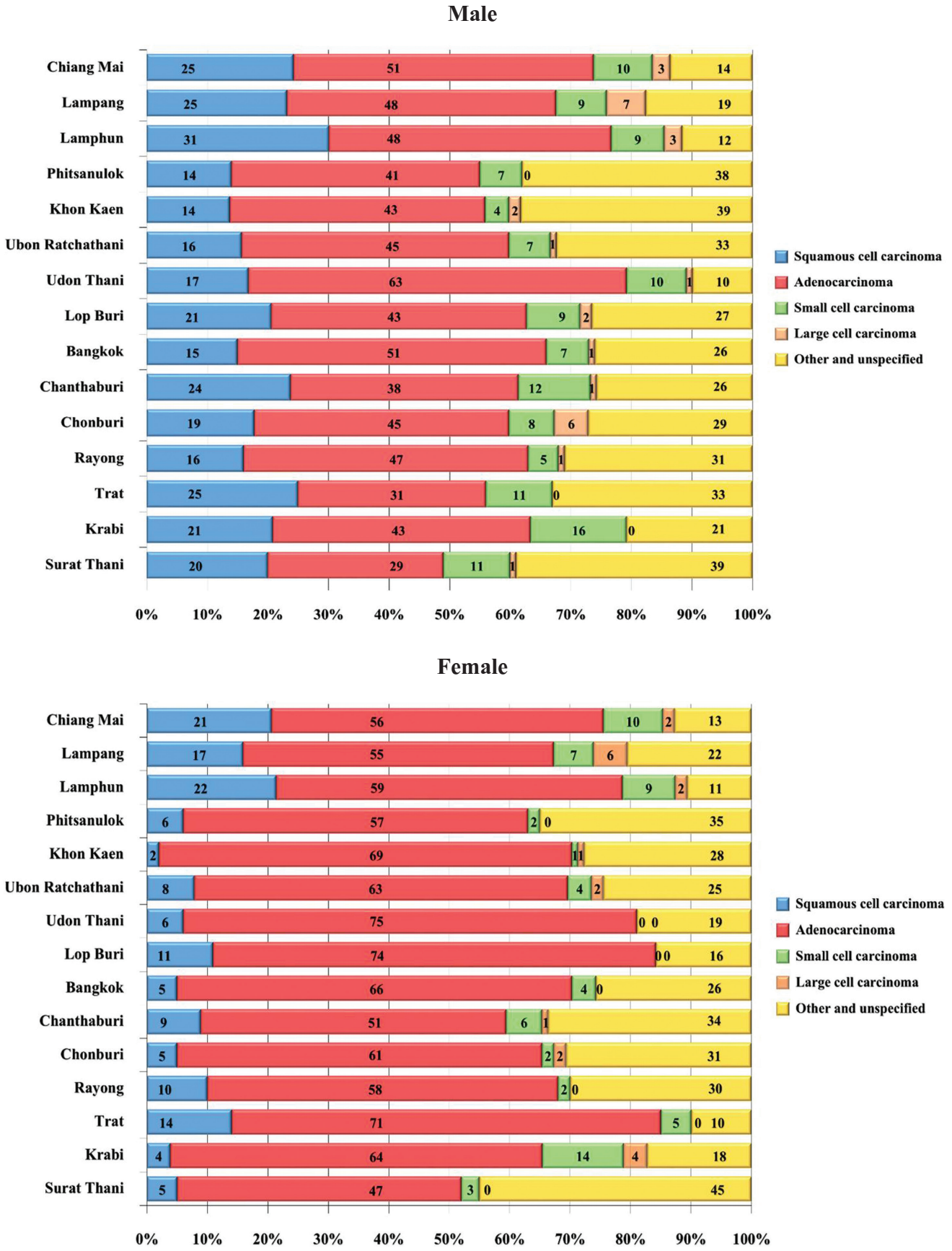
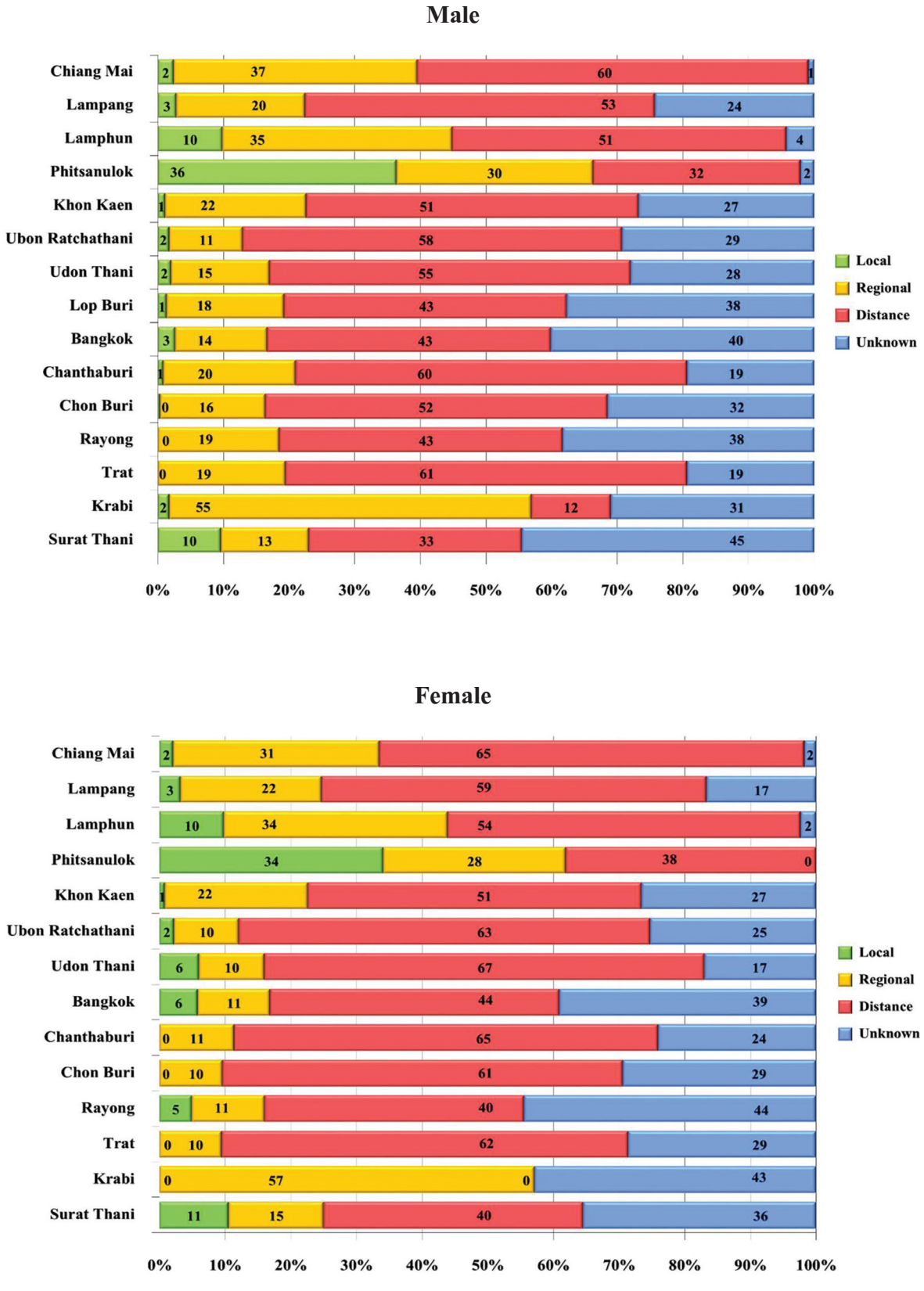


Figure 2.11.4 Stage distribution of trachea, bronchus and lung cancer (2010-2012)



Skin

Figure 2.12.1 Skin cancer in different regions, mean annual ASR per 100,000 (2010-2012)

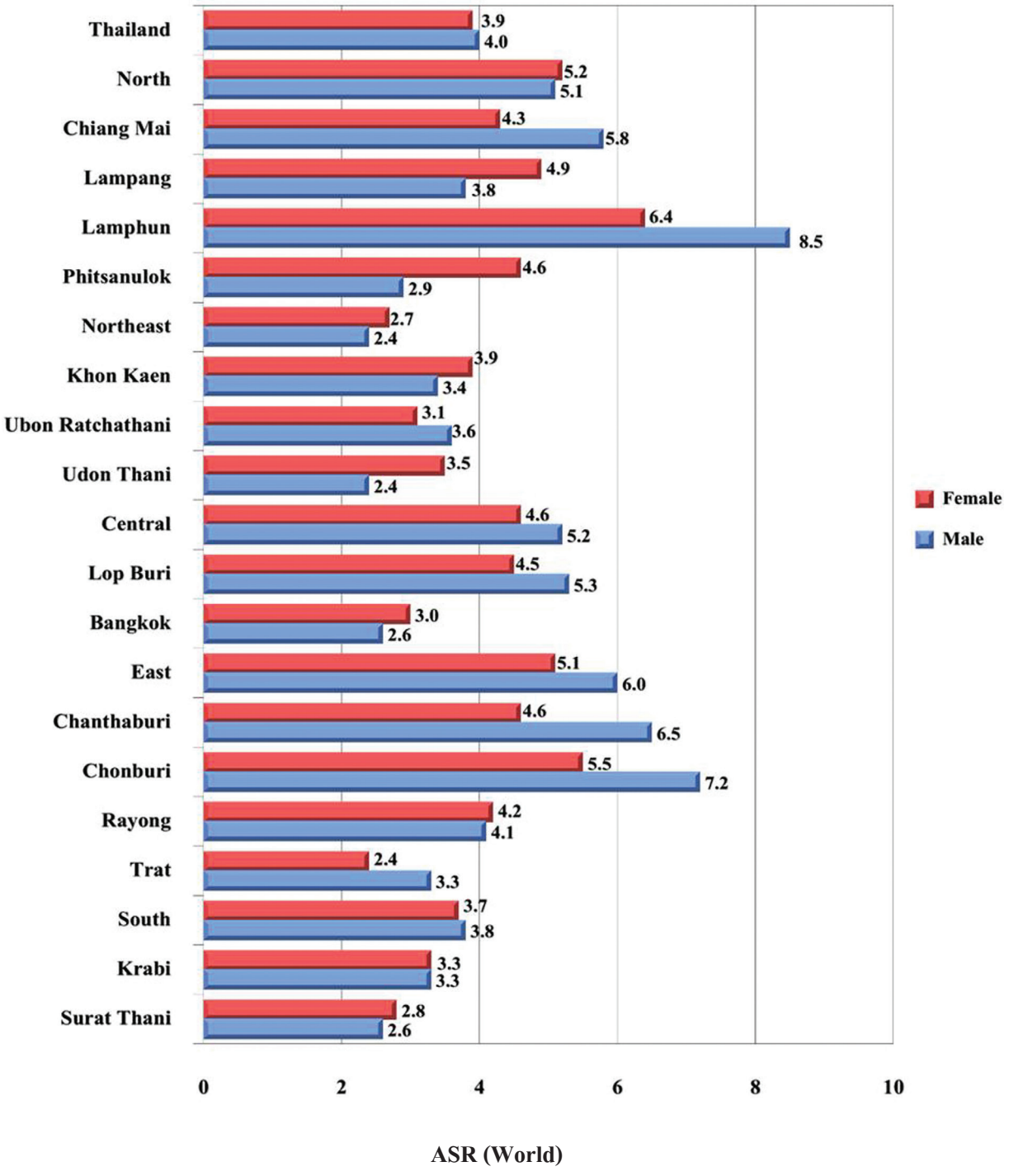


Figure 2.12.2 Age - specific incidence rates of skin cancer, mean annual rate per 100,000 (2010-2012)

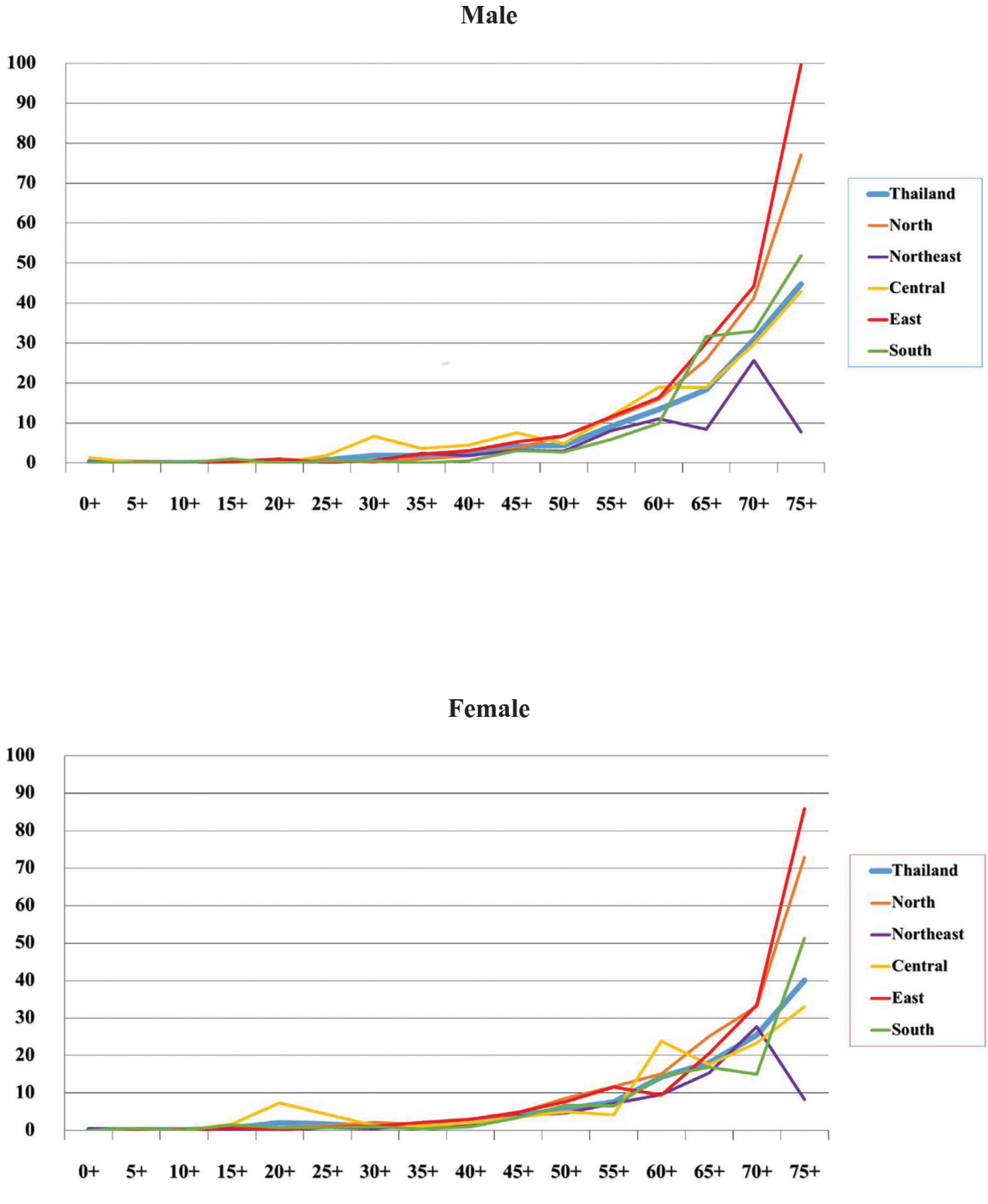
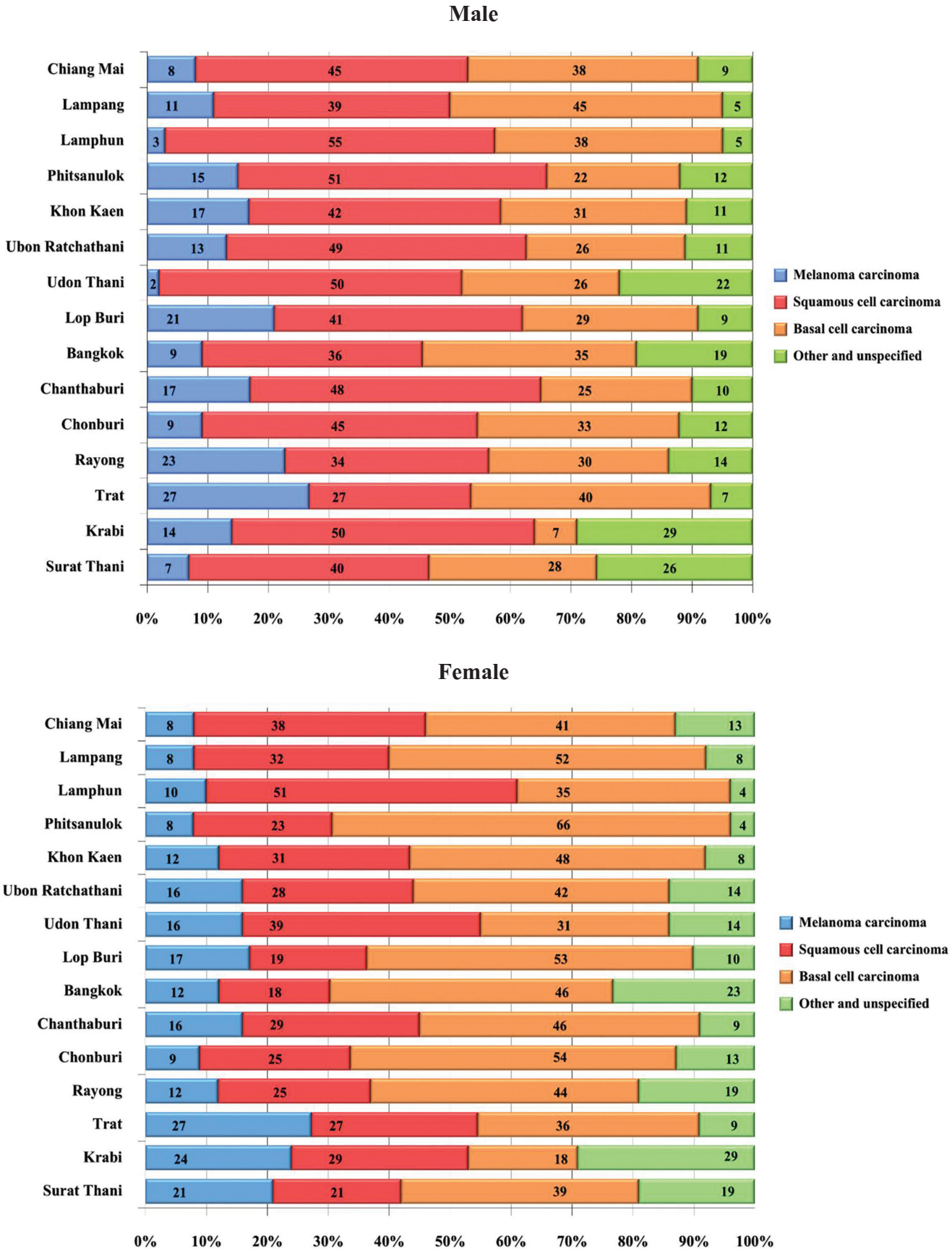


Figure 2.12.3 Histological types of skin cancer (2010-2012)



Breast

Figure 2.13.1 Breast cancer in different regions, mean annual ASR per 100,000 (2010-2012)

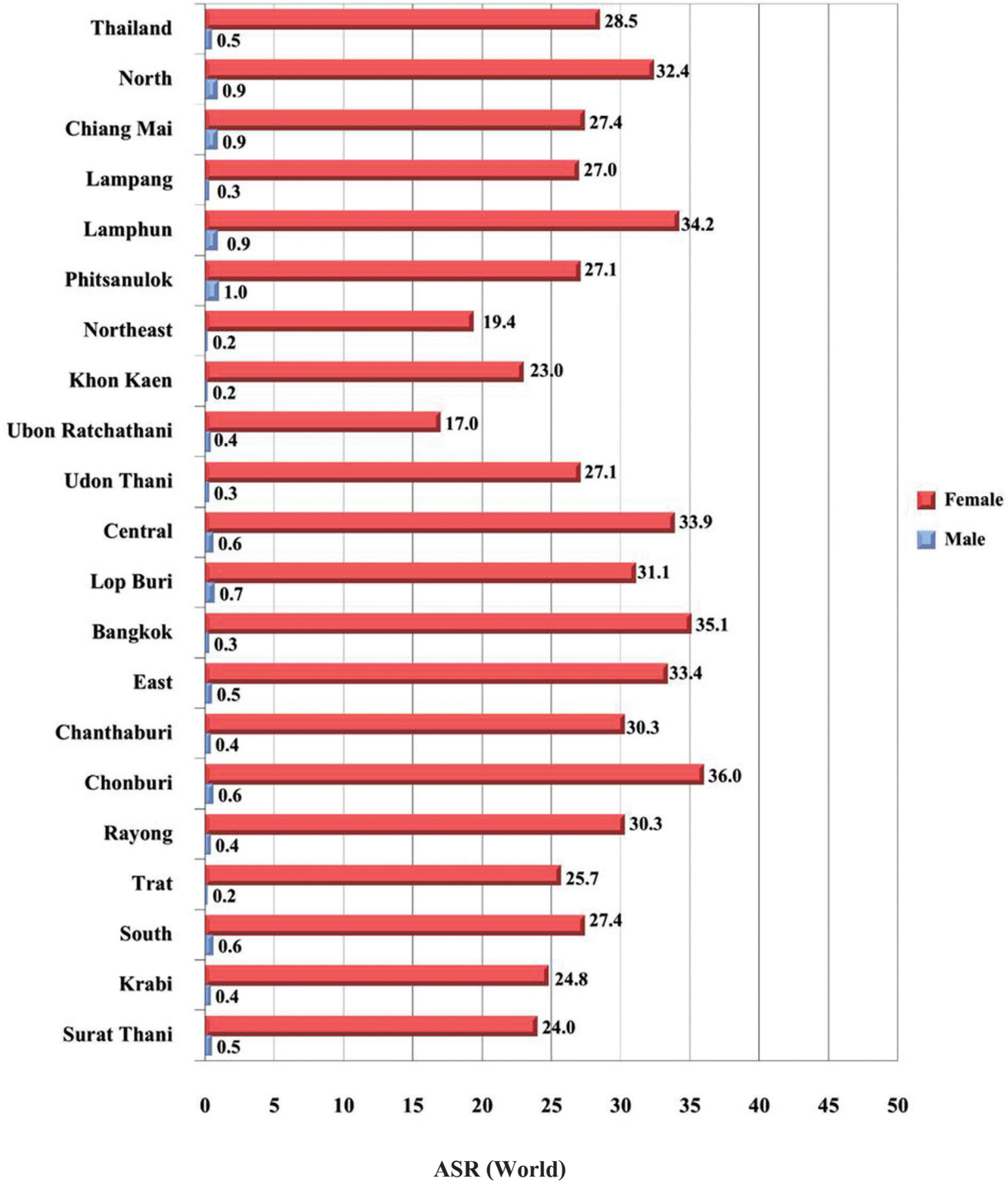


Figure 2.13.2 Age - specific incidence rates of breast cancer, mean annual rate per 100,000 (2010-2012)

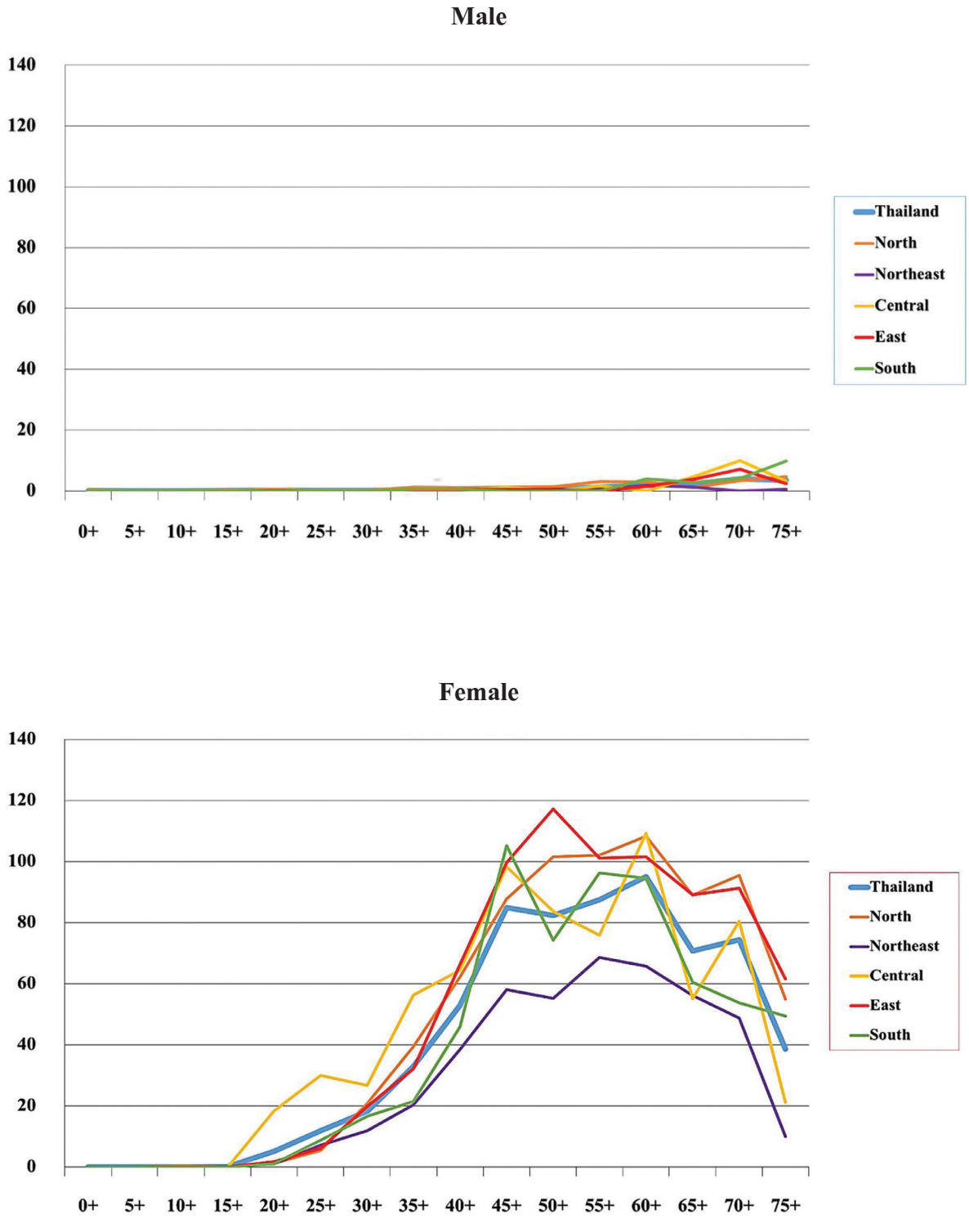


Figure 2.13.3 Histological types of breast cancer (2010-2012)

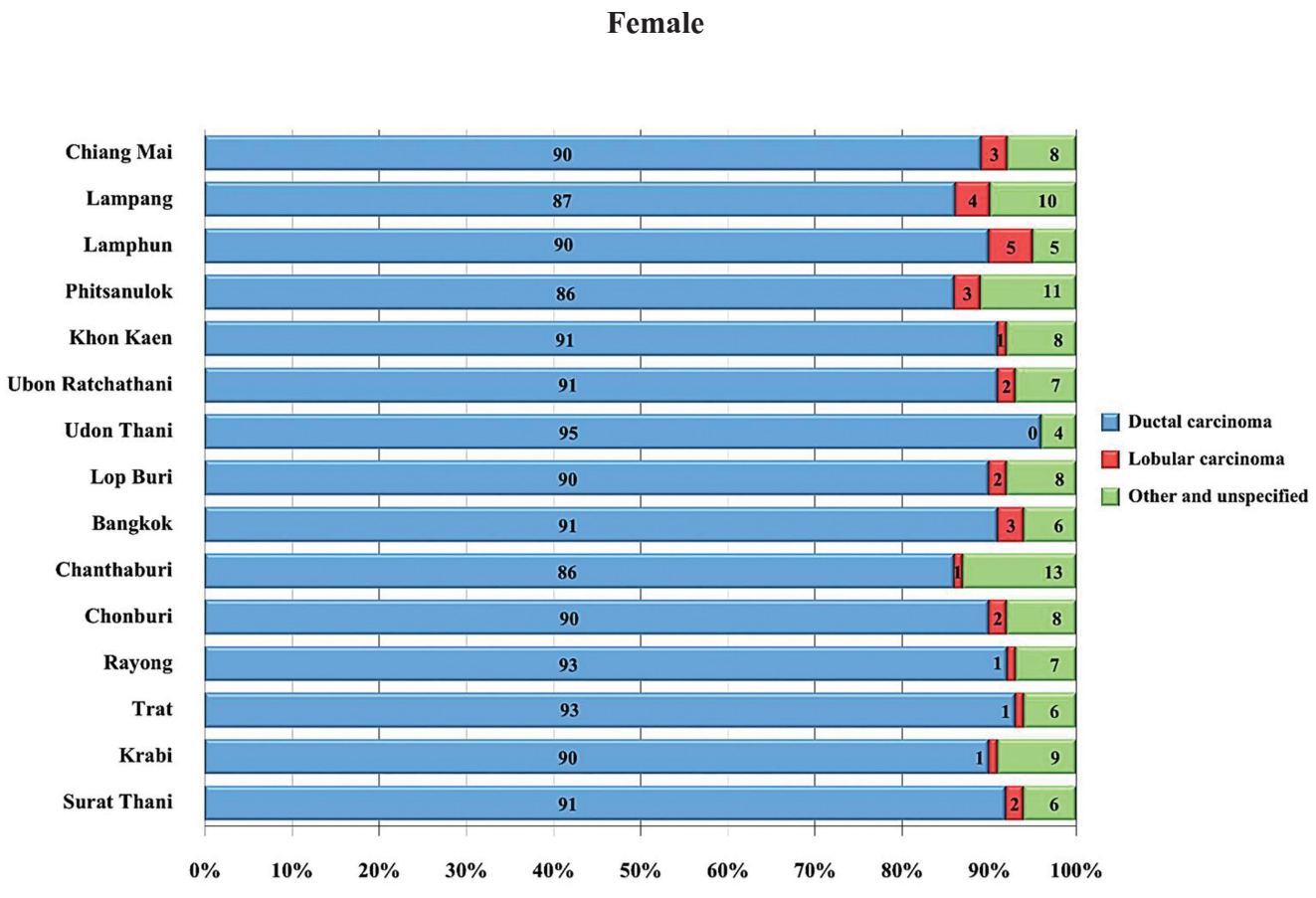
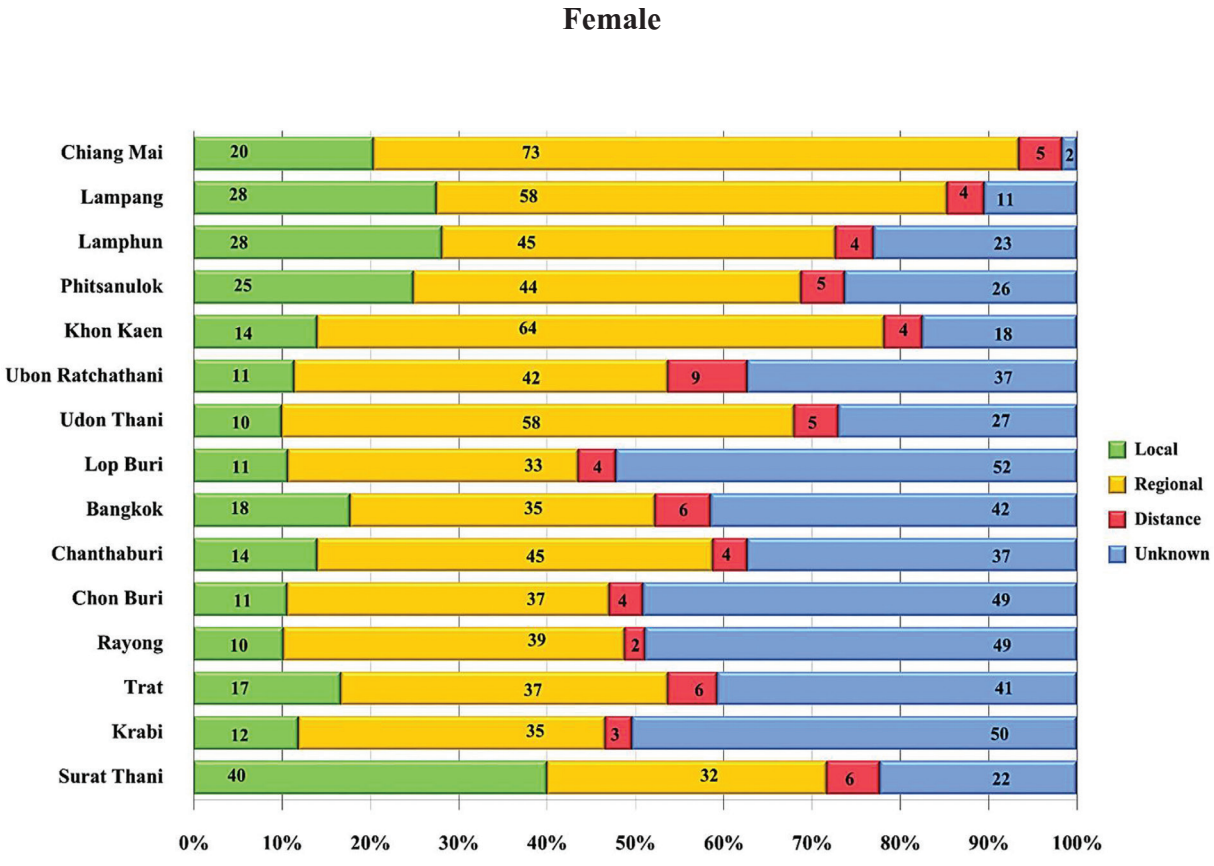


Figure 2.13.4 Stage distribution of breast cancer (2010-2012)



Cervix uteri

Figure 2.14.1 Cervical cancer in different regions, mean annual ASR per 100,000 (2010-2012)

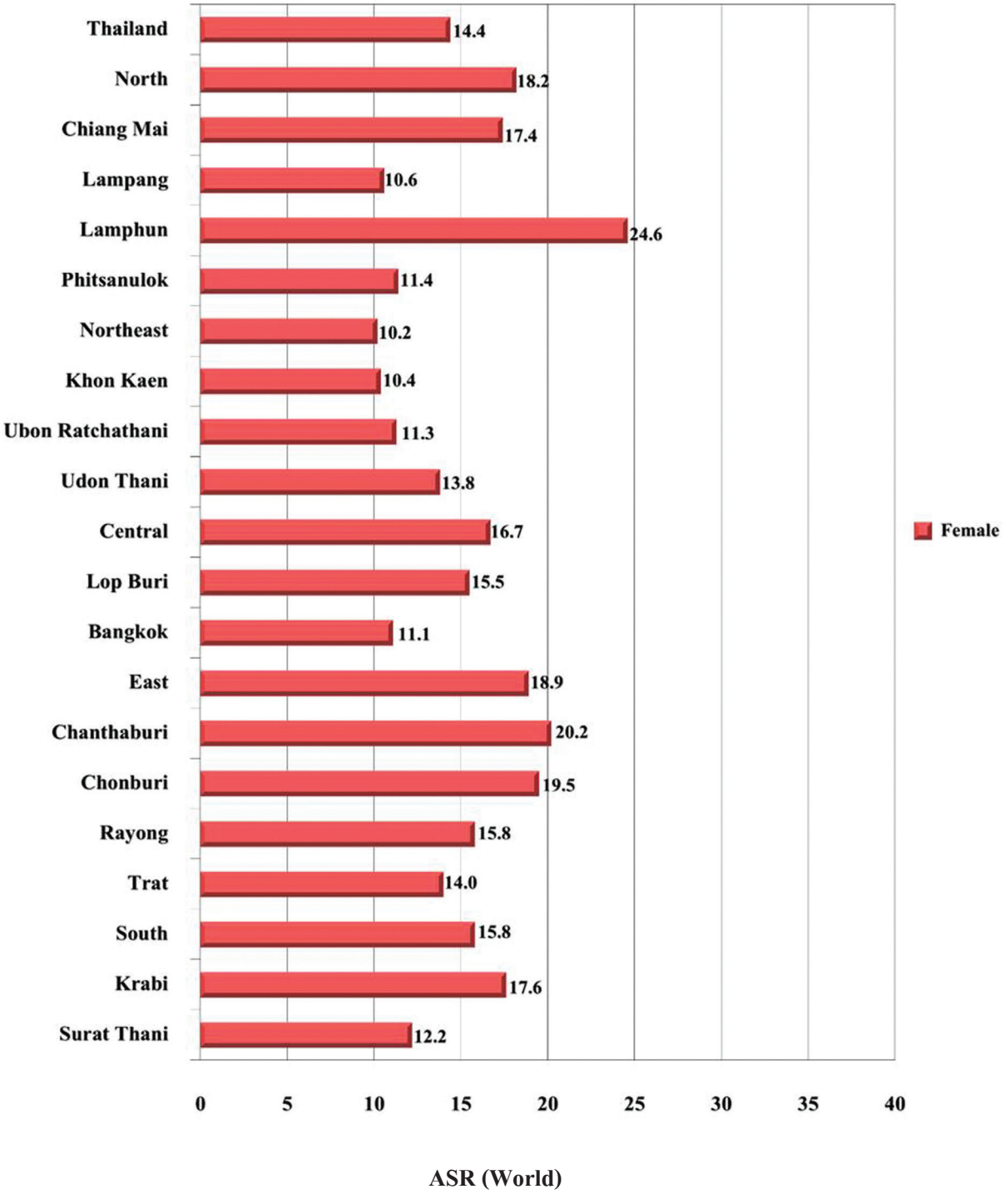


Figure 2.14.2 Age - specific incidence rates of cervical cancer, mean annual rate per 100,000 (2010-2012)

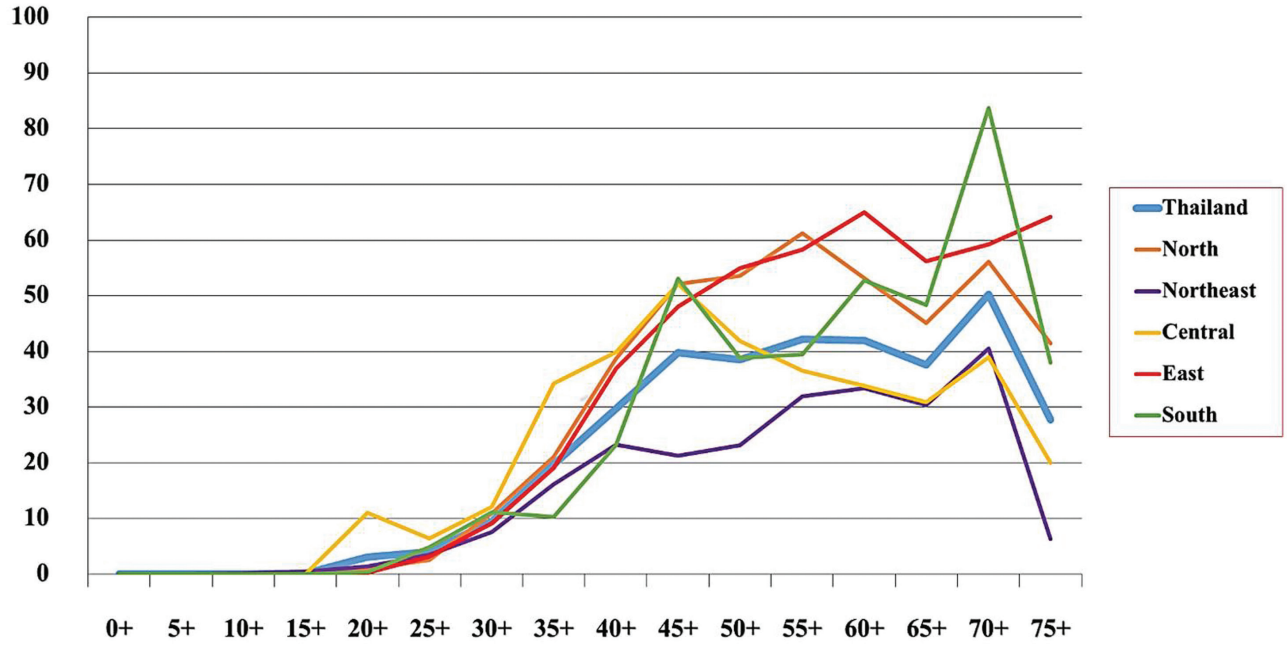


Figure 2.14.3 Cervical cancer : percentage distribution of histological types among microscopically verified (2010-2012)

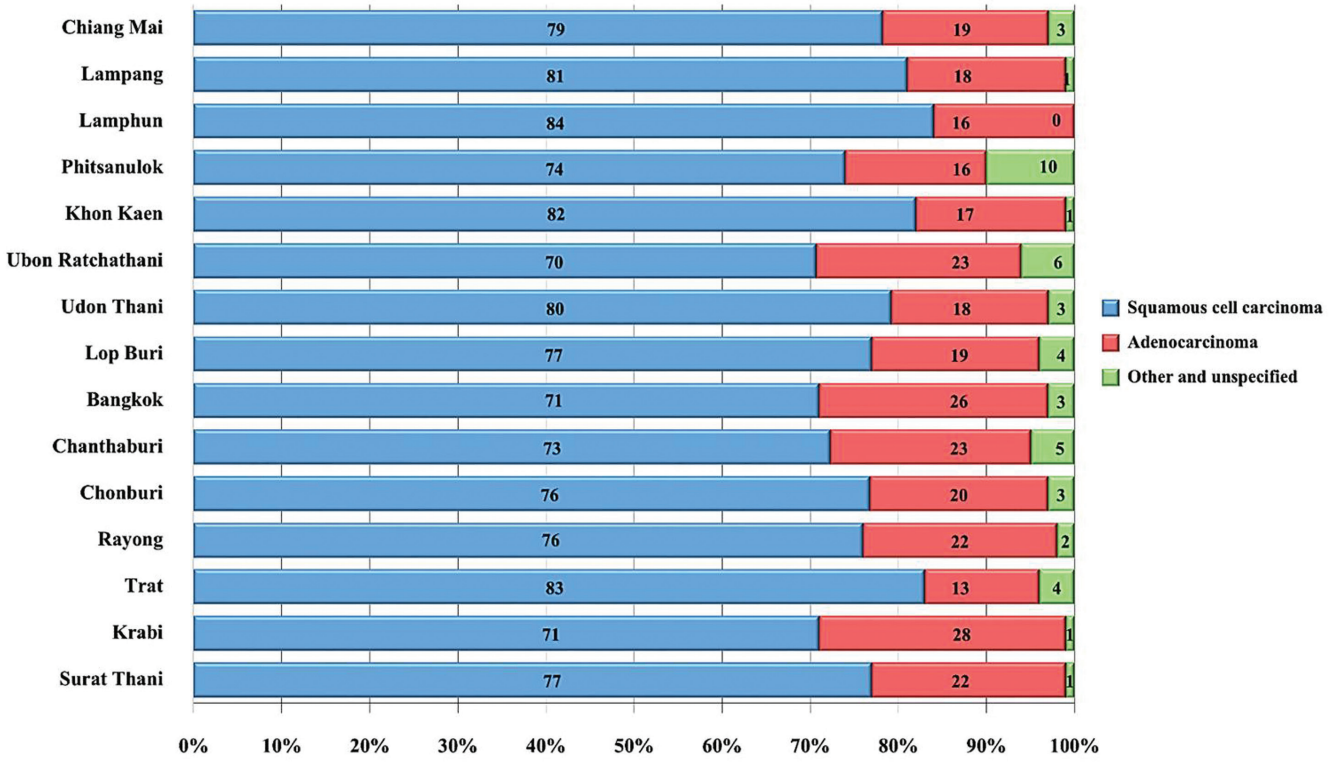
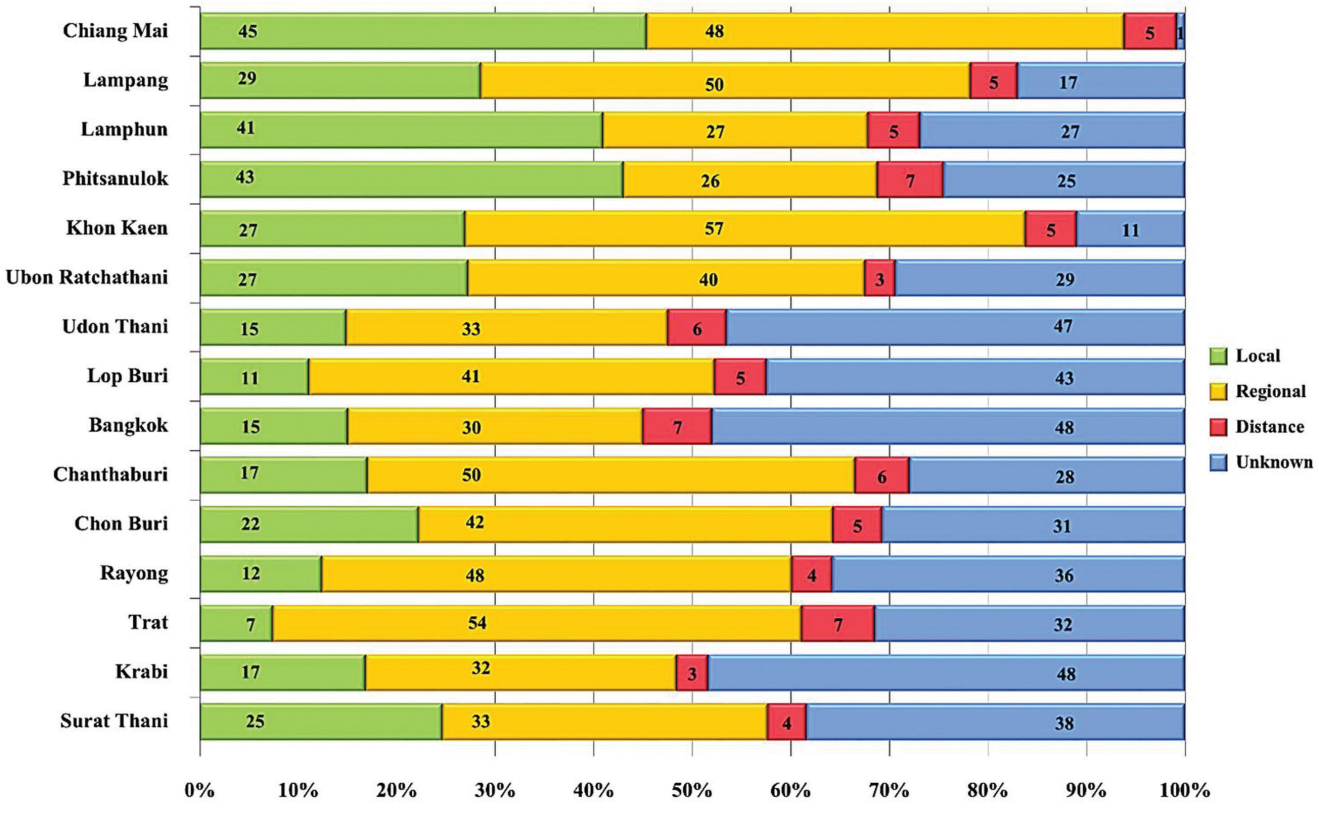


Figure 2.14.4 Stage distribution of cervical cancer (2010-2012)



Corpus uteri

Figure 2.15.1 Corpus uteri cancer in different regions, mean annual ASR per 100,000 (2010-2012)

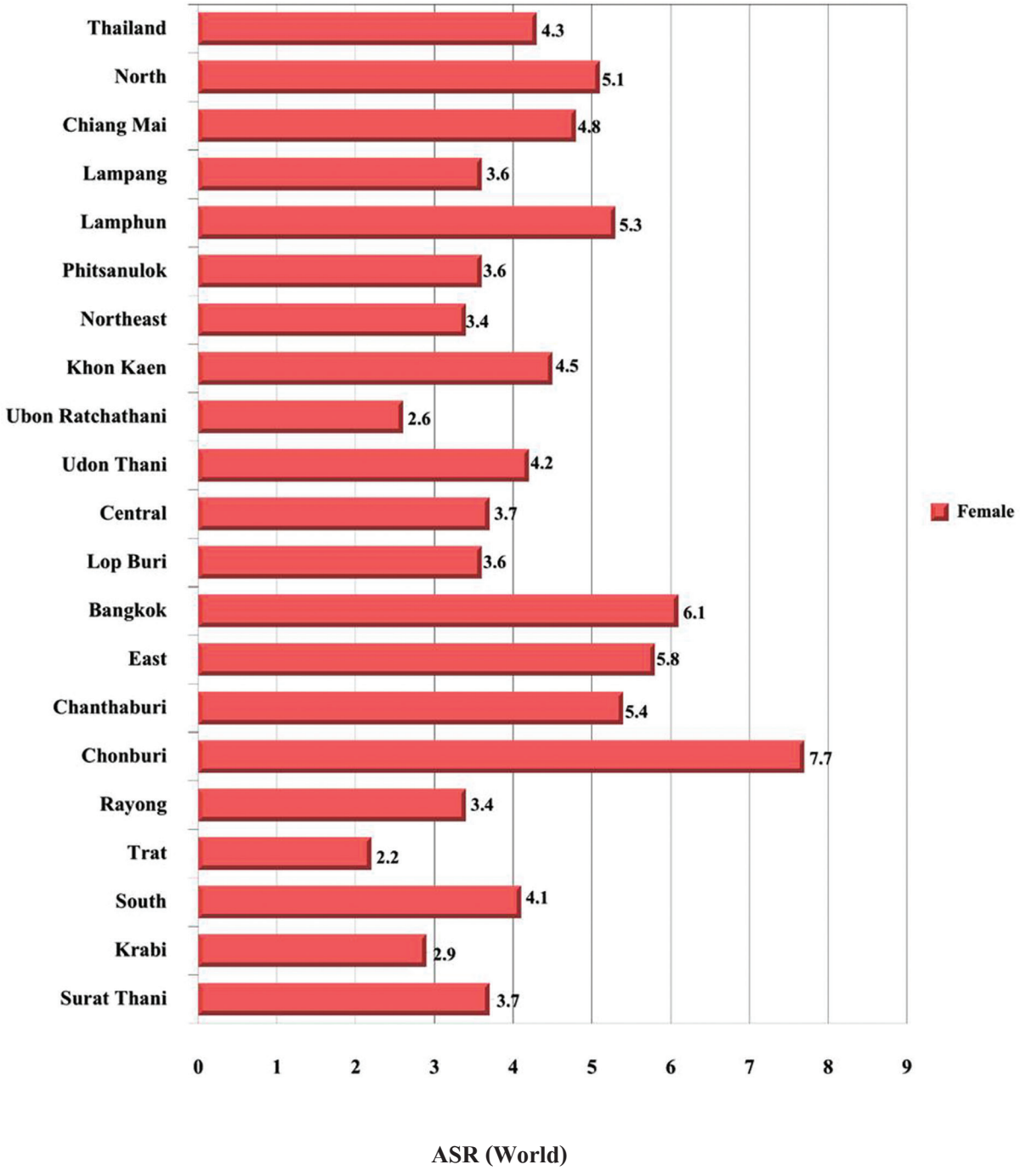


Figure 2.15.2 Age - specific incidence rates of cervical cancer, mean annual rate per 100,000 (2010-2012)

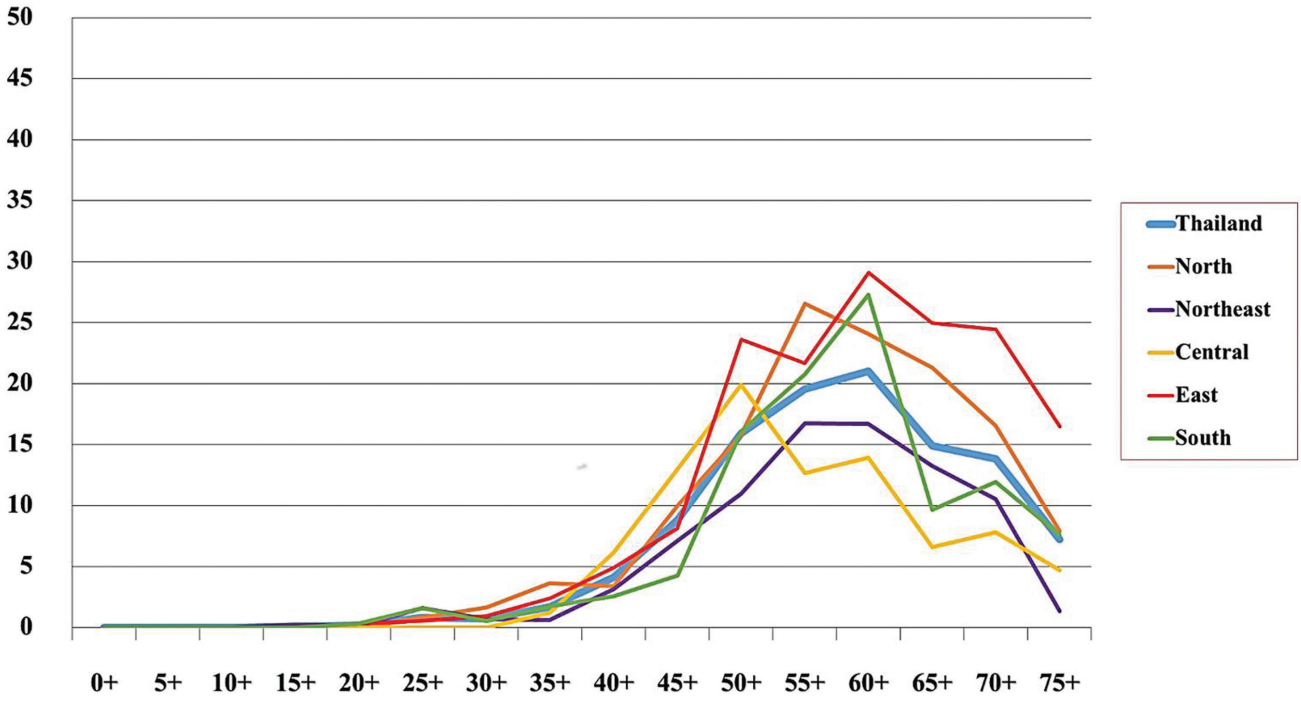
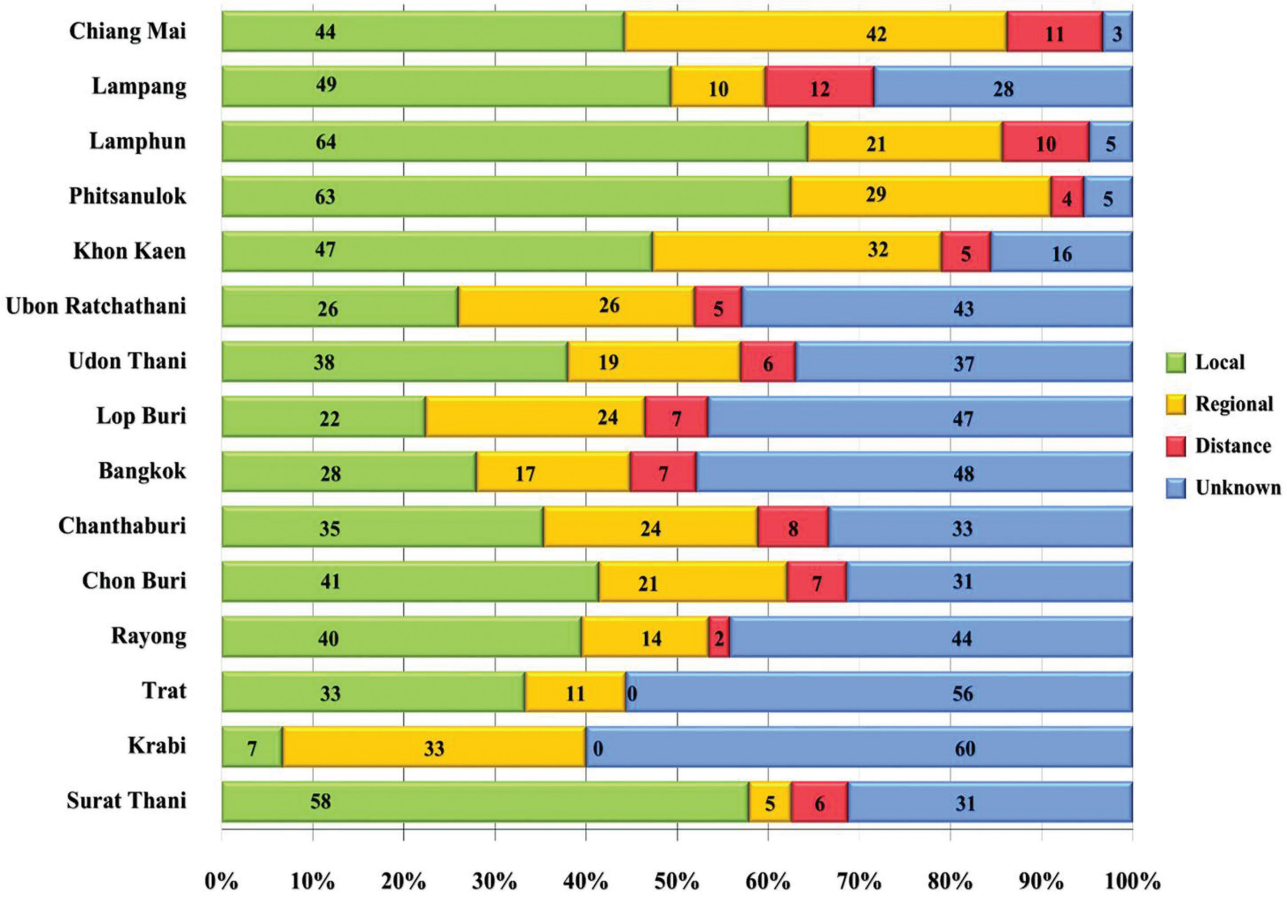


Figure 2.15.3 Stage distribution of corpus uteri cancer, (2010-2012)



Ovary

Figure 2.16.1 Ovarian cancer in different regions, mean annual ASR per 100,000 (2010-2012)

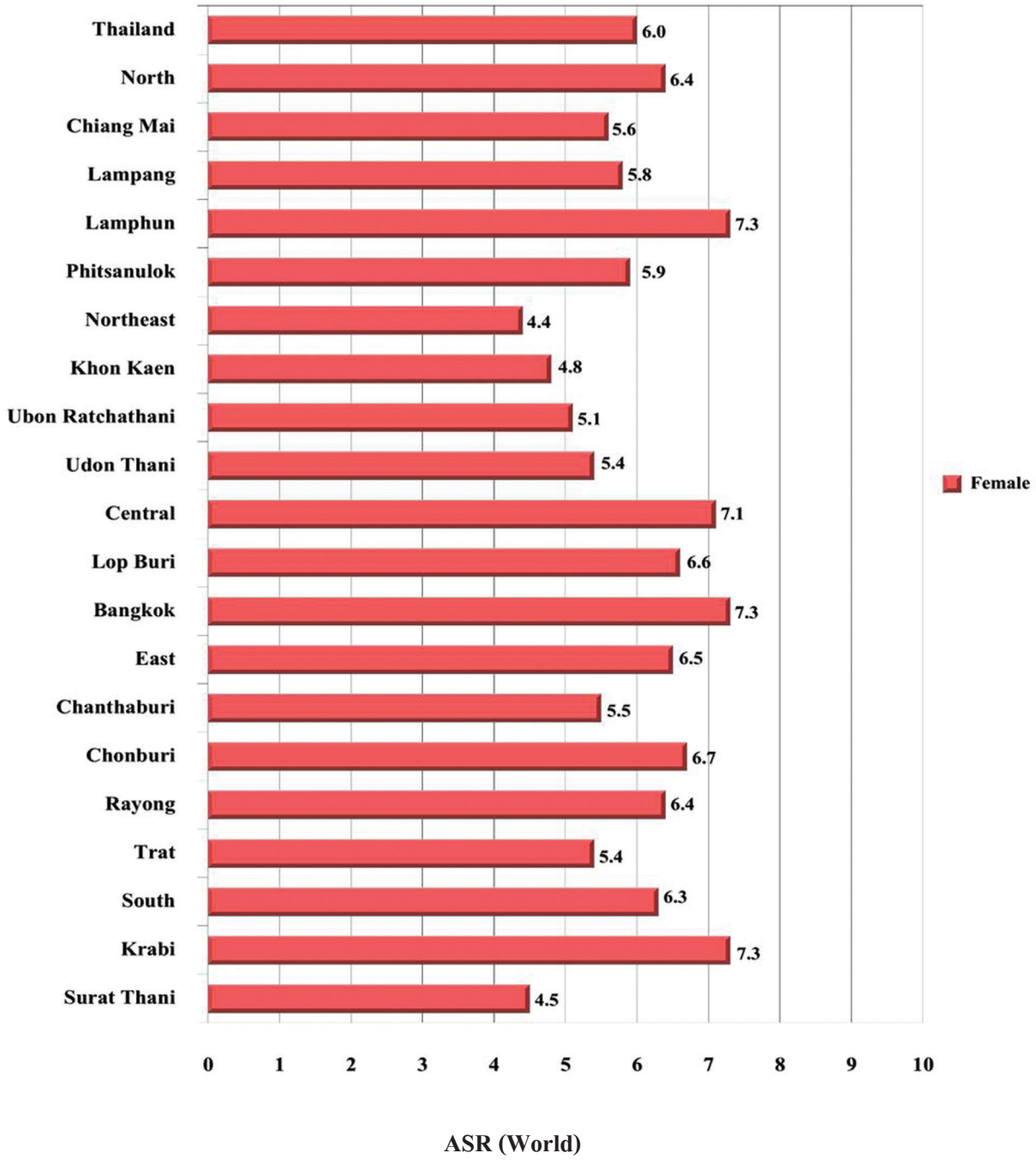


Figure 2.16.2 Age - specific incidence rates of ovarian cancer, mean annual rate per 100,000 (2010-2012)

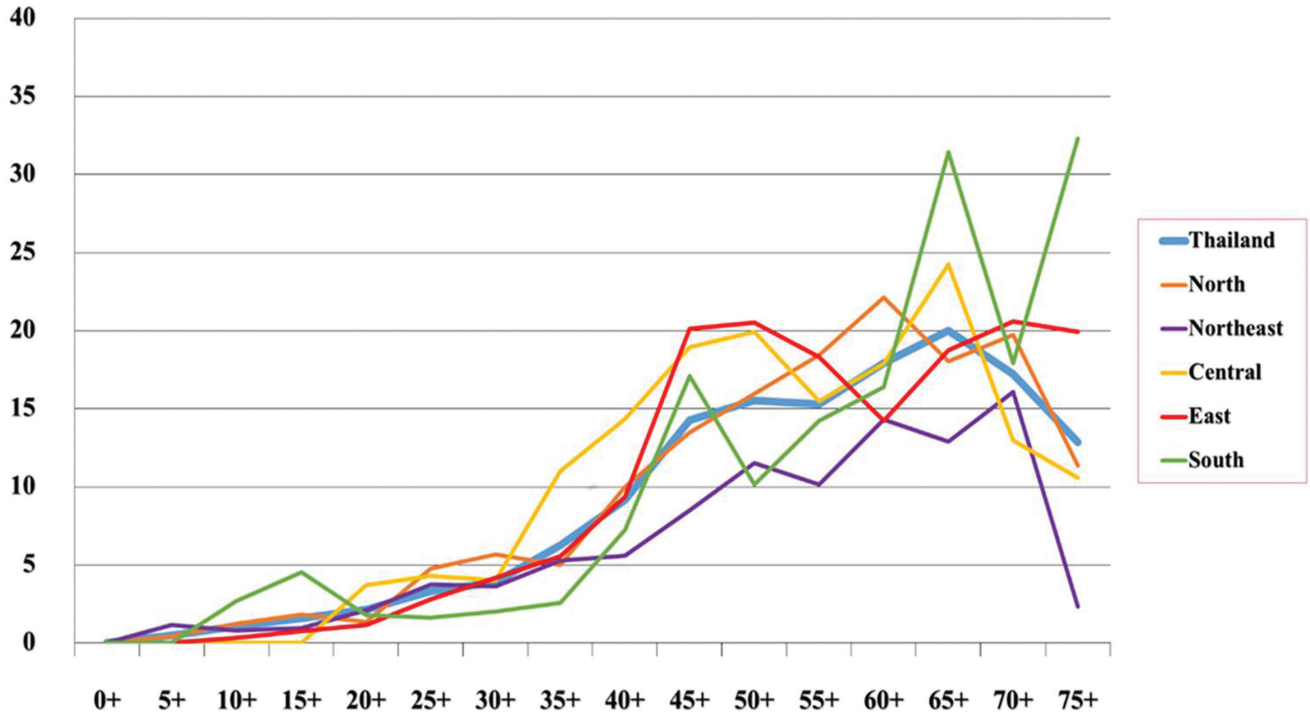


Figure 2.16.3 Histological types of ovarian cancer (2010-2012)

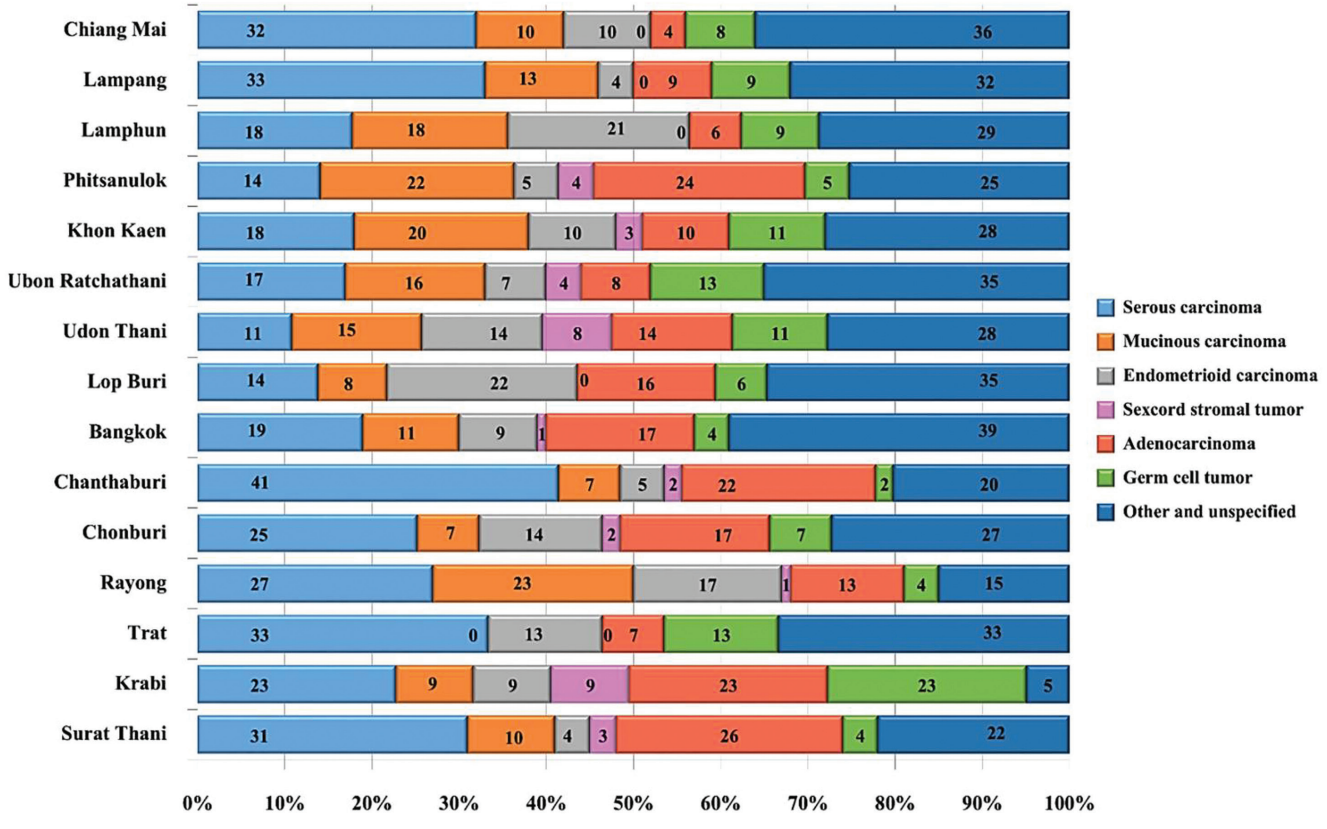
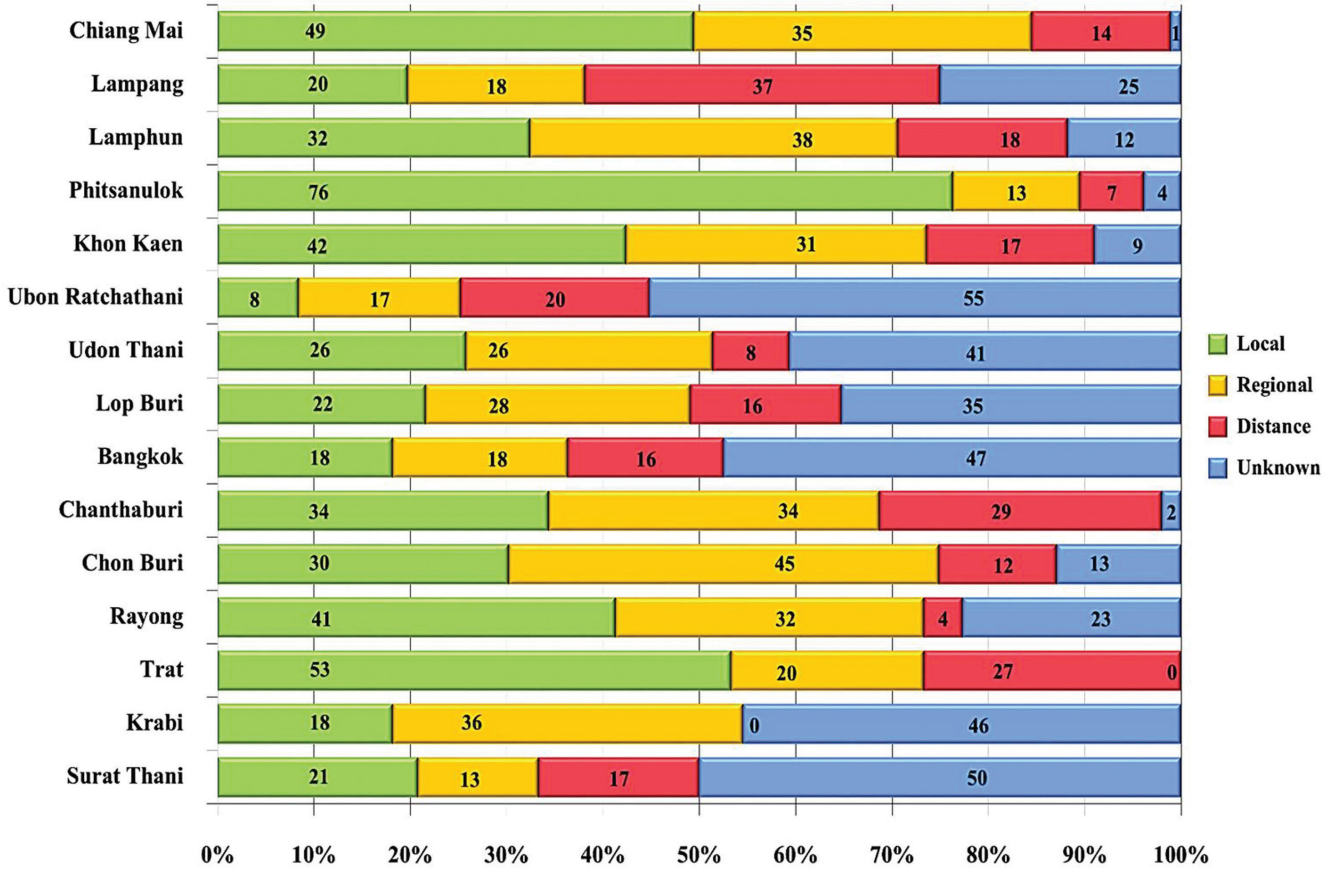


Figure 2.16.4 Stage distribution of ovarian cancer, (2010-2012)



Prostate

Figure 2.17.1 Prostate cancer in different regions, mean annual ASR per 100,000 (2010-2012)

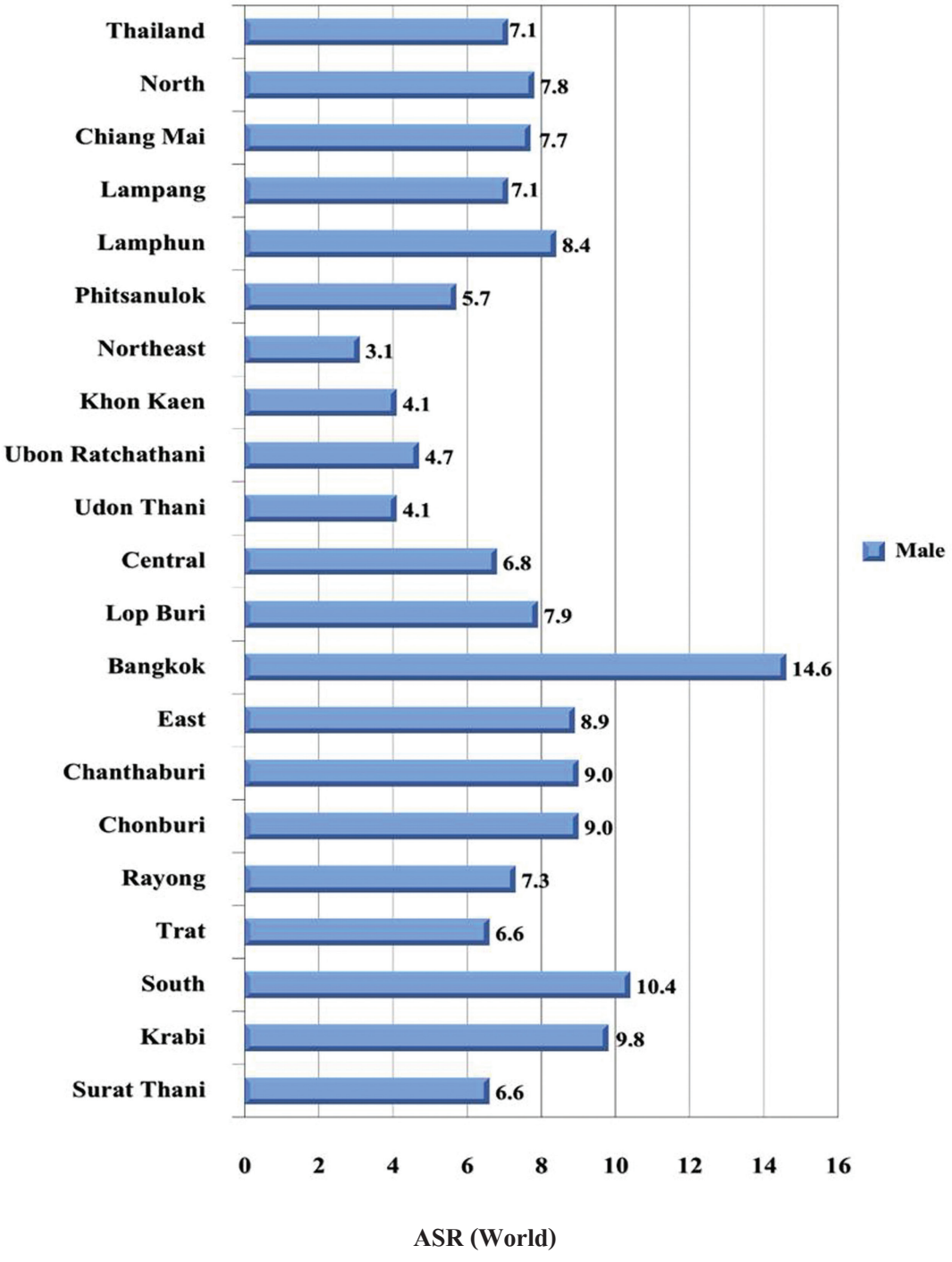
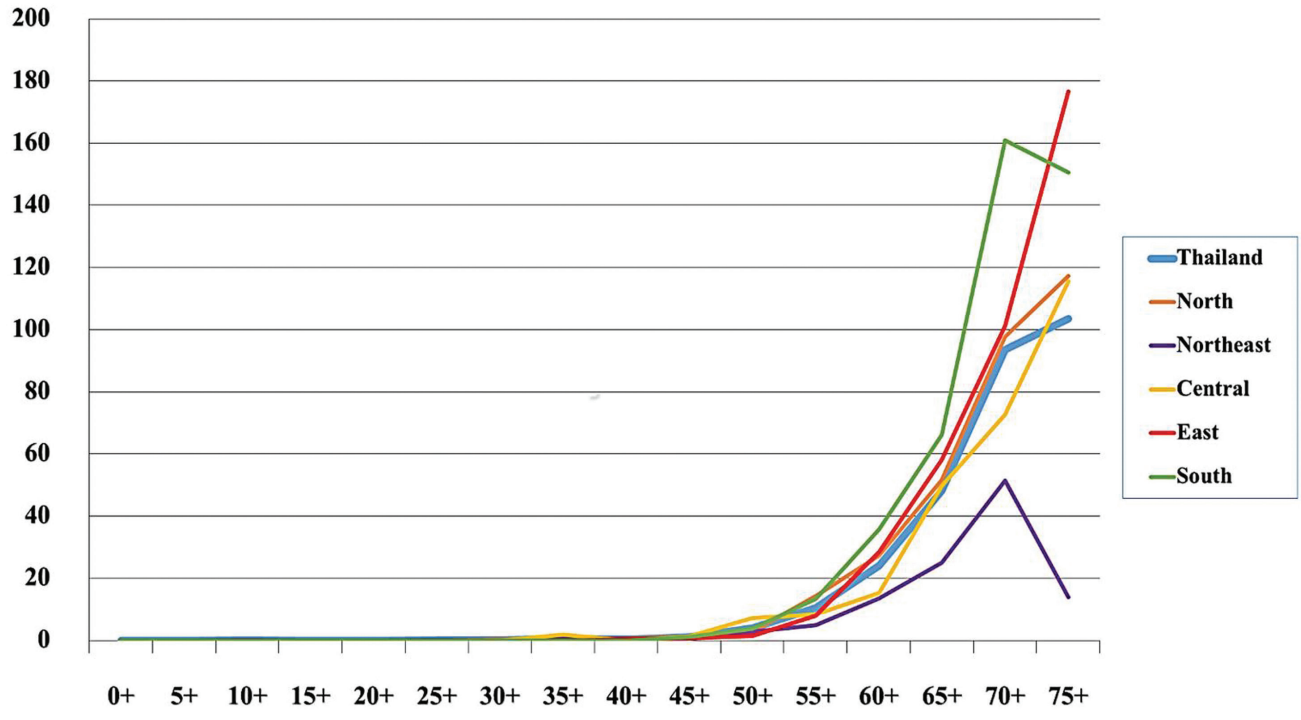


Figure 2.17.2 Age - specific incidence rates of prostate cancer, mean annual rate per 100,000 (2010-2012)



Urinary bladder

Figure 2.18.1 Urinary bladder cancer in different regions, mean annual ASR per 100,000 (2010-2012)

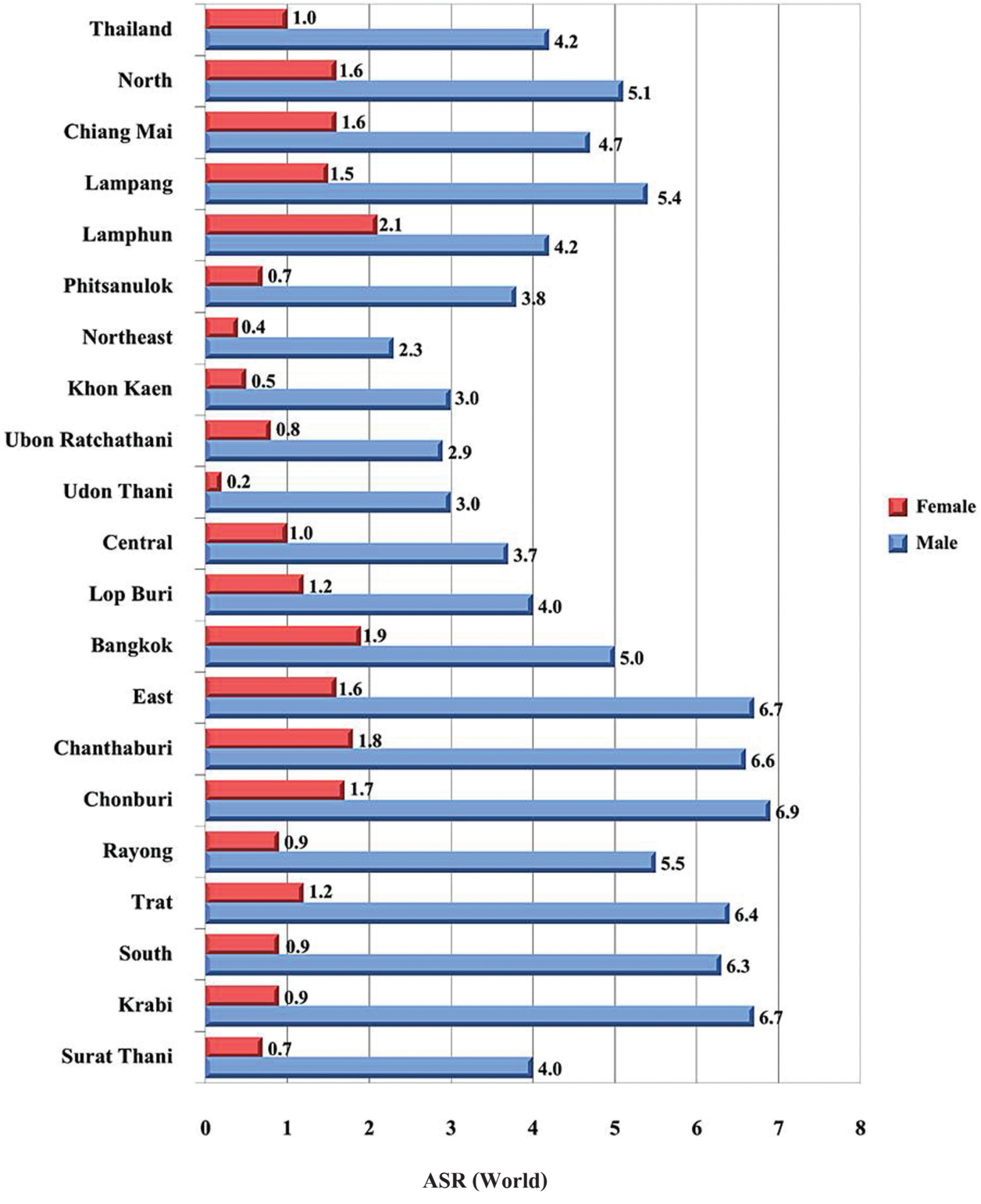


Figure 2.18.2 Age - specific incidence rates of urinary bladder cancer, mean annual rate per 100,000 (2010-2012)

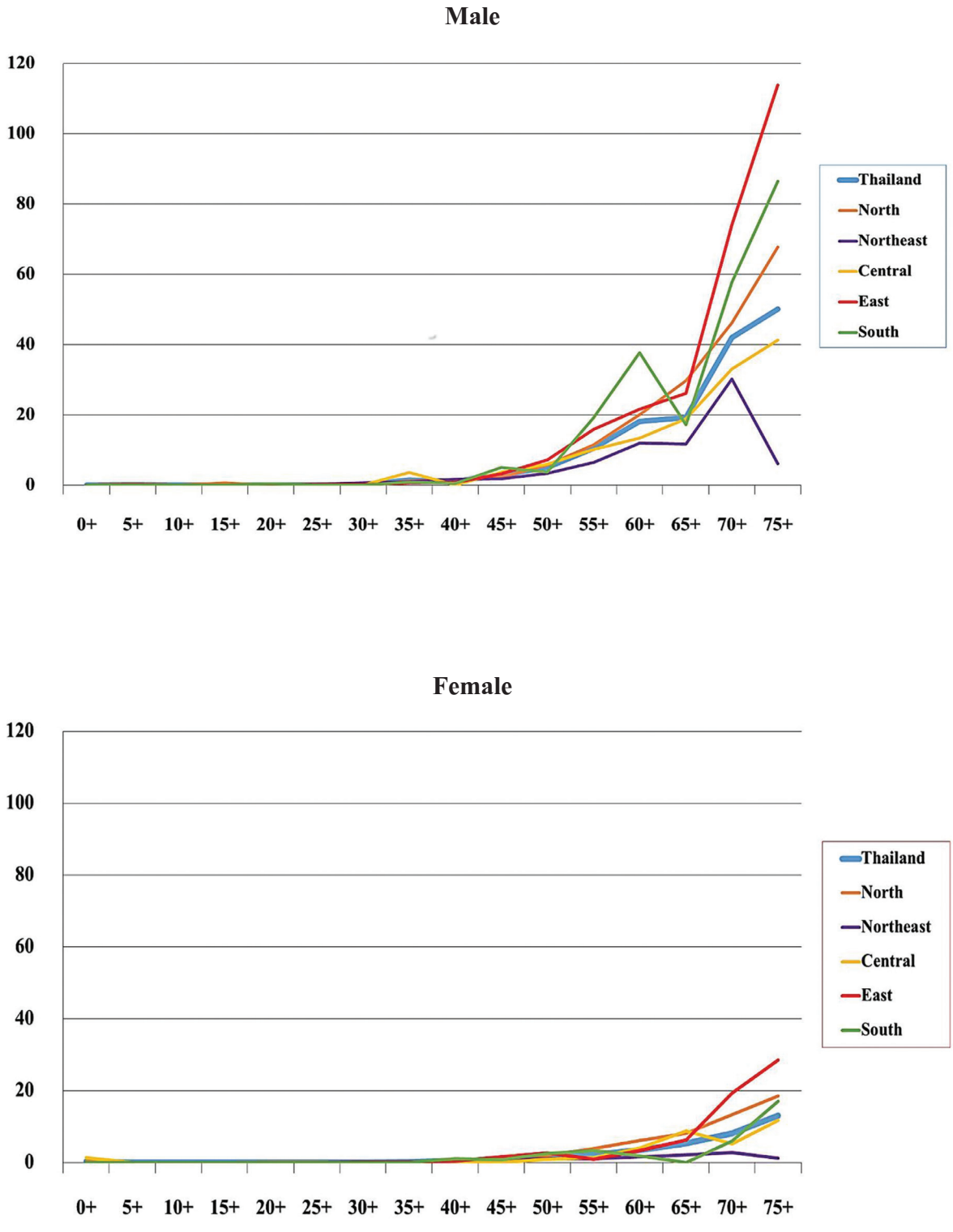
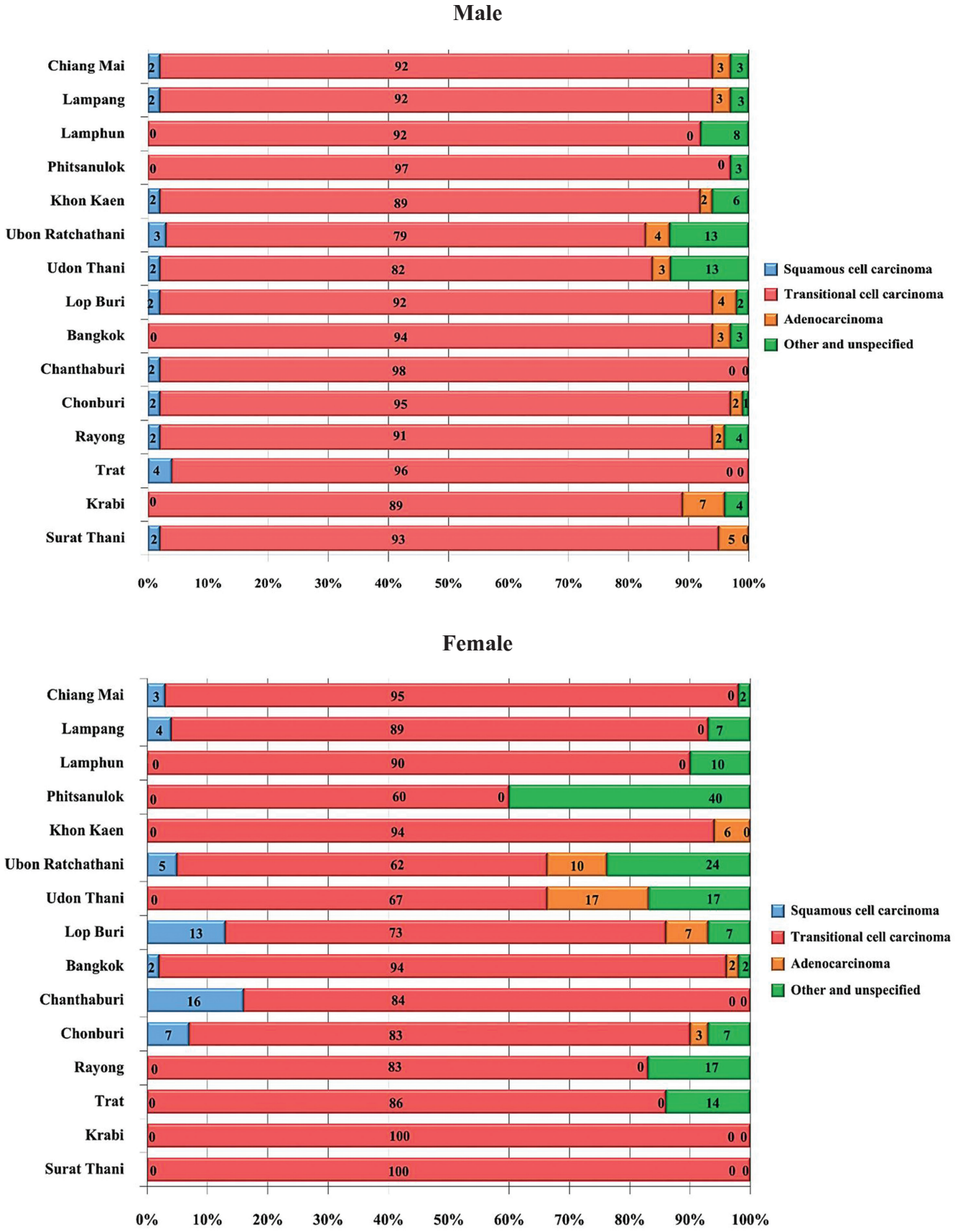


Figure 2.18.3 Histological types of urinary bladder cancer, (2010-2012)



Thyroid gland

Figure 2.19.1 Thyroid cancer in different regions, mean annual ASR per 100,000 (2010-2012)

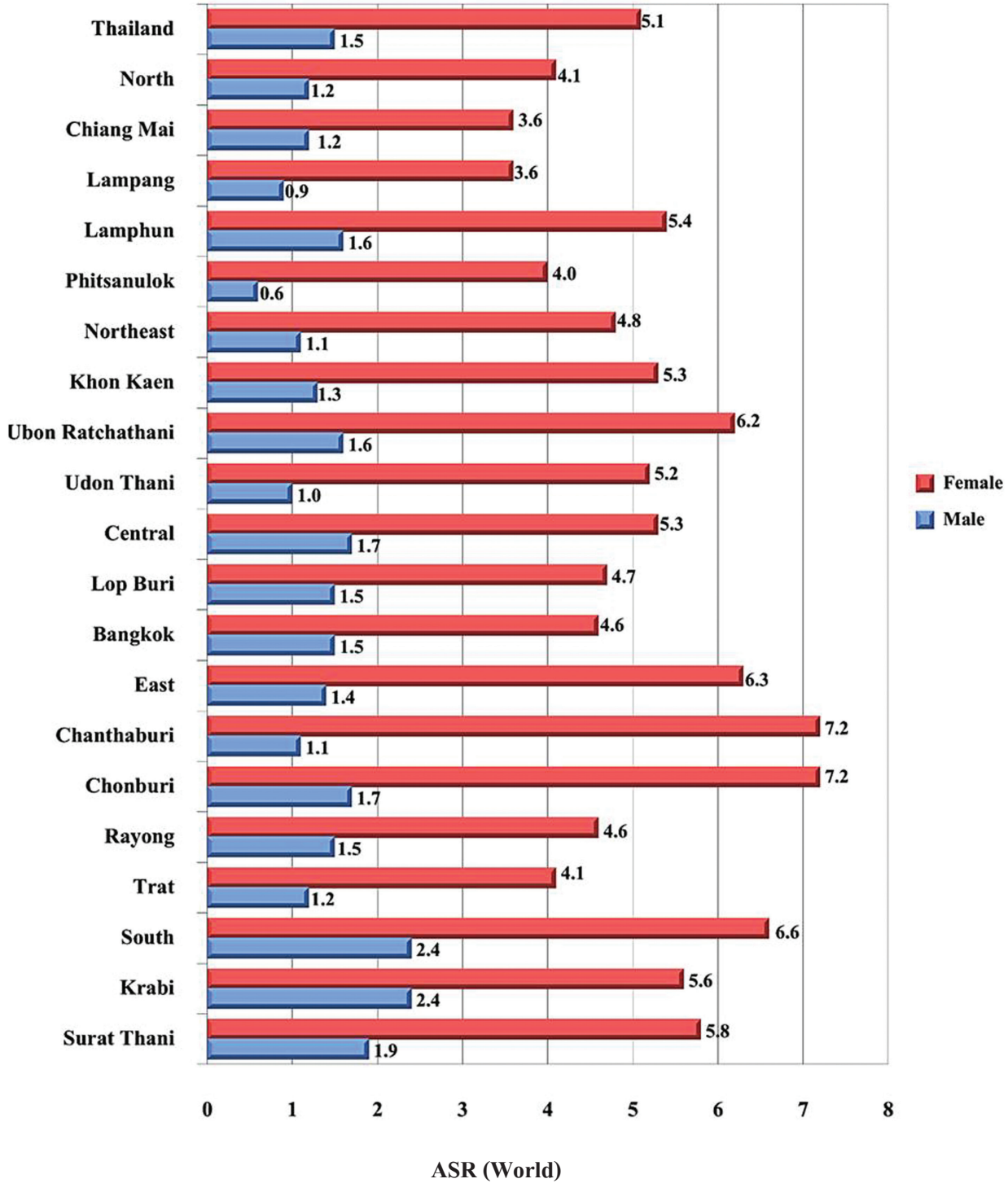


Figure 2.19.2 Age - specific incidence rates of thyroid cancer, mean annual rate per 100,000 (2010-2012)

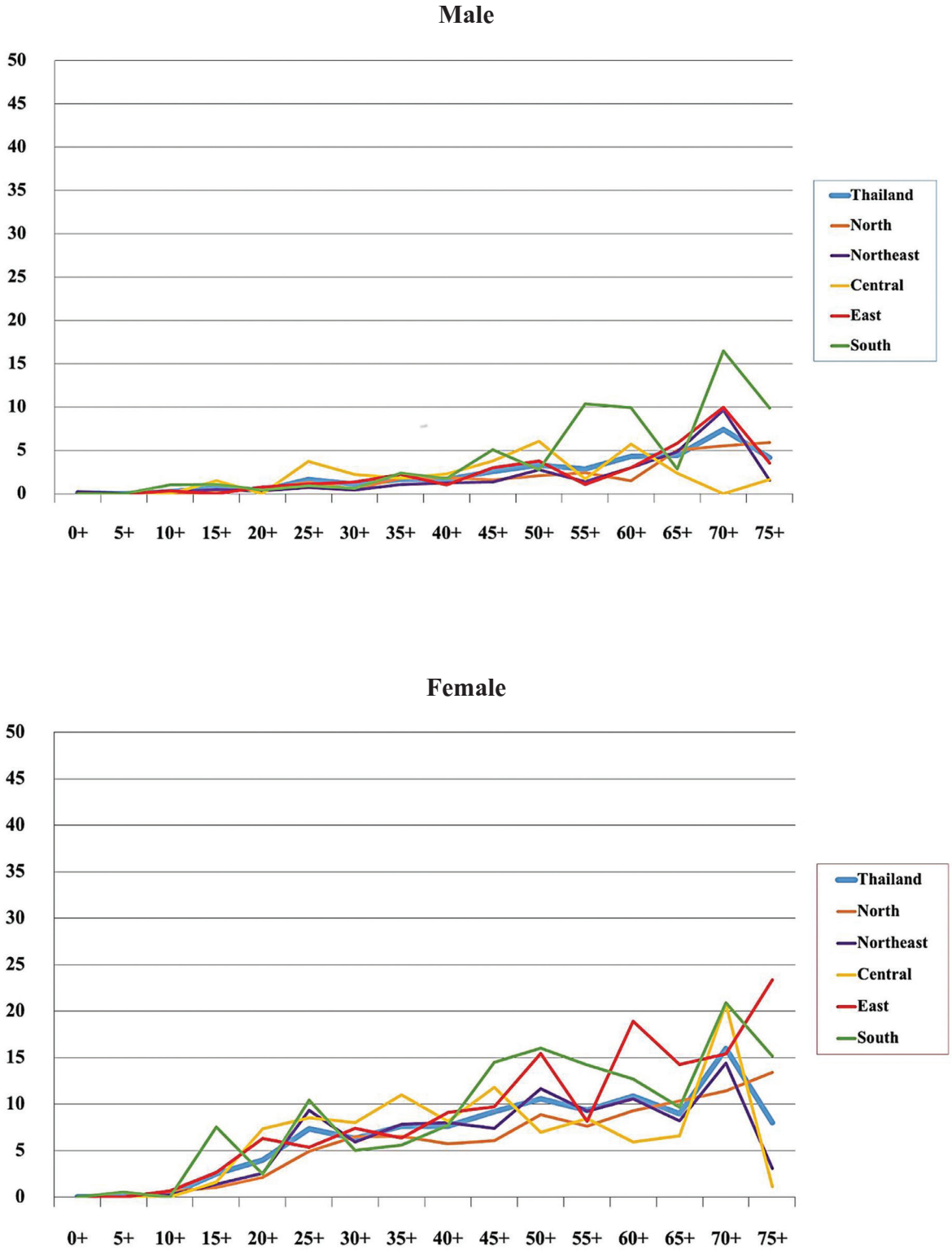
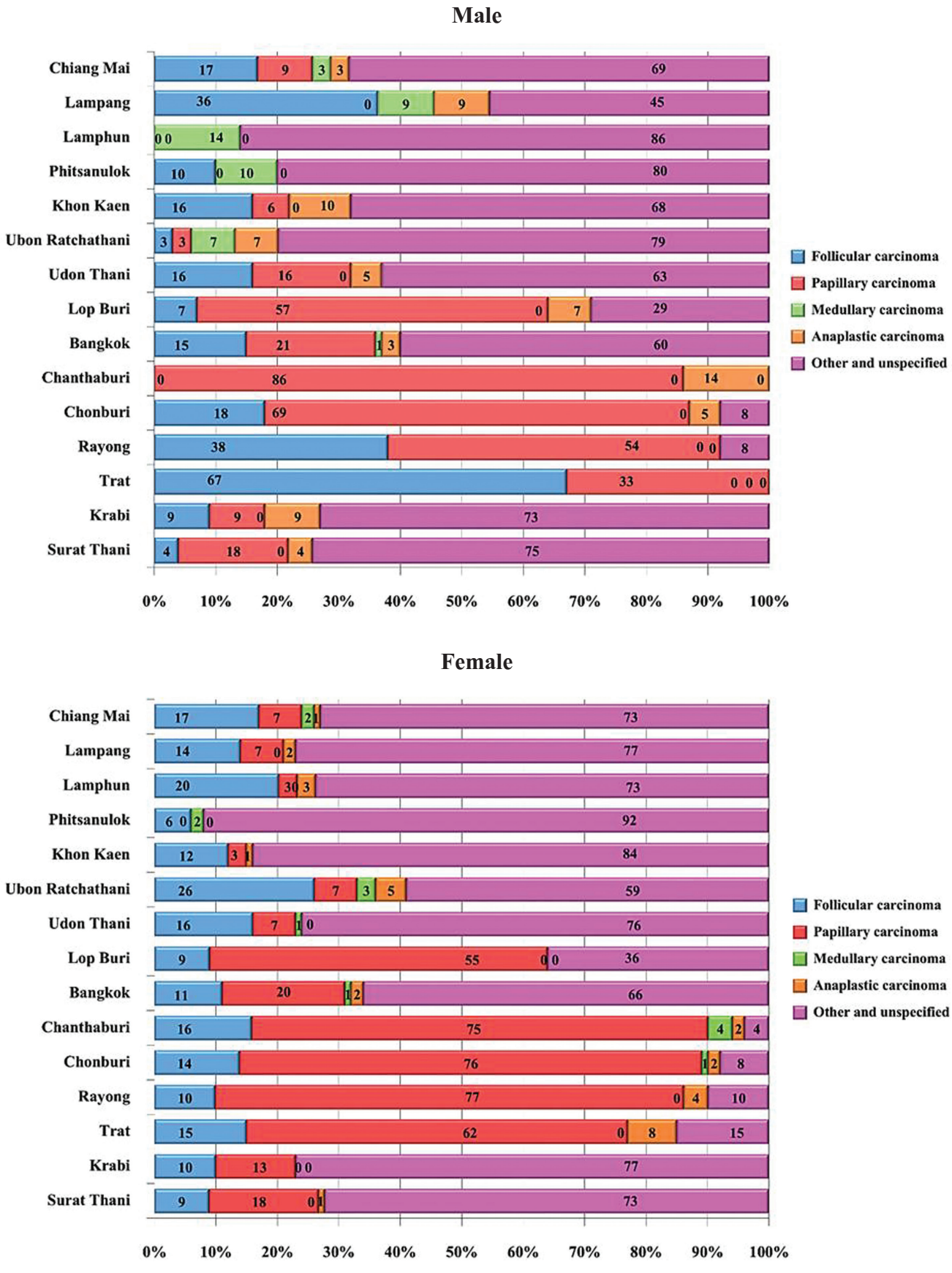


Figure 2.19.3 Histological types of thyroid cancer (2010-2012)



Lymphoma

Figure 2.20.1 Lymphoma cancer in different regions, mean annual ASR per 100,000 (2010-2012)

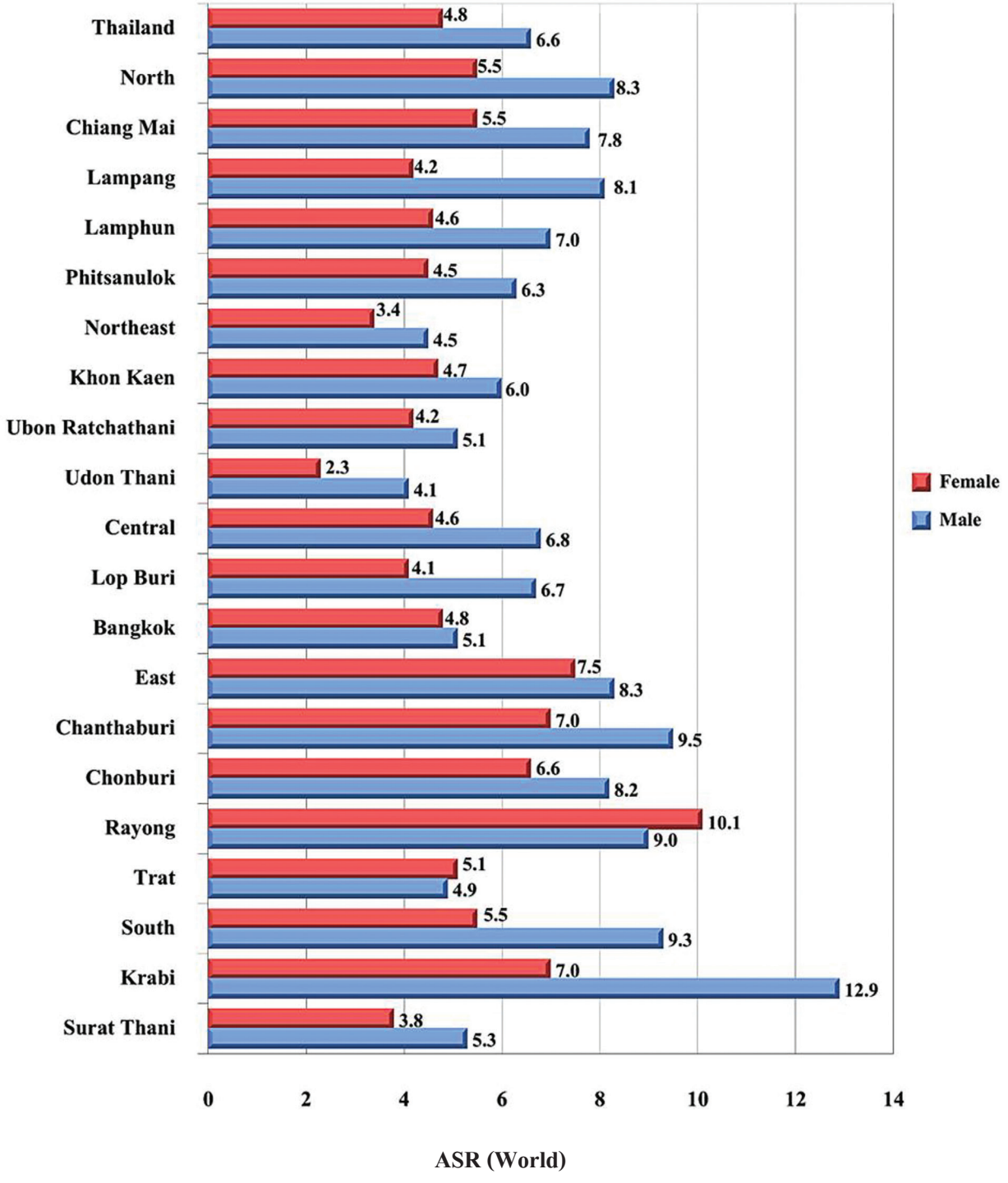
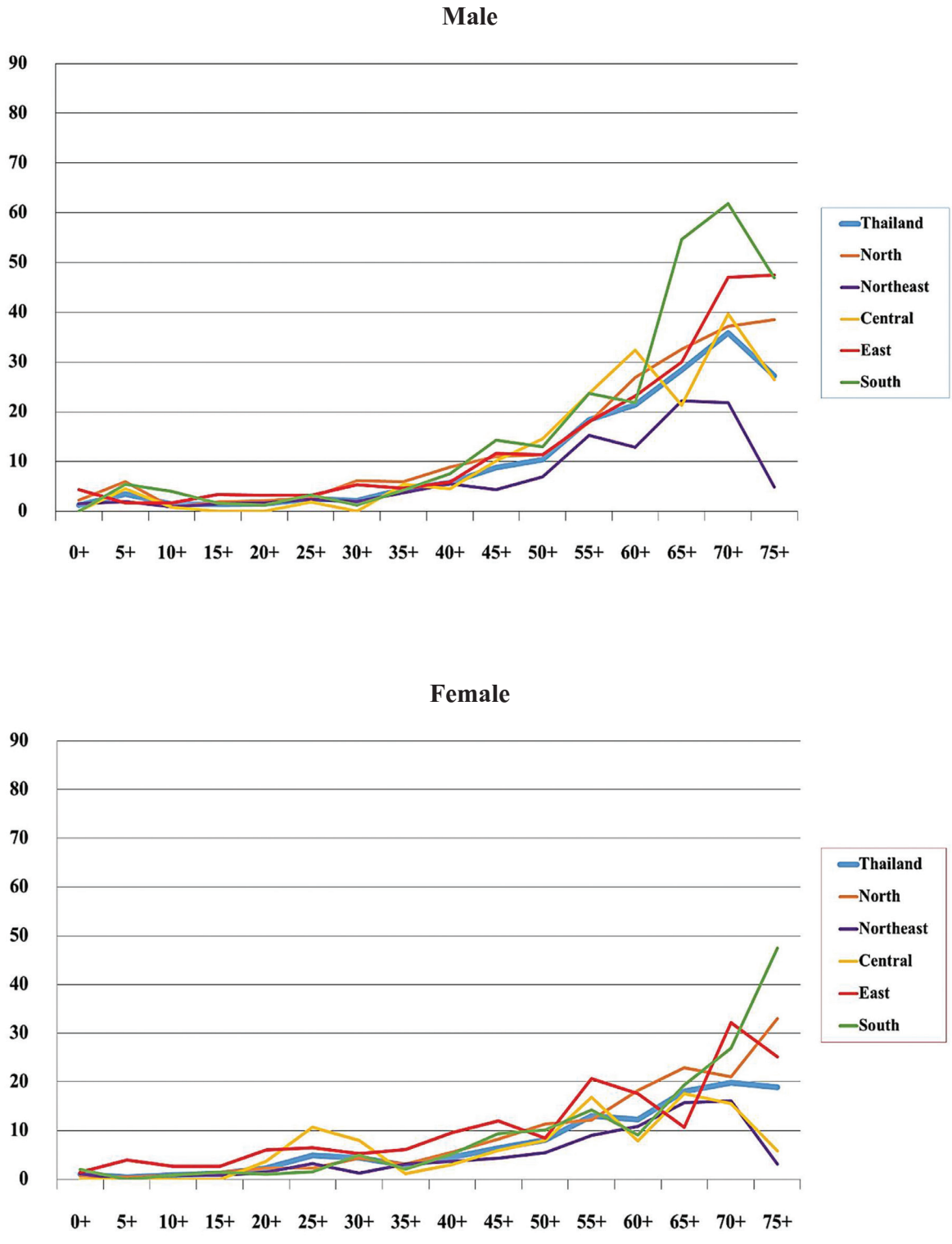


Figure 2.20.2 Age - specific incidence rates of lymphoma cancer, mean annual rate per 100,000. (2010-2012)



Leukemia

Figure 2.21.1 Leukemia cancer in different regions, mean annual ASR per 100,000 (2010-2012)

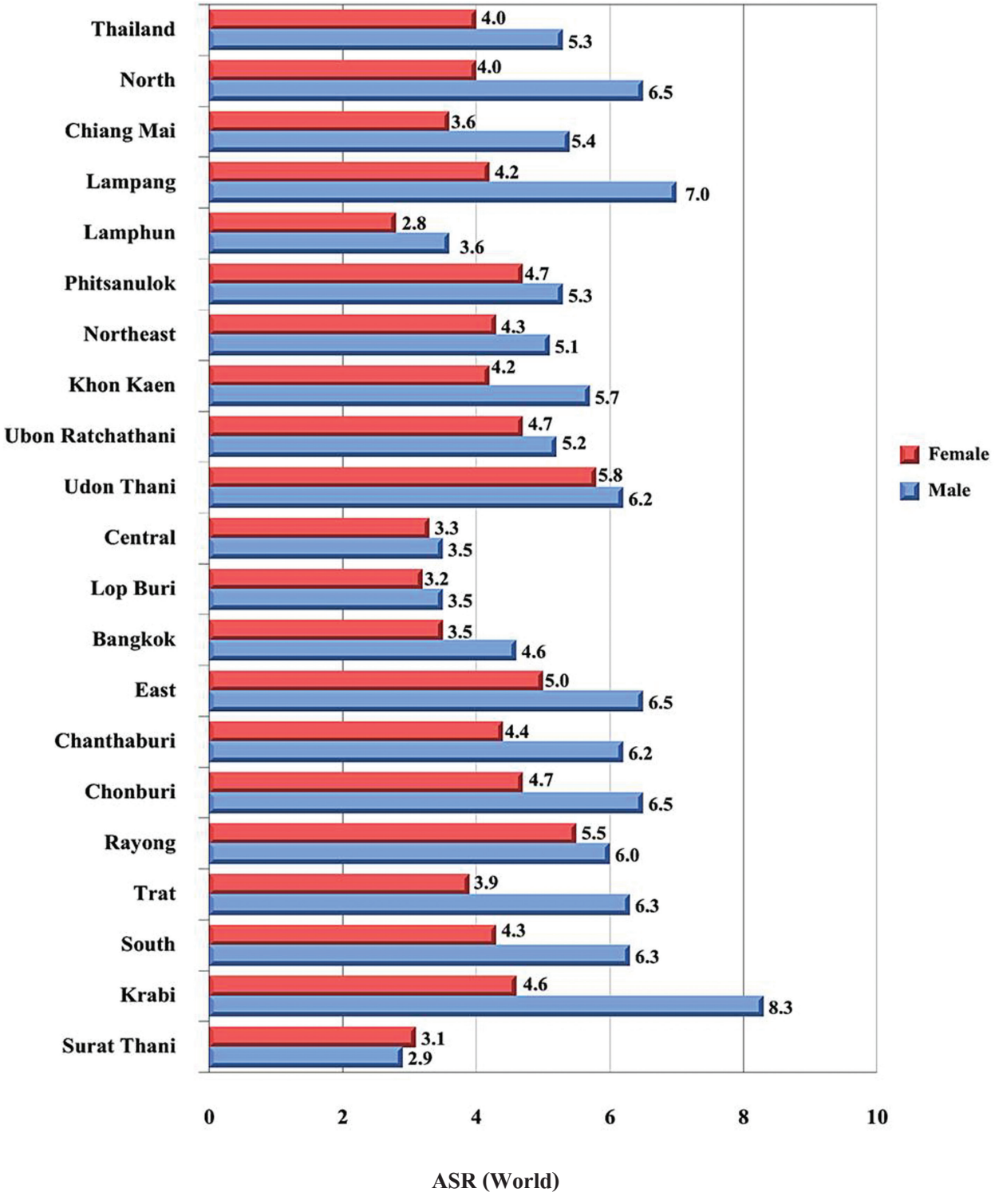


Figure 2.21.2 Age - specific incidence rates of leukemia cancer, mean annual rate per 100,000 (2010-2012)

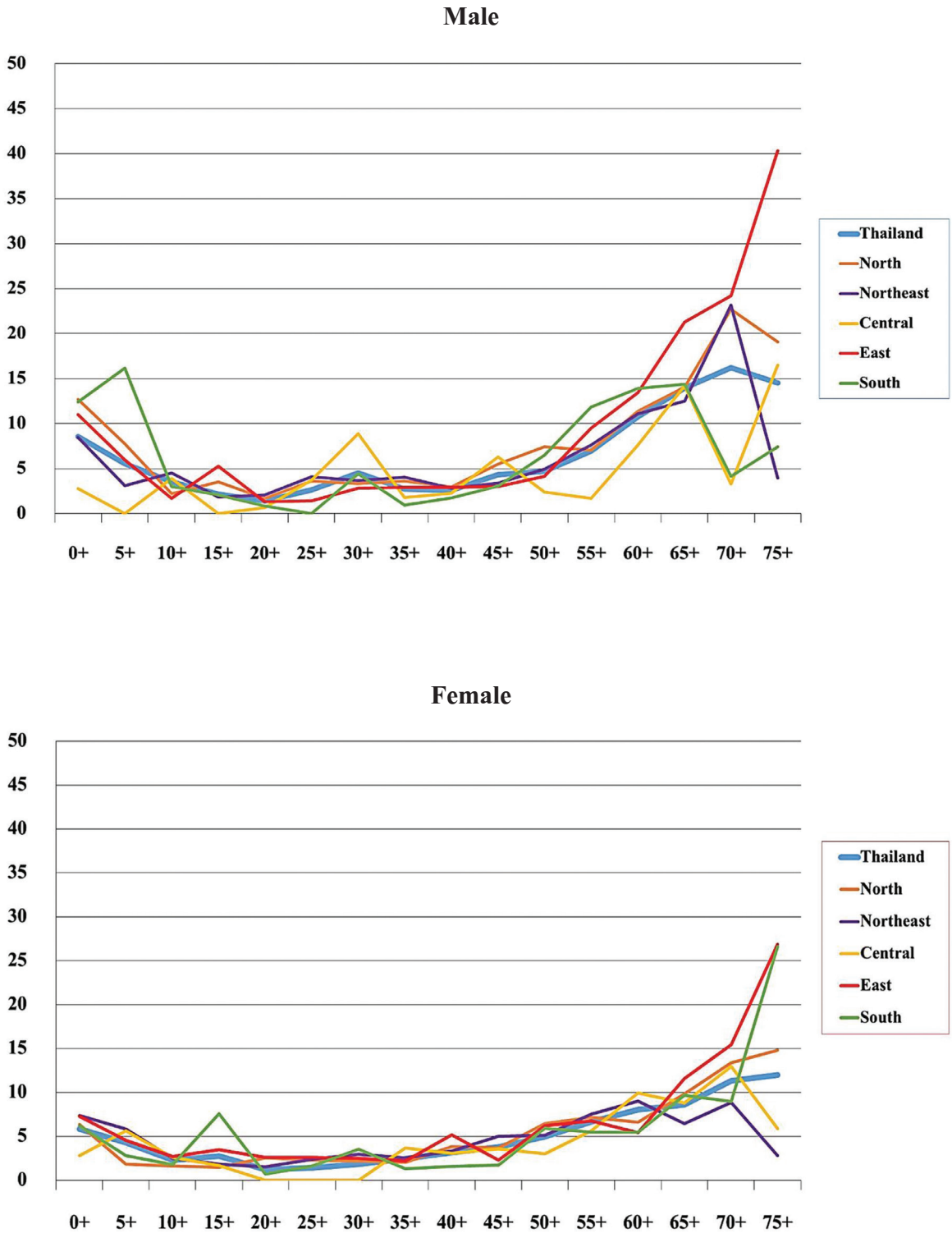
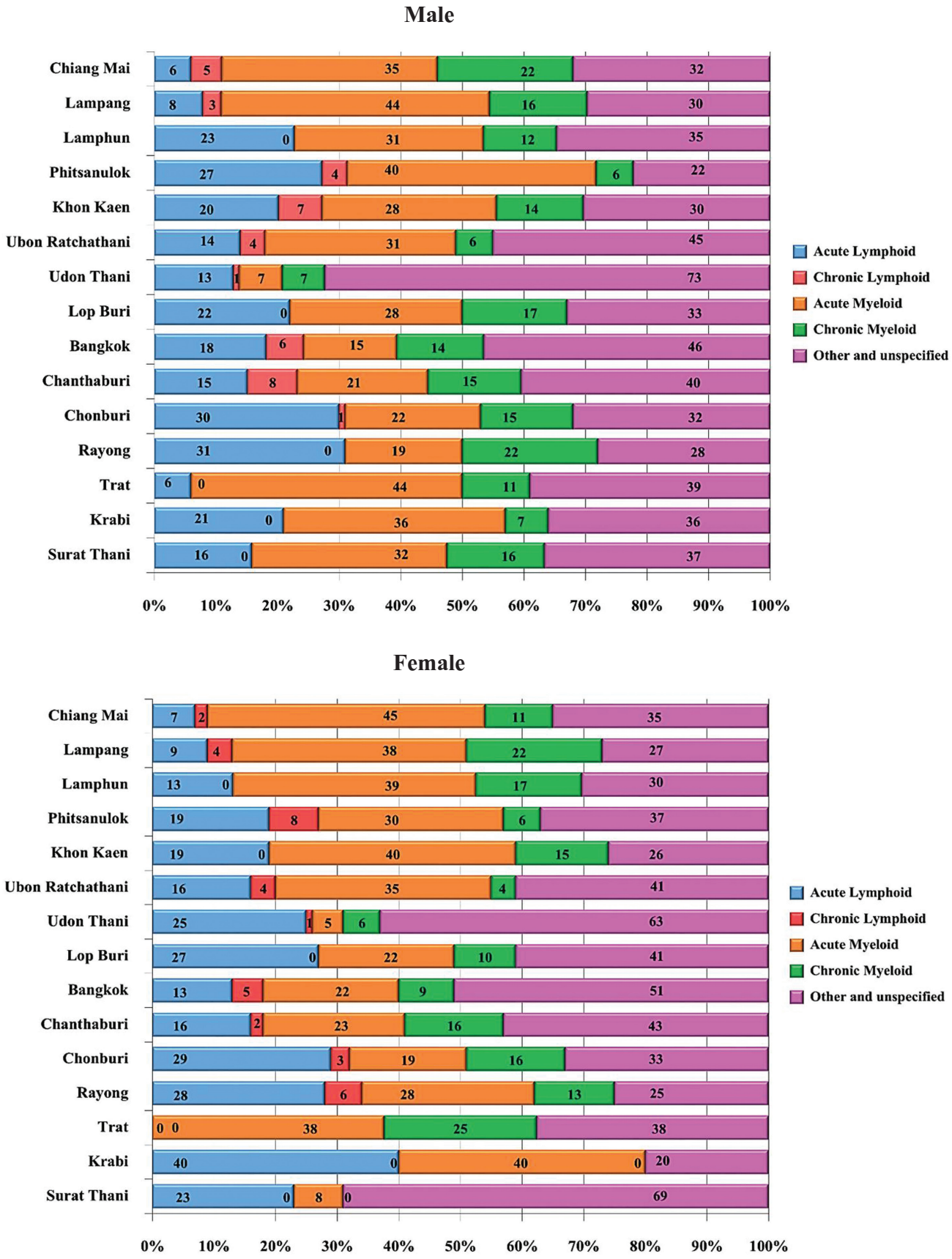


Figure 2.21.3 Histological types of thyroid cancer, (2010-2012)



Chapter III

Chiang Mai Cancer Registry
Lamphun Cancer Registry
Lampang Cancer Registry
Phitsanulok Cancer Registry
Udon Thani Cancer Registry
Khon Kaen Cancer Registry
Ubon Ratchathani Cancer Registry
Lop Buri Cancer Registry
Bangkok Cancer Registry
Chon Buri Cancer Registry
Rayong Cancer Registry
Chanthaburi Cancer Registry
Trat Cancer Registry
Surat Thani Cancer Registry
Krabi Cancer Registry

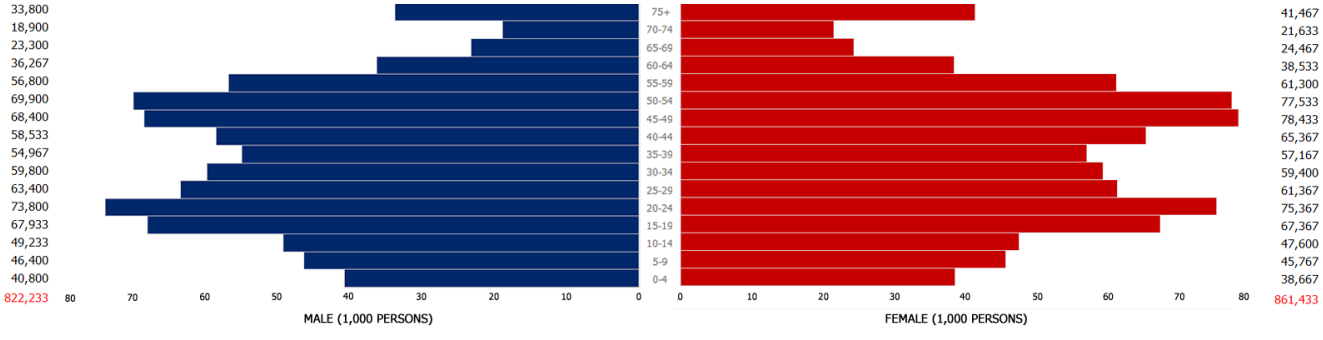
Chiang Mai Cancer Registry

Registration area

Chiang Mai province is the second largest in Thailand, famous for its situation in the mountainous upper part of the north of Thailand. It is 310 meters above sea level at latitude 16-18 N and longitude 99 E. To the north of Chiang Mai is the country of Myanmar. The land area is 20,107 square kilometers, divided into 24 districts. In the year 2011 the population of Chiang Mai was 1,643,312 of which 841, 459 were females and 801,853 were males (National Statistics Office, Thailand, 2011). The most crowded district was Mueang district. The population is mainly Thai, but others include Chinese, and hill tribe minority groups.

The geography of Chiang Mai is a plain surrounded by high mountains that tend to collect polluting agents. Eighty percent of the population in Chiang Mai are farmers who grow rice, onions, longans, lychees, oranges, etc.

Population pyramid, Chiang Mai
estimated population in 2011 (average 2010-2012)



Cancer care facilities

General health care in Thailand is mainly provided by the government. In each district of Chiang Mai, there is one community hospital with network health care facilities except for Mae Rim district. In the urban area (Mueang district) of Chiang Mai, there are 1 university hospital, 1 municipal hospital, 3 military hospitals and 9 private hospitals. The total number of hospital beds in Chiang Mai was 4,896 beds with 1,260 doctors in the year 2011 (www.moph.go.th). Most of the cancer cases are referred to provincial, university or big private hospitals which can provide surgery and chemotherapy. Radiotherapy can be performed only in Chiang Mai University Hospital.

Registry procedures

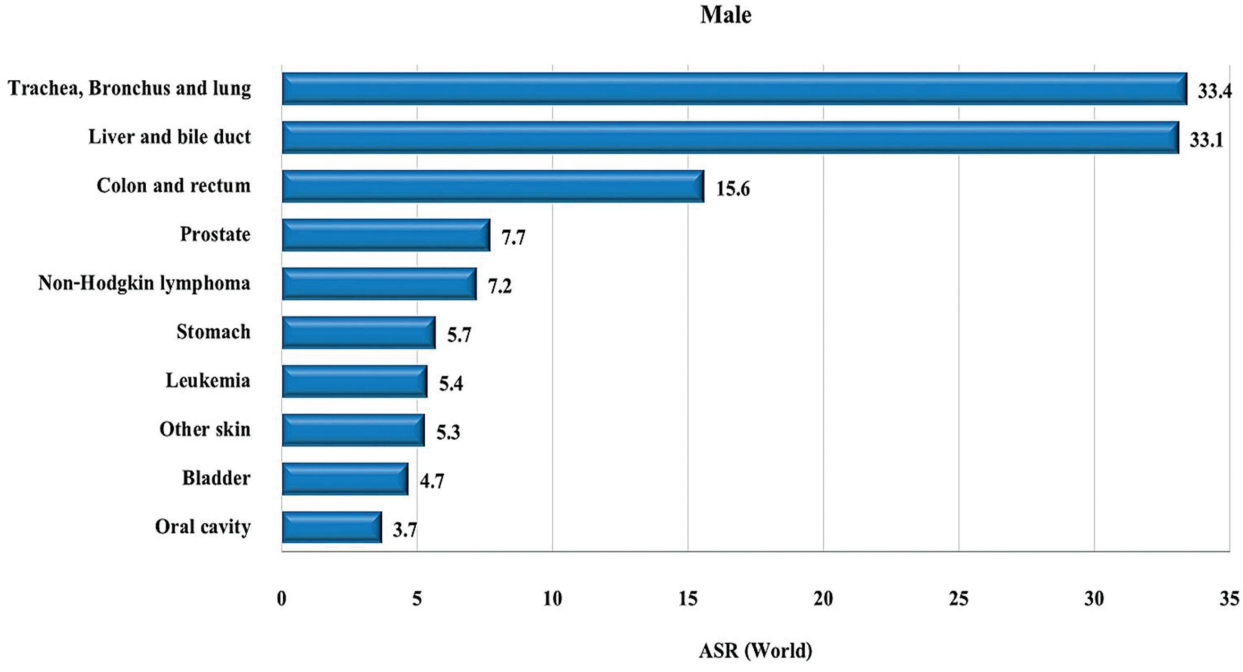
The cancer unit, Faculty of Medicine, Chiang Mai University has been maintaining a hospital-based cancer registry since 1963. Data on cancer patients are now collected actively from every hospital in Chiang Mai. The data of Chiang Mai residents are extracted from the hospital based cancer registry of Chiang Mai University hospital. The registry personnel visit every hospital in Chiang Mai to review the medical records of cancer patients to fill the registration forms. Lists of pathological diagnoses from every pathological center in Chiang Mai are also explored for cancer cases. The case record form includes the patient's demography, date of diagnoses, tumor site, histology, extent of disease, method of diagnosis and treatment modalities. Follow-up is also conducted to update the patients' status as dead or alive. ICD-O version 3 is used in coding of the primary sites of tumor and histology types. The record forms are reviewed by a surgeon who is the chief of the cancer registry.

All data are checked for duplication, verified, coded and keyed into a fox-based program and converted to the Canreg-4 program. Death certificates specifying cancer are collected from the website of the office of the Ministry of Interior. The information is matched with the existing records, unmatched cases being registered as death certificate only (DCO).

Summary of results

New cases registered in 2011, 1,738 were males and 1,781 were females, making 3,519 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 156.7 per 100,000, with lung cancer ranking first (ASR = 33.4) followed by liver and bile duct (ASR = 33.1) and colon and rectum (ASR = 15.6). The ASR of all cancer sites in females was 144.9 per 100,000, the three leading cancer sites being breast (ASR = 27.4), lung (ASR = 22.2) and cervix (ASR = 17.4)

Figure 3.1 Leading cancer in Chiang Mai (mean annual ASR 2010-2012)



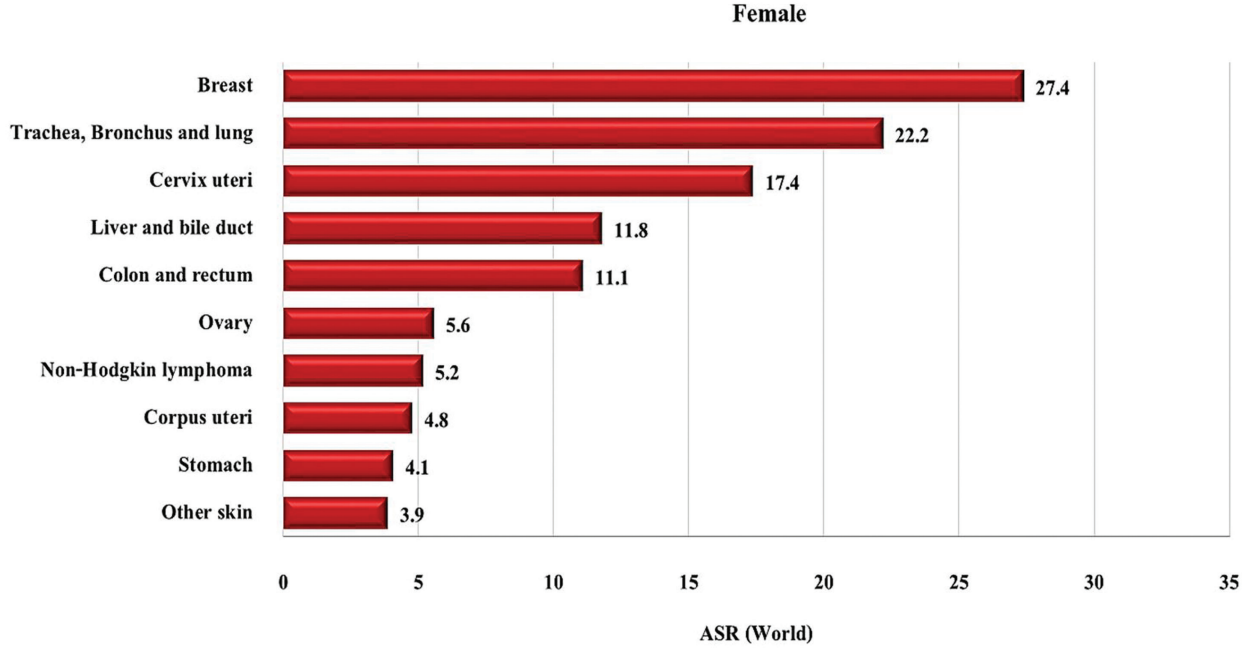


Table 3.1.1 Chiang Mai (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.0	0.0	0.0	0.0	1.8	1.0	0.2	0.1	C00
Tongue	15	0.0	0.0	0.0	0.0	0.0	0.5	1.1	1.2	1.1	3.4	1.9	4.1	1.8	7.2	3.5	9.9	1.8	1.3	C01-02
Mouth	20	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.2	1.7	2.4	2.4	4.1	4.6	10.0	14.1	15.8	2.5	1.8	C03-06
Salivary glands	6	0.0	0.0	0.0	0.5	0.0	0.0	2.2	0.0	0.0	0.5	1.4	0.6	2.8	1.4	0.0	3.9	0.7	0.5	C07-08
Tonsil	9	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.6	1.9	2.4	2.9	2.8	4.3	1.8	3.0	1.1	0.8	C09
Other oropharynx	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.4	0.6	0.9	1.4	0.0	2.0	0.4	0.2	C10
Nasopharynx	29	0.0	0.0	0.7	0.5	0.0	0.5	1.7	5.5	5.1	5.4	8.1	5.3	8.3	5.7	12.3	6.9	3.6	2.7	C11
Hypopharynx	7	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.0	1.0	1.8	3.7	2.9	3.5	3.9	0.8	0.6	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.9	2.9	5.3	10.1	8.6	14.1	11.8	2.4	1.7	C15
Stomach	63	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.4	4.6	8.3	7.6	12.3	29.4	30.0	45.9	41.4	7.7	5.7	C16
Small intestine	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.2	1.8	2.9	1.8	1.0	0.4	0.3	C17
Colon	84	0.0	0.0	0.0	0.5	1.4	0.5	2.2	5.5	5.1	10.2	14.8	21.7	36.8	30.0	47.6	47.3	10.2	7.5	C18
Rectum	87	0.0	0.0	0.0	0.5	0.9	2.1	2.8	3.6	5.7	8.8	14.3	20.5	32.2	30.0	67.0	55.2	10.6	7.7	C19-20
Anus	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.5	0.6	0.9	4.3	5.3	2.0	0.5	0.4	C21
Liver and bile duct	377	0.0	0.0	0.7	0.5	0.5	2.6	10.6	20.6	31.3	47.3	86.8	113.3	148.9	148.8	165.8	179.5	45.8	33.1	C22,C24
Gallbladder	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.4	1.8	0.9	7.2	7.1	8.9	1.1	0.7	C23
Pancreas	30	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.8	2.8	1.5	3.3	12.3	11.9	8.6	19.4	19.7	3.6	2.6	C25
Nose, sinuses etc.	4	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.6	0.6	1.9	1.0	0.0	0.9	1.4	1.8	1.0	0.5	0.4	C30-31
Larynx	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.4	1.9	6.5	11.0	8.6	15.9	14.8	2.7	2.0	C32
Trachea, Bronchus and lung	373	0.0	0.0	0.0	0.0	0.9	0.0	2.2	7.3	9.7	25.8	54.4	82.2	139.7	247.5	305.1	275.1	45.4	33.4	C33-34
Other thoracic organs	5	0.0	0.0	0.7	1.0	0.9	0.0	0.0	1.2	0.0	0.5	1.4	0.6	0.0	1.4	1.8	1.0	0.6	0.5	C37-38
Bone	5	0.8	0.7	2.7	0.0	0.5	0.0	0.0	0.6	0.6	0.0	0.0	1.8	0.0	0.0	3.5	1.0	0.6	0.7	C40-C41
Melanoma of skin	6	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.6	0.5	1.0	1.2	0.0	4.3	7.1	3.0	0.7	0.5	C43
Other skin	65	0.0	0.0	0.0	0.0	0.5	0.5	0.6	1.2	0.6	4.9	6.2	10.6	18.4	25.8	38.8	86.8	7.9	5.3	C44
Mesothelioma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.0	0.1	0.1	C45
Kaposi's sarcoma	2	0.0	0.0	0.0	0.0	0.5	1.1	0.6	0.0	0.0	1.0	0.0	0.6	0.0	0.0	0.0	0.0	0.3	0.2	C46
Connective tissue	9	1.6	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.6	1.9	1.4	1.2	2.8	5.7	0.0	5.9	1.1	0.9	C47,C49
Breast	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	1.9	2.4	4.1	4.6	1.4	5.3	3.0	1.3	0.9	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	17	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.2	1.7	3.9	0.5	5.9	3.7	7.2	10.6	9.9	2.0	1.5	C60
Prostate	93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	15.3	31.2	37.2	102.3	128.2	11.4	7.7	C61
Testis	6	0.0	0.0	0.0	0.0	0.9	1.6	2.8	0.0	0.0	1.9	1.0	0.0	0.0	0.0	0.0	2.0	0.7	0.6	C62
Other male genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.4	0.0	0.0	0.1	0.1	C63
Kidney	23	1.6	0.0	0.0	0.0	0.0	0.5	0.0	0.6	1.1	3.4	4.8	4.7	9.2	12.9	15.9	9.9	2.8	2.2	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	3.5	0.0	0.1	0.1	C65
Ureter	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.2	1.8	0.0	0.0	3.0	0.3	0.2	C66
Bladder	56	0.0	0.0	0.0	1.5	0.0	0.0	0.0	1.2	1.1	2.4	7.2	12.3	13.8	20.0	47.6	64.1	6.9	4.7	C67
Other urinary organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.0	0.1	0.1	C68
Eye	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.5	1.0	0.0	0.9	0.0	1.8	3.0	0.4	0.2	C69
Brain, nervous system	24	3.3	3.6	1.4	1.0	1.8	1.1	1.7	1.2	1.7	2.4	2.4	7.0	8.3	5.7	8.8	3.9	2.9	2.8	C70-72
Thyroid	13	0.0	0.0	0.0	0.5	1.4	1.1	0.6	2.4	1.7	2.4	1.4	1.8	1.8	4.3	5.3	4.9	1.5	1.2	C73
Adrenal gland	1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	C74
Other endocrine	1	0.0	0.7	0.7	0.0	0.5	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C75
Hodgkin disease	6	0.0	1.4	0.0	0.0	0.0	0.5	1.7	1.2	0.6	0.5	1.4	0.0	0.9	0.0	0.0	3.0	0.7	0.6	C81
Non-Hodgkin lymphoma	74	3.3	2.2	2.0	2.5	2.3	2.1	5.0	3.0	8.0	8.3	8.6	16.4	23.9	28.6	37.0	39.4	9.0	7.2	C82-85,C96
Multiple myeloma	14	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.6	0.6	0.5	3.3	2.3	8.3	2.9	7.1	10.8	1.7	1.2	C90
Lymphoid leukemia	12	4.9	5.0	2.7	1.5	0.5	0.5	0.6	1.2	0.0	2.4	1.0	0.6	0.9	0.0	0.0	1.0	1.4	1.9	C91
Myeloid leukemia	33	2.5	0.7	0.7	1.0	2.3	3.7	4.5	1.8	2.8	5.4	5.2	5.9	8.3	5.7	12.3	10.8	4.0	3.3	C92-94
Leukemia unspecified	2	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.5	0.0	0.6	0.0	2.9	0.0	0.0	0.2	0.2	C95
Myelodysplastic disease	24	0.0	0.0	0.0	0.5	0.9	0.0	0.6	1.8	1.1	1.0	5.7	5.3	5.5	10.0	14.1	19.7	3.0	2.1	D45-D47
Other and unspecified	63	0.0	0.0	1.4	0.0	0.5	0.5	2.2	1.2	6.3	7.3	11.0	8.2	30.3	30.0	37.0	40.4	7.7	5.8	O&U
All sites	**1,738**	**19.6**	**14.4**	**14.2**	**11.8**	**16.7**	**22.1**	**50.2**	**72.8**	**102.5**	**177.9**	**278.0**	**406.7**	**625.0**	**768.2**	**1093.5**	**1160.7**	**211.3**	**156.7**	**ALL**

Table 3.1.2 Chiang Mai (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.9	0.0	1.5	2.4	0.2	0.1	C00
Tongue	6	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.9	2.2	0.9	1.4	4.6	4.8	0.7	0.4	C01-02
Mouth	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.8	2.1	2.2	3.5	2.7	6.2	11.3	1.4	0.9	C03-06
Salivary glands	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.4	0.9	1.6	2.6	1.4	1.5	0.8	0.5	0.4	C07-08
Tonsil	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.4	1.1	0.0	4.1	0.0	0.8	0.3	0.2	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.6	0.1	0.1	C10
Nasopharynx	14	0.0	0.0	0.0	0.0	0.0	1.6	0.0	2.3	1.0	3.4	2.6	1.1	6.1	2.7	3.1	4.0	1.6	1.2	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.1	0.0	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	C14
Oesophagus	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.1	0.0	5.4	3.1	4.8	0.6	0.4	C15
Stomach	51	0.0	0.0	0.0	0.0	0.0	0.0	5.1	2.9	7.1	5.5	8.2	12.5	7.8	21.8	30.8	19.3	5.9	4.1	C16
Small intestine	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.1	1.7	0.0	0.0	2.4	0.3	0.2	C17
Colon	81	0.0	0.0	0.0	0.5	0.9	0.5	1.1	5.2	7.1	4.7	16.8	16.3	21.6	30.0	38.5	50.6	9.4	6.3	C18
Rectum	56	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.5	5.1	6.8	8.2	9.8	22.5	30.0	27.7	23.3	6.5	4.6	C19-20
Anus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.4	0.5	0.0	0.0	0.0	0.8	0.2	0.2	C21
Liver and bile duct	153	0.0	0.0	0.0	0.5	0.0	0.0	2.2	3.5	13.3	17.0	23.6	33.2	57.1	61.3	53.9	95.7	17.7	11.8	C22,C24
Gallbladder	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.9	5.4	13.0	5.4	15.4	18.5	2.8	1.8	C23
Pancreas	19	0.0	0.7	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.8	3.9	4.9	5.2	8.2	6.2	14.5	2.2	1.4	C25
Nose, sinuses etc.	3	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.6	0.0	0.8	0.4	1.6	0.0	0.0	0.0	1.6	0.4	0.3	C30-31
Larynx	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	2.6	1.4	1.5	2.4	0.3	0.2	C32
Trachea, Bronchus and lung	278	0.0	0.0	0.0	0.0	0.0	1.1	3.9	5.2	6.1	11.9	32.7	54.4	98.6	158.0	212.6	185.7	32.2	22.2	C33-34
Other thoracic organs	2	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.6	0.5	0.0	0.0	0.0	0.9	1.4	0.0	0.0	0.2	0.2	C37-38
Bone	5	0.0	1.5	1.4	1.0	0.4	0.0	0.0	0.6	0.0	0.8	0.4	0.5	1.7	1.4	0.0	0.0	0.6	0.6	C40-C41
Melanoma of skin	5	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.5	0.4	0.9	1.6	0.0	1.4	1.5	4.0	0.6	0.4	C43
Other skin	55	0.0	0.0	0.0	0.0	0.4	1.6	3.4	1.2	1.5	6.4	6.9	7.6	6.9	10.9	33.9	53.9	6.4	3.9	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	C46
Connective tissue	8	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.6	1.0	0.8	1.7	2.7	2.6	0.0	4.6	1.6	0.9	0.6	C47,C49
Breast	337	0.0	0.0	0.0	0.0	0.0	4.3	15.7	39.7	46.4	70.5	82.5	94.1	102.9	66.8	80.1	53.1	39.2	27.4	C50
Vulva	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.5	0.4	1.3	1.1	2.6	1.4	3.1	3.2	0.7	0.5	C51
Vagina	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.5	0.0	0.0	1.5	1.6	0.2	0.1	C52
Cervix uteri	217	0.0	0.0	0.0	0.0	0.0	3.8	13.5	27.4	40.3	49.7	52.5	54.9	41.5	25.9	61.6	37.8	25.2	17.4	C53
Corpus uteri	60	0.0	0.0	0.0	0.0	0.0	1.1	2.2	3.5	2.5	10.6	18.9	23.4	18.2	21.8	10.8	6.4	7.0	4.8	C54
Uterus unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	0.0	0.0	0.9	0.0	0.0	0.0	0.1	0.1	C55
Ovary	63	0.0	0.7	2.1	1.5	1.8	5.4	3.4	4.7	9.7	10.2	12.9	17.4	19.0	13.6	15.4	6.4	7.4	5.6	C56
Other female genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	0.0	0.0	0.8	0.2	0.1	C57
Placenta	2	0.0	0.0	0.0	0.5	0.4	0.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	13	3.4	0.0	0.0	0.5	0.4	0.0	1.1	0.6	0.0	0.8	1.3	2.7	1.7	2.7	7.7	8.0	1.5	1.3	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.7	0.0	0.0	0.1	0.1	C65
Ureter	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	1.4	0.0	2.4	0.2	0.1	C66
Bladder	22	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	1.5	0.0	0.9	2.7	6.9	8.2	20.0	21.7	2.5	1.6	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	C68
Eye	3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.4	0.5	0.0	1.4	0.0	1.6	0.3	0.5	C69
Brain, nervous system	20	0.9	2.2	2.1	1.5	0.9	1.1	1.7	1.2	3.1	4.7	3.0	2.2	2.6	2.7	0.0	5.6	2.3	2.0	C70-72
Thyroid	40	0.0	0.0	1.4	1.0	1.8	7.6	3.9	8.2	3.1	4.7	9.9	5.4	4.3	8.2	6.2	9.6	4.6	3.6	C73
Adrenal gland	2	1.7	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.4	0.0	0.0	0.9	0.0	0.0	0.0	0.2	0.3	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C75
Hodgkin disease	3	0.0	0.0	0.0	0.0	0.9	0.5	0.6	0.6	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.8	0.3	0.3	C81
Non-Hodgkin lymphoma	64	0.0	0.7	0.7	1.5	2.7	2.2	3.4	2.3	5.6	11.0	9.9	11.4	13.0	17.7	23.1	35.4	7.5	5.2	C82-85,C96
Multiple myeloma	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.6	2.7	4.3	4.1	12.3	8.0	1.5	1.0	C90
Lymphoid leukemia	5	5.2	0.0	0.7	0.5	0.0	0.5	0.0	0.0	0.5	0.0	0.9	0.5	0.0	0.0	1.5	0.8	0.6	0.9	C91
Myeloid leukemia	25	2.6	0.7	2.1	0.5	1.3	2.2	1.1	0.6	2.5	2.5	3.4	7.6	5.2	8.2	3.1	8.0	2.9	2.5	C92-94
Leukemia unspecified	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.4	0.0	0.0	0.0	4.6	4.0	0.4	0.2	C95
Myelodysplastic disease	26	0.0	0.0	0.0	0.5	0.4	0.5	1.7	2.3	0.5	1.7	3.4	4.4	10.4	9.5	13.9	16.1	3.1	2.1	D45-D47
Other and unspecified	53	0.9	0.0	0.7	1.0	0.9	2.2	3.4	1.2	2.0	3.0	7.3	12.5	12.1	17.7	40.1	29.7	6.2	4.4	O&U
All sites	**1,781**	**17.2**	**6.6**	**12.6**	**10.9**	**13.7**	**39.1**	**71.3**	**121.3**	**167.3**	**234.2**	**329.8**	**406.2**	**504.3**	**562.7**	**751.9**	**770.9**	**206.7**	**144.9**	**ALL**

Table 3.1.3 Mean annual incidence, Chiang Mai, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	1	0.1	0.2	0.1	0.0	0.0	2	0.1	0.2	0.1	0.0	0.0	C00
Tongue	15	0.8	1.8	1.3	0.1	0.1	6	0.3	0.7	0.4	0.0	0.1	C01-02
Mouth	20	1.2	2.5	1.8	0.1	0.2	12	0.7	1.4	0.9	0.0	0.1	C03-06
Salivary glands	6	0.3	0.7	0.5	0.0	0.0	4	0.2	0.5	0.4	0.0	0.0	C07-08
Tonsil	9	0.5	1.1	0.8	0.1	0.1	3	0.1	0.3	0.2	0.0	0.0	C09
Other oropharynx	3	0.2	0.4	0.2	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C10
Nasopharynx	29	1.7	3.6	2.7	0.2	0.3	14	0.8	1.6	1.2	0.1	0.1	C11
Hypopharynx	7	0.4	0.8	0.6	0.0	0.1	1	0.1	0.1	0.0	0.0	0.0	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	19	1.1	2.4	1.7	0.1	0.2	5	0.3	0.6	0.4	0.0	0.1	C15
Stomach	63	3.6	7.7	5.7	0.3	0.7	51	2.8	5.9	4.1	0.2	0.5	C16
Small intestine	3	0.2	0.4	0.3	0.0	0.0	3	0.1	0.3	0.2	0.0	0.0	C17
Colon	84	4.8	10.2	7.5	0.5	0.9	81	4.6	9.4	6.3	0.4	0.7	C18
Rectum	87	5.0	10.6	7.7	0.5	0.9	56	3.1	6.5	4.6	0.3	0.6	C19-20
Anus	4	0.2	0.5	0.4	0.0	0.1	2	0.1	0.2	0.2	0.0	0.0	C21
Liver and bile duct	377	21.7	45.8	33.1	2.3	3.9	153	8.6	17.7	11.8	0.8	1.3	C22,C24
Gallbladder	9	0.5	1.1	0.7	0.0	0.1	24	1.4	2.8	1.8	0.1	0.2	C23
Pancreas	30	1.7	3.6	2.6	0.2	0.3	19	1.1	2.2	1.4	0.1	0.2	C25
Nose, sinuses etc.	4	0.2	0.5	0.4	0.0	0.0	3	0.2	0.4	0.3	0.0	0.0	C30-31
Larynx	22	1.3	2.7	2.0	0.1	0.2	3	0.2	0.3	0.2	0.0	0.0	C32
Trachea, Bronchus and lung	373	21.5	45.4	33.4	1.6	4.4	278	15.6	32.2	22.2	1.1	2.9	C33-34
Other thoracic organs	5	0.3	0.6	0.5	0.0	0.0	2	0.1	0.2	0.2	0.0	0.0	C37-38
Bone	5	0.3	0.6	0.7	0.0	0.1	5	0.3	0.6	0.6	0.0	0.0	C40-C41
Melanoma of skin	6	0.3	0.7	0.5	0.0	0.1	5	0.3	0.6	0.4	0.0	0.0	C43
Other skin	65	3.7	7.9	5.3	0.2	0.5	55	3.1	6.4	3.9	0.2	0.4	C44
Mesothelioma	1	0.1	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	2	0.1	0.3	0.2	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	9	0.5	1.1	0.9	0.1	0.1	8	0.4	0.9	0.6	0.1	0.1	C47,C49
Breast	10	0.6	1.3	0.9	0.1	0.1	337	18.9	39.2	27.4	2.3	3.0	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	6	0.4	0.7	0.5	0.0	0.1	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	2	0.1	0.2	0.1	0.0	0.0	C52
Cervix uteri							217	12.2	25.2	17.4	1.4	1.9	C53
Corpus uteri							60	3.4	7.0	4.8	0.4	0.6	C54
Uterus unspecified							1	0.1	0.1	0.1	0.0	0.0	C55
Ovary							63	3.6	7.4	5.6	0.4	0.6	C56
Other female genital organs							1	0.1	0.2	0.1	0.0	0.0	C57
Placenta							2	0.1	0.2	0.2	0.0	0.0	C58
Penis	17	1.0	2.0	1.5	0.1	0.2							C60
Prostate	93	5.4	11.4	7.7	0.2	0.9							C61
Testis	6	0.3	0.7	0.6	0.0	0.0							C62
Other male genital organs	1	0.0	0.1	0.1	0.0	0.0							C63
Kidney	23	1.3	2.8	2.2	0.1	0.3	13	0.7	1.5	1.3	0.1	0.1	C64
Renal pelvis	1	0.1	0.1	0.1	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C65
Ureter	3	0.2	0.3	0.2	0.0	0.0	2	0.1	0.2	0.1	0.0	0.0	C66
Bladder	56	3.2	6.9	4.7	0.2	0.5	22	1.2	2.5	1.6	0.1	0.2	C67
Other urinary organs	1	0.0	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C68
Eye	3	0.2	0.4	0.2	0.0	0.0	3	0.2	0.3	0.5	0.0	0.0	C69
Brain, nervous system	24	1.4	2.9	2.8	0.2	0.3	20	1.1	2.3	2.0	0.1	0.1	C70-72
Thyroid	13	0.7	1.5	1.2	0.1	0.1	40	2.2	4.6	3.6	0.3	0.3	C73
Adrenal gland	1	0.0	0.1	0.2	0.0	0.0	2	0.1	0.2	0.3	0.0	0.0	C74
Other endocrine	1	0.1	0.2	0.2	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C75
Hodgkin disease	6	0.3	0.7	0.6	0.0	0.0	3	0.1	0.3	0.3	0.0	0.0	C81
Non-Hodgkin lymphoma	74	4.3	9.0	7.2	0.4	0.8	64	3.6	7.5	5.2	0.3	0.5	C82-85,C96
Multiple myeloma	14	0.8	1.7	1.2	0.1	0.1	13	0.7	1.5	1.0	0.1	0.1	C90
Lymphoid leukemia	12	0.7	1.4	1.9	0.1	0.1	5	0.3	0.6	0.9	0.0	0.1	C91
Myeloid leukemia	33	1.9	4.0	3.3	0.2	0.3	25	1.4	2.9	2.5	0.2	0.2	C92-94
Leukemia unspecified	2	0.1	0.2	0.2	0.0	0.0	3	0.2	0.4	0.2	0.0	0.0	C95
Myelodysplastic disease	24	1.4	3.0	2.1	0.1	0.2	26	1.5	3.1	2.1	0.1	0.2	D45-D47
Other and unspecified	63	3.6	7.7	5.8	0.3	0.7	53	3.0	6.2	4.4	0.2	0.5	O&U
All sites	**1,738**	**100.0**	**211.3**	**156.7**	**9.1**	**18.4**	**1,781**	**100.0**	**206.7**	**144.9**	**9.7**	**16.2**	**ALL**

Table 3.1.4 Percentage of morphologically verified and death certificate only cases, Chiang Mai

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	127	96.9	0.0	74	98.6	0.0	C00-C08
Oropharynx	36	97.2	0.0	12	100.0	0.0	C09-C10,C14
Nasopharynx	88	97.7	0.0	41	97.6	0.0	C11
Hypopharynx	20	95.0	0.0	3	66.7	0.0	C12-C13
Esophagus	58	81.0	0.0	16	81.3	0.0	C15
Stomach	189	92.6	0.0	152	93.4	0.0	C16
Small intestine	9	66.7	11.1	8	75.0	0.0	C17
Colon and rectum	525	90.9	0.2	417	92.8	0.0	C18-C21
Liver and bile duct	1,130	18.0	1.3	458	26.2	2.8	C22,C24
Gallbladder	26	42.3	0.0	73	50.7	0.0	C23
pancrease	90	43.3	1.1	57	35.1	0.0	C25
Nose,sinuses etc	13	100.0	0.0	10	100.0	0.0	C30-C31
Larynx	67	83.6	3.0	9	88.9	11.1	C32
Trachea, brochus and lung	1,119	60.5	1.4	833	59.4	1.2	C33-C34
Other thoracic organs	15	73.3	0.0	5	100.0	0.0	C37-C38
Bone	15	73.3	13.3	15	86.7	0.0	C40-C41
Melanoma of skin	17	100.0	0.0	15	100.0	0.0	C43
Other skin	195	99.0	0.0	165	100.0	0.0	C44
Mesothelioma	3	66.7	0.0	0	0.0	0.0	C45
Kaposi sarcoma	7	100.0	0.0	1	100.0	0.0	C46
Connective and soft tissue	26	96.2	0.0	24	95.8	0.0	C47,C49
Breast	31	93.5	0.0	1,012	98.6	0.2	C50
Vulva				19	100.0	0.0	C51
Vagina				6	83.3	0.0	C52
Cervix uteri				651	98.3	0.5	C53
Corpus uteri				181	100.0	0.0	C54
Uterus unspecified				3	66.7	0.0	C55
Ovary				190	93.2	0.5	C56
Other female genital organs				4	100.0	0.0	C57
Placenta				6	66.7	0.0	C58
Penis	50	94.0	0.0				C60
Prostate	280	88.9	0.4				C61
Testis	18	100.0	0.0				C62
Other male genital organs	2	100.0	0.0				C63
Kidney	69	69.6	0.0	38	81.6	0.0	C64
Renal pelvis	3	66.7	0.0	3	100.0	0.0	C65
Ureter	8	62.5	12.5	6	100.0	0.0	C66
Bladder	169	92.3	0.0	65	96.9	0.0	C67
Other urinary organs	2	100.0	0.0	1	0.0	0.0	C68
Eye	9	100.0	0.0	9	88.9	0.0	C69
Brain, nervous system	71	71.8	4.2	59	55.9	6.8	C70-C72
Thyroid	38	100.0	0.0	120	94.2	0.0	C73
Adrenal gland	2	100.0	0.0	5	80.0	0.0	C74
Other endocrine	4	100.0	0.0	0	0.0	0.0	C75
Hodgkin disease	17	100.0	0.0	8	100.0	0.0	C81
Non-Hodgkin lymphoma	222	100.0	0.0	193	99.5	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	42	100.0	0.0	38	100.0	0.0	C90
Leukemia	139	100.0	0.0	100	100.0	0.0	C91-C95
Myelodysplastic	73	100.0	0.0	79	100.0	0.0	D45-D47
Other and unspecified	189	55.6	10.1	159	54.7	10.7	O&U
All sites	**5,213**	**67.0**	**1.2**	**5,343**	**82.0**	**1.0**	**All**

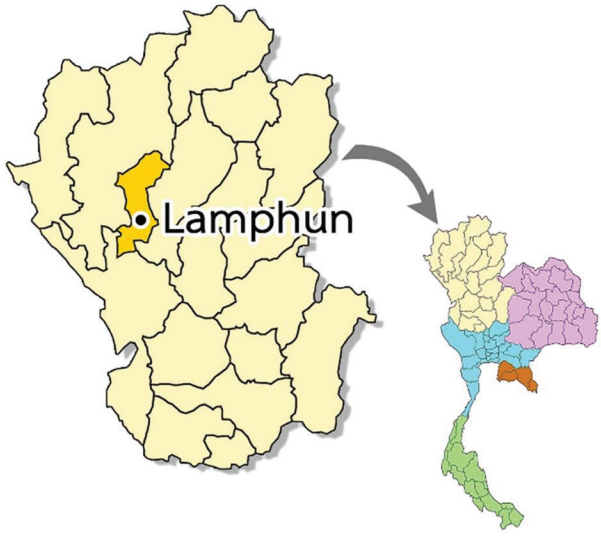
Lamphun Cancer Registry

Registration area

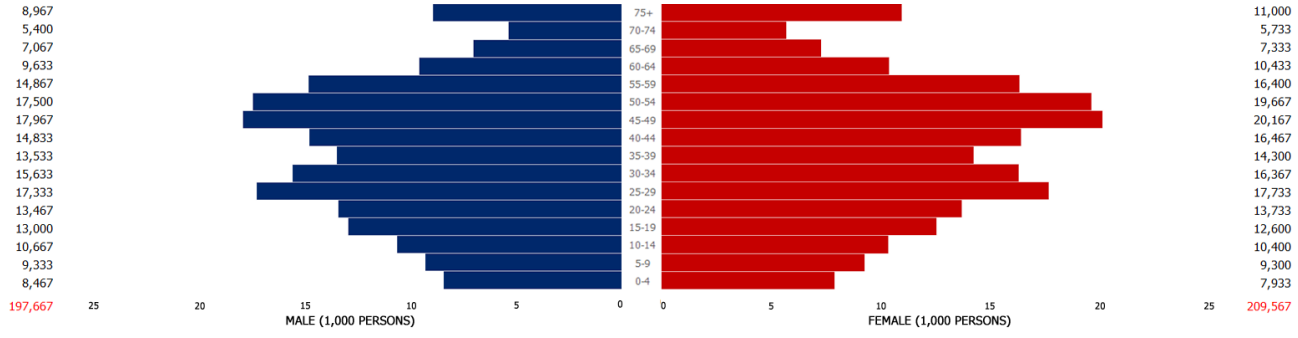
Lamphun is a small province among 17 provinces located in the northern region of Thailand, between 17.5°-18.5° N and 98°-99.3° E, It is 200-400 meters above sea level with land area of 4,505.08 square kilometers. It situated between Chiang Mai and Lampang. It has common boundary with Chiang Mai in the north and west and common boundary with Lampang in the east, Tak and Lampang in the south. Lamphun population based cancer registry covers the population of 8 districts.

The total population in 2010 (housing census by National Statistics Office, Thailand) was 412,741 with 201,351 males and 211,390 females. The average population density is about 89.8 persons per square kilometer (National Statistics Office, Thailand, 2012).

The most important occupations are farming of rice, garlic, longan and vegetables. Weaving, wood furniture, wood-carving and handicrafts are the main home industries. Industrial Estate Authority of Northern Thailand is situated in this province. In Lamphun province, there are 848 factories, 83 in the Industrial Estate Authority and 765out of the region (Lamphun Provincial Industrial Office, 2014).



Population pyramid, Lamphun
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The total number of hospitals in Lamphun province was 10 hospitals composed of 6 community hospitals, 3 private hospitals and 1 provincial hospital. Cancer diagnostic services: X-ray and ultrasound are available in Lamphun province. Cancer radiotherapy equipments and pathologist are not available, only cancer surgery can be performed in the province. Most of cancer patients were referred to Chiang Mai provincial hospital or to Chiang Mai University hospital which providing clinical consultations, radiological and pathological investigations for cancer diagnosis including cancer surgery services, radiotherapy and chemotherapy for cancer treatment. All hospitals in the province provide palliative care. The ratio of doctors to population is 1:4,043.The ratio between registered nurses to population is 1:543 (Ministry of public Health, 2012).

Registry procedures

Population-based cancer registration of Lamphun province was established by Cancer Registry Unit of Lampang Cancer Hospital in 2004 with the back-up cancer data since 1983 to 1994 of all cancer cases in Lamphun province, which was collected by Dr. Nimit Martin, the expert consultant. All data on cancer patients were collected by passive methods involving notification by the staff of Lamphun provincial hospital, 3 private hospitals, 6 community hospitals under supervision of Lamphun Provincial Public Health Service and including data from Cancer Registry Unit of Maharaj Nakorn Chiang Mai University Hospital. New cancer cases were collected from out and in patient departments, radiotherapy unit, surgery unit, cytology unit, hematology unit, medical record, pathological unit and autopsy service. The data information collected includes demographic details for each cancer patient that consists of registry number, name, residential address, date of birth, age, sex, date of diagnosis, site of cancer, histology of cancer, staging, extension of disease, method of diagnosis, treatment, date of last contact and vital status of cancer patients.In addition, all death certificates are matched with the incidence case records of the registry which obtained from Bureau of Policy and Strategy, Ministry of Public Health.The follow-up of all registered cases were carried out by passive methods with linking database of National Health Security office.

The primary site and histology were coded according to ICD-O third edition (*Fritzet al*., 2000). Second primary cancer was also registered; a new registration number was given for each new primary cancer. The completed data forms were checked manually, and entered into the database file in a personal computer at Cancer Registry Unit of Lampang Cancer Hospital, using Canreg 4 software for data entry and analysis.

Summary of Results

New cases registered in 2011,513 were males and 551 were females, making 1,064 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 175.9 per 100,000, with lung cancer ranking first (ASR = 44.6) followed by liver and bile duct (ASR = 34.3) and colon and rectum (ASR = 13.3). The ASR of all cancer sites in females was 171.5 per 100,000, the three leading cancer sites being breast (ASR = 34.2), cervix (ASR = 24.6) and lung (ASR = 23.4).

Figure 3.2 Leading cancer in Lamphun, (mean annual ASR 2010-2012)

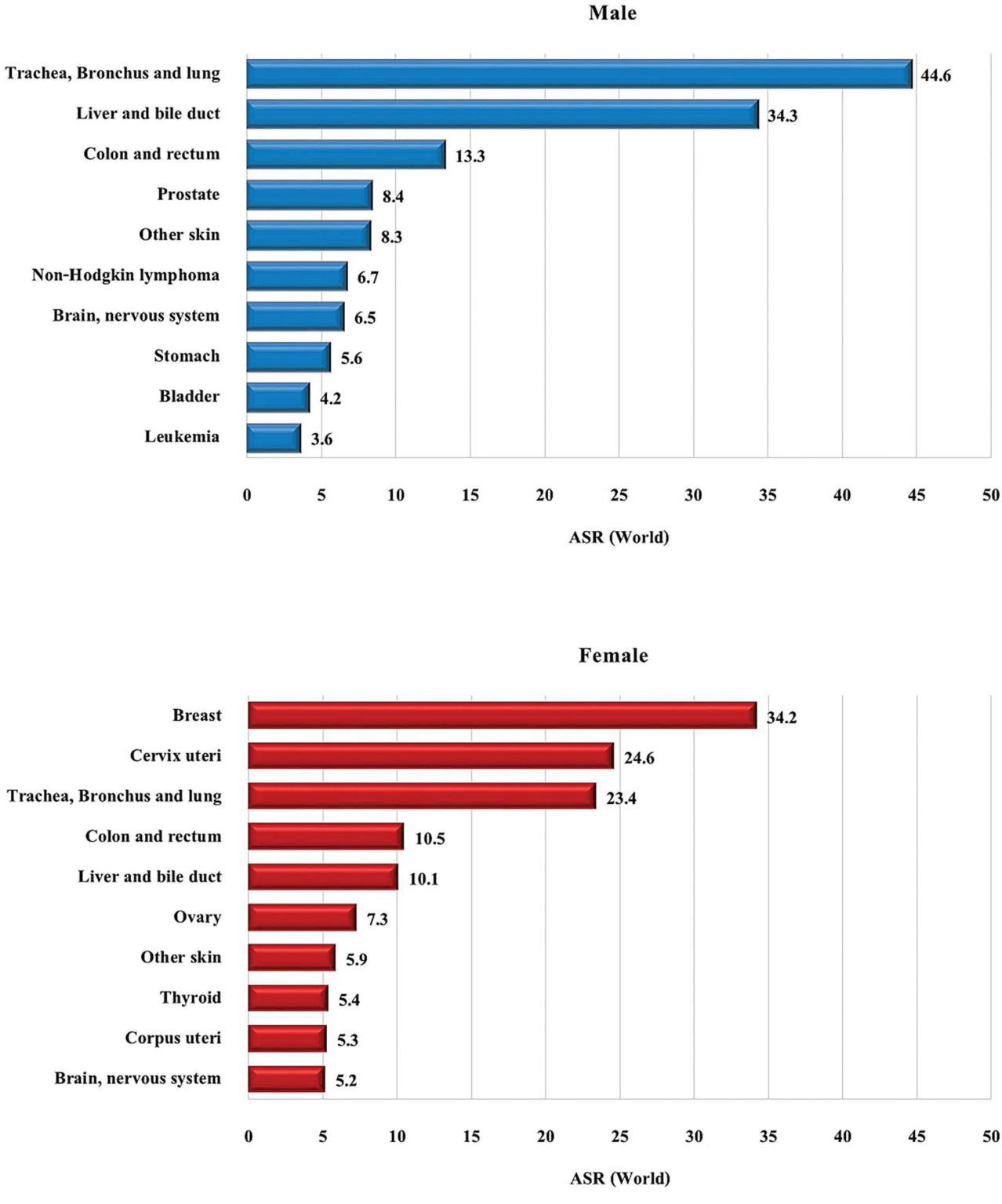


Table 3.2.1 Lamphun (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C00
Tongue	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	3.8	4.5	0.0	0.0	0.0	7.4	1.2	0.7	C01-02
Mouth	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	9.5	4.5	0.0	0.0	12.3	14.9	2.5	1.5	C03-06
Salivary glands	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.8	0.0	0.0	0.0	24.7	3.7	1.3	0.9	C07-08
Tonsil	2	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	1.9	0.0	0.0	3.5	0.0	6.2	3.7	0.8	0.6	C09
Nasopharynx	7	0.0	0.0	0.0	0.0	0.0	1.9	2.1	4.9	4.5	11.1	0.0	11.2	10.4	0.0	6.2	3.7	3.7	2.6	C11
Hypopharynx	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.8	2.2	0.0	9.4	6.2	11.2	1.7	1.0	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	4.7	0.0	0.0	0.3	0.3	C14
Oesophagus	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.2	3.7	9.5	6.7	6.9	9.4	6.2	11.2	3.4	2.2	C15
Stomach	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	4.5	7.4	9.5	17.9	34.6	18.9	18.5	63.2	9.1	5.6	C16
Small intestine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.2	0.1	C17
Colon	23	0.0	0.0	0.0	0.0	0.0	3.8	0.0	4.9	4.5	14.8	17.1	31.4	13.8	28.3	49.4	48.3	11.5	7.2	C18
Rectum	18	0.0	0.0	0.0	0.0	0.0	1.9	4.3	2.5	2.2	7.4	11.4	17.9	27.7	23.6	55.6	33.5	9.1	6.0	C19-20
Anus	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.2	0.1	C21
Liver and bile duct	98	11.8	0.0	0.0	0.0	5.0	3.8	8.5	9.9	31.5	55.7	97.1	116.6	159.2	155.7	154.3	107.8	49.7	34.3	C22,C24
Gallbladder	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	1.9	0.0	2.2	3.5	9.4	6.2	3.7	1.3	1.0	C23
Pancreas	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.7	13.3	9.0	3.5	9.4	12.3	14.9	3.9	2.3	C25
Nose, sinuses etc.	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	6.7	3.5	0.0	0.0	7.4	1.3	0.8	C30-31
Larynx	10	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.5	0.0	1.9	3.8	4.5	13.8	23.6	24.7	40.9	5.2	3.4	C32
Trachea, Bronchus and lung	137	0.0	0.0	0.0	0.0	0.0	1.9	2.1	4.9	15.7	33.4	70.5	112.1	211.1	268.9	413.6	412.6	69.5	44.6	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	4.7	0.0	0.0	0.3	0.2	C37-38
Bone	3	0.0	0.0	0.0	5.1	0.0	0.0	2.1	0.0	2.2	0.0	5.7	0.0	0.0	0.0	0.0	3.7	1.3	1.1	C40-C41
Melanoma of skin	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	3.7	0.3	0.2	C43
Other skin	27	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.7	5.7	24.7	10.4	47.2	92.6	133.8	13.8	8.3	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C45
Kaposi's sarcoma	1	0.0	0.0	0.0	0.0	2.5	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	C46
Connective tissue	1	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	4.7	0.0	0.0	0.5	0.7	C47,C49
Breast	2	0.0	0.0	0.0	0.0	0.0	1.9	2.1	7.4	0.0	0.0	0.0	0.0	3.5	0.0	0.0	3.7	1.2	0.9	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	4	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	1.9	3.8	0.0	6.9	4.7	0.0	14.9	2.0	1.6	C60
Prostate	26	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	1.9	11.2	17.3	94.3	92.6	119.0	13.3	8.4	C61
Testis	5	0.0	3.6	0.0	2.6	2.5	5.8	2.1	2.5	2.2	3.7	0.0	2.2	0.0	0.0	0.0	7.4	2.4	2.1	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.2	0.1	C63
Kidney	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	1.9	4.5	13.8	4.7	24.7	7.4	2.5	1.8	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	4.7	0.0	0.0	0.3	0.2	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.2	0.1	C66
Bladder	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.2	0.0	1.9	6.7	24.2	33.0	37.0	40.9	6.2	4.2	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C68
Eye	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	6.2	0.0	0.3	0.2	C69
Brain, nervous system	14	3.9	7.1	9.4	5.1	2.5	0.0	2.1	7.4	9.0	7.4	15.2	9.0	3.5	9.4	24.7	11.2	7.3	6.5	C70-72
Thyroid	4	0.0	0.0	0.0	0.0	2.5	3.8	0.0	0.0	0.0	0.0	3.8	6.7	3.5	9.4	12.3	0.0	2.2	1.6	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.2	0.1	C75
Hodgkin disease	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	2.2	0.0	4.7	0.0	0.0	0.5	0.3	C81
Non-Hodgkin lymphoma	17	3.9	3.6	6.2	0.0	5.0	3.8	0.0	7.4	2.2	3.7	3.8	17.9	13.8	33.0	24.7	40.9	8.4	6.7	C82-85,C96
Multiple myeloma	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.5	4.7	0.0	7.4	1.0	0.7	C90
Lymphoid leukemia	2	7.9	3.6	3.1	2.6	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.0	C91
Myeloid leukemia	5	0.0	0.0	0.0	0.0	0.0	1.9	2.1	0.0	4.5	3.7	3.8	0.0	0.0	4.7	6.2	14.9	2.4	1.5	C92-94
Leukemia unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.2	0.1	C95
Myelodysplastic disease	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	6.9	4.7	0.0	7.4	1.0	0.7	D45-D47
Other and unspecified	26	3.9	7.1	0.0	2.6	2.5	1.9	4.3	7.4	4.5	7.4	11.4	38.1	20.8	56.6	49.4	44.6	13.2	9.7	O&U
All sites	**513**	**39.4**	**28.6**	**18.8**	**17.9**	**24.8**	**34.6**	**38.4**	**73.9**	**107.9**	**183.7**	**327.6**	**477.6**	**629.8**	**886.8**	**1179.0**	**1256.5**	**259.4**	**175.9**	**ALL**

Table 3.2.2 Lamphun (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.0	0.0	0.0	5.8	3.0	0.6	0.4	C00
Tongue	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.0	1.7	1.7	2.0	6.4	0.0	0.0	6.1	1.6	1.0	C01-02
Mouth	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.7	1.7	2.0	3.2	13.6	5.8	0.0	1.4	1.0	C03-06
Salivary glands	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C07-08
Tonsil	1	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	3.0	0.5	0.5	C09
Nasopharynx	5	0.0	0.0	3.2	0.0	2.4	0.0	0.0	0.0	0.0	3.3	6.8	0.0	16.0	4.5	5.8	0.0	2.4	1.9	C11
Hypopharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	3.2	9.1	0.0	3.0	0.8	0.5	C15
Stomach	10	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	4.0	8.3	1.7	6.1	6.4	18.2	17.4	24.2	4.8	2.9	C16
Small intestine	3	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	2.0	0.0	3.4	2.0	0.0	0.0	0.0	6.1	1.3	0.7	C17
Colon	24	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.3	0.0	9.9	18.6	24.4	44.7	27.3	29.1	48.5	11.5	6.9	C18
Rectum	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	11.6	5.1	8.1	19.2	18.2	11.6	18.2	5.6	3.5	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.3	0.1	C21
Liver and bile duct	36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.0	13.2	27.1	36.6	31.9	59.1	52.3	93.9	17.3	10.1	C22,C24
Gallbladder	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	3.3	1.7	6.1	3.2	9.1	17.4	18.2	3.0	1.8	C23
Pancreas	5	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.3	0.0	3.3	0.0	2.0	6.4	9.1	17.4	9.1	2.4	1.6	C25
Nose, sinuses etc.	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	2.0	0.0	0.0	0.0	9.1	1.0	0.4	C30-31
Larynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.0	0.0	0.0	5.8	9.1	1.0	0.5	C32
Trachea, Bronchus and lung	78	0.0	0.0	0.0	0.0	0.0	0.0	6.1	11.7	2.0	19.8	25.4	56.9	92.7	168.2	244.2	190.9	37.4	23.4	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	3.2	4.5	0.0	0.0	0.5	0.4	C37-38
Bone	3	0.0	3.6	0.0	0.0	0.0	0.0	0.0	2.3	4.0	0.0	0.0	6.1	0.0	4.5	0.0	3.0	1.4	1.2	C40-C41
Melanoma of skin	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.0	0.0	9.1	0.0	3.0	0.8	0.5	C43
Other skin	21	4.2	0.0	3.2	0.0	0.0	1.9	0.0	2.3	0.0	1.7	5.1	6.1	25.6	13.6	34.9	106.1	10.0	5.9	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	2	0.0	0.0	0.0	0.0	0.0	1.9	2.0	0.0	0.0	1.7	1.7	2.0	0.0	0.0	5.8	3.0	1.1	0.7	C47,C49
Breast	109	0.0	0.0	0.0	0.0	7.3	5.6	10.2	32.6	81.0	100.8	125.4	81.3	105.4	118.2	75.6	42.4	51.9	34.2	C50
Vulva	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	2.0	0.0	1.7	2.0	0.0	0.0	0.0	0.0	0.8	0.6	C51
Vagina	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.5	0.3	C52
Cervix uteri	82	0.0	0.0	0.0	0.0	2.4	0.0	6.1	32.6	54.7	77.7	71.2	101.6	63.9	63.6	46.5	57.6	39.0	24.6	C53
Corpus uteri	17	0.0	0.0	0.0	0.0	0.0	1.9	2.0	4.7	4.0	13.2	13.6	18.3	25.6	18.2	29.1	9.1	8.1	5.3	C54
Uterus unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C55
Ovary	23	0.0	0.0	0.0	5.3	0.0	11.3	4.1	2.3	10.1	19.8	23.7	28.5	12.8	9.1	23.3	9.1	11.0	7.3	C56
Other female genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C57
Placenta	0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	3	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	6.8	0.0	6.4	0.0	5.8	3.0	1.4	1.0	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.2	0.1	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	6	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.8	8.1	12.8	4.5	0.0	9.1	2.9	2.1	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C68
Eye	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	4.1	0.0	4.5	0.0	0.0	0.6	0.4	C69
Brain, nervous system	15	0.0	3.6	0.0	2.6	0.0	3.8	4.1	4.7	14.2	14.9	8.5	10.2	9.6	9.1	11.6	15.2	7.3	5.2	C70-72
Thyroid	15	0.0	0.0	0.0	2.6	9.7	1.9	12.2	4.7	6.1	8.3	6.8	6.1	9.6	27.3	11.6	18.2	7.3	5.4	C73
Adrenal gland	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.3	0.2	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C75
Hodgkin disease	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C81
Non-Hodgkin lymphoma	14	0.0	0.0	0.0	2.6	2.4	3.8	8.1	2.3	6.1	0.0	11.9	12.2	12.8	22.7	11.6	18.2	6.7	4.6	C82-85,C96
Multiple myeloma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	11.6	0.0	0.6	0.5	C90
Lymphoid leukemia	1	4.2	3.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.2	C91
Myeloid leukemia	5	0.0	0.0	0.0	0.0	2.4	1.9	4.1	0.0	2.0	1.7	3.4	8.1	0.0	0.0	5.8	6.1	2.4	1.5	C92-94
Leukemia unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C95
Myelodysplastic disease	4	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	1.7	0.0	2.0	3.2	0.0	11.6	15.2	1.7	1.0	D45-D47
Other and unspecified	25	4.2	0.0	12.8	0.0	7.3	1.9	8.1	4.7	10.1	5.0	20.3	20.3	25.6	40.9	11.6	30.3	11.8	9.0	O&U
All sites	**551**	**16.8**	**10.8**	**25.6**	**13.2**	**38.8**	**37.6**	**79.4**	**128.2**	**222.7**	**335.5**	**413.6**	**471.5**	**555.9**	**690.9**	**715.1**	**800.0**	**262.8**	**171.5**	**ALL**

Table 3.2.3 Mean annual incidence, Lamphun, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	1	0.1	0.3	0.2	0.0	0.0	1	0.2	0.6	0.4	0.0	0.0	C00
Tongue	2	0.5	1.2	0.7	0.1	0.1	3	0.6	1.6	1.0	0.1	0.1	C01-02
Mouth	5	1.0	2.5	1.5	0.1	0.2	3	0.5	1.4	1.0	0.1	0.2	C03-06
Salivary glands	3	0.5	1.3	0.9	0.0	0.2	0	0.0	0.0	0.0	0.0	0.0	C07-08
Tonsil	2	0.3	0.8	0.6	0.0	0.1	1	0.2	0.5	0.5	0.0	0.0	C09
Nasopharynx	7	1.4	3.7	2.6	0.2	0.3	5	0.9	2.4	1.9	0.2	0.2	C11
Hypopharynx	3	0.7	1.7	1.0	0.0	0.1	0	0.1	0.2	0.1	0.0	0.0	C12-13
Pharynx unspecified	1	0.1	0.3	0.3	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	7	1.3	3.4	2.2	0.2	0.2	2	0.3	0.8	0.5	0.0	0.1	C15
Stomach	18	3.5	9.1	5.6	0.4	0.6	10	1.8	4.8	2.9	0.2	0.3	C16
Small intestine	0	0.1	0.2	0.1	0.0	0.0	3	0.5	1.3	0.7	0.1	0.1	C17
Colon	23	4.4	11.5	7.2	0.5	0.8	24	4.4	11.5	6.9	0.5	0.8	C18
Rectum	18	3.5	9.1	6.0	0.4	0.8	12	2.1	5.6	3.5	0.3	0.4	C19-20
Anus	0	0.1	0.2	0.1	0.0	0.0	1	0.1	0.3	0.1	0.0	0.0	C21
Liver and bile duct	98	19.2	49.7	34.3	2.5	4.0	36	6.6	17.3	10.1	0.6	1.1	C22,C24
Gallbladder	3	0.5	1.3	1.0	0.1	0.1	6	1.2	3.0	1.8	0.1	0.2	C23
Pancreas	8	1.5	3.9	2.3	0.2	0.3	5	0.9	2.4	1.6	0.1	0.2	C25
Nose, sinuses etc.	3	0.5	1.3	0.8	0.1	0.1	2	0.4	1.0	0.4	0.0	0.0	C30-31
Larynx	10	2.0	5.2	3.4	0.1	0.4	2	0.4	1.0	0.5	0.0	0.0	C32
Trachea, Bronchus and lung	137	26.8	69.5	44.6	2.3	5.7	78	14.2	37.4	23.4	1.1	3.1	C33-34
Other thoracic organs	1	0.1	0.3	0.2	0.0	0.0	1	0.2	0.5	0.4	0.0	0.0	C37-38
Bone	3	0.5	1.3	1.1	0.1	0.1	3	0.5	1.4	1.2	0.1	0.1	C40-C41
Melanoma of skin	1	0.1	0.3	0.2	0.0	0.0	2	0.3	0.8	0.5	0.0	0.1	C43
Other skin	27	5.3	13.8	8.3	0.3	1.0	21	3.8	10.0	5.9	0.3	0.5	C44
Mesothelioma	0	0.1	0.2	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	1	0.1	0.3	0.3	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	1	0.2	0.5	0.7	0.0	0.1	2	0.4	1.1	0.7	0.0	0.1	C47,C49
Breast	2	0.5	1.2	0.9	0.1	0.1	109	19.7	51.9	34.2	2.7	3.7	C50
Vulva							2	0.3	0.8	0.6	0.1	0.1	C51
Vagina							1	0.2	0.5	0.3	0.0	0.0	C52
Cervix uteri							82	14.8	39.0	24.6	2.1	2.6	C53
Corpus uteri							17	3.1	8.1	5.3	0.4	0.7	C54
Uterus unspecified							1	0.1	0.3	0.2	0.0	0.0	C55
Ovary							23	4.2	11.0	7.3	0.6	0.8	C56
Other female genital organs							1	0.1	0.3	0.2	0.0	0.0	C57
Placenta							0	0.1	0.2	0.2	0.0	0.0	C58
Penis	4	0.8	2.0	1.6	0.1	0.1							C60
Prostate	26	5.1	13.3	8.4	0.2	1.1							C61
Testis	5	0.9	2.4	2.1	0.1	0.1							C62
Other male genital organs	0	0.1	0.2	0.1	0.0	0.0							C63
Kidney	5	1.0	2.5	1.8	0.1	0.3	3	0.5	1.4	1.0	0.1	0.1	C64
Renal pelvis	1	0.1	0.3	0.2	0.0	0.0	0	0.1	0.2	0.1	0.0	0.0	C65
Ureter	0	0.1	0.2	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	12	2.4	6.2	4.2	0.2	0.5	6	1.1	2.9	2.1	0.2	0.2	C67
Other urinary organs	0	0.1	0.2	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C68
Eye	1	0.1	0.3	0.2	0.0	0.0	1	0.2	0.6	0.4	0.0	0.1	C69
Brain, nervous system	14	2.8	7.3	6.5	0.4	0.6	15	2.8	7.3	5.2	0.4	0.5	C70-72
Thyroid	4	0.8	2.2	1.6	0.1	0.2	15	2.8	7.3	5.4	0.3	0.5	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	1	0.1	0.3	0.2	0.0	0.0	C74
Other endocrine	0	0.1	0.2	0.1	0.0	0.0	0	0.1	0.2	0.1	0.0	0.0	C75
Hodgkin disease	1	0.2	0.5	0.3	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C81
Non-Hodgkin lymphoma	17	3.3	8.4	6.7	0.4	0.6	14	2.5	6.7	4.6	0.3	0.5	C82-85,C96
Multiple myeloma	2	0.4	1.0	0.7	0.0	0.1	1	0.2	0.6	0.5	0.0	0.1	C90
Lymphoid leukemia	2	0.4	1.0	2.0	0.1	0.1	1	0.2	0.5	1.2	0.1	0.1	C91
Myeloid leukemia	5	0.9	2.4	1.5	0.1	0.1	5	0.9	2.4	1.5	0.1	0.1	C92-94
Leukemia unspecified	0	0.1	0.2	0.1	0.0	0.0	0	0.1	0.2	0.1	0.0	0.0	C95
Myelodysplastic disease	2	0.4	1.0	0.7	0.0	0.1	4	0.7	1.7	1.0	0.0	0.1	D45-D47
Other and unspecified	26	5.1	13.2	9.7	0.6	1.1	25	4.5	11.8	9.0	0.6	0.9	O&U
All sites	**513**	**100.0**	**259.4**	**175.9**	**10.0**	**20.3**	**551**	**100.0**	**262.8**	**171.5**	**11.7**	**18.8**	**ALL**

Table 3.2.4 Percentage of morphologically verified and death certificate only cases, Lamphun

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	32	84.4	3.1	23	78.3	4.3	C00-C08
Oropharynx	7	57.1	14.3	3	33.3	0.0	C09-C10,C14
Nasopharynx	22	72.7	4.5	15	46.7	0.0	C11
Hypopharynx	10	80.0	0.0	1	100.0	0.0	C12-C13
Esophagus	20	70.0	0.0	5	60.0	20.0	C15
Stomach	54	68.5	3.7	30	66.7	0.0	C16
Small intestine	1	0.0	0.0	8	75.0	0.0	C17
Colon and rectum	123	81.3	0.8	109	85.3	0.0	C18-C21
Liver and bile duct	295	13.2	18.3	109	13.8	18.3	C22,C24
Gallbladder	8	62.5	0.0	19	52.6	0.0	C23
pancrease	23	52.2	0.0	15	13.3	0.0	C25
Nose,sinuses etc	8	62.5	0.0	6	50.0	0.0	C30-C31
Larynx	31	61.3	6.5	6	16.7	0.0	C32
Trachea, brochus and lung	412	46.1	9.7	235	44.7	14.0	C33-C34
Other thoracic organs	2	100.0	0.0	3	33.3	0.0	C37-C38
Bone	8	37.5	37.5	9	33.3	33.3	C40-C41
Melanoma of skin	2	100.0	0.0	5	100.0	0.0	C43
Other skin	82	75.6	0.0	63	73.0	0.0	C44
Mesothelioma	1	100.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	2	100.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	3	66.7	33.3	7	85.7	0.0	C47,C49
Breast	7	57.1	0.0	326	80.1	1.5	C50
Vulva				5	60.0	0.0	C51
Vagina				3	100.0	0.0	C52
Cervix uteri				245	69.8	0.4	C53
Corpus uteri				51	84.3	0.0	C54
Uterus unspecified				2	0.0	100.0	C55
Ovary				69	50.7	1.4	C56
Other female genital organs				2	50.0	0.0	C57
Placenta				1	0.0	100.0	C58
Penis	12	58.3	0.0				C60
Prostate	79	49.4	1.3				C61
Testis	14	35.7	0.0				C62
Other male genital organs	1	0.0	0.0				C63
Kidney	15	60.0	0.0	9	44.4	0.0	C64
Renal pelvis	2	100.0	0.0	1	100.0	0.0	C65
Ureter	1	0.0	0.0	0	0.0	0.0	C66
Bladder	37	70.3	5.4	18	55.6	0.0	C67
Other urinary organs	1	0.0	0.0	0	0.0	0.0	C68
Eye	2	0.0	0.0	4	25.0	0.0	C69
Brain, nervous system	43	30.2	27.9	46	15.2	21.7	C70-C72
Thyroid	13	69.2	0.0	46	69.6	0.0	C73
Adrenal gland	0	0.0	0.0	2	0.0	50.0	C74
Other endocrine	1	0.0	100.0	1	0.0	0.0	C75
Hodgkin disease	3	100.0	0.0	0	0.0	0.0	C81
Non-Hodgkin lymphoma	50	100.0	0.0	42	100.0	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	6	100.0	0.0	4	100.0	0.0	C90
Leukemia	21	100.0	0.0	19	100.0	0.0	C91-C95
Myelodysplastic	6	100.0	0.0	11	100.0	0.0	D45-D47
Other and unspecified	78	15.4	34.6	74	10.8	21.6	O&U
All sites	**1,538**	**49.5**	**9.7**	**1,652**	**60.7**	**5.8**	**All**

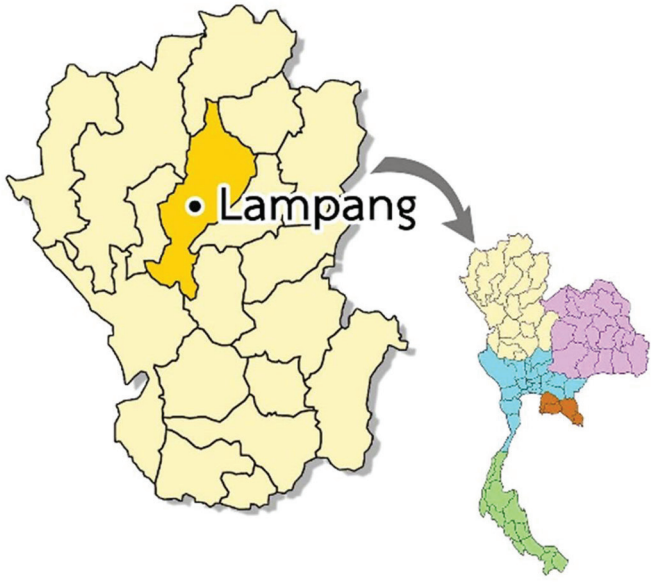
Lampang Cancer Registry

Registration area

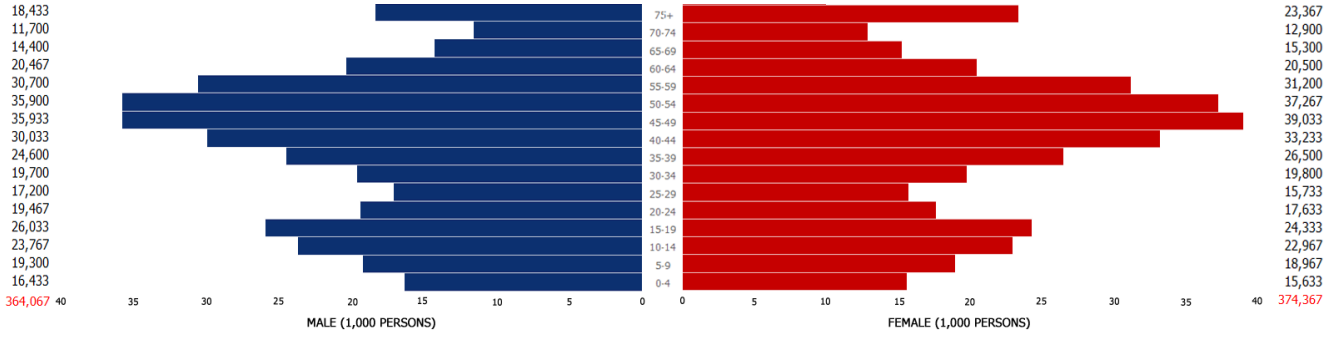
Lampang is one of the 17 provinces of the Northern region of Thailand, located at latitude 17-19 °N and longitude 98-100 °E. It is 268.8 meters above sea level with a land area of 12,534 km^2. It has common boundary with Chiang Mai and Phayao in the north, Phare in the east, Tak and Sukhothai in the south and Lamphun and Chiang Mai in the west. Lampang cancer registry covers the population of 13 districts.

The total population in 2000 (housing census by National Statistics Office, Thailand) was 782,152, with 390,256 males and 391, 896 females. About 30% of the populations live in urban areas; 97% are Buddists, the remainder being mainly Christians or Muslims. The average population density is about 61.2 persons per square kilometer (National Statistics Office, Thailand, 2008).

Most important occupations are farming of rice, peanuts, sugar beans and pineapple. There are large lignite-generated power plants and lignite mining areas in the Moe Moh district, 36 kilometers from city area. In addition,there are more than 200 ceramic factories, over 100 wood working plants and large cement factories located in Lampang.



Population pyramid, Lampang
estimated population in 2011 (average 2010-2012)



Cancer care facilities

In Lampang province, health care service is provided in 12 community hospitals, one Lampang provincial hospital, two private hospitals, one military hospital and one cancer hospital (Lampang Cancer Hospital). For cancer care, these hospitals have cancer diagnostic services (including CT scan, clinical consultations and radiological, pathological investigations), oncologic surgery services, chemotherapy and targeted therapy are available in Lampang cancer hospital and Lampang provincial hospital. Radiation therapy wasavailable only in Lampang Cancer hospital. There were one simulators machine, one CT simulator, two dual energy LINAC with multi leaf collimator, one cobalt-60 teletherapy machines, two treatment planning system for 3D conformal radiation therapy and IMRT and one High Dose Rate machine for brachytherapy are provided in Lampang Cancer hospital. All hospitals in the province provide palliative care. However, some patients are referred to National Cancer Institute, university hospital in Chiang Mai and Bangkok. The ratio of doctors to population is 1:2,499. The ratio between registered nurses to population is 1:405. (Ministry of public Health, 2012)

Registry procedures

The registry unit is located within Lampang Cancer Hospital. The Lampang registry was established in 1995 with the back up data of cancer cases in Lampang since 1983 which collected by Dr. Nimit Martin. A part time physician, a full time nurse, five full time health workers responsible for the registry. The registration uses passive methods by notification from 21 sources of data consisting of cancer centers, general hospitals, community hospitals, private hospitals, university hospital, the provincial public health service of Lampang and pathological laboratories.

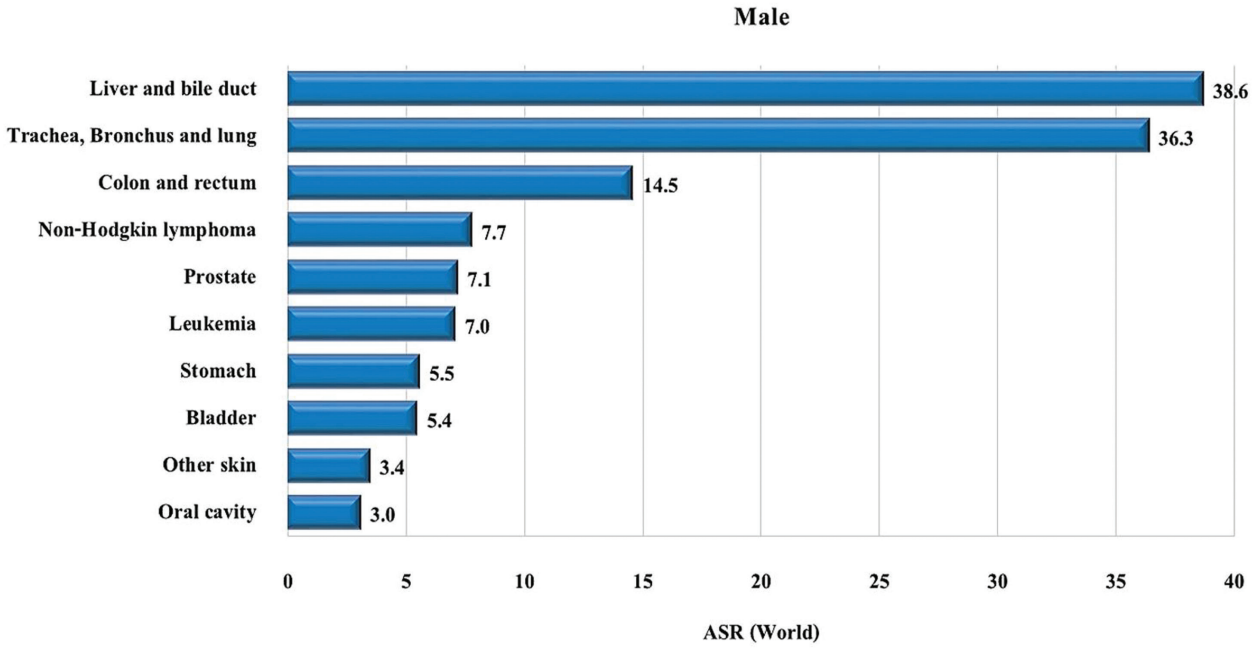
Data collection consists of: registry number, name, residential address, date of birth, age, sex, date of diagnosis, site of cancer, histology of cancer, staging, extension of disease, method of diagnosis, treatment, date of last contact and vital status of cancer patients. The primary site and histology were coded according to ICD-O 3rd edition (*Fritzet al*., 2000). Second primary cancer was also registered by multiple primary rule (IARC, 2004). Death certificates were obtained from Bureau of Policy and Strategy, Ministry of Public Health. The follow-up of all registered cases were carried out by passive methods with linking database of National Health Security office.

The computed data form was checked and extended into data base files, using the CanReg 4 program for data entry and analysis.

Summary of Results

New cases registered in 2011, 969 were males and 907 were females, making 1,876 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 161.4 per 100,000, with liver and bile duct cancer ranking first (ASR = 38.6) followed by lung (ASR = 36.3) and colon and rectum (ASR = 14.5). The ASR of all cancer sites in females was 143.2 per 100,000, the three leading cancer sites being breast (ASR = 27.0), lung (ASR = 20.7) and liver and bile duct (ASR = 16.0).

Figure 3.3 Leading cancer in Lampang (mean annual ASR 2010-2012)



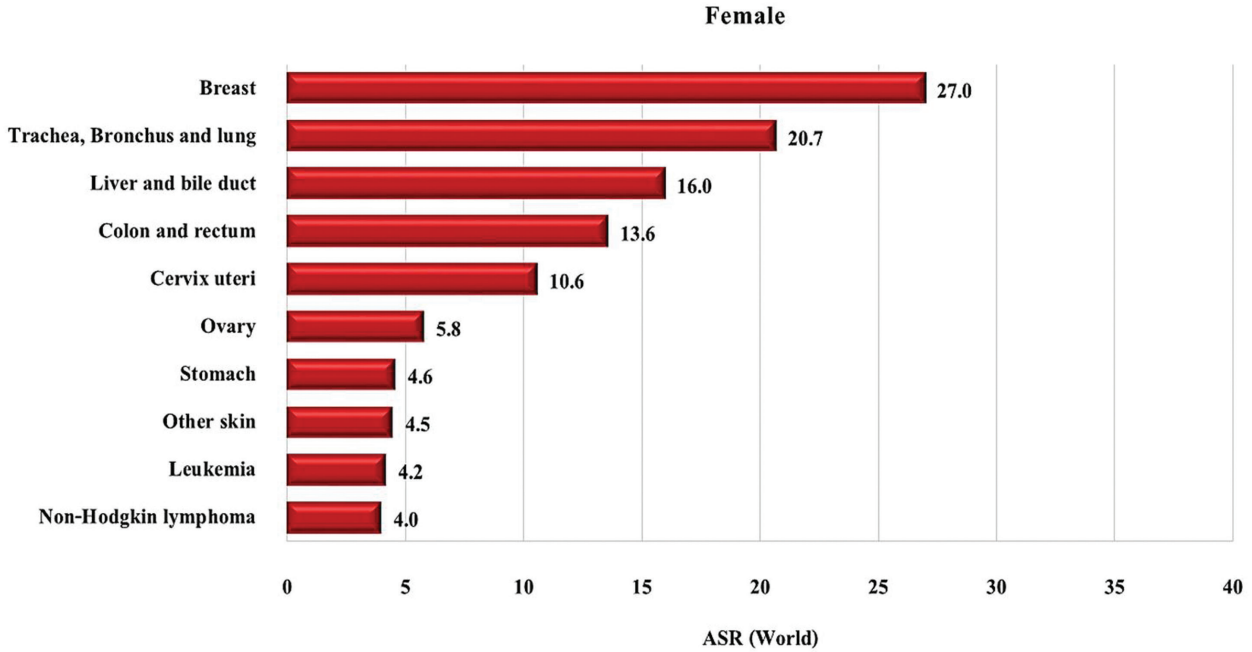


Table 3.3.1 Lampang (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C00
Tongue	11	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.4	6.7	0.9	5.6	4.3	9.8	0.0	8.5	9.0	3.0	1.8	C01-02
Mouth	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	1.1	3.3	6.9	5.7	5.4	1.3	0.7	C03-06
Salivary glands	2	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.9	0.0	1.6	0.0	0.0	3.6	0.6	0.5	C07-08
Tonsil	2	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.4	0.0	0.9	0.9	1.1	0.0	0.0	2.8	1.8	0.6	0.4	C09
Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.9	0.0	1.1	0.0	0.0	2.8	0.0	0.5	0.3	C10
Nasopharynx	14	0.0	0.0	0.0	1.3	0.0	0.0	3.4	1.4	2.2	6.5	5.6	8.7	4.9	9.3	11.4	9.0	3.9	2.4	C11
Hypopharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.9	0.0	0.0	0.0	2.8	3.6	0.5	0.3	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.0	C14
Oesophagus	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	3.7	5.6	5.4	11.4	2.3	8.5	10.8	3.0	1.7	C15
Stomach	33	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	4.4	8.3	10.2	15.2	17.9	46.3	45.6	25.3	9.2	5.5	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	4.6	8.5	0.0	0.5	0.4	C17
Colon	47	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.7	5.5	6.5	15.8	26.1	40.7	27.8	48.4	56.1	12.9	7.4	C18
Rectum	43	0.0	0.0	0.0	0.0	0.0	3.9	1.7	1.4	6.7	5.6	14.9	23.9	22.8	37.0	48.4	50.6	11.8	6.9	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	4.6	0.0	1.8	0.4	0.2	C21
Liver and bile duct	238	0.0	0.0	0.0	0.0	1.7	5.8	16.9	27.1	34.4	66.8	93.8	130.3	156.4	148.1	216.5	217.0	65.4	38.6	C22,C24
Gallbladder	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.1	1.9	1.9	2.2	4.9	9.3	14.2	10.8	2.4	1.4	C23
Pancreas	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.1	5.6	2.8	9.8	14.7	18.5	5.7	19.9	4.6	2.7	C25
Nose, sinuses etc.	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.9	0.0	2.2	1.6	0.0	2.8	1.8	0.7	0.4	C30-31
Larynx	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.9	0.0	1.1	3.3	6.9	11.4	16.3	2.0	1.1	C32
Trachea, Bronchus and lung	230	0.0	0.0	0.0	1.3	0.0	3.9	5.1	12.2	11.1	15.8	43.6	82.5	136.8	261.6	350.4	368.9	63.1	36.3	C33-34
Other thoracic organs	3	0.0	3.5	0.0	1.3	0.0	1.9	0.0	0.0	0.0	0.0	0.9	1.1	1.6	2.3	0.0	0.0	0.7	0.8	C37-38
Bone	2	0.0	1.7	1.4	0.0	0.0	1.9	1.7	0.0	1.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.7	C40-C41
Melanoma of skin	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	4.9	0.0	0.0	5.4	0.7	0.4	C43
Other skin	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	2.2	1.9	3.7	7.6	11.4	20.8	19.9	56.1	6.4	3.4	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C46
Connective tissue	5	2.0	0.0	0.0	2.6	0.0	0.0	3.4	0.0	1.1	2.8	0.9	2.2	0.0	0.0	2.8	3.6	1.4	1.2	C47,C49
Breast	1	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	1.1	0.0	0.0	0.0	1.8	0.4	0.3	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.9	1.9	1.1	4.9	11.6	11.4	9.0	2.0	1.2	C60
Prostate	48	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.9	18.5	21.2	48.6	94.0	101.3	13.1	7.1	C61
Testis	4	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.2	1.9	0.9	1.1	1.6	0.0	2.8	3.6	1.0	0.6	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.1	0.1	C63
Kidney	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.9	3.7	7.6	6.5	13.9	14.2	10.8	3.1	1.8	C64
Renal pelvis	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.1	4.9	2.3	2.8	5.4	1.0	0.6	C65
Ureter	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.3	0.0	0.0	0.0	0.3	0.2	C66
Bladder	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.3	4.6	5.6	11.9	29.3	32.4	31.3	65.1	9.6	5.4	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.1	0.0	C68
Eye	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.1	0.1	C69
Brain, nervous system	11	6.1	3.5	0.0	1.3	1.7	1.9	0.0	5.4	2.2	2.8	1.9	1.1	3.3	2.3	11.4	9.0	2.9	2.9	C70-72
Thyroid	5	0.0	0.0	0.0	0.0	0.0	1.9	0.0	2.7	2.2	0.9	1.9	2.2	0.0	2.3	2.8	5.4	1.4	0.9	C73
Adrenal gland	1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	1.8	0.3	0.3	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C75
Hodgkin disease	2	0.0	0.0	1.4	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	1.1	0.0	2.3	0.0	3.6	0.5	0.4	C81
Non-Hodgkin lymphoma	39	0.0	5.2	0.0	2.6	8.6	1.9	8.5	6.8	8.9	11.1	7.4	13.0	26.1	23.1	39.9	30.7	10.8	7.7	C82-85,C96
Multiple myeloma	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	2.2	4.9	9.3	8.5	16.3	2.1	1.2	C90
Lymphoid leukemia	3	4.1	3.5	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.6	0.0	5.7	1.8	0.9	1.2	C91
Myeloid leukemia	19	6.1	1.7	4.2	1.3	5.1	1.9	3.4	1.4	2.2	0.9	3.7	8.7	6.5	16.2	11.4	23.5	5.3	4.4	C92-94
Leukemia unspecified	6	0.0	1.7	1.4	1.3	0.0	3.9	0.0	1.4	1.1	0.9	1.9	1.1	1.6	2.3	2.8	7.2	1.6	1.4	C95
Myelodysplastic disease	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	2.3	2.8	0.0	0.3	0.2	D45-D47
Other and unspecified	45	0.0	0.0	0.0	0.0	1.7	0.0	5.1	4.1	7.8	5.6	5.6	20.6	40.7	41.7	62.7	45.2	12.4	7.6	O&U
All sites	**969**	**20.3**	**22.5**	**9.8**	**15.4**	**20.5**	**29.1**	**55.8**	**79.9**	**114.3**	**167.9**	**257.2**	**421.3**	**607.5**	**817.1**	**1125.4**	**1220.6**	**266.1**	**161.4**	**ALL**

Table 3.3.2 Lampang (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	2.2	5.2	1.4	0.5	0.3	C00
Tongue	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.9	1.1	1.6	0.0	7.8	5.7	1.0	0.5	C01-02
Mouth	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.7	0.0	3.3	6.5	7.8	10.0	1.7	0.9	C03-06
Salivary glands	2	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	5.2	2.9	0.5	0.4	C07-08
Tonsil	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.4	0.3	0.1	C09
Other oropharynx	1	0.0	0.0	0.0	1.4	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	C10
Nasopharynx	6	0.0	0.0	0.0	0.0	1.9	2.1	1.7	1.3	2.0	3.4	1.8	1.1	4.9	2.2	0.0	2.9	1.7	1.3	C11
Hypopharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.3	0.0	0.0	2.9	0.4	0.2	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.9	1.1	0.0	2.2	0.0	5.7	0.7	0.3	C15
Stomach	30	0.0	0.0	0.0	0.0	0.0	2.1	1.7	3.8	9.0	7.7	8.9	10.7	9.8	24.0	28.4	25.7	7.9	4.6	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.6	4.4	0.0	1.4	0.4	0.3	C17
Colon	50	0.0	0.0	0.0	2.7	0.0	0.0	3.4	1.3	4.0	8.5	13.4	27.8	40.7	30.5	51.7	44.2	13.4	7.5	C18
Rectum	37	0.0	0.0	0.0	1.4	5.7	0.0	0.0	2.5	1.0	7.7	10.7	17.1	26.0	28.3	36.2	35.7	10.0	5.8	C19-20
Anus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	3.3	0.0	0.0	2.9	0.5	0.3	C21
Liver and bile duct	107	0.0	0.0	0.0	0.0	1.9	4.2	5.1	6.3	11.0	17.9	27.7	48.1	84.6	76.3	95.6	111.3	28.6	16.0	C22,C24
Gallbladder	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.7	5.4	2.1	13.0	8.7	23.3	22.8	4.3	2.2	C23
Pancreas	18	0.0	0.0	0.0	1.4	0.0	0.0	1.7	0.0	1.0	1.7	2.7	13.9	6.5	19.6	20.7	18.5	4.9	2.7	C25
Nose, sinuses etc.	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	2.9	0.3	0.1	C30-31
Larynx	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.6	2.2	12.9	5.7	1.1	0.6	C32
Trachea, Bronchus and lung	138	0.0	0.0	0.0	0.0	0.0	4.2	3.4	2.5	7.0	13.7	20.6	39.5	125.2	143.8	178.3	161.2	36.9	20.7	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C37-38
Bone	2	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	3.3	0.0	0.0	1.4	0.4	0.3	C40-C41
Melanoma of skin	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	2.1	3.3	0.0	0.0	4.3	0.7	0.4	C43
Other skin	35	0.0	0.0	0.0	0.0	1.9	0.0	3.4	1.3	0.0	4.3	9.8	11.8	11.4	19.6	23.3	68.5	9.3	4.5	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	5	0.0	0.0	0.0	1.4	0.0	0.0	3.4	0.0	2.0	0.9	2.7	1.1	1.6	2.2	5.2	2.9	1.4	1.0	C47,C49
Breast	169	0.0	0.0	0.0	0.0	0.0	8.5	13.5	28.9	60.2	89.7	86.8	69.4	74.8	63.2	95.6	45.6	45.1	27.0	C50
Vulva	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C51
Vagina	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	2.6	1.4	0.3	0.1	C52
Cervix uteri	63	0.0	0.0	0.0	0.0	1.9	6.4	8.4	15.1	20.1	27.3	30.4	21.4	30.9	28.3	36.2	24.3	16.9	10.6	C53
Corpus uteri	23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	4.0	8.5	7.2	21.4	19.5	13.1	2.6	7.1	6.1	3.6	C54
Uterus unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	0.9	1.1	0.0	0.0	0.0	0.0	0.4	0.2	C55
Ovary	32	0.0	0.0	1.5	4.1	0.0	6.4	5.1	8.8	8.0	7.7	12.5	10.7	19.5	13.1	20.7	17.1	8.5	5.8	C56
Other female genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	1.1	0.0	0.0	2.6	0.0	0.4	0.2	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.1	0.0	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	8	4.3	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.9	1.8	3.2	6.5	6.5	10.3	4.3	2.0	1.6	C64
Renal pelvis	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.2	0.0	5.7	0.5	0.2	C65
Ureter	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.4	0.2	0.1	C66
Bladder	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	7.5	1.6	13.1	12.9	18.5	3.0	1.5	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.1	0.1	C68
Eye	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	1.4	0.2	0.1	C69
Brain, nervous system	10	2.1	1.8	1.5	0.0	1.9	2.1	0.0	3.8	3.0	0.9	3.6	2.1	3.3	4.4	12.9	4.3	2.7	2.2	C70-72
Thyroid	20	0.0	0.0	0.0	2.7	0.0	4.2	11.8	3.8	5.0	4.3	5.4	6.4	4.9	8.7	12.9	15.7	5.3	3.6	C73
Adrenal gland	0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	C74
Other endocrine	1	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.2	0.2	C75
Hodgkin disease	1	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C81
Non-Hodgkin lymphoma	25	0.0	0.0	1.5	0.0	0.0	2.1	1.7	6.3	2.0	6.0	8.1	6.4	9.8	26.1	23.3	22.8	6.7	4.0	C82-85,C96
Multiple myeloma	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.9	2.1	4.9	0.0	7.8	2.9	1.3	0.7	C90
Lymphoid leukemia	3	2.1	1.8	0.0	1.4	0.0	0.0	0.0	1.3	1.0	1.7	0.9	0.0	0.0	0.0	0.0	1.4	0.8	0.9	C91
Myeloid leukemia	13	0.0	0.0	2.9	2.7	1.9	0.0	3.4	1.3	1.0	3.4	5.4	4.3	8.1	2.2	12.9	7.1	3.5	2.4	C92-94
Leukemia unspecified	4	0.0	0.0	0.0	0.0	3.8	0.0	1.7	1.3	1.0	0.9	1.8	2.1	0.0	2.2	0.0	1.4	1.1	0.9	C95
Myelodysplastic disease	1	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	1.8	0.0	1.6	0.0	0.0	0.0	0.4	0.3	D45-D47
Other and unspecified	34	2.1	0.0	0.0	0.0	0.0	0.0	1.7	3.8	2.0	2.6	6.3	13.9	22.8	24.0	28.4	49.9	9.0	4.9	O&U
All sites	**907**	**12.8**	**3.5**	**10.2**	**19.2**	**20.8**	**50.8**	**72.4**	**100.6**	**149.4**	**230.6**	**290.7**	**355.8**	**561.0**	**579.5**	**785.5**	**774.6**	**242.4**	**143.2**	**ALL**

Table 3.3.3 Mean annual incidence, Lampang, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	0	0.0	0.1	0.0	0.0	0.0	2	0.2	0.5	0.3	0.0	0.1	C00
Tongue	11	1.1	3.0	1.8	0.2	0.2	4	0.4	1.0	0.5	0.0	0.1	C01-02
Mouth	5	0.5	1.3	0.7	0.0	0.1	6	0.7	1.7	0.9	0.0	0.1	C03-06
Salivary glands	2	0.2	0.6	0.5	0.0	0.0	2	0.2	0.5	0.4	0.0	0.0	C07-08
Tonsil	2	0.2	0.6	0.4	0.0	0.0	1	0.1	0.3	0.1	0.0	0.0	C09
Other oropharynx	2	0.2	0.5	0.3	0.0	0.0	1	0.1	0.2	0.3	0.0	0.0	C10
Nasopharynx	14	1.5	3.9	2.4	0.2	0.3	6	0.7	1.7	1.3	0.1	0.1	C11
Hypopharynx	2	0.2	0.5	0.3	0.0	0.0	2	0.2	0.4	0.2	0.0	0.0	C12-13
Pharynx unspecified	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	11	1.1	3.0	1.7	0.1	0.2	3	0.3	0.7	0.3	0.0	0.0	C15
Stomach	33	3.4	9.2	5.5	0.3	0.7	30	3.3	7.9	4.6	0.3	0.5	C16
Small intestine	2	0.2	0.5	0.4	0.0	0.1	2	0.2	0.4	0.3	0.0	0.0	C17
Colon	47	4.9	12.9	7.4	0.5	0.9	50	5.5	13.4	7.5	0.5	0.9	C18
Rectum	43	4.4	11.8	6.9	0.4	0.8	37	4.1	10.0	5.8	0.4	0.7	C19-20
Anus	1	0.1	0.4	0.2	0.0	0.0	2	0.2	0.5	0.3	0.0	0.0	C21
Liver and bile duct	238	24.6	65.4	38.6	2.7	4.5	107	11.8	28.6	16.0	1.0	1.9	C22,C24
Gallbladder	9	0.9	2.4	1.4	0.1	0.2	16	1.8	4.3	2.2	0.1	0.3	C23
Pancreas	17	1.7	4.6	2.7	0.2	0.3	18	2.0	4.9	2.7	0.1	0.3	C25
Nose, sinuses etc.	3	0.3	0.7	0.4	0.0	0.0	1	0.1	0.3	0.1	0.0	0.0	C30-31
Larynx	7	0.8	2.0	1.1	0.0	0.1	4	0.4	1.1	0.6	0.0	0.1	C32
Trachea, Bronchus and lung	230	23.7	63.1	36.3	1.6	4.6	138	15.2	36.9	20.7	1.1	2.7	C33-34
Other thoracic organs	3	0.3	0.7	0.8	0.1	0.1	1	0.1	0.2	0.1	0.0	0.0	C37-38
Bone	2	0.2	0.5	0.7	0.0	0.0	2	0.2	0.4	0.3	0.0	0.0	C40-C41
Melanoma of skin	3	0.3	0.7	0.4	0.0	0.0	3	0.3	0.7	0.4	0.0	0.0	C43
Other skin	23	2.4	6.4	3.4	0.1	0.3	35	3.8	9.3	4.5	0.2	0.4	C44
Mesothelioma	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	5	0.5	1.4	1.2	0.1	0.1	5	0.6	1.4	1.0	0.1	0.1	C47,C49
Breast	1	0.1	0.4	0.3	0.0	0.0	169	18.6	45.1	27.0	2.2	3.0	C50
Vulva							1	0.1	0.2	0.1	0.0	0.0	C51
Vagina							1	0.1	0.3	0.1	0.0	0.0	C52
Cervix uteri							63	7.0	16.9	10.6	0.8	1.1	C53
Corpus uteri							23	2.5	6.1	3.6	0.3	0.4	C54
Uterus unspecified							1	0.1	0.4	0.2	0.0	0.0	C55
Ovary							32	3.5	8.5	5.8	0.4	0.6	C56
Other female genital organs							1	0.1	0.4	0.2	0.0	0.0	C57
Placenta							0	0.0	0.1	0.0	0.0	0.0	C58
Penis	7	0.8	2.0	1.2	0.1	0.2							C60
Prostate	48	4.9	13.1	7.1	0.2	0.9							C61
Testis	4	0.4	1.0	0.6	0.0	0.1							C62
Other male genital organs	0	0.0	0.1	0.1	0.0	0.0							C63
Kidney	11	1.2	3.1	1.8	0.1	0.2	8	0.8	2.0	1.6	0.1	0.2	C64
Renal pelvis	4	0.4	1.0	0.6	0.0	0.1	2	0.2	0.5	0.2	0.0	0.0	C65
Ureter	1	0.1	0.3	0.2	0.0	0.0	1	0.1	0.2	0.1	0.0	0.0	C66
Bladder	35	3.6	9.6	5.4	0.3	0.6	11	1.2	3.0	1.5	0.1	0.2	C67
Other urinary organs	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.1	0.1	0.0	0.0	C68
Eye	0	0.0	0.1	0.1	0.0	0.0	1	0.1	0.2	0.1	0.0	0.0	C69
Brain, nervous system	11	1.1	2.9	2.9	0.2	0.2	10	1.1	2.7	2.2	0.1	0.2	C70-72
Thyroid	5	0.5	1.4	0.9	0.1	0.1	20	2.2	5.3	3.6	0.2	0.4	C73
Adrenal gland	1	0.1	0.3	0.3	0.0	0.0	0	0.0	0.1	0.3	0.0	0.0	C74
Other endocrine	0	0.0	0.1	0.0	0.0	0.0	1	0.1	0.2	0.2	0.0	0.0	C75
Hodgkin disease	2	0.2	0.5	0.4	0.0	0.0	1	0.1	0.3	0.2	0.0	0.0	C81
Non-Hodgkin lymphoma	39	4.1	10.8	7.7	0.5	0.8	25	2.8	6.7	4.0	0.2	0.5	C82-85,C96
Multiple myeloma	8	0.8	2.1	1.2	0.0	0.1	5	0.6	1.3	0.7	0.1	0.1	C90
Lymphoid leukemia	3	0.3	0.9	1.2	0.1	0.1	3	0.3	0.8	0.9	0.1	0.1	C91
Myeloid leukemia	19	2.0	5.3	4.4	0.2	0.4	13	1.4	3.5	2.4	0.2	0.2	C92-94
Leukemia unspecified	6	0.6	1.6	1.4	0.1	0.1	4	0.4	1.1	0.9	0.1	0.1	C95
Myelodysplastic disease	1	0.1	0.3	0.2	0.0	0.0	1	0.1	0.4	0.3	0.0	0.0	D45-D47
Other and unspecified	45	4.6	12.4	7.6	0.5	1.0	34	3.7	9.0	4.9	0.3	0.5	O&U
All sites	**969**	**100.0**	**266.1**	**161.4**	**9.1**	**18.8**	**907**	**100.0**	**242.4**	**143.2**	**9.4**	**16.2**	**ALL**

Table 3.3.4 Percentage of morphologically verified and death certificate only cases, Lampang

Site	Male			Female			ICD-10
	Cases 3 Year	%MV	%DCO	Cases 3 Year	%MV	%DCO	
Oral cavity	32	84.4	3.1	23	78.3	4.3	C00-C08
Oropharynx	7	57.1	14.3	3	33.3	0.0	C09-C10,C14
Nasopharynx	22	72.7	4.5	15	46.7	0.0	C11
Hypopharynx	10	80.0	0.0	1	100.0	0.0	C12-C13
Esophagus	20	70.0	0.0	5	60.0	20.0	C15
Stomach	54	68.5	3.7	30	66.7	0.0	C16
Small intestine	1	0.0	0.0	8	75.0	0.0	C17
Colon and rectum	123	81.3	0.8	109	85.3	0.0	C18-C21
Liver and bile duct	295	13.2	18.3	109	13.8	18.3	C22,C24
Gallbladder	8	62.5	0.0	19	52.6	0.0	C23
pancrease	23	52.2	0.0	15	13.3	0.0	C25
Nose,sinuses etc	8	62.5	0.0	6	50.0	0.0	C30-C31
Larynx	31	61.3	6.5	6	16.7	0.0	C32
Trachea, brochus and lung	412	46.1	9.7	235	44.7	14.0	C33-C34
Other thoracic organs	2	100.0	0.0	3	33.3	0.0	C37-C38
Bone	8	37.5	37.5	9	33.3	33.3	C40-C41
Melanoma of skin	2	100.0	0.0	5	100.0	0.0	C43
Other skin	82	75.6	0.0	63	73.0	0.0	C44
Mesothelioma	1	100.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	2	100.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	3	66.7	33.3	7	85.7	0.0	C47,C49
Breast	7	57.1	0.0	326	80.1	1.5	C50
Vulva				5	60.0	0.0	C51
Vagina				3	100.0	0.0	C52
Cervix uteri				245	69.8	0.4	C53
Corpus uteri				51	84.3	0.0	C54
Uterus unspecified				2	0.0	100.0	C55
Ovary				69	50.7	1.4	C56
Other female genital organs				2	50.0	0.0	C57
Placenta				1	0.0	100.0	C58
Penis	12	58.3	0.0				C60
Prostate	79	49.4	1.3				C61
Testis	14	35.7	0.0				C62
Other male genital organs	1	0.0	0.0				C63
Kidney	15	60.0	0.0	9	44.4	0.0	C64
Renal pelvis	2	100.0	0.0	1	100.0	0.0	C65
Ureter	1	0.0	0.0	0	0.0	0.0	C66
Bladder	37	70.3	5.4	18	55.6	0.0	C67
Other urinary organs	1	0.0	0.0	0	0.0	0.0	C68
Eye	2	0.0	0.0	4	25.0	0.0	C69
Brain, nervous system	43	30.2	27.9	46	15.2	21.7	C70-C72
Thyroid	13	69.2	0.0	46	69.6	0.0	C73
Adrenal gland	0	0.0	0.0	2	0.0	50.0	C74
Other endocrine	1	0.0	100.0	1	0.0	0.0	C75
Hodgkin disease	3	100.0	0.0	0	0.0	0.0	C81
Non-Hodgkin lymphoma	50	100.0	0.0	42	100.0	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	6	100.0	0.0	4	100.0	0.0	C90
Leukemia	21	100.0	0.0	19	100.0	0.0	C91-C95
Myelodysplastic	6	100.0	0.0	11	100.0	0.0	D45-D47
Other and unspecified	78	15.4	34.6	74	10.8	21.6	O&U
All sites	**1,538**	**49.5**	**9.7**	**1,652**	**60.7**	**5.8**	**All**

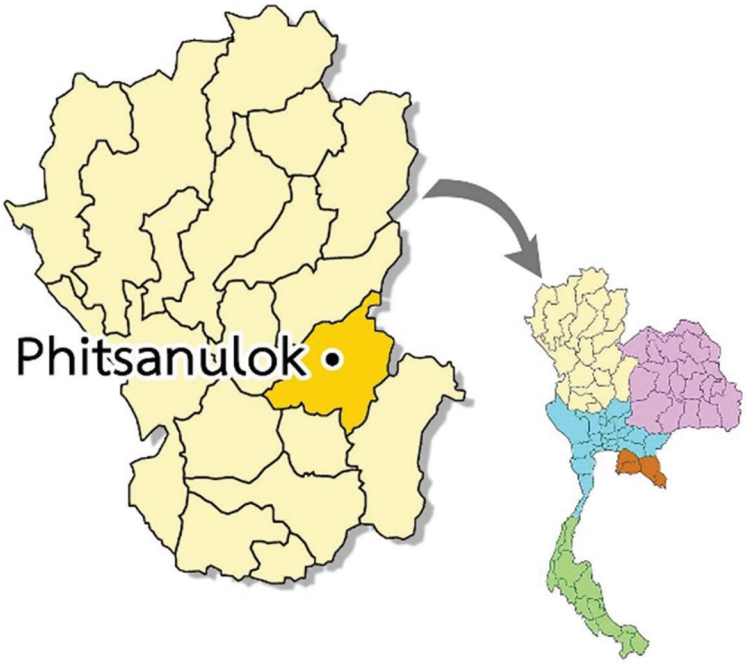
Phitsanulok Cancer Registry

Registration area

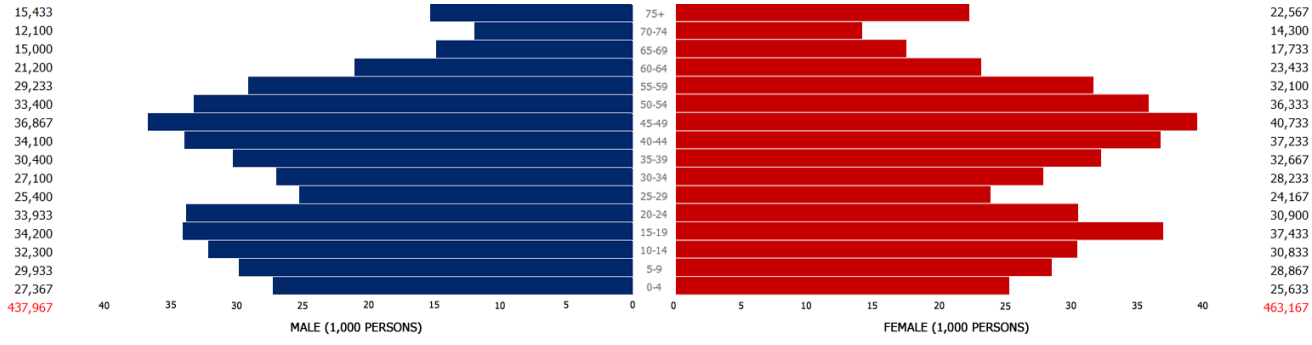
Phitsanulok is in the lower part of Northern Thailand with the land area of 10,815.8 square kilometers. It is located between 16.5°-17.5° N and 100°-101° E. Phitsanulok has common boundary with Uttradit and Loa People's Democratic Republic in the north, Loei and Phetchabun in the east, Phichit, and Kamphaeng Phet in the south and Sukhothai in the west. Phitsanulok population based cancer registry covers the population of 9 districts.

The total population in 2010 (housing census by National Statistics Office, Thailand) was 912,827 with 445,505 males and 467,322 females. The average population density is about 78.9 persons per square kilometer (National Statistics Office, Thailand, 2012).

The most important occupations are farming of rice, corn and cassava. In addition, other occupations are commercial, fishery, mineral resources and industry.



Population pyramid, Phitsanulok
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The total number of hospitals in Phitsanulok province was 18 hospitals composed of 1 provincial hospital, 9 community hospitals, 6 private hospitals, 1 military hospital and 1 university hospital. Cancer diagnostic services including radiological (X-ray, ultrasound, CT Scan and mammography), pathological investigations and cancer surgery services are available in Phitsanulok provincial hospital. Cancer diagnostic and cancer chemotherapy are provided in Phitsanulok provincial hospital but cancer radiotherapy equipments are available in only private hospital. Most of the cancer patients were diagnosed and treated in the province. Only few patients referred to Lampang Cancer Center, Chiang Mai University hospital and Bangkok for cancer diagnosis or cancer treatment. All hospitals in the province provide palliative care. The ratio of doctors to population is 1:1,443.The ratio between registered nurses to population is 1:404. (Ministry of public Health, 2012)

Registry procedures

Population-based cancer registration of Phitsanulok province was established by Cancer Registry Unit of Lampang Cancer Hospital in 2004. All data on cancer patients were collected by passive methods with notification by the staff of Phitsanulok provincial hospital, 5 private hospitals, two military hospitals, one university hospital and 8 community hospitals which under supervision of Phitsanulok Provincial Public Health Service. Including notified some information from Cancer Registry Unit of Chiang Mai University Hospital and Lampang Cancer Hospital. New cancer cases were collected from out and in patient departments, medical record, radiotherapy unit, surgery unit, cytology unit, hematology unit, pathological unit and autopsy service. The data information collected includes demographic details for each cancer patient that consists of registry number, name, residential address, date of birth, age, sex, date of diagnosis, site of cancer, histology of cancer, staging, extension of disease, method of diagnosis, treatment, date of last contact and vital status of cancer patients. Information of deaths from all causes of death collected from Bureau of Health Policy and Strategy, Ministry of Public Health. The follow-up of all registered cases were carried out by passive methods with linking database of National Health Security office.

The primary site and histology were coded according to ICD-O third edition (*Fritzet al*., 2000). Second primary cancer was also registered; a new registration number was given for each new primary cancer. All death certificates are matched with the incidence case records of the registry. Death certificates were obtained from Bureau of Policy and Strategy, Ministry of Public Health.

The completed data forms were checked manually, and entered into the database file in a personal computer at Cancer Registry Unit of Lampang Cancer Hospital, using Canreg 4 software for data entry and analysis. Cases of carcinoma in situ were registered but not included in the analysis

Summary of Results

New cases registered in 2011,729 were males and 802 were females, making 1,531 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 122.2 per 100,000, with liver and bile duct cancer ranking first (ASR = 24.0) followed by lung (ASR = 17.9) and colon and rectum (ASR = 13.0). The ASR of all cancer sites in females was 121.9 per 100,000, the three leading cancer sites being breast (ASR = 27.1), cervix (ASR = 11.4) and colon and rectum (ASR = 10.2).

Figure 3.4 Leading cancer in Phitsanulok (mean annual ASR 2010-2012)

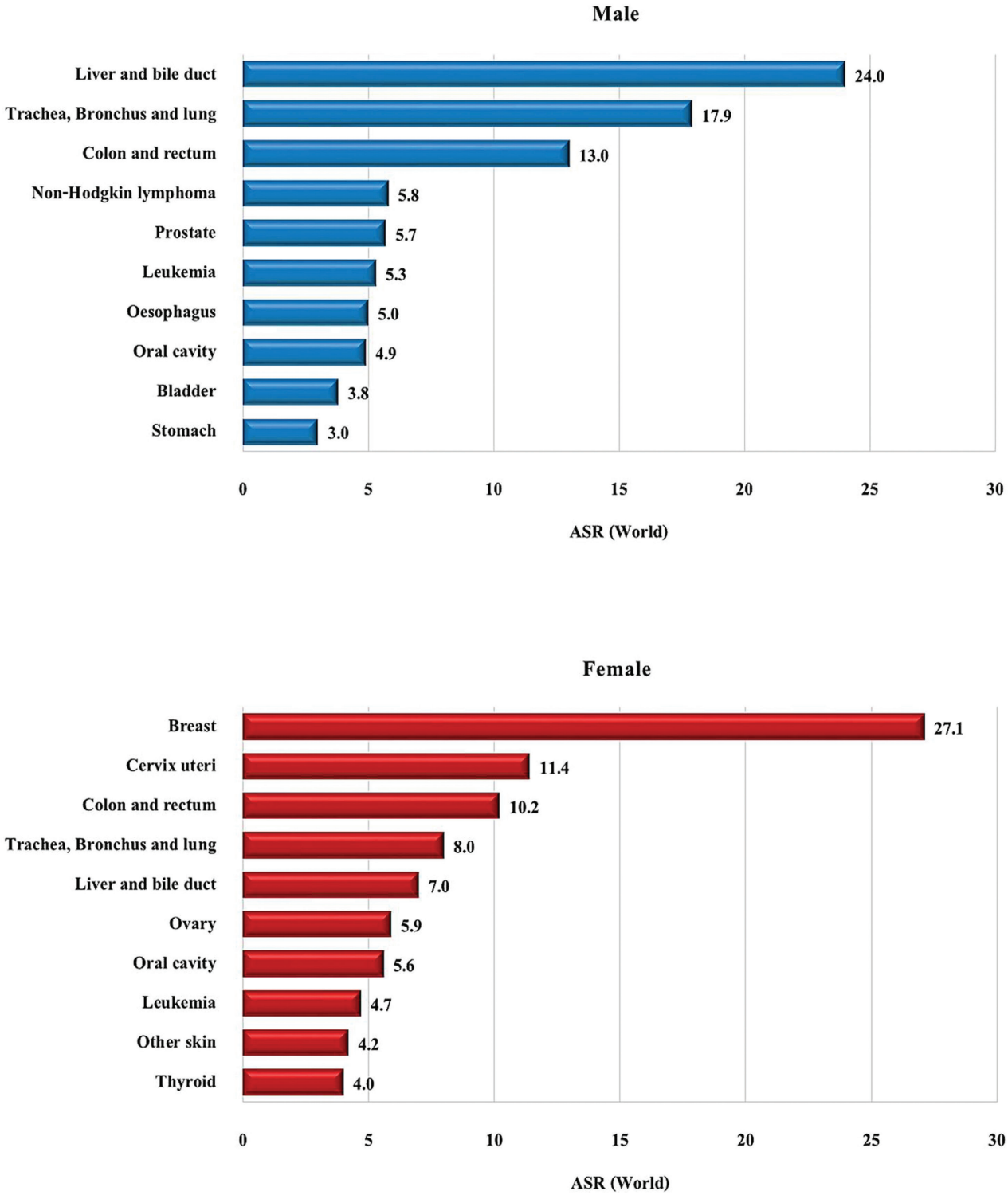


Table 3.4.1 Phitsanulok (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C00
Tongue	11	0.0	0.0	0.0	1.9	0.0	1.3	0.0	1.1	2.9	4.5	4.0	3.4	7.9	6.7	8.3	8.6	2.6	2.0	C01-02
Mouth	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.0	5.4	8.0	6.8	9.4	13.3	2.8	17.3	3.4	2.4	C03-06
Salivary glands	2	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.0	0.0	0.0	2.3	1.6	0.0	2.8	2.2	0.5	0.4	C07-08
Tonsil	6	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	4.5	4.0	2.3	3.1	0.0	2.8	6.5	1.4	1.0	C09
Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	1.0	0.0	1.6	0.0	2.8	0.0	0.4	0.3	C10
Nasopharynx	10	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.2	1.0	4.5	3.0	4.6	6.3	6.7	5.5	8.6	2.3	1.7	C11
Hypopharynx	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.9	3.6	6.0	11.4	4.7	6.7	5.5	2.2	2.5	1.8	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C14
Oesophagus	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	4.9	12.7	14.0	28.5	20.4	11.1	16.5	25.9	7.3	5.0	C15
Stomach	18	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.1	5.9	4.5	9.0	4.6	4.7	17.8	19.3	23.8	4.2	3.0	C16
Small intestine	3	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	6.5	0.6	0.4	C17
Colon	45	0.0	0.0	0.0	0.0	0.0	1.3	0.0	2.2	5.9	9.9	11.0	18.2	26.7	51.1	63.4	51.8	10.2	7.4	C18
Rectum	33	0.0	0.0	0.0	0.0	1.0	0.0	3.7	3.3	5.9	3.6	12.0	10.3	26.7	28.9	46.8	30.2	7.5	5.6	C19-20
Anus	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.1	0.0	C21
Liver and bile duct	146	0.0	1.1	0.0	0.0	0.0	3.9	9.8	15.4	25.4	48.8	56.9	92.4	103.8	93.3	104.7	101.5	33.3	24.0	C22,C24
Gallbladder	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.6	2.2	5.5	8.6	0.8	0.5	C23
Pancreas	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.7	4.0	3.4	3.1	2.2	22.0	6.5	2.0	1.4	C25
Nose, sinuses etc.	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	2.2	0.0	0.0	0.2	0.1	C30-31
Larynx	14	0.0	1.1	0.0	0.0	1.0	0.0	0.0	0.0	2.0	1.8	3.0	9.1	6.3	6.7	19.3	23.8	3.2	2.2	C32
Trachea, Bronchus and lung	113	0.0	0.0	0.0	0.0	2.0	0.0	3.7	3.3	6.8	14.5	27.9	41.0	72.3	80.0	179.1	207.3	25.7	17.9	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.2	0.1	C37-38
Bone	5	1.2	1.1	1.0	0.0	1.0	0.0	1.2	1.1	0.0	0.9	2.0	2.3	1.6	0.0	2.8	6.5	1.2	1.1	C40-C41
Melanoma of skin	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	1.1	0.0	2.2	2.8	2.2	0.5	0.3	C43
Other skin	16	0.0	0.0	0.0	0.0	1.0	2.6	0.0	1.1	2.0	2.7	3.0	3.4	12.6	6.7	19.3	30.2	3.6	2.6	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.1	0.0	C45
Connective tissue	6	1.2	0.0	0.0	1.0	0.0	0.0	0.0	1.1	0.0	0.9	2.0	3.4	4.7	6.7	5.5	2.2	1.4	1.1	C47,C49
Breast	5	1.2	0.0	0.0	1.9	0.0	0.0	0.0	1.1	1.0	1.8	2.0	1.1	1.6	0.0	2.8	8.6	1.2	1.0	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	7	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	1.0	4.6	11.0	4.4	8.3	6.5	1.6	1.2	C60
Prostate	37	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.7	3.0	9.1	23.6	35.6	46.8	99.4	8.4	5.7	C61
Testis	2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.6	2.2	0.0	2.2	0.4	0.4	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C63
Kidney	9	2.4	0.0	0.0	0.0	0.0	1.3	1.2	0.0	2.0	0.0	4.0	1.1	15.7	4.4	0.0	8.6	2.1	1.8	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	3.0	5.7	12.6	24.4	49.6	51.8	5.4	3.8	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C68
Eye	2	2.4	0.0	0.0	0.0	1.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.5	0.6	C69
Brain, nervous system	11	3.7	0.0	0.0	1.0	1.0	1.3	2.5	1.1	2.0	0.9	3.0	8.0	7.9	2.2	5.5	4.3	2.4	2.1	C70-72
Thyroid	4	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.0	0.9	1.0	2.3	0.0	4.4	2.8	6.5	0.9	0.6	C73
Adrenal gland	2	2.4	1.1	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	C74
Other endocrine	0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C75
Hodgkin disease	2	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.0	0.0	1.6	0.0	0.0	2.2	0.5	0.5	C81
Non-Hodgkin lymphoma	33	0.0	2.2	1.0	1.0	1.0	3.9	2.5	5.5	9.8	12.7	14.0	8.0	14.2	20.0	19.3	28.1	7.5	5.8	C82-85,C96
Multiple myeloma	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	4.0	2.3	0.0	4.4	2.8	0.0	0.8	0.6	C90
Lymphoid leukemia	8	4.9	1.1	1.0	1.0	1.0	1.3	0.0	0.0	1.0	0.0	2.0	2.3	3.1	0.0	13.8	4.3	1.8	1.8	C91
Myeloid leukemia	13	1.2	2.2	0.0	0.0	0.0	0.0	0.0	3.3	1.0	2.7	4.0	2.3	9.4	8.9	22.0	8.6	2.9	2.3	C92-94
Leukemia unspecified	5	3.7	0.0	3.1	0.0	0.0	0.0	1.2	0.0	1.0	0.9	1.0	1.1	0.0	2.2	5.5	2.2	1.1	1.2	C95
Other and unspecified	58	1.2	0.0	1.0	0.0	2.0	2.6	4.9	4.4	2.0	8.1	12.0	26.2	33.0	48.9	68.9	97.2	13.2	9.5	O&U
All sites	**729**	**26.8**	**14.5**	**8.3**	**7.8**	**13.8**	**21.0**	**39.4**	**53.7**	**95.8**	**164.6**	**230.5**	**328.4**	**454.4**	**506.7**	**787.9**	**913.6**	**166.5**	**122.2**	**ALL**

Table 3.4.2 Phitsanulok (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	11	0.0	0.0	0.0	0.9	1.1	0.0	0.0	0.0	0.0	1.6	0.0	2.1	5.7	5.6	2.3	29.5	2.4	1.4	C00
Tongue	10	1.3	0.0	0.0	0.0	0.0	0.0	1.2	3.1	0.0	0.0	2.8	2.1	7.1	5.6	11.7	10.3	2.2	1.5	C01-02
Mouth	16	0.0	0.0	0.0	0.0	1.1	0.0	1.2	0.0	1.8	0.8	0.9	3.1	7.1	7.5	14.0	34.0	3.4	2.0	C03-06
Salivary glands	4	0.0	0.0	0.0	0.9	0.0	0.0	2.4	1.0	0.0	0.0	0.9	2.1	2.8	1.9	0.0	4.4	0.9	0.7	C07-08
Tonsil	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.1	0.1	C09
Other oropharynx	1	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.5	0.2	0.2	C10
Nasopharynx	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.8	3.7	3.1	0.0	0.0	2.3	0.0	0.7	0.5	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	3.8	0.0	0.0	0.2	0.2	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.8	1.0	1.4	1.9	2.3	7.4	0.9	0.5	C15
Stomach	15	0.0	0.0	0.0	0.0	0.0	1.4	2.4	1.0	7.2	6.5	6.4	3.1	4.3	9.4	7.0	7.4	3.3	2.3	C16
Small intestine	3	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	2.8	5.6	0.0	0.0	0.6	0.5	C17
Colon	45	2.6	0.0	0.0	0.0	1.1	4.1	2.4	2.0	6.3	9.8	11.0	14.5	28.4	28.2	35.0	45.8	9.8	6.7	C18
Rectum	24	0.0	0.0	0.0	0.0	0.0	0.0	1.2	3.1	5.4	8.2	5.5	10.4	8.5	15.0	23.3	19.2	5.3	3.4	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C21
Liver and bile duct	49	1.3	0.0	0.0	0.0	0.0	1.4	1.2	1.0	4.5	9.0	11.9	16.6	24.2	47.0	65.3	42.8	10.7	7.0	C22,C24
Gallbladder	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.9	2.1	2.8	5.6	4.7	4.4	1.1	0.7	C23
Pancreas	11	0.0	0.0	0.0	0.9	0.0	0.0	0.0	1.0	1.8	0.8	1.8	3.1	7.1	15.0	7.0	8.9	2.3	1.6	C25
Nose, sinuses etc.	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.5	0.1	0.1	C30-31
Larynx	1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	2.3	1.5	0.3	0.2	C32
Trachea, Bronchus and lung	55	1.3	0.0	0.0	0.9	2.2	1.4	3.5	8.2	9.8	5.7	14.7	21.8	29.9	33.8	44.3	54.7	11.9	8.0	C33-34
Other thoracic organs	0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C37-38
Bone	3	0.0	0.0	1.1	0.9	0.0	2.8	0.0	1.0	0.9	0.0	0.0	0.0	0.0	1.9	4.7	0.0	0.6	0.7	C40-C41
Melanoma of skin	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.0	2.8	3.8	2.3	1.5	0.6	0.4	C43
Other skin	34	0.0	0.0	0.0	0.0	1.1	0.0	0.0	3.1	0.9	0.8	9.2	12.5	14.2	22.6	18.6	63.5	7.3	4.2	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C45
Connective tissue	7	0.0	0.0	0.0	0.9	3.2	0.0	0.0	2.0	0.9	0.8	0.0	5.2	1.4	7.5	2.3	3.0	1.5	1.2	C47,C49
Breast	176	0.0	0.0	2.2	0.9	1.1	12.4	27.2	41.8	58.2	73.6	78.9	83.1	68.3	65.8	46.6	38.4	37.9	27.1	C50
Vulva	2	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.9	1.0	0.0	0.0	0.0	3.0	0.4	0.2	C51
Vagina	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C52
Cervix uteri	77	0.0	0.0	0.0	0.0	3.2	2.8	5.9	13.3	21.5	36.0	30.3	41.5	28.4	30.1	25.6	31.0	16.7	11.4	C53
Corpus uteri	24	0.0	0.0	0.0	0.0	0.0	1.4	0.0	4.1	2.7	6.5	10.1	16.6	15.6	16.9	14.0	4.4	5.2	3.6	C54
Uterus unspecified	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	2.8	3.8	0.0	1.5	0.4	0.3	C55
Ovary	36	0.0	0.0	2.2	1.8	3.2	4.1	8.3	5.1	9.0	11.5	14.7	15.6	17.1	18.8	7.0	7.4	7.7	5.9	C56
Other female genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.1	0.1	C57
Placenta	1	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.2	0.2	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	4	1.3	1.2	0.0	0.0	0.0	0.0	0.0	1.0	0.9	0.0	0.0	1.0	1.4	3.8	4.7	4.4	0.9	0.8	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.1	0.0	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.1	0.0	C66
Bladder	6	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	3.3	1.8	0.0	1.4	0.0	4.7	10.3	1.2	0.7	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.1	0.0	C68
Eye	2	1.3	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.9	0.0	2.8	0.0	2.3	0.0	0.4	0.4	C69
Brain, nervous system	17	3.9	2.3	0.0	0.0	2.2	4.1	0.0	1.0	9.8	1.6	8.3	2.1	7.1	3.8	7.0	7.4	3.6	3.1	C70-72
Thyroid	24	0.0	0.0	1.1	0.9	1.1	6.9	3.5	10.2	8.1	6.5	5.5	7.3	10.0	3.8	14.0	7.4	5.1	4.0	C73
Adrenal gland	2	3.9	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.4	1.9	0.0	0.0	0.5	0.7	C74
Other endocrine	1	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C75
Hodgkin disease	2	1.3	0.0	1.1	0.9	0.0	2.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	C81
Non-Hodgkin lymphoma	25	1.3	0.0	0.0	0.9	3.2	1.4	3.5	3.1	5.4	4.1	8.3	7.3	14.2	15.0	9.3	20.7	5.4	3.9	C82-85,C96
Multiple myeloma	7	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	1.8	2.5	4.6	4.2	1.4	5.6	4.7	1.5	1.6	1.1	C90
Lymphoid leukemia	8	3.9	0.0	1.1	0.9	1.1	2.8	0.0	2.0	0.0	0.8	0.9	0.0	0.0	3.8	2.3	11.8	1.7	1.6	C91
Myeloid leukemia	10	2.6	0.0	0.0	0.9	1.1	2.8	0.0	0.0	0.9	1.6	3.7	3.1	4.3	7.5	7.0	4.4	2.1	1.8	C92-94
Leukemia unspecified	6	1.3	1.2	0.0	0.9	3.2	1.4	1.2	2.0	2.7	0.0	0.9	0.0	1.4	1.9	2.3	3.0	1.4	1.3	C95
Other and unspecified	60	0.0	0.0	1.1	0.9	0.0	4.1	10.6	6.1	9.8	13.9	14.7	16.6	18.5	26.3	74.6	62.0	13.0	8.6	O&U
All sites	**802**	**27.3**	**6.9**	**10.8**	**16.0**	**30.2**	**57.9**	**85.0**	**120.4**	**172.8**	**211.1**	**259.6**	**306.3**	**349.9**	**430.5**	**484.8**	**561.3**	**173.2**	**121.9**	**ALL**

Table 3.4.3 Mean annual incidence, Phitsanulok, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	0	0.0	0.1	0.1	0.0	0.0	11	1.4	2.4	1.4	0.1	0.1	C00
Tongue	11	1.6	2.6	2.0	0.1	0.2	10	1.2	2.2	1.5	0.1	0.2	C01-02
Mouth	15	2.1	3.4	2.4	0.2	0.2	16	2.0	3.4	2.0	0.1	0.2	C03-06
Salivary glands	2	0.3	0.5	0.4	0.0	0.0	4	0.5	0.9	0.7	0.1	0.1	C07-08
Tonsil	6	0.9	1.4	1.0	0.1	0.1	1	0.1	0.1	0.1	0.0	0.0	C09
Other oropharynx	2	0.2	0.4	0.3	0.0	0.0	1	0.1	0.2	0.2	0.0	0.0	C10
Nasopharynx	10	1.4	2.3	1.7	0.1	0.2	3	0.4	0.7	0.5	0.0	0.1	C11
Hypopharynx	11	1.5	2.5	1.8	0.1	0.2	1	0.1	0.2	0.2	0.0	0.0	C12-13
Pharynx unspecified	0	0.0	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	32	4.4	7.3	5.0	0.4	0.6	4	0.5	0.9	0.5	0.0	0.0	C15
Stomach	18	2.5	4.2	3.0	0.2	0.3	15	1.9	3.3	2.3	0.2	0.2	C16
Small intestine	3	0.4	0.6	0.4	0.0	0.0	3	0.3	0.6	0.5	0.0	0.1	C17
Colon	45	6.1	10.2	7.4	0.4	0.9	45	5.7	9.8	6.7	0.4	0.7	C18
Rectum	33	4.5	7.5	5.6	0.3	0.7	24	3.0	5.3	3.4	0.2	0.4	C19-20
Anus	0	0.0	0.1	0.0	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C21
Liver and bile duct	146	20.0	33.3	24.0	1.8	2.8	49	6.1	10.7	7.0	0.4	0.9	C22,C24
Gallbladder	3	0.5	0.8	0.5	0.0	0.1	5	0.6	1.1	0.7	0.0	0.1	C23
Pancreas	9	1.2	2.0	1.4	0.1	0.2	11	1.3	2.3	1.6	0.1	0.2	C25
Nose, sinuses etc.	1	0.1	0.2	0.1	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C30-31
Larynx	14	1.9	3.2	2.2	0.1	0.3	1	0.2	0.3	0.2	0.0	0.0	C32
Trachea, Bronchus and lung	113	15.5	25.7	17.9	0.9	2.2	55	6.9	11.9	8.0	0.5	0.9	C33-34
Other thoracic organs	1	0.1	0.2	0.1	0.0	0.0	0	0.0	0.1	0.1	0.0	0.0	C37-38
Bone	5	0.7	1.2	1.1	0.1	0.1	3	0.4	0.6	0.7	0.0	0.1	C40-C41
Melanoma of skin	2	0.3	0.5	0.3	0.0	0.0	3	0.3	0.6	0.4	0.0	0.1	C43
Other skin	16	2.1	3.6	2.6	0.1	0.3	34	4.2	7.3	4.2	0.2	0.4	C44
Mesothelioma	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.1	0.1	0.0	0.0	C45
Connective tissue	6	0.8	1.4	1.1	0.1	0.1	7	0.9	1.5	1.2	0.1	0.1	C47,C49
Breast	5	0.7	1.2	1.0	0.1	0.1	176	21.9	37.9	27.1	2.2	2.8	C50
Vulva							2	0.2	0.4	0.2	0.0	0.0	C51
Vagina							1	0.1	0.1	0.1	0.0	0.0	C52
Cervix uteri							77	9.6	16.7	11.4	0.9	1.2	C53
Corpus uteri							24	3.0	5.2	3.6	0.3	0.4	C54
Uterus unspecified							2	0.2	0.4	0.3	0.0	0.0	C55
Ovary							36	4.4	7.7	5.9	0.5	0.6	C56
Other female genital organs							1	0.1	0.1	0.1	0.0	0.0	C57
Placenta							1	0.1	0.2	0.2	0.0	0.0	C58
Penis	7	1.0	1.6	1.2	0.1	0.2							C60
Prostate	37	5.0	8.4	5.7	0.2	0.6							C61
Testis	2	0.2	0.4	0.4	0.0	0.0							C62
Other male genital organs	0	0.0	0.1	0.0	0.0	0.0							C63
Kidney	9	1.2	2.1	1.8	0.1	0.2	4	0.5	0.9	0.8	0.0	0.1	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.1	0.0	0.0	0.0	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.1	0.0	0.0	0.0	C66
Bladder	24	3.2	5.4	3.8	0.1	0.5	6	0.7	1.2	0.7	0.0	0.1	C67
Other urinary organs	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.1	0.0	0.0	0.0	C68
Eye	2	0.3	0.5	0.6	0.0	0.0	2	0.2	0.4	0.4	0.0	0.0	C69
Brain, nervous system	11	1.5	2.4	2.1	0.2	0.2	17	2.1	3.6	3.1	0.2	0.3	C70-72
Thyroid	4	0.5	0.9	0.6	0.0	0.1	24	2.9	5.1	4.0	0.3	0.4	C73
Adrenal gland	2	0.2	0.4	0.5	0.0	0.0	2	0.3	0.5	0.7	0.0	0.0	C74
Other endocrine	0	0.0	0.1	0.1	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C75
Hodgkin disease	2	0.3	0.5	0.5	0.0	0.0	2	0.2	0.4	0.6	0.0	0.0	C81
Non-Hodgkin lymphoma	33	4.5	7.5	5.8	0.4	0.6	25	3.1	5.4	3.9	0.3	0.4	C82-85,C96
Multiple myeloma	4	0.5	0.8	0.6	0.0	0.1	7	0.9	1.6	1.1	0.1	0.1	C90
Lymphoid leukemia	8	1.1	1.8	1.8	0.1	0.2	8	1.0	1.7	1.6	0.1	0.1	C91
Myeloid leukemia	13	1.7	2.9	2.3	0.1	0.3	10	1.2	2.1	1.8	0.1	0.2	C92-94
Leukemia unspecified	5	0.7	1.1	1.2	0.1	0.1	6	0.8	1.4	1.3	0.1	0.1	C95
Other and unspecified	58	7.9	13.2	9.5	0.5	1.1	60	7.5	13.0	8.6	0.5	1.0	O&U
All sites	**729**	**100.0**	**166.5**	**122.2**	**7.3**	**13.8**	**802**	**100.0**	**173.2**	**121.9**	**8.3**	**12.8**	**ALL**

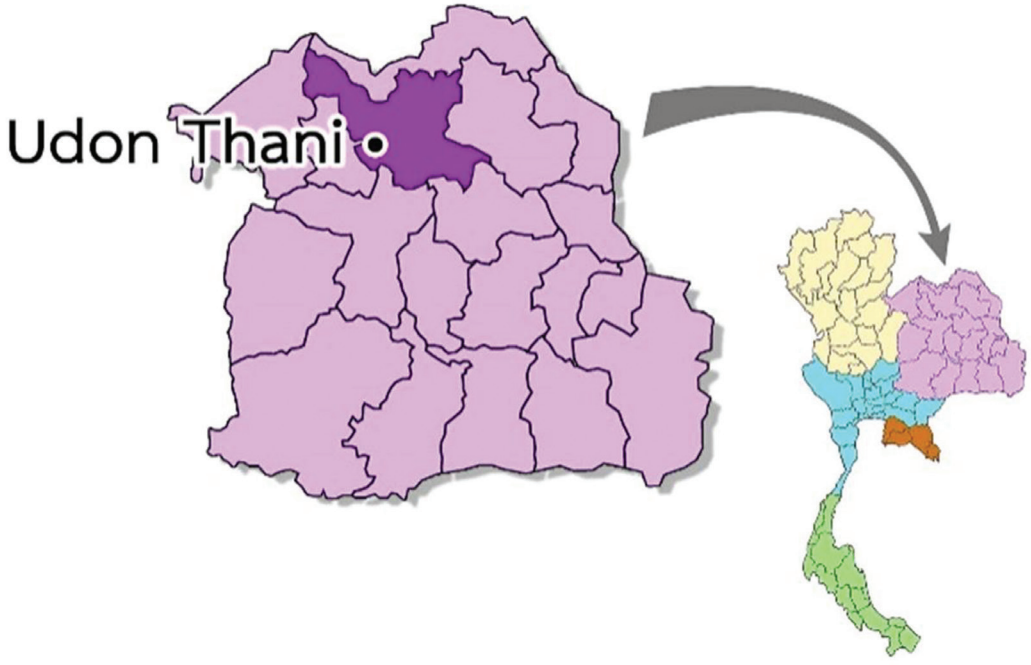
Table 3.4.4 Percentage of morphologically verified and death certificate only cases, Phitsanulok

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	87	81.6	3.4	124	71.0	3.2	C00-C08
Oropharynx	25	76.0	8.0	5	20.0	20.0	C09-C10,C14
Nasopharynx	30	86.7	6.7	10	80.0	0.0	C11
Hypopharynx	33	90.9	0.0	3	100.0	0.0	C12-C13
Esophagus	96	74.0	12.5	12	75.0	25.0	C15
Stomach	55	63.6	20.0	46	67.4	17.4	C16
Small intestine	8	87.5	0.0	8	37.5	12.5	C17
Colon and rectum	234	68.4	4.7	211	64.9	6.2	C18-C21
Liver and bile duct	437	24.3	28.6	148	26.4	26.4	C22,C24
Gallbladder	10	20.0	30.0	15	53.3	13.3	C23
pancrease	26	26.9	3.8	32	31.3	21.9	C25
Nose,sinuses etc	2	100.0	0.0	2	100.0	0.0	C30-C31
Larynx	42	81.0	7.1	4	25.0	0.0	C32
Trachea, brochus and lung	338	56.2	13.0	166	59.0	10.2	C33-C34
Other thoracic organs	2	50.0	50.0	1	100.0	0.0	C37-C38
Bone	16	6.3	12.5	9	0.0	33.3	C40-C41
Melanoma of skin	6	100.0	0.0	8	87.5	0.0	C43
Other skin	47	74.5	2.1	101	85.1	2.0	C44
Mesothelioma	1	100.0	0.0	1	100.0	0.0	C45
Kaposi sarcoma	0		0.0	0	0.0	0.0	C46
Connective and soft tissue	18	55.6	16.7	21	23.8	4.8	C47,C49
Breast	16	12.5	0.0	527	78.7	2.8	C50
Vulva				5	60.0	0.0	C51
Vagina				2	50.0	50.0	C52
Cervix uteri				232	70.3	3.4	C53
Corpus uteri				72	77.8	1.4	C54
Uterus unspecified				6	33.3	33.3	C55
Ovary				107	71.0	5.6	C56
Other female genital organs				2	0.0	0.0	C57
Placenta				3	0.0	0.0	C58
Penis	21	76.2	4.8				C60
Prostate	110	65.5	6.4				C61
Testis	5	40.0	0.0				C62
Other male genital organs	1	0.0	100.0				C63
Kidney	27	63.0	7.4	13	46.2	0.0	C64
Renal pelvis	0	0.0	0.0	1	100.0	0.0	C65
Ureter	0	0.0	0.0	1	0.0	0.0	C66
Bladder	71	78.9	4.2	17	58.8	5.9	C67
Other urinary organs	1	0.0	100.0	1	0.0	0.0	C68
Eye	7	0.0	14.3	6	0.0	0.0	C69
Brain, nervous system	32	34.4	31.3	50	58.0	8.0	C70-C72
Thyroid	12	83.3	0.0	71	73.2	0.0	C73
Adrenal gland	5	0.0	0.0	7	28.6	0.0	C74
Other endocrine	1	0.0	0.0	2	0.0	0.0	C75
Hodgkin disease	7	100.0	0.0	6	100.0	0.0	C81
Non-Hodgkin lymphoma	98	90.8	0.0	75	94.7	0.0	C82-C85,C96
Immunoproliferative diseases	0		0.0	0	0.0	0.0	C88
Multiple myeloma	11	100.0	0.0	22	100.0	0.0	C90
Leukemia	76	100.0	0.0	71	100.0	0.0	C91-C95
Myelodysplastic	0		0.0	0	0.0	0.0	D45-D47
Other and unspecified	173	51.4	24.9	181	45.3	18.2	O&U
All sites	**2,187**	**58.2**	**13.4**	**2,407**	**66.7**	**7.1**	**All**

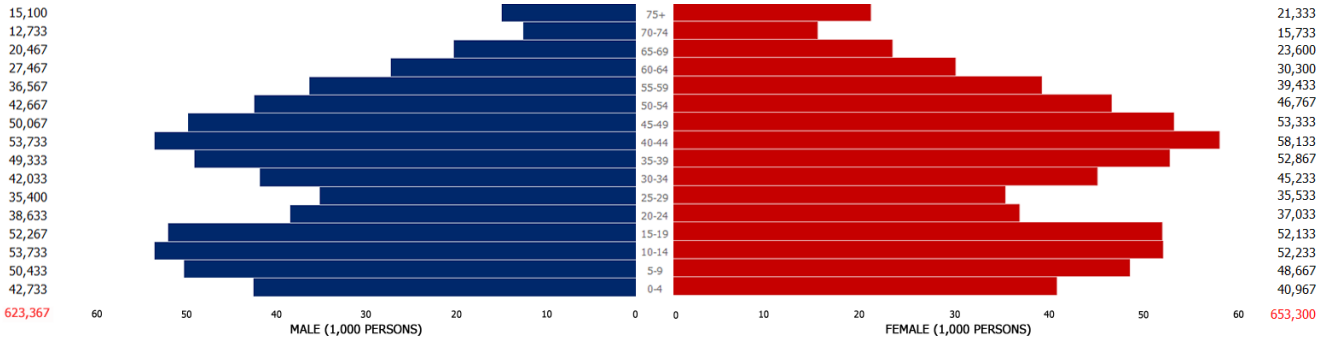
Udon Thani Cancer Registry

Registration area

Udon Thani cancer registry covers the population of Udon Thani province in the northeastern region of Thailand, covering an area of about 11,730 square kilometers. It is located 564 kilometers to the northeast of Bangkok and for administrative purposes is divided into 18 districts and 2 sub-districts. The estimated population in the year 2008 was 1,486,198. About 95% of the population are Buddhists. The remainder are mainly Christians and Moslems.



Population pyramid, Udon Thani
estimated population in 2011 (average 2010-2012)



Cancer care facilities

Community hospitals are provided in all 18 districts of Udon Thani. One cancer center (Udon Thani regional cancer center) is situated in Mueang district which is the center of the province. The Udon Thani provincial hospital and Prajaksilapakom Military Hospital are the other two large hospitals which have facilities for cancer surgery and chemotherapy. The Udon Thani regional cancer center is the only place that provides radiotherapy services in the province. Patients suspected of having cancer in the health care system and community hospitals are referred to the Udon Thani provincial hospital, Udon Thani regional cancer center or Srinagarind hospital, Khon Kaen.

Registry procedures

Udon Thani cancer registry was established in 2002 at the Udon Thani regional cancer center, and is funded by the Thai National Cancer Institute. It provides treatment facilities, training and education for health personals in the upper northeastern part of Thailand. The registry unit has one part - time expert consultant (Dr. Hutcha Sriplung), a part - time doctor, 3 part - time nurses, one computer statistician and 2 full time clerks.

The data registry are actively collected for cancer cases from two large hospitals (Udon Thani provincial hospital and Prajaksilapakom Military Hospital), one cancer center (Udon Thani cancer center) and passively collected from community hospitals, private hospital in Udon Thani, Srinagarind hospital in Khon Kaen and the National Cancer Institute in Bangkok.

The sources of information on cancer cases are mainly hospital and pathology laboratory records. Each completed case notification form is checked for duplication with computer software for Thai names before entering into the database programme, CanReg4.

Death certificates are taken from the Udon Thani Population Analytical Center, all being reviewed to match with the cases in the data base, and efforts are made to trace further information before registering the case as a DCO case.

Summary of results

New cases registered in 2011, 929 were males and 1,086 were females, making 2,015 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 125.4 per 100,000, with liver and bile duct cancer ranking first (ASR = 48.1) followed by lung (ASR = 12.6) and colon and rectum (ASR = 12.1). The ASR of all cancer sites in females was 129.5 per 100,000, the three leading cancer sites being breast (ASR = 27.1), liver and bile duct (ASR = 24.1) and cervix (ASR = 13.8).

Notification

The age-standardized incidence rate (ASR) of all cancer sites in male in this volume, ASR = 125.4 (2010-2012) was decreased compared to the last volume, ASR = 161.8 (2007-2009). Particularly, for liver cancer the ASR was significantly dropped from 73.2 in the last volume to 48.1 in this volume. While the declined can not be entirely explained, it may in part be due to imprecisements in the validity of the liver cancer data: the MV% has increased from 15.8 % to 17.0 % and the DCO% has increased from 8.9 % to 11.9 %.

Figure 3.5 Leading cancer in Udon Thani (mean annual ASR 2010-2012)

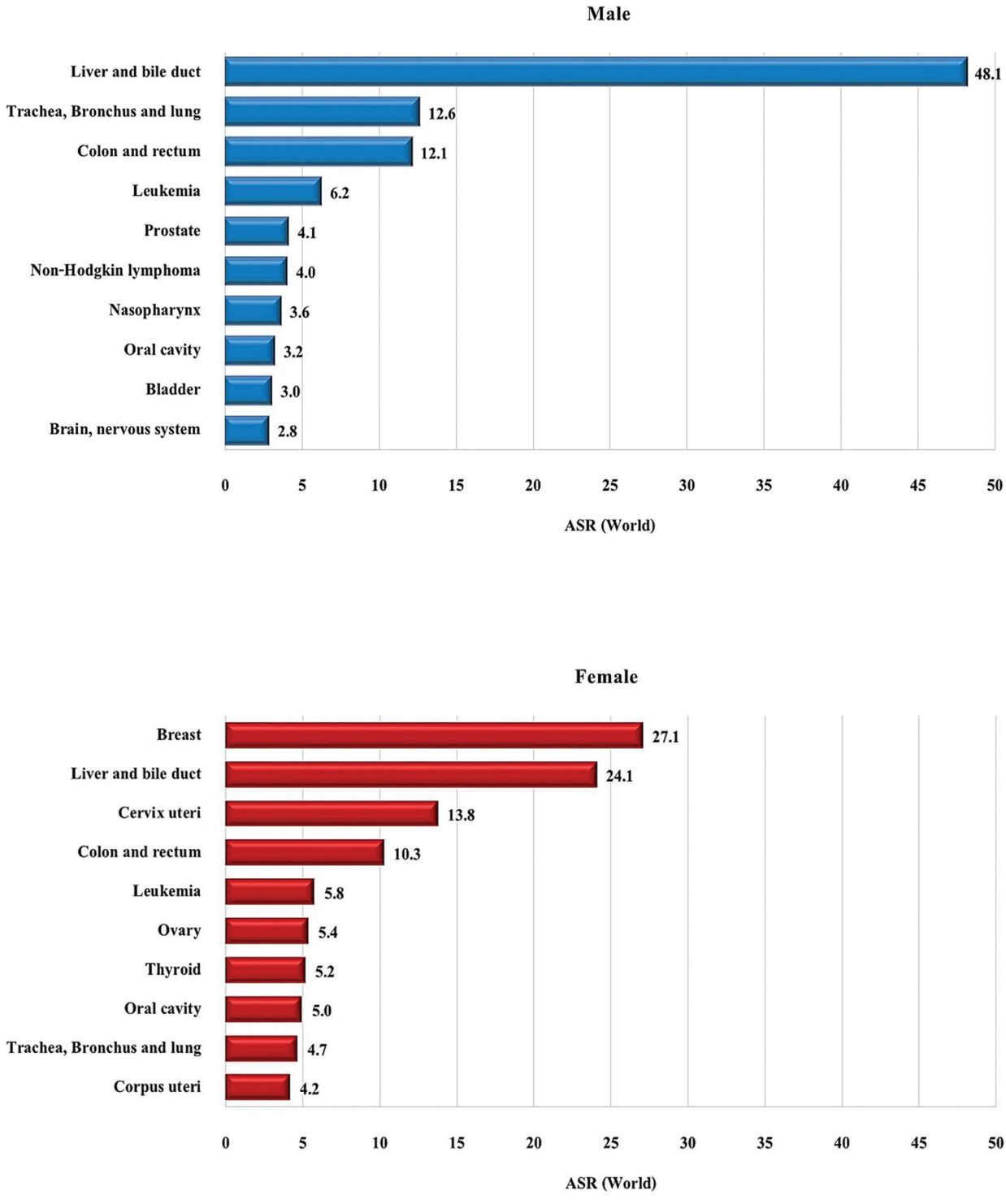


Table 3.5.1 Udon Thani (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.6	6.6	0.3	0.2	C00
Tongue	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.7	3.9	5.5	1.2	4.9	7.9	8.8	1.3	1.1	C01-02
Mouth	9	1.6	0.0	0.6	0.0	1.7	0.0	0.0	0.7	0.0	0.7	4.7	5.5	2.4	3.3	7.9	2.2	1.4	1.3	C03-06
Salivary glands	4	0.0	0.0	0.0	0.0	0.9	0.0	1.6	0.0	0.6	0.0	1.6	1.8	4.9	1.6	0.0	0.0	0.7	0.6	C07-08
Tonsil	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.6	1.3	0.8	0.0	0.0	1.6	2.6	6.6	0.5	0.4	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.6	2.6	0.0	0.2	0.1	C10
Nasopharynx	27	0.0	0.0	0.6	0.0	1.7	2.8	0.0	2.0	1.2	4.7	14.1	9.1	20.6	16.3	2.6	13.2	4.3	3.6	C11
Hypopharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.0	0.9	0.0	3.3	0.0	2.2	0.3	0.3	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C14
Oesophagus	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.8	0.9	4.9	1.6	2.6	6.6	0.7	0.6	C15
Stomach	19	0.0	0.0	0.0	0.0	0.0	0.9	0.8	3.4	3.1	3.3	7.8	7.3	6.1	13.0	15.7	8.8	3.1	2.5	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.4	0.0	0.0	0.8	0.9	0.0	0.0	2.6	0.0	0.3	0.3	C17
Colon	48	0.8	0.0	0.6	0.6	0.0	0.9	3.2	5.4	9.3	6.0	15.6	13.7	23.1	34.2	23.6	44.2	7.7	6.3	C18
Rectum	41	0.0	0.0	0.0	0.0	0.0	0.0	2.4	3.4	5.6	9.3	8.6	11.9	26.7	26.1	41.9	33.1	6.6	5.5	C19-20
Anus	2	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	6.6	0.3	0.3	C21
Liver and bile duct	362	2.3	0.7	0.0	0.0	1.7	9.4	16.7	27.0	44.0	71.2	96.9	137.6	174.8	280.1	295.8	282.6	58.1	48.1	C22,C24
Gallbladder	9	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.7	0.0	0.7	3.1	0.9	6.1	3.3	15.7	4.4	1.4	1.2	C23
Pancreas	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	3.3	1.6	0.9	4.9	4.9	5.2	8.8	1.2	1.0	C25
Nose, sinuses etc.	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.8	1.2	4.9	0.0	2.2	0.4	0.3	C30-31
Larynx	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.2	2.7	3.1	1.8	4.9	9.8	5.2	6.6	1.5	1.2	C32
Trachea, Bronchus and lung	94	0.0	0.0	0.0	0.6	1.7	0.9	0.8	7.4	11.2	17.3	25.0	31.0	58.3	60.3	96.9	77.3	15.1	12.6	C33-34
Other thoracic organs	4	0.0	0.0	0.6	0.0	0.9	0.0	0.0	0.0	0.6	1.3	1.6	0.9	2.4	3.3	0.0	0.0	0.6	0.6	C37-38
Bone	8	0.8	0.7	0.0	3.8	1.7	0.0	0.8	0.7	1.9	1.3	1.6	2.7	0.0	1.6	2.6	2.2	1.3	1.3	C40-C41
Melanoma of skin	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.1	0.1	C43
Other skin	17	0.0	0.0	0.0	0.0	0.0	0.9	0.0	2.7	1.9	6.0	1.6	7.3	6.1	13.0	13.1	15.5	2.8	2.3	C44
Mesothelioma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.2	0.0	0.0	0.0	0.1	0.1	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C46
Connective tissue	7	0.0	0.0	0.0	1.3	0.0	0.9	1.6	0.0	0.6	2.7	0.0	1.8	1.2	6.5	0.0	6.6	1.1	0.9	C47,C49
Breast	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	1.6	0.9	1.2	0.0	0.0	2.2	0.4	0.3	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	10	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.7	1.9	2.0	2.3	4.6	6.1	6.5	5.2	6.6	1.6	1.3	C60
Prostate	30	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.4	1.9	1.3	5.5	6.4	17.0	29.3	41.9	41.9	4.8	4.1	C61
Testis	3	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.7	0.6	0.7	0.8	0.0	0.0	3.3	0.0	4.4	0.5	0.4	C62
Other male genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.6	0.0	0.0	0.1	0.1	C63
Kidney	9	0.0	0.0	0.6	0.0	0.0	0.9	0.0	0.7	1.2	3.3	0.8	6.4	2.4	1.6	10.5	4.4	1.4	1.2	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.9	1.2	0.0	0.0	2.2	0.2	0.2	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.1	0.0	C66
Bladder	23	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.0	1.9	2.7	5.5	11.9	12.1	9.8	23.6	24.3	3.6	3.0	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.1	0.0	C68
Eye	4	2.3	0.7	0.0	0.0	0.0	0.0	0.8	0.7	1.2	0.7	0.0	1.8	0.0	0.0	2.6	2.2	0.7	0.7	C69
Brain, nervous system	19	1.6	0.7	0.0	1.9	5.2	1.9	0.0	2.7	2.5	0.7	8.6	8.2	8.5	1.6	10.5	4.4	3.0	2.8	C70-72
Thyroid	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.3	3.1	0.9	4.9	4.9	10.5	4.4	1.1	1.0	C73
Adrenal gland	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	1.2	0.0	2.6	0.0	0.2	0.1	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C75
Hodgkin disease	1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C81
Non-Hodgkin lymphoma	29	1.6	1.3	1.2	2.6	0.9	1.9	0.8	2.7	7.4	3.3	4.7	9.1	13.3	11.4	13.1	26.5	4.6	4.0	C82-85,C96
Multiple myeloma	5	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.7	0.6	2.0	1.6	3.6	2.4	0.0	0.0	4.4	0.9	0.7	C90
Lymphoid leukemia	6	3.1	2.0	3.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.2	3.3	0.0	0.0	1.0	1.2	C91
Myeloid leukemia	8	0.0	0.0	1.9	0.6	0.9	0.9	0.0	2.0	0.0	2.0	3.9	0.9	1.2	1.6	5.2	6.6	1.3	1.2	C92-94
Leukemia unspecified	26	1.6	1.3	0.6	2.6	2.6	1.9	4.0	2.7	4.3	2.0	3.1	6.4	15.8	6.5	18.3	22.1	4.2	3.8	C95
Myelodysplastic disease	4	0.8	0.0	0.0	0.6	1.7	0.9	0.0	0.0	0.0	0.7	0.8	1.8	1.2	3.3	2.6	0.0	0.7	0.7	D45-D47
Other and unspecified	41	0.0	0.0	0.6	0.6	0.0	0.9	2.4	2.7	3.1	10.0	11.7	8.2	27.9	21.2	49.7	33.1	6.6	5.6	O&U
All sites	**929**	**17.2**	**7.9**	**10.5**	**17.2**	**21.6**	**28.2**	**42.0**	**80.4**	**112.9**	**169.1**	**250.0**	**317.2**	**472.1**	**604.2**	**743.5**	**737.3**	**149.0**	**125.4**	**ALL**

Table 3.5.2 Udon Thani (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.1	1.2	0.7	0.8	2.2	2.8	8.5	7.8	1.0	0.7	C00
Tongue	7	0.0	0.0	0.0	0.6	0.0	0.0	0.7	0.6	2.3	1.2	2.1	0.0	1.1	8.5	2.1	1.6	1.1	0.8	C01-02
Mouth	23	0.8	0.0	0.6	0.0	0.0	0.0	1.5	2.5	2.3	2.5	3.6	5.9	8.8	18.4	8.5	25.0	3.5	2.7	C03-06
Salivary glands	6	0.0	0.7	0.6	0.6	0.9	0.9	0.0	0.0	0.6	2.5	1.4	0.8	1.1	0.0	2.1	3.1	0.9	0.8	C07-08
Tonsil	0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C09
Other oropharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	12	0.0	0.0	0.0	0.0	0.9	0.0	0.7	2.5	1.7	1.9	4.3	5.1	7.7	2.8	8.5	0.0	1.9	1.5	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	1.4	0.0	0.0	0.1	0.1	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.1	0.1	C14
Oesophagus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.7	0.0	0.0	1.4	0.0	1.6	0.3	0.2	C15
Stomach	10	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	2.3	1.9	2.9	3.4	1.1	9.9	8.5	3.1	1.6	1.3	C16
Small intestine	2	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	2.8	2.1	1.6	0.3	0.2	C17
Colon	56	0.0	0.0	0.0	0.6	1.8	1.9	1.5	3.2	6.9	10.6	18.5	16.9	17.6	29.7	46.6	34.4	8.6	6.5	C18
Rectum	30	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.6	4.0	3.7	7.1	14.4	11.0	15.5	25.4	23.4	4.6	3.5	C19-20
Anus	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.2	0.7	0.0	0.0	2.8	0.0	1.6	0.4	0.3	C21
Liver and bile duct	208	0.8	0.0	0.6	0.0	0.0	5.6	11.1	10.7	26.4	31.2	44.9	84.5	91.3	134.2	148.3	121.9	31.9	24.1	C22,C24
Gallbladder	9	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.6	1.9	0.0	6.8	5.5	2.8	2.1	9.4	1.4	1.0	C23
Pancreas	5	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.6	0.6	1.2	0.0	0.8	0.0	2.8	10.6	3.1	0.8	0.6	C25
Nose, sinuses etc.	3	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.6	1.1	0.6	0.0	0.0	1.1	1.4	2.1	1.6	0.5	0.4	C30-31
Larynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.0	0.0	0.0	0.0	0.1	0.1	C32
Trachea, Bronchus and lung	42	0.0	0.0	0.0	0.0	0.0	0.9	2.2	1.3	4.6	8.8	10.0	16.1	24.2	14.1	21.2	34.4	6.4	4.7	C33-34
Other thoracic organs	2	0.8	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1.7	0.0	1.4	2.1	1.6	0.4	0.4	C37-38
Bone	8	0.0	1.4	1.3	1.3	2.7	1.9	0.0	1.9	0.0	1.2	0.7	0.8	1.1	1.4	0.0	4.7	1.2	1.2	C40-C41
Melanoma of skin	4	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.3	0.6	0.6	0.0	0.0	3.3	1.4	0.0	4.7	0.6	0.5	C43
Other skin	26	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3	2.3	5.0	5.0	8.5	13.2	8.5	33.9	20.3	4.0	3.0	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	9	0.0	0.7	0.0	0.0	0.0	0.0	0.7	0.0	1.1	2.5	2.9	3.4	1.1	1.4	4.2	9.4	1.3	1.0	C47,C49
Breast	234	0.0	0.0	0.0	1.3	4.5	10.3	14.0	27.1	33.8	63.8	63.4	82.8	100.1	91.8	105.9	107.8	35.9	27.1	C50
Vulva	4	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	1.2	0.7	0.0	1.1	2.8	2.1	4.7	0.6	0.4	C51
Vagina	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.8	2.2	0.0	0.0	0.0	0.2	0.2	C52
Cervix uteri	118	0.0	0.0	0.6	1.3	3.6	4.7	6.6	15.1	22.4	17.5	23.5	40.6	53.9	62.1	69.9	54.7	18.1	13.8	C53
Corpus uteri	35	0.0	0.0	0.0	0.6	0.0	1.9	1.5	0.0	2.9	9.4	12.1	12.7	20.9	22.6	12.7	12.5	5.4	4.2	C54
Uterus unspecified	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	2.1	1.6	0.3	0.2	C55
Ovary	44	0.0	0.7	0.6	3.2	4.5	2.8	4.4	5.0	4.0	8.1	13.5	12.7	12.1	16.9	27.5	18.8	6.7	5.4	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C57
Placenta	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.8	0.0	0.0	0.0	1.6	0.2	0.1	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	5	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	3.6	2.5	2.2	1.4	2.1	3.1	0.8	0.6	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.0	0.8	0.0	0.0	0.0	1.6	0.2	0.1	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	2	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.6	0.7	0.8	1.1	1.4	0.0	0.0	0.3	0.2	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.1	0.0	C68
Eye	4	0.8	0.0	0.6	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.4	1.7	1.1	2.8	0.0	1.6	0.6	0.5	C69
Brain, nervous system	15	0.8	2.1	2.6	1.3	1.8	2.8	1.5	0.6	0.6	2.5	0.7	4.2	4.4	2.8	6.4	10.9	2.3	2.1	C70-72
Thyroid	41	0.0	0.0	0.0	0.6	4.5	8.4	7.4	5.0	5.2	6.2	12.8	11.0	9.9	9.9	23.3	20.3	6.3	5.2	C73
Adrenal gland	1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.1	0.1	C74
Other endocrine	1	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C75
Hodgkin disease	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C81
Non-Hodgkin lymphoma	20	0.8	0.0	0.0	1.3	0.0	0.0	2.9	2.5	4.0	5.6	6.4	3.4	5.5	8.5	6.4	7.8	3.0	2.3	C82-85,C96
Multiple myeloma	3	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.4	0.0	1.1	1.4	2.1	1.6	0.5	0.4	C90
Lymphoid leukemia	10	4.1	4.8	4.5	1.9	0.0	0.9	0.0	0.0	0.0	0.6	0.7	0.8	1.1	0.0	0.0	3.1	1.5	1.8	C91
Myeloid leukemia	7	2.4	0.0	0.0	0.6	0.9	0.0	0.7	0.6	0.0	0.6	0.7	1.7	3.3	4.2	4.2	3.1	1.1	1.1	C92-94
Leukemia unspecified	21	2.4	2.1	0.6	2.6	2.7	1.9	1.5	1.9	2.3	3.1	7.1	5.9	5.5	2.8	6.4	7.8	3.2	2.9	C95
Myelodysplastic disease	5	1.6	0.0	0.6	0.0	0.0	0.0	1.5	1.9	0.0	1.2	0.7	1.7	0.0	2.8	0.0	1.6	0.8	0.7	D45-D47
Other and unspecified	36	0.0	0.0	0.6	0.0	1.8	0.9	2.2	5.0	4.6	5.0	8.6	9.3	18.7	25.4	19.1	15.6	5.5	4.3	O&U
All sites	**1,086**	**16.3**	**12.3**	**15.3**	**19.2**	**34.2**	**53.5**	**64.8**	**93.9**	**142.2**	**207.5**	**265.1**	**367.7**	**438.9**	**525.4**	**627.1**	**595.3**	**166.3**	**129.5**	**ALL**

Table 3.5.3 Mean annual incidence, Udon Thani, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	0-74	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.R 0-64 (percent)	0-74	
Lip	2	0.2	0.3	0.2	0.0	0.0	7	0.6	1.0	0.7	0.0	0.1	C00
Tongue	8	0.9	1.3	1.1	0.1	0.1	7	0.6	1.1	0.8	0.0	0.1	C01-02
Mouth	9	1.0	1.4	1.3	0.1	0.1	23	2.1	3.5	2.7	0.1	0.3	C03-06
Salivary glands	4	0.5	0.7	0.6	0.1	0.1	6	0.5	0.9	0.8	0.1	0.1	C07-08
Tonsil	3	0.4	0.5	0.4	0.0	0.0	0	0.0	0.1	0.1	0.0	0.0	C09
Other oropharynx	1	0.1	0.2	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	27	2.9	4.3	3.6	0.3	0.4	12	1.1	1.9	1.5	0.1	0.2	C11
Hypopharynx	2	0.2	0.3	0.3	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C12-13
Pharynx unspecified	1	0.1	0.1	0.1	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C14
Oesophagus	5	0.5	0.7	0.6	0.0	0.1	2	0.2	0.3	0.2	0.0	0.0	C15
Stomach	19	2.1	3.1	2.5	0.2	0.3	10	1.0	1.6	1.3	0.1	0.2	C16
Small intestine	2	0.2	0.3	0.3	0.0	0.0	2	0.2	0.3	0.2	0.0	0.0	C17
Colon	48	5.2	7.7	6.3	0.4	0.7	56	5.2	8.6	6.5	0.4	0.8	C18
Rectum	41	4.4	6.6	5.5	0.3	0.7	30	2.8	4.6	3.5	0.2	0.4	C19-20
Anus	2	0.2	0.3	0.3	0.0	0.0	3	0.2	0.4	0.3	0.0	0.0	C21
Liver and bile duct	362	39.0	58.1	48.1	2.9	5.8	208	19.2	31.9	24.1	1.5	2.9	C22,C24
Gallbladder	9	0.9	1.4	1.2	0.1	0.2	9	0.8	1.4	1.0	0.1	0.1	C23
Pancreas	8	0.8	1.2	1.0	0.1	0.1	5	0.5	0.8	0.6	0.0	0.1	C25
Nose, sinuses etc.	3	0.3	0.4	0.3	0.0	0.0	3	0.3	0.5	0.4	0.0	0.0	C30-31
Larynx	9	1.0	1.5	1.2	0.1	0.1	1	0.1	0.1	0.1	0.0	0.0	C32
Trachea, Bronchus and lung	94	10.2	15.1	12.6	0.8	1.6	42	3.8	6.4	4.7	0.3	0.5	C33-34
Other thoracic organs	4	0.4	0.6	0.6	0.0	0.1	2	0.2	0.4	0.4	0.0	0.0	C37-38
Bone	8	0.9	1.3	1.3	0.1	0.1	8	0.7	1.2	1.2	0.1	0.1	C40-C41
Melanoma of skin	1	0.1	0.1	0.1	0.0	0.0	4	0.4	0.6	0.5	0.0	0.0	C43
Other skin	17	1.9	2.8	2.3	0.1	0.3	26	2.4	4.0	3.0	0.2	0.4	C44
Mesothelioma	1	0.1	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	7	0.7	1.1	0.9	0.1	0.1	9	0.8	1.3	1.0	0.1	0.1	C47,C49
Breast	2	0.3	0.4	0.3	0.0	0.0	234	21.6	35.9	27.1	2.0	3.0	C50
Vulva							4	0.3	0.6	0.4	0.0	0.0	C51
Vagina							1	0.1	0.2	0.2	0.0	0.0	C52
Cervix uteri							118	10.9	18.1	13.8	0.9	1.6	C53
Corpus uteri							35	3.3	5.4	4.2	0.3	0.5	C54
Uterus unspecified							2	0.2	0.3	0.2	0.0	0.0	C55
Ovary							44	4.0	6.7	5.4	0.4	0.6	C56
Other female genital organs							0	0.0	0.1	0.0	0.0	0.0	C57
Placenta							1	0.1	0.2	0.1	0.0	0.0	C58
Penis	10	1.1	1.6	1.3	0.1	0.2							C60
Prostate	30	3.2	4.8	4.1	0.2	0.5							C61
Testis	3	0.4	0.5	0.4	0.0	0.0							C62
Other male genital organs	1	0.1	0.1	0.1	0.0	0.0							C63
Kidney	9	1.0	1.4	1.2	0.1	0.1	5	0.5	0.8	0.6	0.0	0.1	C64
Renal pelvis	1	0.1	0.2	0.2	0.0	0.0	1	0.1	0.2	0.1	0.0	0.0	C65
Ureter	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	23	2.4	3.6	3.0	0.2	0.4	2	0.2	0.3	0.2	0.0	0.0	C67
Other urinary organs	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.1	0.0	0.0	0.0	C68
Eye	4	0.5	0.7	0.7	0.0	0.1	4	0.3	0.6	0.5	0.0	0.0	C69
Brain, nervous system	19	2.0	3.0	2.8	0.2	0.3	15	1.4	2.3	2.1	0.1	0.2	C70-72
Thyroid	7	0.8	1.1	1.0	0.1	0.1	41	3.8	6.3	5.2	0.4	0.5	C73
Adrenal gland	1	0.1	0.2	0.1	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C74
Other endocrine	0	0.0	0.1	0.0	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C75
Hodgkin disease	1	0.1	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C81
Non-Hodgkin lymphoma	29	3.1	4.6	4.0	0.3	0.4	20	1.8	3.0	2.3	0.2	0.2	C82-85,C96
Multiple myeloma	5	0.6	0.9	0.7	0.1	0.1	3	0.3	0.5	0.4	0.0	0.0	C90
Lymphoid leukemia	6	0.6	1.0	1.2	0.1	0.1	10	0.9	1.5	1.8	0.1	0.1	C91
Myeloid leukemia	8	0.9	1.3	1.2	0.1	0.1	7	0.6	1.1	1.1	0.1	0.1	C92-94
Leukemia unspecified	26	2.8	4.2	3.8	0.2	0.4	21	1.9	3.2	2.9	0.2	0.2	C95
Myelodysplastic disease	4	0.5	0.7	0.7	0.0	0.1	5	0.5	0.8	0.7	0.0	0.1	D45-D47
Other and unspecified	41	4.4	6.6	5.6	0.3	0.7	36	3.3	5.5	4.3	0.3	0.5	O&U
All sites	**929**	**100.0**	**149.0**	**125.4**	**7.7**	**14.5**	**1,086**	**100.0**	**166.3**	**129.5**	**8.7**	**14.4**	**ALL**

Table 3.5.4 Percentage of morphologically verified and death certificate only cases, Udon Thani

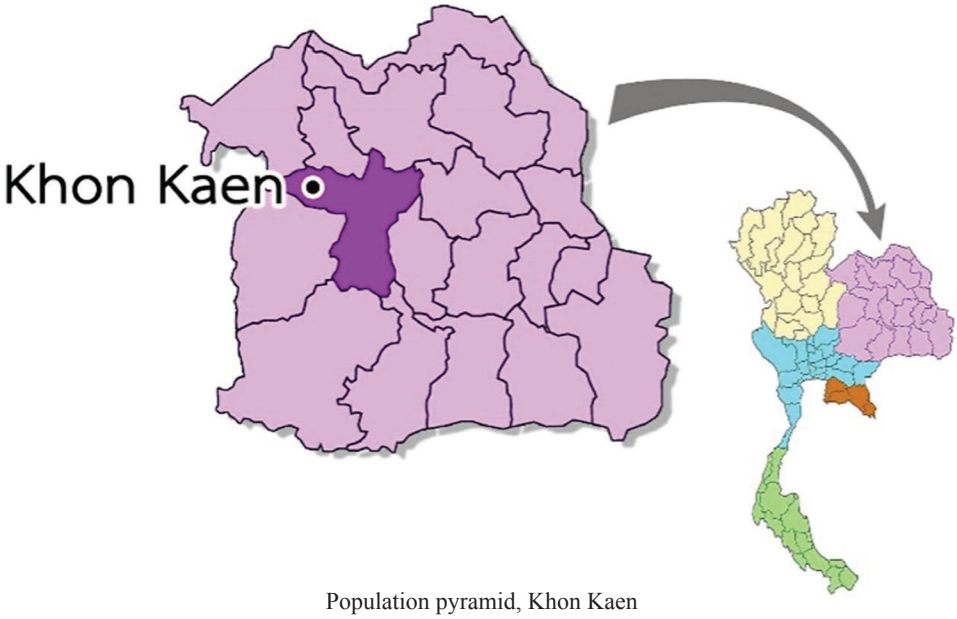
Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	70	72.9	0.0	127	63.8	0.8	C00-C08
Oropharynx	15	80.0	0.0	3	33.3	0.0	C09-C10,C14
Nasopharynx	80	81.3	0.0	37	75.7	2.7	C11
Hypopharynx	6	100.0	0.0	2	100.0	0.0	C12-C13
Esophagus	14	85.7	0.0	5	80.0	0.0	C15
Stomach	58	81.0	1.7	31	58.1	9.7	C16
Small intestine	6	50.0	0.0	6	83.3	16.7	C17
Colon and rectum	273	82.8	0.7	267	85.8	0.0	C18-C21
Liver and bile duct	1,087	17.0	11.9	625	16.5	7.4	C22,C24
Gallbladder	26	42.3	15.4	27	51.9	11.1	C23
pancrease	23	39.1	8.7	15	80.0	0.0	C25
Nose,sinuses etc	8	100.0	0.0	9	44.4	0.0	C30-C31
Larynx	28	75.0	10.7	2	100.0	0.0	C32
Trachea, brochus and lung	283	49.5	10.6	125	49.6	7.2	C33-C34
Other thoracic organs	12	58.3	0.0	7	42.9	0.0	C37-C38
Bone	25	52.0	16.0	23	39.1	8.7	C40-C41
Melanoma of skin	2	100.0	0.0	12	100.0	0.0	C43
Other skin	52	84.6	0.0	79	82.3	0.0	C44
Mesothelioma	2	100.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	1	100.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	20	90.0	0.0	26	96.2	0.0	C47,C49
Breast	7	100.0	0.0	703	91.2	0.9	C50
Vulva				11	90.9	0.0	C51
Vagina				4	75.0	0.0	C52
Cervix uteri				354	95.8	1.1	C53
Corpus uteri				106	96.2	0.0	C54
Uterus unspecified				5	80.0	20.0	C55
Ovary				131	82.4	0.8	C56
Other female genital organs				1	100.0	0.0	C57
Placenta				3	0.0	0.0	C58
Penis	30	76.7	0.0				C60
Prostate	89	83.1	0.0				C61
Testis	10	70.0	0.0				C62
Other male genital organs	2	50.0	0.0				C63
Kidney	27	66.7	0.0	15	73.3	0.0	C64
Renal pelvis	4	75.0	0.0	4	75.0	0.0	C65
Ureter	1	100.0	0.0	0	0.0	0.0	C66
Bladder	68	89.7	0.0	6	100.0	0.0	C67
Other urinary organs	1	100.0	0.0	1	0.0	0.0	C68
Eye	13	46.2	0.0	11	36.4	0.0	C69
Brain, nervous system	57	50.9	5.3	45	62.2	4.4	C70-C72
Thyroid	21	90.5	0.0	123	74.0	0.0	C73
Adrenal gland	3	0.0	0.0	2	50.0	0.0	C74
Other endocrine	1	100.0	0.0	2	100.0	0.0	C75
Hodgkin disease	2	100.0	0.0	0	0.0	0.0	C81
Non-Hodgkin lymphoma	86	100.0	0.0	59	100.0	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	16	100.0	0.0	9	100.0	0.0	C90
Leukemia	121	100.0	0.0	112	100.0	0.0	C91-C95
Myelodysplastic	13	100.0	0.0	16	100.0	0.0	D45-D47
Other and unspecified	124	41.9	22.6	108	38.9	25.0	O&U
All sites	**2,787**	**51.1**	**7.4**	**3,259**	**69.7**	**3.3**	**All**

Khon Kaen Cancer Registry

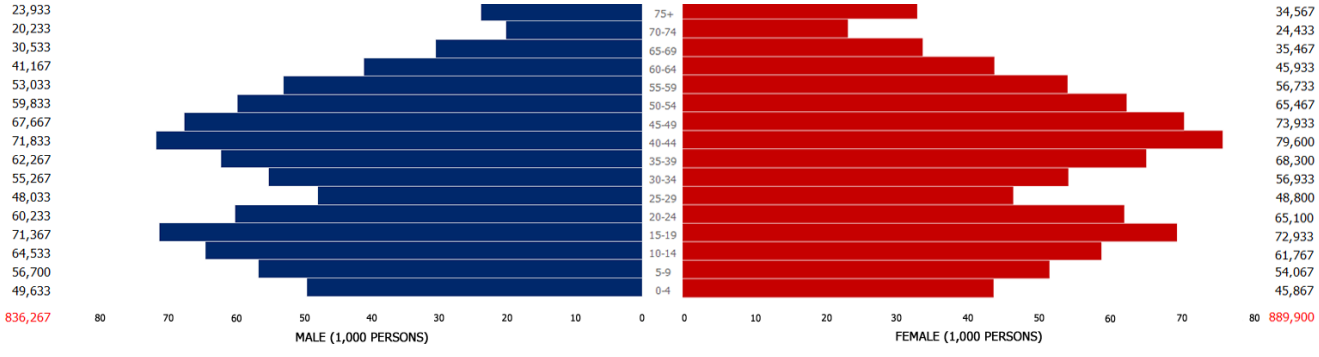
Registration area

Khon Kaen province is located in the northeastern region of Thailand, at latitude 16:30 N and longitude 102:47 E, 163 meters above the sea level. It covers an area of 10,886 square kilometers with a population of 1.7 million (Figure 1). It has a common boundary with Loei and Udon Thani provinces to the north, Kalasin and Maha Sarakham to the east, Nakhon Ratchasima and Buri Ram to the south, and Phetchabun and Chaiyaphum to the west.

Khon Kaen province is divided to 26 sanitary districts. The climate is generally hot and dry. The mean temperature is 28 Celsius and the average annual rainfall is 1,188 millimeters. The majority of people are engaged in rice farming. However, new industrial plants have also been established in this area, causing problems of environmental pollution.



Population pyramid, Khon Kaen
estimated population in 2011 (average 2010-2012)



Cancer care facilities

Most of the public hospitals in Khon Kaen belong to the Ministry of Health; others include a university hospital and an army hospital. There are three large private hospitals. Attempts to improve the referral system have gained some support, but many patients still refer themselves according to their preferences.

Registry procedures

The data on cancer patients are collected by both active and passive methods from a university hospital (Srinagarind hospital), 1 regional hospital (Khon Kaen provincial hospital), 1 army hospital, 2 private hospitals and 24 community hospitals. The registrars visit all registered sites by regular schedule. The medical charts of patients diagnosed as having cancer are reviewed and registered by registry personnel. Any questionable cases are traced to the original source(s) of information for clarification. Multiple primary cases are checked by physicians using their original records and with any other physicians concerned. Death certificates with a mention of cancer are collected from the population statistics of the office of the Ministry of Interior. The registrars revise these sources to notify and recheck with health personnel in the relevant area. The vital status of registered cases has been regularly updated by checking with the population statistics of the office of the Ministry of Interior using the personal identification number. To prevent duplication, all data are reviewed and checked with existing registry files before entry. All the data are verified, checked for duplication, coded and entered into the CanReg4 software.

Summary of results

New cases registered in 2011, 1,583 were males and 1,458 were females, making 3,041 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males is 145.5 per 100,000, with liver and bile duct cancer ranking first (ASR = 53.4) followed by lung (ASR = 20.2) and colon and rectum (ASR = 13.1). The ASR for all cancer sites in females was 117.5 per 100,000, the three leading cancer sites in females being breast (ASR = 23.0), liver and bile duct (ASR = 18.5) and cervix (ASR = 10.4).

Figure 3.6 Leading cancer in Khon Kaen (mean annual ASR 2010-2012)

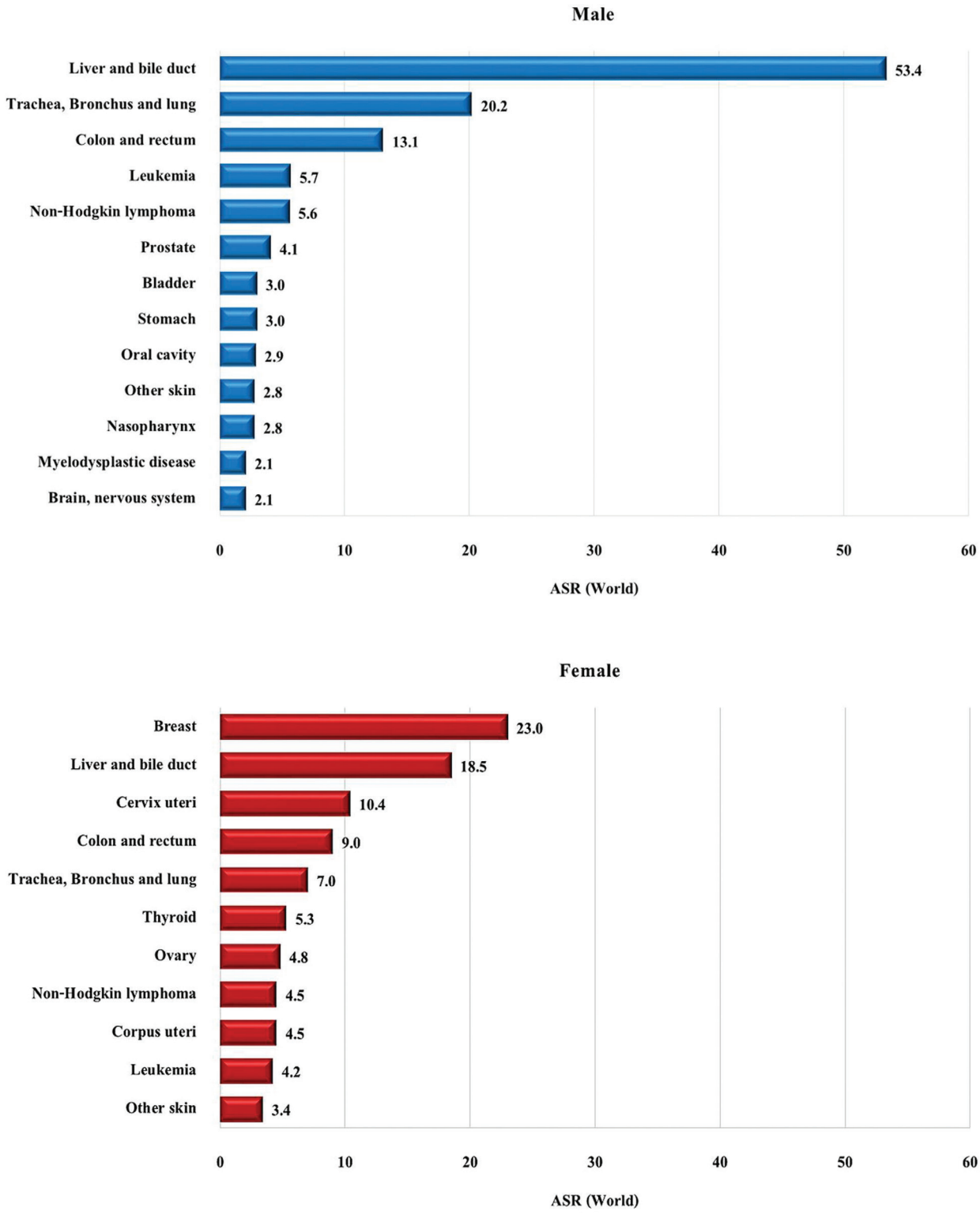


Table 3.6.1 Khon Kaen (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	4.9	7.0	0.4	0.3	C00
Tongue	17	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.1	2.3	2.5	3.3	6.3	4.9	6.6	4.9	7.0	2.0	1.5	C01-02
Mouth	9	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.5	2.8	2.5	3.2	1.1	3.3	8.4	1.0	0.8	C03-06
Salivary glands	3	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.5	0.5	1.1	1.3	0.8	0.0	1.6	0.0	0.4	0.3	C07-08
Tonsil	5	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.1	0.0	1.0	1.7	0.6	0.8	3.3	0.0	2.8	0.6	0.5	C09
Nasopharynx	30	0.0	0.0	0.5	0.9	1.1	1.4	0.6	1.6	2.8	5.4	7.2	7.5	13.0	8.7	4.9	15.3	3.6	2.8	C11
Hypopharynx	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.5	2.8	3.1	2.4	3.3	1.6	5.6	1.0	0.7	C12-13
Pharynx unspecified	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.6	1.6	0.0	0.0	1.4	0.2	0.2	C14
Oesophagus	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	3.0	3.3	4.4	8.9	12.0	1.6	2.8	1.9	1.4	C15
Stomach	33	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.1	2.3	5.4	4.5	8.2	20.2	16.4	16.5	13.9	4.0	3.0	C16
Small intestine	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.0	0.0	1.3	0.8	5.5	3.3	0.0	0.8	0.6	C17
Colon	76	0.0	0.0	0.0	0.5	0.6	0.7	1.8	2.7	5.6	9.9	13.9	17.6	23.5	43.7	39.5	54.3	9.1	6.9	C18
Rectum	66	0.0	0.0	0.0	0.5	0.6	0.7	0.0	1.6	6.0	7.4	13.9	20.1	23.5	27.3	37.9	41.8	7.9	5.9	C19-20
Anus	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.6	0.0	0.0	1.1	3.3	4.2	0.4	0.3	C21
Liver and bile duct	595	0.0	0.0	1.0	0.5	0.6	3.5	7.8	18.7	29.7	68.0	141.5	153.4	228.3	278.4	365.7	376.0	71.2	53.4	C22,C24
Gallbladder	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.2	4.4	4.0	7.6	13.2	12.5	1.6	1.2	C23
Pancreas	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	2.8	1.9	4.9	7.6	4.9	7.0	1.3	1.0	C25
Nose, sinuses etc.	4	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.1	0.5	0.5	0.6	0.0	0.0	0.0	3.3	7.0	0.5	0.4	C30-31
Larynx	16	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.5	1.4	1.0	2.2	5.7	5.7	7.6	9.9	12.5	2.0	1.5	C32
Trachea, Bronchus and lung	224	0.0	0.0	0.0	0.0	0.0	1.4	4.2	6.4	11.1	14.3	27.9	60.3	74.5	131.0	181.2	179.7	26.7	20.2	C33-34
Other thoracic organs	5	0.0	0.0	0.5	0.9	1.1	0.0	0.0	0.5	0.9	0.5	0.0	1.3	1.6	1.1	1.6	1.4	0.6	0.5	C37-38
Bone	9	0.0	0.6	0.0	1.9	0.6	0.0	0.6	0.5	1.4	0.5	1.7	1.3	2.4	2.2	3.3	4.2	1.1	0.9	C40-C41
Melanoma of skin	6	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.5	0.9	0.0	0.0	2.5	0.8	1.1	4.9	8.4	0.8	0.6	C43
Other skin	32	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.1	0.9	2.0	4.5	6.3	10.5	5.5	28.0	46.0	3.8	2.8	C44
Connective tissue	10	0.0	0.0	0.5	0.0	0.0	0.0	0.6	0.5	2.3	2.5	2.2	2.5	2.4	1.1	4.9	1.4	1.2	0.9	C47,C49
Breast	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.6	2.2	0.0	1.4	0.2	0.2	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	17	0.0	0.0	0.0	0.0	0.0	0.0	1.2	2.1	2.3	2.0	1.7	3.1	4.0	3.3	11.5	19.5	2.1	1.5	C60
Prostate	46	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.9	9.7	26.2	51.1	78.0	5.5	4.1	C61
Testis	6	2.0	0.0	0.0	1.4	0.0	2.1	1.8	0.5	0.5	0.0	1.1	1.9	0.0	0.0	0.0	0.0	0.8	0.8	C62
Kidney	17	0.7	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.5	2.0	3.3	6.3	8.9	7.6	9.9	4.2	2.0	1.6	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.1	0.0	1.4	0.2	0.1	C65
Bladder	33	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	2.3	2.0	1.1	5.0	14.6	10.9	37.9	36.2	3.9	3.0	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	C68
Eye	3	1.3	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.6	0.6	0.8	0.0	0.0	2.8	0.3	0.3	C69
Brain, nervous system	20	2.7	1.2	1.0	0.9	0.6	1.4	1.2	1.6	2.3	4.4	3.9	3.1	2.4	5.5	6.6	4.2	2.4	2.1	C70-72
Thyroid	14	0.0	0.0	0.5	0.5	0.6	0.0	0.0	0.0	1.9	1.0	3.9	1.9	3.2	6.6	8.2	11.1	1.7	1.3	C73
Adrenal gland	1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	C74
Other endocrine	2	0.0	0.0	0.0	1.4	0.0	0.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C75
Hodgkin disease	4	0.0	0.0	0.0	0.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.8	2.2	0.0	4.2	0.5	0.4	C81
Non-Hodgkin lymphoma	59	0.7	1.8	0.5	0.9	2.8	4.2	1.8	5.9	6.5	4.4	10.0	20.7	14.6	24.0	21.4	25.1	7.1	5.6	C82-85,C96
Multiple myeloma	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.4	1.0	5.6	5.0	3.2	7.6	11.5	11.1	2.0	1.5	C90
Lymphoid leukemia	16	5.4	2.4	2.1	1.4	0.0	0.7	1.2	1.1	0.9	0.0	1.1	1.9	0.8	5.5	9.9	8.4	2.0	2.1	C91
Myeloid leukemia	29	2.7	1.2	1.0	0.5	0.6	3.5	2.4	3.7	1.9	2.5	3.3	5.0	8.1	16.4	6.6	11.1	3.4	3.1	C92-94
Leukemia unspecified	3	2.0	0.6	0.0	0.5	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.6	0.8	0.0	0.0	1.4	0.4	0.5	C95
Myelodysplastic disease	23	0.0	0.0	0.0	0.0	1.1	0.7	1.2	0.5	0.9	2.5	3.3	3.8	5.7	12.0	8.2	29.2	2.8	2.1	D45-D47
Other and unspecified	66	2.0	0.0	0.0	0.5	1.1	2.1	1.2	2.7	4.6	6.9	13.9	15.7	22.7	24.0	28.0	55.7	7.9	6.1	O&U
All sites	**1,583**	**20.8**	**8.2**	**7.7**	**14.0**	**12.7**	**26.4**	**32.0**	**61.0**	**99.3**	**162.6**	**295.3**	**398.5**	**541.7**	**727.1**	**955.5**	**1125.3**	**189.3**	**145.5**	**ALL**

Table 3.6.2 Khon Kaen (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	0.0	1.5	5.6	15.0	22.2	1.6	1.0	C00
Tongue	10	0.0	0.0	0.0	0.5	0.0	0.0	0.0	1.0	1.3	0.9	1.0	2.4	4.4	1.9	1.4	5.8	1.1	0.7	C01-02
Mouth	15	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.6	5.1	2.8	5.5	26.0	1.6	1.0	C03-06
Salivary glands	5	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.9	1.5	0.6	0.7	2.8	2.7	1.0	0.5	0.4	C07-08
Tonsil	1	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C09
Nasopharynx	11	0.0	0.0	0.5	0.5	0.0	0.7	0.0	2.0	0.4	0.5	3.1	1.2	2.9	6.6	2.7	1.9	1.2	0.9	C11
Hypopharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	1.9	0.2	0.1	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.0	0.9	1.4	0.0	0.1	0.1	C15
Stomach	28	0.0	0.0	0.0	0.0	0.0	0.7	0.6	2.0	2.9	3.6	4.1	8.2	8.7	5.6	10.9	13.5	3.1	2.1	C16
Small intestine	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	1.5	1.9	4.1	1.9	0.4	0.3	C17
Colon	74	0.0	0.0	0.0	0.0	1.5	0.0	1.2	1.0	5.9	8.6	13.2	13.5	20.3	30.1	47.7	37.6	8.4	5.7	C18
Rectum	41	0.0	0.0	0.0	0.0	0.5	1.4	1.2	2.0	3.8	2.3	7.1	10.0	10.9	16.0	16.4	24.1	4.6	3.2	C19-20
Anus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	2.2	0.9	0.0	0.0	0.2	0.1	C21
Liver and bile duct	241	2.2	0.0	0.0	0.0	0.0	1.4	1.2	2.0	6.3	11.7	26.0	49.4	83.5	127.8	159.6	162.0	27.1	18.5	C22,C24
Gallbladder	17	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.0	1.8	1.0	2.9	5.8	8.5	9.5	13.5	1.9	1.3	C23
Pancreas	13	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.0	1.3	1.8	1.0	4.1	4.4	7.5	1.4	4.8	1.5	1.0	C25
Nose, sinuses etc.	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.6	2.2	0.9	1.4	1.0	0.4	0.3	C30-31
Larynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.1	0.0	C32
Trachea, Bronchus and lung	91	0.0	0.0	0.0	0.5	0.5	0.7	1.8	2.9	7.5	11.3	10.2	20.6	23.2	41.4	51.8	48.2	10.3	7.0	C33-34
Other thoracic organs	2	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	1.2	0.7	0.9	0.0	0.0	0.2	0.2	C37-38
Bone	5	0.0	0.0	1.6	0.0	0.5	0.7	0.6	0.0	0.0	0.9	1.0	0.6	0.7	0.0	1.4	1.0	0.5	0.5	C40-C41
Melanoma of skin	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.4	0.9	1.5	0.6	2.9	0.0	2.7	3.9	0.7	0.5	C43
Other skin	47	0.0	0.0	0.5	0.5	0.5	0.7	0.0	0.0	1.7	1.8	6.6	5.3	7.3	20.7	19.1	59.8	5.3	3.4	C44
Connective tissue	8	0.7	0.0	0.0	0.0	0.5	0.0	0.0	1.5	1.3	1.8	1.0	0.6	1.5	2.8	2.7	1.0	0.9	0.7	C47,C49
Breast	288	0.0	0.0	0.0	0.0	0.5	8.2	15.2	20.0	54.4	74.4	70.3	79.9	71.1	53.6	28.6	38.6	32.4	23.0	C50
Vulva	6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.5	1.0	1.8	1.5	5.6	0.0	1.9	0.6	0.4	C51
Vagina	3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.0	0.9	0.5	1.2	0.0	0.9	1.4	1.0	0.4	0.3	C52
Cervix uteri	129	0.0	0.0	0.0	0.0	1.0	2.7	8.2	18.1	20.1	25.7	28.0	29.4	31.9	25.4	34.1	24.1	14.5	10.4	C53
Corpus uteri	56	0.0	0.0	0.0	0.0	0.5	1.4	0.6	1.0	4.6	9.9	12.7	26.4	23.2	12.2	10.9	6.8	6.3	4.5	C54
Uterus unspecified	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.0	0.6	0.7	0.0	1.4	1.9	0.5	0.3	C55
Ovary	57	0.0	1.2	1.1	0.5	1.5	3.4	2.9	5.9	7.1	9.0	11.7	11.2	19.6	11.3	12.3	12.5	6.4	4.8	C56
Other female genital organs	3	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.4	0.5	0.0	0.6	2.2	0.0	0.0	0.0	0.3	0.3	C57
Placenta	1	0.0	0.0	0.0	0.0	0.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Kidney	7	0.7	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.5	0.0	1.2	3.6	4.7	5.5	1.9	0.8	0.7	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C65
Bladder	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.8	1.5	0.9	2.7	9.6	0.7	0.5	C67
Other urinary organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	1.4	0.0	0.1	0.1	C68
Eye	2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.9	0.0	2.9	0.2	0.2	C69
Brain, nervous system	16	4.4	2.5	1.6	0.5	2.0	0.7	1.8	1.5	2.1	2.3	1.5	1.2	2.2	0.0	2.7	2.9	1.8	2.0	C70-72
Thyroid	59	0.0	0.0	0.0	2.7	3.1	9.6	7.6	7.8	7.5	9.0	12.2	10.0	11.6	10.3	8.2	10.6	6.7	5.3	C73
Adrenal gland	1	1.5	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.1	0.2	C74
Other endocrine	0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	C75
Hodgkin disease	2	0.0	0.0	0.0	0.5	0.5	0.7	0.0	0.5	0.0	0.0	0.5	0.6	0.0	0.9	0.0	0.0	0.3	0.2	C81
Non-Hodgkin lymphoma	54	0.0	0.0	2.2	1.4	1.5	4.1	1.2	3.4	3.8	5.4	6.1	11.8	15.2	18.8	21.8	25.1	6.0	4.5	C82-85,C96
Multiple myeloma	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	2.5	2.9	2.9	4.7	8.2	3.9	1.2	0.8	C90
Lymphoid leukemia	8	5.1	0.6	2.2	0.9	0.5	0.0	1.2	1.0	0.0	0.9	0.5	0.0	0.7	0.0	0.0	1.9	0.9	1.3	C91
Myeloid leukemia	27	2.2	1.2	0.0	0.9	2.0	2.0	3.5	2.0	4.2	4.5	0.5	7.6	5.1	3.8	5.5	7.7	3.0	2.6	C92-94
Leukemia unspecified	4	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.9	0.5	0.6	0.7	1.9	0.0	2.9	0.4	0.3	C95
Myelodysplastic disease	19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	1.0	2.4	6.5	12.2	17.7	11.6	2.1	1.5	D45-D47
Other and unspecified	50	0.7	0.0	0.5	0.0	0.0	0.7	0.6	3.4	1.3	5.0	5.6	9.4	15.2	18.8	25.9	36.6	5.6	3.9	O&U
All sites	**1,458**	**18.9**	**6.2**	**10.8**	**9.1**	**19.5**	**42.3**	**53.3**	**81.5**	**142.8**	**203.3**	**237.8**	**324.9**	**407.8**	**473.7**	**545.7**	**637.4**	**163.8**	**117.5**	**ALL**

Table 3.6.3 Mean annual incidence, Khon Kaen, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	3	0.2	0.4	0.3	0.0	0.0	15	1.0	1.6	1.0	0.0	0.1	C00
Tongue	17	1.1	2.0	1.5	0.1	0.2	10	0.7	1.1	0.7	0.1	0.1	C01-02
Mouth	9	0.5	1.0	0.8	0.1	0.1	15	1.0	1.6	1.0	0.0	0.1	C03-06
Salivary glands	3	0.2	0.4	0.3	0.0	0.0	5	0.3	0.5	0.4	0.0	0.0	C07-08
Tonsil	5	0.3	0.6	0.5	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C09
Nasopharynx	30	1.9	3.6	2.8	0.2	0.3	11	0.7	1.2	0.9	0.1	0.1	C11
Hypopharynx	9	0.5	1.0	0.7	0.1	0.1	2	0.1	0.2	0.1	0.0	0.0	C12-13
Pharynx unspecified	2	0.1	0.2	0.2	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	16	1.0	1.9	1.4	0.1	0.2	1	0.1	0.1	0.1	0.0	0.0	C15
Stomach	33	2.1	4.0	3.0	0.2	0.4	28	1.9	3.1	2.1	0.2	0.2	C16
Small intestine	6	0.4	0.8	0.6	0.0	0.1	4	0.3	0.4	0.3	0.0	0.0	C17
Colon	76	4.8	9.1	6.9	0.4	0.8	74	5.1	8.4	5.7	0.3	0.7	C18
Rectum	66	4.2	7.9	5.9	0.4	0.7	41	2.8	4.6	3.2	0.2	0.4	C19-20
Anus	3	0.2	0.4	0.3	0.0	0.0	2	0.1	0.2	0.1	0.0	0.0	C21
Liver and bile duct	595	37.6	71.2	53.4	3.3	6.5	241	16.5	27.1	18.5	0.9	2.4	C22,C24
Gallbladder	14	0.9	1.6	1.2	0.1	0.2	17	1.2	1.9	1.3	0.1	0.2	C23
Pancreas	11	0.7	1.3	1.0	0.1	0.1	13	0.9	1.5	1.0	0.1	0.1	C25
Nose, sinuses etc.	4	0.3	0.5	0.4	0.0	0.0	3	0.2	0.4	0.3	0.0	0.0	C30-31
Larynx	16	1.0	2.0	1.5	0.1	0.2	1	0.0	0.1	0.0	0.0	0.0	C32
Trachea, Bronchus and lung	224	14.1	26.7	20.2	1.0	2.6	91	6.3	10.3	7.0	0.4	0.9	C33-34
Other thoracic organs	5	0.3	0.6	0.5	0.0	0.1	2	0.1	0.2	0.2	0.0	0.0	C37-38
Bone	9	0.6	1.1	0.9	0.1	0.1	5	0.3	0.5	0.5	0.0	0.0	C40-C41
Melanoma of skin	6	0.4	0.8	0.6	0.0	0.1	6	0.4	0.7	0.5	0.0	0.1	C43
Other skin	32	2.0	3.8	2.8	0.1	0.3	47	3.2	5.3	3.4	0.1	0.3	C44
Connective tissue	10	0.6	1.2	0.9	0.1	0.1	8	0.5	0.9	0.7	0.0	0.1	C47,C49
Breast	2	0.1	0.2	0.2	0.0	0.0	288	19.8	32.4	23.0	2.0	2.4	C50
Vulva							6	0.4	0.6	0.4	0.0	0.1	C51
Vagina							3	0.2	0.4	0.3	0.0	0.0	C52
Cervix uteri							129	8.9	14.5	10.4	0.8	1.1	C53
Corpus uteri							56	3.9	6.3	4.5	0.4	0.5	C54
Uterus unspecified							4	0.3	0.5	0.3	0.0	0.0	C55
Ovary							57	3.9	6.4	4.8	0.4	0.5	C56
Other female genital organs							3	0.2	0.3	0.3	0.0	0.0	C57
Placenta							1	0.1	0.1	0.2	0.0	0.0	C58
Penis	17	1.1	2.1	1.5	0.1	0.2							C60
Prostate	46	2.9	5.5	4.1	0.1	0.5							C61
Testis	6	0.4	0.8	0.8	0.1	0.1							C62
Kidney	17	1.1	2.0	1.6	0.1	0.2	7	0.5	0.8	0.7	0.0	0.1	C64
Renal pelvis	1	0.1	0.2	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C65
Bladder	33	2.1	3.9	3.0	0.1	0.4	7	0.5	0.7	0.5	0.0	0.0	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	1	0.0	0.1	0.1	0.0	0.0	C68
Eye	3	0.2	0.3	0.3	0.0	0.0	2	0.1	0.2	0.2	0.0	0.0	C69
Brain, nervous system	20	1.2	2.4	2.1	0.1	0.2	16	1.1	1.8	2.0	0.1	0.1	C70-72
Thyroid	14	0.9	1.7	1.3	0.1	0.1	59	4.1	6.7	5.3	0.4	0.5	C73
Adrenal gland	1	0.0	0.1	0.2	0.0	0.0	1	0.1	0.1	0.2	0.0	0.0	C74
Other endocrine	2	0.1	0.2	0.2	0.0	0.0	0	0.0	0.0	0.1	0.0	0.0	C75
Hodgkin disease	4	0.3	0.5	0.4	0.0	0.0	2	0.2	0.3	0.2	0.0	0.0	C81
Non-Hodgkin lymphoma	59	3.7	7.1	5.6	0.4	0.6	54	3.7	6.0	4.5	0.3	0.5	C82-85,C96
Multiple myeloma	17	1.1	2.0	1.5	0.1	0.2	11	0.8	1.2	0.8	0.1	0.1	C90
Lymphoid leukemia	16	1.0	2.0	2.1	0.1	0.2	8	0.6	0.9	1.3	0.1	0.1	C91
Myeloid leukemia	29	1.8	3.4	3.1	0.2	0.3	27	1.9	3.0	2.6	0.2	0.2	C92-94
Leukemia unspecified	3	0.2	0.4	0.5	0.0	0.0	4	0.3	0.4	0.3	0.0	0.0	C95
Myelodysplastic disease	23	1.5	2.8	2.1	0.1	0.2	19	1.3	2.1	1.5	0.1	0.2	D45-D47
Other and unspecified	66	4.1	7.9	6.1	0.4	0.6	50	3.4	5.6	3.9	0.2	0.4	O&U
All sites	**1,583**	**100.0**	**189.3**	**145.5**	**8.4**	**16.8**	**1,458**	**100.0**	**163.8**	**117.5**	**7.8**	**12.9**	**ALL**

Table 3.6.4 Percentage of morphologically verified and death certificate only cases, Khon Kaen

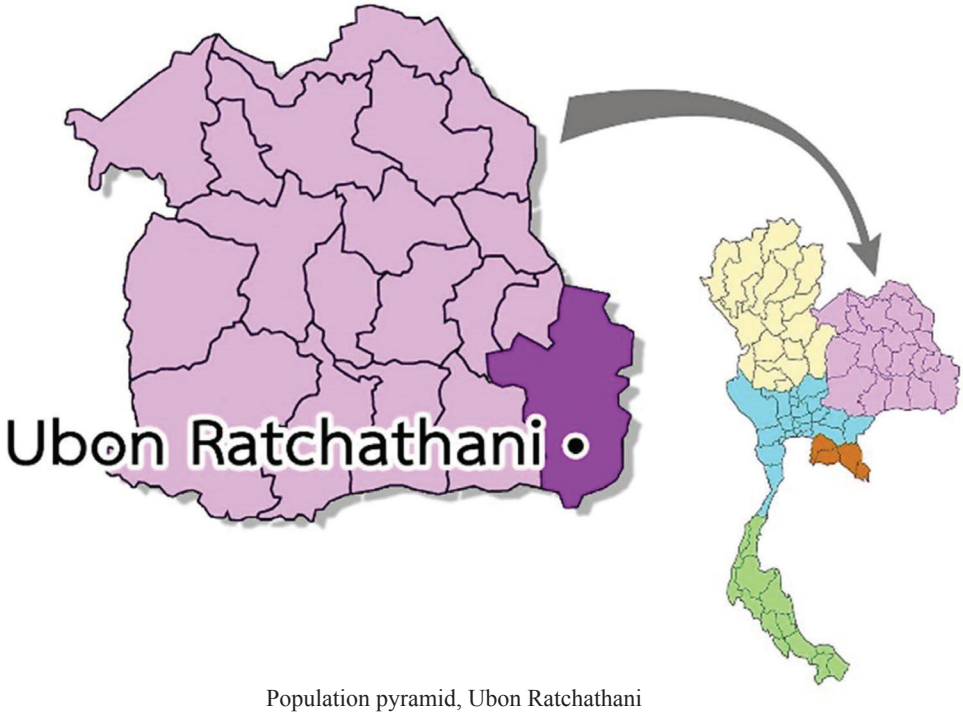
Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	96	95.8	0.0	131	95.4	0.8	C00-C08
Oropharynx	21	95.2	0.0	4	75.0	0.0	C09-C10,C14
Nasopharynx	91	94.5	0.0	32	96.9	0.0	C11
Hypopharynx	26	96.2	0.0	5	100.0	0.0	C12-C13
Esophagus	47	78.7	2.1	4	50.0	0.0	C15
Stomach	100	85.0	2.0	83	78.3	1.2	C16
Small intestine	19	100.0	0.0	11	100.0	0.0	C17
Colon and rectum	436	85.3	0.2	351	85.2	0.3	C18-C21
Liver and bile duct	1,786	9.2	4.9	723	10.7	2.4	C22,C24
Gallbladder	41	53.7	12.2	51	51.0	5.9	C23
pancrease	33	9.1	3.0	39	30.8	0.0	C25
Nose,sinuses etc	13	69.2	0.0	10	90.0	0.0	C30-C31
Larynx	49	89.8	2.0	2	100.0	0.0	C32
Trachea, brochus and lung	671	48.4	3.4	274	58.4	1.5	C33-C34
Other thoracic organs	16	68.8	0.0	6	100.0	0.0	C37-C38
Bone	27	70.4	18.5	14	71.4	7.1	C40-C41
Melanoma of skin	19	100.0	0.0	19	100.0	0.0	C43
Other skin	95	98.9	0.0	142	98.6	0.0	C44
Mesothelioma	0	0.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	0	0.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	29	100.0	0.0	23	95.7	0.0	C47,C49
Breast	6	83.3	0.0	865	94.3	0.2	C50
Vulva				17	94.1	0.0	C51
Vagina				10	80.0	0.0	C52
Cervix uteri				388	93.8	0.5	C53
Corpus uteri				169	98.8	0.0	C54
Uterus unspecified				13	76.9	15.4	C55
Ovary				170	85.3	1.8	C56
Other female genital organs				8	87.5	0.0	C57
Placenta				3	66.7	0.0	C58
Penis	52	94.2	0.0				C60
Prostate	137	75.2	1.5				C61
Testis	19	89.5	0.0				C62
Other male genital organs	0	0.0	0.0				C63
Kidney	51	88.2	0.0	22	81.8	4.5	C64
Renal pelvis	4	75.0	0.0	0	0.0	0.0	C65
Ureter	0	0.0	0.0	0	0.0	0.0	C66
Bladder	98	86.7	0.0	20	85.0	0.0	C67
Other urinary organs	1	0.0	100.0	2	100.0	0.0	C68
Eye	8	87.5	0.0	6	50.0	0.0	C69
Brain, nervous system	59	62.7	8.5	48	60.4	4.2	C70-C72
Thyroid	42	92.9	0.0	178	96.6	0.0	C73
Adrenal gland	2	100.0	0.0	4	50.0	0.0	C74
Other endocrine	5	100.0	0.0	1	100.0	0.0	C75
Hodgkin disease	12	100.0	0.0	7	100.0	0.0	C81
Non-Hodgkin lymphoma	177	99.4	0.0	161	99.4	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	50	100.0	0.0	33	97.0	0.0	C90
Leukemia	145	100.0	0.0	117	95.7	0.0	C91-C95
Myelodysplastic	69	100.0	0.0	57	98.2	0.0	D45-D47
Other and unspecified	197	43.7	13.7	150	44.7	8.7	O&U
All sites	**4,749**	**50.7**	**3.4**	**4,373**	**74.0**	**1.2**	**All**

Ubon Ratchathani Cancer Registry

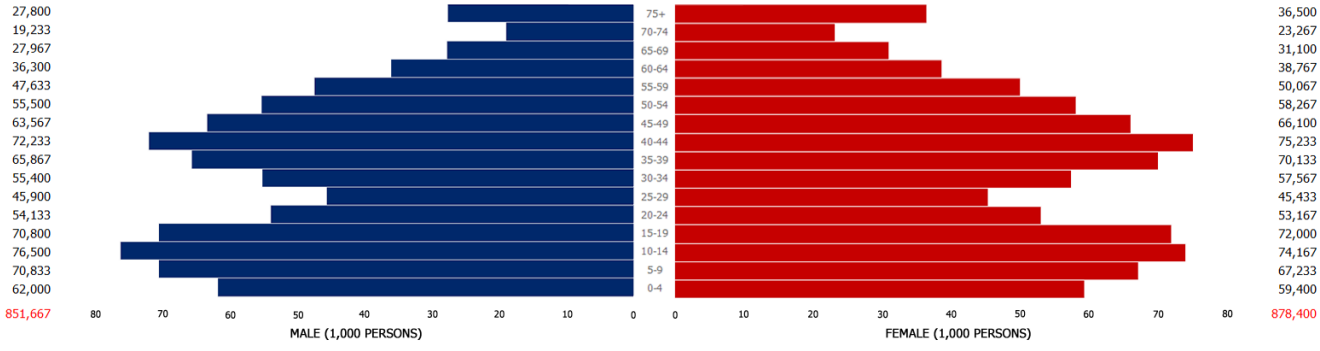
Registration area

Ubon Ratchathani is one of the northeasternprovinces of Thailand, and the country's easternmost. It covers an area of 15,745 square kilometers. It's about 600 kilometers away from Bangkok. Neighboring Provinces are (from west clockwise) Si Sa Ket, Yasothon and Amnat Charoen. To the north and east it borders Laos, to the south is Cambodia. The province is subdivided into 25 districts, subdivided into 219 sub-districts and 2,469 villages.

There were 1,816,057 people in the year 2011. Most are engaged in activities related to agriculture. They usually dwell in groups of houses, speaking their own dialects.



Population pyramid, Ubon Ratchathani
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The cancer care facilities in community hospitals (district hospitals) are limited to screening, provisional diagnosis and some palliative treatment. Most of the cancer patients and suspected cancer patients are referred to Sappasitthiprasong hospital (regional hospital) or Ubon Ratchathani cancer hospitals.The Ubon Ratchathani cancer committee was established to facilitate the referral system between regional hospitals, the cancer center and community hospitals.Surgery, chemotherapy, radiation and palliative treatment are provided. There are also a military hospital and two private hospitals that can provide surgery and some chemotherapy.

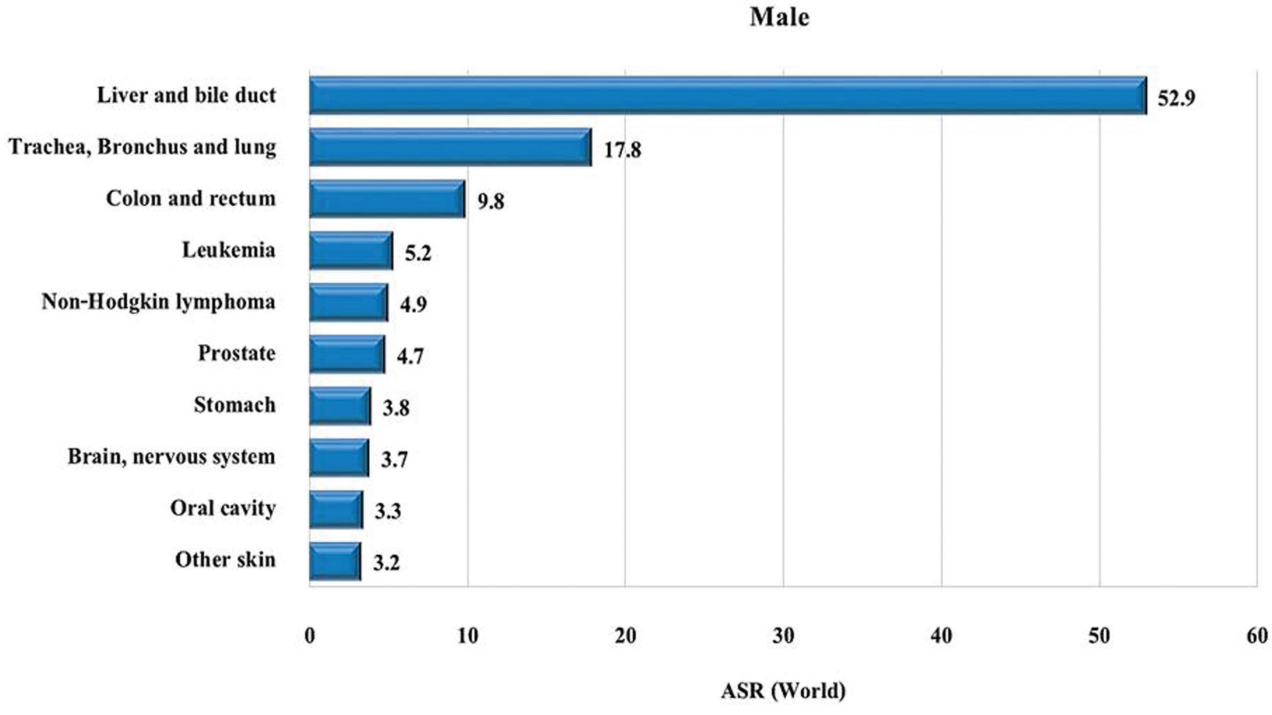
Registry procedures

The population–based cancer registry of Ubon Ratchathani was set up at Ubon Ratchathani cancer hospitals.The sources of data are from all community hospitals, Sappasitthiprasong hospital, Ubon Ratchathani cancer hospitals, the military hospital and the 2 private hospitals.

Summary of results

New cases registered in 2011, 1,533 were males and 1,471 were females, making 3,004 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 145.8 per 100,000, with liver and bile duct cancer ranking first (ASR = 52.9) followed by lung (ASR = 17.8) and colon and rectum (ASR = 9.8). The ASR of all cancer sites in females was 127.6 per 100,000, the three leading cancer sites in females being liver and bile duct (ASR = 23.9), breast (ASR = 17.0) andcervix (ASR = 11.3).

Figure 3.7 Leading cancer in Ubon Ratchathani (mean annual ASR 2010-2012)



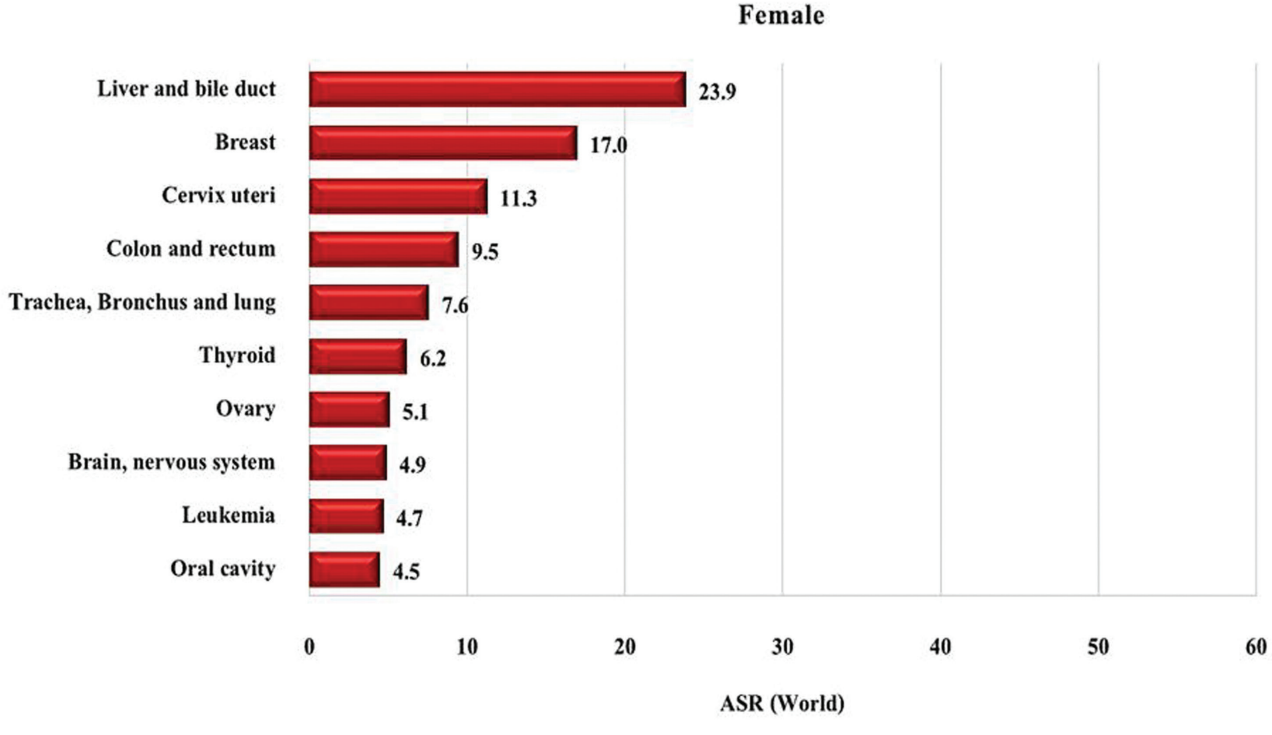


Table 3.7.1 Ubon Ratchathani (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.4	1.8	0.0	5.2	3.6	0.4	0.3	C00
Tongue	12	0.0	0.5	0.0	0.0	0.0	0.0	1.2	2.0	0.0	1.0	3.6	2.8	2.8	0.0	8.7	12.0	1.4	1.1	C01-02
Mouth	12	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.5	0.0	1.6	1.2	2.8	5.5	2.4	12.1	10.8	1.4	1.1	C03-06
Salivary glands	8	0.5	0.0	0.0	0.5	0.6	0.7	0.6	1.5	0.0	1.6	0.0	0.7	0.9	7.2	1.7	3.6	0.9	0.8	C07-08
Tonsil	7	0.0	0.9	0.0	0.5	0.6	0.0	0.0	0.0	0.5	0.5	3.0	0.7	0.9	1.2	8.7	3.6	0.9	0.7	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	3.5	1.2	0.2	0.1	C10
Nasopharynx	29	0.0	0.0	0.0	0.0	2.5	1.5	0.0	2.0	3.2	3.1	4.8	9.1	11.0	14.3	24.3	7.0	3.4	2.9	C11
Hypopharynx	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.0	0.7	1.8	6.0	3.5	8.4	0.8	0.6	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2	3.5	0.0	0.2	0.1	C14
Oesophagus	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.6	4.2	1.4	6.4	13.1	3.5	7.2	1.6	1.3	C15
Stomach	41	0.0	0.0	0.0	0.0	0.6	0.7	0.6	2.0	1.8	6.3	4.8	11.9	14.7	17.9	20.8	38.4	4.8	3.8	C16
Small intestine	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	2.1	4.6	0.0	1.7	4.8	0.6	0.5	C17
Colon	59	0.0	0.0	0.0	0.5	1.2	4.4	1.8	3.5	4.2	8.4	10.2	16.8	16.5	20.3	31.2	48.0	7.0	5.6	C18
Rectum	42	0.0	0.0	0.0	0.0	0.0	2.2	0.6	1.5	2.3	4.2	6.0	11.9	21.1	19.1	34.7	25.2	5.0	4.1	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C21
Liver and bile duct	567	0.0	0.0	0.9	0.0	1.2	5.8	12.0	21.8	35.5	64.0	117.1	172.8	218.5	272.9	350.1	379.7	66.5	52.9	C22,C24
Gallbladder	18	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.0	0.5	1.6	1.2	4.2	5.5	7.2	15.6	22.8	2.2	1.7	C23
Pancreas	15	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.8	2.1	1.8	4.9	6.4	11.9	3.5	7.2	1.7	1.4	C25
Nose, sinuses etc.	8	0.5	0.0	0.0	0.0	0.0	0.0	0.6	0.0	1.8	2.1	2.4	0.0	2.8	1.2	1.7	4.8	0.9	0.7	C30-31
Larynx	15	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.9	2.6	2.4	3.5	4.6	8.3	19.1	6.0	1.8	1.5	C32
Trachea, Bronchus and lung	190	0.0	0.0	0.0	0.0	1.8	1.5	4.2	5.1	11.1	13.6	24.6	42.7	62.4	118.0	164.6	160.5	22.3	17.8	C33-34
Other thoracic organs	4	0.0	0.0	0.0	0.5	1.2	0.7	0.0	0.0	0.5	0.0	0.6	3.5	0.9	0.0	1.7	0.0	0.5	0.5	C37-38
Bone	21	0.0	0.5	2.6	1.9	1.8	0.7	0.0	0.5	1.8	2.6	1.8	3.5	6.4	3.6	10.4	15.6	2.4	2.1	C40-C41
Melanoma of skin	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.9	1.0	1.2	1.4	0.0	1.2	0.0	1.2	0.5	0.4	C43
Other skin	35	0.5	0.0	0.0	0.5	0.0	0.0	1.2	2.0	1.4	2.1	1.8	7.7	15.6	7.2	26.0	45.6	4.1	3.2	C44
Mesothelioma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	11	0.0	0.0	0.4	0.5	0.6	2.2	3.6	1.0	0.9	0.0	2.4	2.8	3.7	1.2	1.7	4.8	1.3	1.2	C47,C49
Breast	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.9	0.5	0.6	0.7	2.8	1.2	0.0	4.8	0.5	0.4	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	17	0.5	0.5	0.4	0.0	0.6	0.0	0.6	2.0	1.4	3.7	1.8	4.9	4.6	6.0	6.9	9.6	2.0	1.6	C60
Prostate	53	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.5	0.0	1.0	2.4	2.1	17.4	23.8	57.2	91.1	6.2	4.7	C61
Testis	8	1.1	0.0	0.0	0.5	1.8	1.5	3.6	1.0	1.4	1.0	0.0	0.7	0.9	0.0	0.0	2.4	1.0	1.0	C62
Kidney	22	0.5	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	3.1	4.2	7.0	8.3	17.9	17.3	9.4	2.6	2.2	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	C65
Ureter	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.1	0.0	C66
Bladder	31	0.0	0.5	0.0	0.0	0.0	0.7	0.0	1.0	1.4	1.6	4.8	4.9	11.0	15.5	26.0	34.8	3.7	2.9	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C68
Eye	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	1.4	1.8	1.2	3.5	1.2	0.4	0.3	C69
Brain, nervous system	36	2.2	0.9	0.0	1.9	4.3	1.5	2.4	2.0	2.8	5.8	7.2	4.9	9.2	8.3	15.6	21.6	4.2	3.7	C70-72
Thyroid	15	0.5	0.0	0.0	1.4	0.6	2.2	1.2	2.5	1.8	2.1	1.8	1.4	1.8	3.6	10.4	8.4	1.8	1.6	C73
Adrenal gland	2	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C74
Other endocrine	2	0.0	0.0	2.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C75
Hodgkin disease	2	0.0	0.0	0.4	0.0	0.0	0.0	0.6	0.5	0.5	0.5	0.0	0.0	0.9	0.0	0.0	1.2	0.3	0.2	C81
Non-Hodgkin lymphoma	49	1.6	1.9	0.4	1.9	1.2	1.5	2.4	2.5	3.2	5.8	6.6	14.7	11.0	28.6	27.7	24.8	5.7	4.9	C82-85,C96
Multiple myeloma	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.2	6.4	2.4	6.9	7.2	1.2	1.0	C90
Lymphoid leukemia	9	3.8	0.9	2.2	0.0	3.1	1.5	0.0	0.5	0.0	0.0	0.0	0.7	0.9	0.0	1.7	2.4	1.1	1.3	C91
Myeloid leukemia	18	0.5	0.5	1.3	0.5	1.2	2.2	2.4	1.5	1.4	1.6	0.6	5.6	6.4	1.2	15.6	6.0	2.2	1.9	C92-94
Leukemia unspecified	18	2.7	0.5	0.9	0.9	0.0	2.2	1.2	1.5	0.9	2.1	3.6	2.8	1.8	3.6	12.1	9.6	2.1	2.0	C95
Myelodysplastic disease	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	1.2	0.0	1.8	2.4	0.0	0.0	0.3	0.3	D45-D47
Other and unspecified	94	1.1	0.5	0.4	0.5	0.6	2.9	3.6	5.6	7.4	7.3	17.4	23.1	26.6	41.7	76.3	67.1	11.1	9.0	O&U
All sites	**1,533**	**16.7**	**8.5**	**12.6**	**12.7**	**26.5**	**38.5**	**46.3**	**69.3**	**95.1**	**159.9**	**252.3**	**388.4**	**530.8**	**692.5**	**1036.4**	**1126.0**	**179.7**	**145.8**	**ALL**

Table 3.7.2 Ubon Ratchathani (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	2.7	7.7	6.4	11.5	15.5	1.7	1.2	C00
Tongue	9	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.5	1.3	0.5	1.1	3.3	0.9	4.3	5.7	3.7	1.0	0.7	C01-02
Mouth	26	0.0	0.0	0.4	0.0	0.0	0.7	0.0	0.0	0.4	2.0	0.0	4.7	12.0	10.7	15.8	27.4	3.0	2.1	C03-06
Salivary glands	5	0.6	0.0	0.0	0.9	0.0	0.0	0.6	1.0	1.3	0.5	0.0	1.3	0.0	1.1	1.4	0.0	0.5	0.5	C07-08
Tonsil	4	0.6	0.0	0.0	0.9	0.6	0.0	0.0	1.0	0.4	1.0	0.6	2.0	0.0	0.0	0.0	0.0	0.5	0.5	C09
Other oropharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	C10
Nasopharynx	11	0.0	0.0	0.0	0.5	0.6	2.2	1.7	0.0	0.9	0.5	1.7	6.0	2.6	4.3	0.0	2.7	1.3	1.1	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.4	0.9	0.1	0.1	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C14
Oesophagus	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.3	3.4	0.0	2.9	2.7	0.5	0.3	C15
Stomach	36	0.0	0.0	0.0	0.0	0.0	1.5	1.2	3.3	3.1	4.0	5.1	6.7	8.6	5.4	25.8	26.5	4.1	2.9	C16
Small intestine	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.0	0.6	0.7	1.7	1.1	2.9	0.0	0.4	0.3	C17
Colon	65	0.0	0.0	0.0	0.0	0.0	2.2	2.3	1.4	2.7	6.6	8.6	24.0	21.5	23.6	37.2	37.4	7.4	5.4	C18
Rectum	47	0.0	0.0	0.0	0.0	0.0	0.7	0.0	2.9	3.5	5.0	10.9	12.0	13.8	19.3	25.8	23.7	5.3	3.9	C19-20
Anus	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.7	0.9	1.1	0.0	2.7	0.3	0.2	C21
Liver and bile duct	290	0.0	0.0	0.4	0.9	0.0	0.0	4.6	10.9	10.6	22.2	43.5	59.9	113.5	135.0	196.3	189.0	33.0	23.9	C22,C24
Gallbladder	23	0.0	0.0	0.0	0.5	0.0	0.0	0.6	0.0	0.4	0.5	0.6	4.7	11.2	10.7	12.9	22.8	2.6	1.8	C23
Pancreas	10	0.0	0.5	0.0	0.5	0.0	0.0	0.6	0.5	0.4	1.5	1.1	1.3	0.9	4.3	8.6	6.4	1.1	0.8	C25
Nose, sinuses etc.	5	0.0	0.0	0.0	0.0	1.3	0.7	0.0	0.0	0.4	0.5	1.7	0.7	0.9	1.1	4.3	0.9	0.6	0.5	C30-31
Larynx	3	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.5	0.4	0.5	0.0	0.0	0.0	1.1	1.4	2.7	0.3	0.3	C32
Trachea, Bronchus and lung	92	0.0	0.0	0.4	0.0	1.9	2.9	0.6	3.8	5.3	6.6	13.7	24.0	27.5	40.7	53.0	60.3	10.4	7.6	C33-34
Other thoracic organs	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.7	0.9	1.1	1.4	1.8	0.3	0.2	C37-38
Bone	20	0.0	1.0	2.2	1.9	1.3	0.7	0.6	1.0	1.3	1.5	2.9	4.0	1.7	10.7	10.0	5.5	2.2	1.9	C40-C41
Melanoma of skin	5	0.6	0.0	0.0	0.0	0.0	0.7	0.0	0.5	0.0	0.0	0.0	0.0	3.4	2.1	2.9	2.7	0.5	0.5	C43
Other skin	33	0.6	0.0	0.0	0.5	0.0	0.0	1.2	0.5	1.3	5.5	1.7	8.7	2.6	12.9	22.9	30.1	3.8	2.6	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	9	0.6	0.0	0.0	0.5	0.6	0.0	1.2	1.9	0.9	1.0	2.9	0.7	1.7	1.1	4.3	0.9	1.0	0.8	C47,C49
Breast	194	0.0	0.0	0.0	0.0	0.6	2.9	15.6	24.2	35.0	58.5	48.6	51.3	50.7	37.5	24.4	29.2	22.1	17.0	C50
Vulva	7	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.4	1.0	1.1	4.0	1.7	1.1	1.4	3.7	0.8	0.6	C51
Vagina	3	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	1.0	0.6	0.7	0.0	0.0	2.9	0.9	0.3	0.3	C52
Cervix uteri	130	0.0	0.0	0.0	0.9	1.9	2.9	13.3	21.9	33.2	27.7	24.6	31.3	28.4	15.0	21.5	27.4	14.8	11.3	C53
Corpus uteri	29	0.0	0.0	0.0	0.5	0.0	1.5	0.6	1.0	2.7	5.0	11.4	10.7	10.3	8.6	7.2	3.7	3.3	2.6	C54
Uterus unspecified	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.8	0.5	3.4	2.0	1.7	2.1	0.0	5.5	1.0	0.7	C55
Ovary	54	0.0	0.5	1.3	1.4	3.8	4.4	6.4	7.1	6.6	11.6	13.2	8.0	13.8	12.9	10.0	7.3	6.1	5.1	C56
Other female genital organs	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.7	1.7	0.0	1.4	0.0	0.2	0.2	C57
Placenta	1	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Kidney	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.5	0.6	1.3	1.7	2.1	5.7	0.9	0.6	0.5	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.4	0.0	0.1	0.1	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	C66
Bladder	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.5	1.7	0.7	2.6	4.3	4.3	7.3	1.1	0.8	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	C68
Eye	2	0.6	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	3.7	0.3	0.2	C69
Brain, nervous system	51	0.6	2.0	1.3	1.9	3.8	3.7	4.6	5.2	7.5	10.1	10.3	10.0	10.3	6.4	15.8	11.9	5.8	4.9	C70-72
Thyroid	67	0.0	0.0	0.9	2.8	3.8	8.8	7.5	13.3	12.8	9.6	13.7	8.0	12.9	5.4	12.9	19.3	7.6	6.2	C73
Adrenal gland	1	1.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C75
Hodgkin disease	4	0.6	0.0	0.9	0.5	1.3	1.5	0.6	0.0	0.0	0.0	0.6	0.7	0.0	0.0	0.0	0.0	0.4	0.5	C81
Non-Hodgkin lymphoma	39	1.7	0.0	0.4	0.5	2.5	2.2	0.6	4.3	4.4	4.0	4.6	10.0	12.9	18.2	14.3	11.9	4.5	3.7	C82-85,C96
Multiple myeloma	11	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.4	1.5	1.7	3.3	4.3	4.3	8.6	5.5	1.3	1.0	C90
Lymphoid leukemia	10	2.8	1.5	1.3	0.9	0.0	0.0	1.2	0.5	0.4	0.5	1.1	1.3	2.6	1.1	2.9	2.7	1.2	1.2	C91
Myeloid leukemia	20	1.1	1.0	1.3	0.9	0.0	1.5	0.0	1.9	2.2	4.5	4.0	3.3	6.9	0.0	4.3	6.4	2.2	1.9	C92-94
Leukemia unspecified	17	1.7	1.0	0.4	0.5	0.0	0.7	2.9	1.0	1.3	1.0	2.9	2.0	4.3	6.4	2.9	8.3	1.9	1.6	C95
Myelodysplastic disease	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.5	0.0	1.3	0.0	2.1	1.4	0.9	0.3	0.2	D45-D47
Other and unspecified	80	0.0	0.5	0.4	0.9	0.6	2.2	3.5	3.3	5.8	7.1	12.0	11.3	26.7	28.9	55.9	52.1	9.1	6.7	O&U
All sites	**1,471**	**12.9**	**8.4**	**12.6**	**18.5**	**26.3**	**45.5**	**73.0**	**115.0**	**152.9**	**210.3**	**258.6**	**331.6**	**432.5**	**454.4**	**649.0**	**676.7**	**167.4**	**127.6**	**ALL**

Table 3.7.3 Mean annual incidence, Ubon Ratchathani, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	0-74	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	0-74	
Lip	4	0.2	0.4	0.3	0.0	0.0	15	1.0	1.7	1.2	0.1	0.1	C00
Tongue	12	0.8	1.4	1.1	0.1	0.1	9	0.6	1.0	0.7	0.0	0.1	C01-02
Mouth	12	0.8	1.4	1.1	0.1	0.1	26	1.8	3.0	2.1	0.1	0.2	C03-06
Salivary glands	8	0.5	0.9	0.8	0.0	0.1	5	0.3	0.5	0.5	0.0	0.0	C07-08
Tonsil	7	0.5	0.9	0.7	0.0	0.1	4	0.3	0.5	0.5	0.0	0.0	C09
Other oropharynx	1	0.1	0.2	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	29	1.9	3.4	2.9	0.2	0.4	11	0.7	1.3	1.1	0.1	0.1	C11
Hypopharynx	7	0.5	0.8	0.6	0.0	0.1	1	0.1	0.1	0.1	0.0	0.0	C12-13
Pharynx unspecified	1	0.1	0.2	0.1	0.0	0.0	1	0.0	0.1	0.1	0.0	0.0	C14
Oesophagus	13	0.9	1.6	1.3	0.1	0.2	4	0.3	0.5	0.3	0.0	0.0	C15
Stomach	41	2.7	4.8	3.8	0.2	0.4	36	2.4	4.1	2.9	0.2	0.3	C16
Small intestine	5	0.3	0.6	0.5	0.0	0.0	3	0.2	0.4	0.3	0.0	0.0	C17
Colon	59	3.9	7.0	5.6	0.3	0.6	65	4.4	7.4	5.4	0.3	0.7	C18
Rectum	42	2.8	5.0	4.1	0.2	0.5	47	3.2	5.3	3.9	0.2	0.5	C19-20
Anus	1	0.1	0.1	0.1	0.0	0.0	3	0.2	0.3	0.2	0.0	0.0	C21
Liver and bile duct	567	37.0	66.5	52.9	3.2	6.4	290	19.7	33.0	23.9	1.3	3.0	C22,C24
Gallbladder	18	1.2	2.2	1.7	0.1	0.2	23	1.6	2.6	1.8	0.1	0.2	C23
Pancreas	15	1.0	1.7	1.4	0.1	0.2	10	0.7	1.1	0.8	0.0	0.1	C25
Nose, sinuses etc.	8	0.5	0.9	0.7	0.1	0.1	5	0.3	0.6	0.5	0.0	0.1	C30-31
Larynx	15	1.0	1.8	1.5	0.1	0.2	3	0.2	0.3	0.3	0.0	0.0	C32
Trachea, Bronchus and lung	190	12.4	22.3	17.8	0.8	2.2	92	6.2	10.4	7.6	0.4	0.9	C33-34
Other thoracic organs	4	0.3	0.5	0.5	0.0	0.0	2	0.2	0.3	0.2	0.0	0.0	C37-38
Bone	21	1.3	2.4	2.1	0.1	0.2	20	1.3	2.2	1.9	0.1	0.2	C40-C41
Melanoma of skin	4	0.3	0.5	0.4	0.0	0.0	5	0.3	0.5	0.5	0.0	0.1	C43
Other skin	35	2.3	4.1	3.2	0.2	0.3	33	2.2	3.8	2.6	0.1	0.3	C44
Mesothelioma	1	0.0	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	11	0.7	1.3	1.2	0.1	0.1	9	0.6	1.0	0.8	0.1	0.1	C47,C49
Breast	5	0.3	0.5	0.4	0.0	0.0	194	13.2	22.1	17.0	1.4	1.7	C50
Vulva							7	0.5	0.8	0.6	0.0	0.1	C51
Vagina							3	0.2	0.3	0.3	0.0	0.0	C52
Cervix uteri							130	8.8	14.8	11.3	0.9	1.1	C53
Corpus uteri							29	2.0	3.3	2.6	0.2	0.3	C54
Uterus unspecified							9	0.6	1.0	0.7	0.1	0.1	C55
Ovary							54	3.6	6.1	5.1	0.4	0.5	C56
Other female genital organs							2	0.1	0.2	0.2	0.0	0.0	C57
Placenta							1	0.0	0.1	0.1	0.0	0.0	C58
Penis	17	1.1	2.0	1.6	0.1	0.2							C60
Prostate	53	3.5	6.2	4.7	0.1	0.5							C61
Testis	8	0.5	1.0	1.0	0.1	0.1							C62
Kidney	22	1.5	2.6	2.2	0.1	0.3	5	0.4	0.6	0.5	0.0	0.1	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	1	0.0	0.1	0.1	0.0	0.0	C65
Ureter	1	0.0	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	31	2.0	3.7	2.9	0.1	0.3	10	0.7	1.1	0.8	0.0	0.1	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C68
Eye	3	0.2	0.4	0.3	0.0	0.0	2	0.2	0.3	0.2	0.0	0.0	C69
Brain, nervous system	36	2.3	4.2	3.7	0.2	0.3	51	3.5	5.8	4.9	0.4	0.5	C70-72
Thyroid	15	1.0	1.8	1.6	0.1	0.2	67	4.6	7.6	6.2	0.5	0.6	C73
Adrenal gland	2	0.1	0.2	0.2	0.0	0.0	1	0.1	0.2	0.2	0.0	0.0	C74
Other endocrine	2	0.1	0.2	0.2	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C75
Hodgkin disease	2	0.2	0.3	0.2	0.0	0.0	4	0.2	0.4	0.5	0.0	0.0	C81
Non-Hodgkin lymphoma	49	3.2	5.7	4.9	0.3	0.6	39	2.7	4.5	3.7	0.2	0.4	C82-85,C96
Multiple myeloma	10	0.7	1.2	1.0	0.1	0.1	11	0.8	1.3	1.0	0.1	0.1	C90
Lymphoid leukemia	9	0.6	1.1	1.3	0.1	0.1	10	0.7	1.2	1.2	0.1	0.1	C91
Myeloid leukemia	18	1.2	2.2	1.9	0.1	0.2	20	1.3	2.2	1.9	0.1	0.2	C92-94
Leukemia unspecified	18	1.2	2.1	2.0	0.1	0.2	17	1.1	1.9	1.6	0.1	0.1	C95
Myelodysplastic disease	3	0.2	0.3	0.3	0.0	0.0	3	0.2	0.3	0.2	0.0	0.0	D45-D47
Other and unspecified	94	6.2	11.1	9.0	0.5	1.1	80	5.4	9.1	6.7	0.4	0.8	O&U
All sites	**1,533**	**100.0**	**179.7**	**145.8**	**8.3**	**16.9**	**1,471**	**100.0**	**167.4**	**127.6**	**8.5**	**14.0**	**ALL**

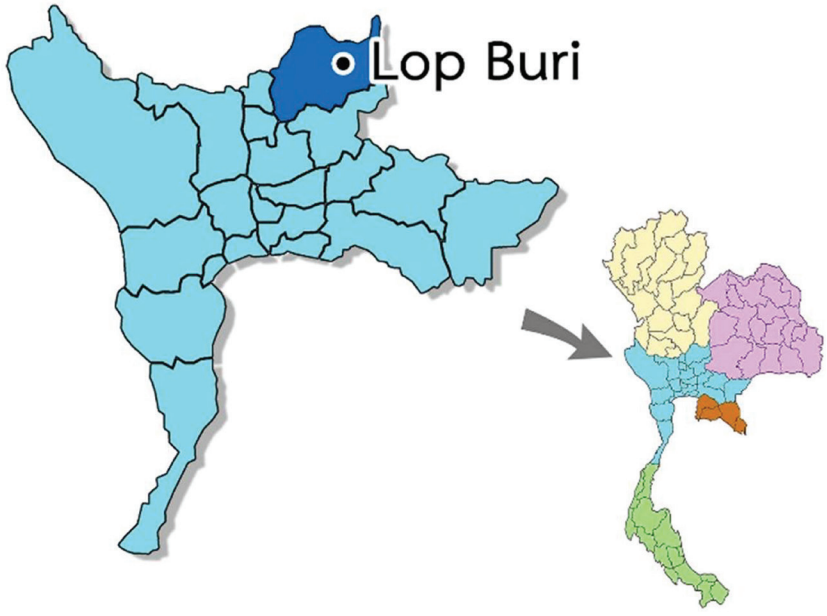
Table 3.7.4 Percentage of morphologically verified and death certificate only cases, Ubon Ratchathani

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	106	74.5	2.8	165	88.5	1.2	C00-C08
Oropharynx	30	80.0	0.0	16	43.8	0.0	C09-C10,C14
Nasopharynx	88	89.8	2.3	33	81.8	0.0	C11
Hypopharynx	21	81.0	0.0	3	66.7	0.0	C12-C13
Esophagus	40	62.5	7.5	12	75.0	8.3	C15
Stomach	123	77.2	10.6	107	71.0	11.2	C16
Small intestine	15	80.0	6.7	10	80.0	0.0	C17
Colon and rectum	308	73.1	3.6	342	78.9	5.0	C18-C21
Liver and bile duct	1,702	8.7	20.9	870	9.8	20.1	C22,C24
Gallbladder	55	36.4	23.6	69	40.6	18.8	C23
pancrease	44	36.4	6.8	30	40.0	6.7	C25
Nose,sinuses etc	23	69.6	0.0	15	60.0	0.0	C30-C31
Larynx	45	82.2	2.2	9	55.6	0.0	C32
Trachea, brochus and lung	570	43.9	13.5	275	40.7	14.2	C33-C34
Other thoracic organs	13	76.9	7.7	7	42.9	0.0	C37-C38
Bone	62	22.6	24.2	59	18.6	22.0	C40-C41
Melanoma of skin	12	100.0	0.0	14	100.0	0.0	C43
Other skin	105	76.2	1.9	99	74.7	4.0	C44
Mesothelioma	2	100.0	0.0	1	100.0	0.0	C45
Kaposi sarcoma	0	0.0	0.0	1	100.0	0.0	C46
Connective and soft tissue	34	85.3	0.0	26	88.5	0.0	C47,C49
Breast	14	78.6	14.3	583	93.8	1.9	C50
Vulva				20	80.0	0.0	C51
Vagina				9	44.4	11.1	C52
Cervix uteri				390	92.6	0.8	C53
Corpus uteri				87	88.5	0.0	C54
Uterus unspecified				26	42.3	19.2	C55
Ovary				161	66.5	5.0	C56
Other female genital organs				6	100.0	0.0	C57
Placenta				2	100.0	0.0	C58
Penis	51	74.5	0.0				C60
Prostate	159	67.9	5.7				C61
Testis	25	76.0	0.0				C62
Other male genital organs	0		0.0				C63
Kidney	67	74.6	3.0	16	56.3	6.3	C64
Renal pelvis	1	0.0	0.0	2	50.0	0.0	C65
Ureter	2	100.0	0.0	1	100.0	0.0	C66
Bladder	94	72.3	1.1	29	72.4	0.0	C67
Other urinary organs	0	0.0	0.0	1	0.0	100.0	C68
Eye	10	50.0	0.0	7	71.4	14.3	C69
Brain, nervous system	107	39.3	19.6	154	47.4	11.0	C70-C72
Thyroid	46	69.6	2.2	201	71.6	1.0	C73
Adrenal gland	5	40.0	0.0	4	75.0	0.0	C74
Other endocrine	6	100.0	0.0	0	0.0	0.0	C75
Hodgkin disease	7	100.0	0.0	11	100.0	0.0	C81
Non-Hodgkin lymphoma	148	100.0	0.0	118	99.2	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	31	96.8	0.0	34	97.1	2.9	C90
Leukemia	136	80.1	14.7	140	82.9	15.0	C91-C95
Myelodysplastic	8	100.0	0.0	8	100.0	0.0	D45-D47
Other and unspecified	283	53.4	15.5	240	44.2	19.6	O&U
All sites	**4,598**	**44.1**	**13.0**	**4,413**	**61.2**	**9.0**	**All**

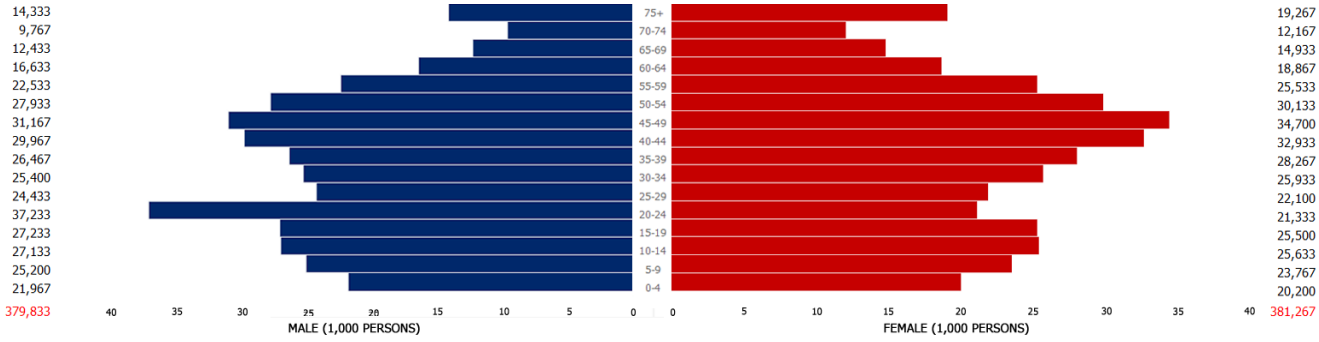
Lop Buri Cancer Registry

Registration area

Lop Buri is located on the east side of the Chao Phraya river valley, between the Lop Buri river and Pa Sak rivers at latitude 14:48 N and 100:37 E. The land area is 6,200 square kilometers and the Lopburi registry covers of 11 districts and a population estimated in 2008 at 800,928. Thirty percent of the area is a low plain and the remaining seventy percent is intermixed between plain and hills.



Population pyramid, Lop Buri
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The government of Thailand provides general health care in the region. Hospitals providing extensive cancer patient care include Lopburi cancer center, King Narai hospital, and Ananthamahidol (Army) Hospital. Facilities for surgery, chemotherapy, and radiotherapy are available. Two private hospitals, 1 Air Force hospital, and 10 community hospitals are capable of supplying basic care to cancer patients. As in other provinces in Thailand, an extensive network of health care facilities takes care of patients at the household level.

Registry procedures

The registry is located within the Lopburi cancer center. The registry is staffed by one part - time medical doctor and a number of full - time registrars.

The Lopburi registry undertakes active case finding from sources of data consisting of the hospitals mentioned above. The completeness of death registration is acceptable but the cause of death data are not sufficiently accurate, being mostly cardiopulmonary arrest and senility. After the national health care reform started in 2000, the validity of the death certificates has been improving.

Summary of results

New cases registered in 2011, 725 were males and 723 were females, making 1,448 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 142.7 per 100,000, with liver and bile duct cancer ranking first (ASR = 29.4) followed by lung (ASR = 21.1) and colon and rectum (ASR = 17.0). The ASR of all cancer sites in females was 129.7 per 100,000, the three leading cancer sites being breast (ASR = 31.1), cervix (ASR = 15.5) and colon and rectum (ASR = 13.0).

Figure 3.8 Leading cancer in Lop Buri, (mean annual ASR 2010-2012)

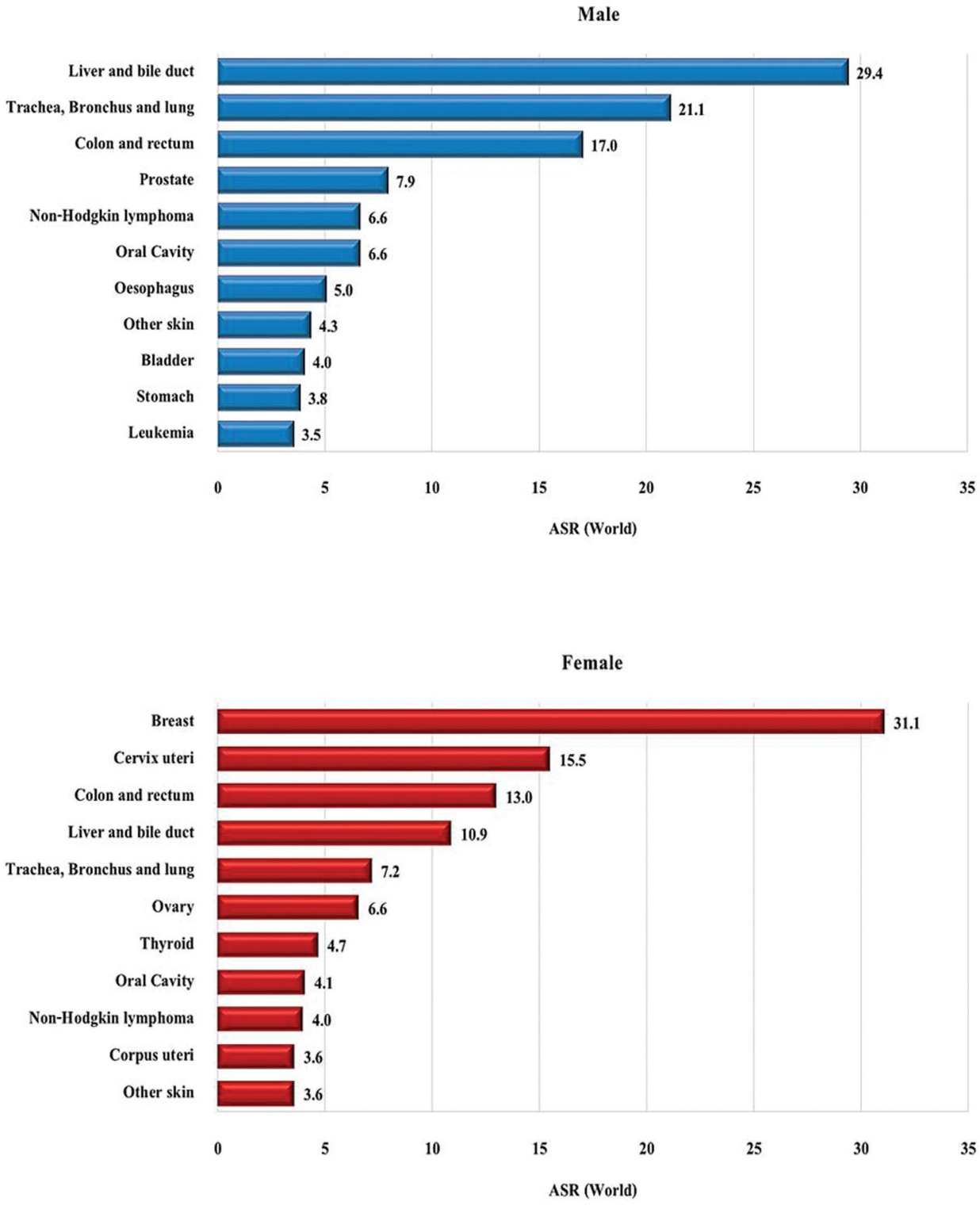


Table 3.8.1 Lop Buri (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.2	0.0	0.0	2.7	0.0	2.3	0.4	0.3	C00
Tongue	15	1.5	1.3	0.0	0.0	0.0	0.0	0.0	3.8	3.3	5.3	7.2	8.9	16.0	5.4	10.2	14.0	3.9	3.1	C01-02
Mouth	15	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.3	1.1	3.2	13.1	5.9	14.0	8.0	20.5	18.6	3.9	2.9	C03-06
Salivary glands	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	5.4	3.4	2.3	0.4	0.3	C07-08
Tonsil	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.2	2.1	9.5	1.5	2.0	8.0	6.8	2.3	1.8	1.4	C09
Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	3.0	2.0	2.7	0.0	2.3	0.6	0.5	C10
Nasopharynx	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.2	7.2	17.8	6.0	10.7	6.8	4.7	3.0	2.2	C11
Hypopharynx	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.2	6.4	11.9	11.8	12.0	8.0	3.4	9.3	3.6	2.6	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	1.5	0.0	2.7	0.0	0.0	0.4	0.3	C14
Oesophagus	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	2.2	16.0	17.9	20.7	14.0	24.1	30.7	9.3	6.7	5.0	C15
Stomach	20	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	2.2	6.4	9.5	14.8	16.0	18.8	13.7	27.9	5.2	3.8	C16
Small intestine	3	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.3	0.0	0.0	0.0	1.5	6.0	0.0	0.0	7.0	0.8	0.6	C17
Colon	49	0.0	0.0	0.0	0.0	0.9	1.4	2.6	5.0	5.6	5.3	17.9	31.1	28.1	48.3	95.6	79.1	13.0	9.5	C18
Rectum	36	0.0	0.0	0.0	0.0	0.0	0.0	2.6	5.0	4.4	5.3	17.9	25.1	32.1	42.9	41.0	37.2	9.4	7.1	C19-20
Anus	2	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.1	0.0	1.2	3.0	0.0	0.0	3.4	2.3	0.6	0.4	C21
Liver and bile duct	150	0.0	0.0	1.2	1.2	0.0	2.7	5.2	13.9	30.0	57.8	77.6	105.0	104.2	123.3	180.9	148.8	39.6	29.4	C22,C24
Gallbladder	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	4.0	5.4	3.4	0.0	0.5	0.4	C23
Pancreas	10	0.0	0.0	0.0	0.0	0.0	1.4	1.3	0.0	1.1	3.2	3.6	3.0	6.0	16.1	10.2	16.3	2.6	2.0	C25
Nose, sinuses etc.	4	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.2	3.0	2.0	2.7	6.8	0.0	1.0	0.8	C30-31
Larynx	17	1.5	0.0	0.0	0.0	0.0	0.0	0.0	2.5	2.2	4.3	10.7	10.4	12.0	18.8	6.8	25.6	4.5	3.4	C32
Trachea, Bronchus and lung	109	1.5	0.0	0.0	0.0	0.9	1.4	2.6	7.6	4.4	13.9	20.3	59.2	90.2	123.3	198.0	218.6	28.8	21.1	C33-34
Other thoracic organs	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.2	3.0	0.0	0.0	0.0	2.3	0.4	0.3	C37-38
Bone	5	0.0	0.0	0.0	4.9	0.9	0.0	0.0	0.0	0.0	1.1	1.2	3.0	6.0	0.0	0.0	7.0	1.3	1.1	C40-C41
Melanoma of skin	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	5.3	1.2	0.0	6.0	2.7	6.8	2.3	1.2	1.0	C43
Other skin	22	1.5	0.0	0.0	0.0	0.0	1.4	3.9	2.5	3.3	1.1	3.6	10.4	14.0	18.8	23.9	58.1	5.9	4.3	C44
Kaposi's sarcoma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	5.4	0.0	0.0	0.3	0.2	C46
Connective tissue	6	1.5	0.0	0.0	0.0	0.9	0.0	0.0	1.3	0.0	2.1	3.6	3.0	0.0	5.4	0.0	11.6	1.5	1.1	C47,C49
Breast	3	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.1	0.0	1.5	0.0	5.4	10.2	4.7	0.9	0.7	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.1	2.4	3.0	4.0	2.7	3.4	7.0	1.3	0.9	C60
Prostate	45	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.1	7.2	7.4	16.0	56.3	75.1	162.8	11.8	7.9	C61
Testis	2	0.0	0.0	0.0	1.2	0.0	1.4	1.3	1.3	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.4	0.4	C62
Other male genital organs	2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	1.5	0.0	0.0	0.0	2.3	0.5	0.5	C63
Kidney	5	0.0	0.0	1.2	0.0	0.0	0.0	1.3	1.3	0.0	1.1	0.0	3.0	8.0	5.4	6.8	4.7	1.4	1.2	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.1	0.0	C66
Bladder	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	3.2	6.0	8.9	14.0	21.4	34.1	58.1	5.8	4.0	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.1	0.1	C68
Eye	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.1	0.0	C69
Brain, nervous system	9	1.5	2.6	0.0	0.0	0.9	1.4	2.6	1.3	1.1	2.1	0.0	0.0	8.0	10.7	13.7	7.0	2.3	2.1	C70-72
Thyroid	7	0.0	0.0	0.0	1.2	0.0	2.7	1.3	1.3	2.2	3.2	6.0	1.5	6.0	2.7	0.0	2.3	1.8	1.5	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C74
Other endocrine	1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C75
Hodgkin disease	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C81
Non-Hodgkin lymphoma	33	0.0	2.6	1.2	0.0	0.0	1.4	0.0	3.8	3.3	8.6	14.3	20.7	34.1	24.1	41.0	37.2	8.6	6.6	C82-85,C96
Multiple myeloma	4	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	2.2	0.0	1.2	4.4	2.0	5.4	6.8	0.0	1.1	0.9	C90
Lymphoid leukemia	4	3.0	0.0	6.1	0.0	0.0	1.4	0.0	0.0	0.0	2.1	0.0	0.0	0.0	2.7	0.0	2.3	1.1	1.3	C91
Myeloid leukemia	8	0.0	0.0	0.0	0.0	0.9	1.4	5.2	1.3	2.2	2.1	2.4	1.5	4.0	8.0	0.0	11.6	2.1	1.6	C92-94
Leukemia unspecified	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	4.0	5.4	3.4	9.3	0.9	0.6	C95
Myelodysplastic disease	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.2	1.5	4.0	2.7	3.4	4.7	0.8	0.6	D45-D47
Other and unspecified	32	0.0	0.0	0.0	0.0	0.9	1.4	3.9	1.3	6.7	4.3	9.5	20.7	28.1	34.9	44.4	39.5	8.3	6.3	O&U
All sites	**725**	**13.7**	**6.6**	**12.3**	**9.8**	**9.0**	**20.5**	**36.7**	**69.3**	**91.2**	**182.9**	**293.6**	**423.1**	**527.1**	**697.1**	**914.7**	**1067.4**	**190.9**	**142.7**	**ALL**

Table 3.8.2 Lop Buri (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	7	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.3	1.8	6.7	0.0	26.0	1.9	1.0	C00
Tongue	6	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	3.8	4.4	2.6	5.3	2.2	2.7	5.2	1.7	1.1	C01-02
Mouth	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	2.2	1.3	8.8	4.5	11.0	26.0	2.6	1.5	C03-06
Salivary glands	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	0.0	2.2	0.0	0.0	4.5	2.7	5.2	0.9	0.5	C07-08
Tonsil	2	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	1.0	1.0	0.0	0.0	1.8	0.0	0.0	1.7	0.4	0.3	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.8	0.0	0.0	1.7	0.3	0.2	C10
Nasopharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	2.2	0.0	3.5	0.0	0.0	1.7	0.5	0.4	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	0.0	0.0	0.0	0.0	0.3	0.2	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.2	0.1	C14
Oesophagus	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.9	0.0	8.9	8.2	6.9	1.4	0.8	C15
Stomach	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	3.8	4.4	2.6	3.5	17.9	16.4	8.7	2.9	1.9	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	1.3	3.5	0.0	0.0	1.7	0.5	0.3	C17
Colon	44	0.0	0.0	0.0	1.3	0.0	0.0	0.0	4.7	6.1	4.8	11.1	20.9	33.6	44.6	63.0	48.4	11.5	7.4	C18
Rectum	30	0.0	0.0	0.0	0.0	0.0	3.0	2.6	1.2	2.0	6.7	11.1	11.7	30.0	31.2	35.6	24.2	8.0	5.3	C19-20
Anus	2	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.1	1.3	1.8	0.0	2.7	0.0	0.4	0.3	C21
Liver and bile duct	67	0.0	0.0	0.0	0.0	0.0	0.0	1.3	4.7	5.1	8.6	19.9	44.4	45.9	64.7	82.2	77.9	17.6	10.9	C22,C24
Gallbladder	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.1	1.3	5.3	0.0	11.0	8.7	1.4	0.8	C23
Pancreas	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.9	0.0	2.6	10.6	6.7	5.5	6.9	1.8	1.2	C25
Nose, sinuses etc.	2	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.0	0.0	0.0	2.6	0.0	0.0	0.0	3.5	0.5	0.3	C30-31
Larynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.3	0.0	2.2	0.0	3.5	0.4	0.2	C32
Trachea, Bronchus and lung	43	0.0	0.0	0.0	0.0	0.0	1.5	1.3	4.7	3.0	7.7	18.8	23.5	37.1	33.5	41.1	46.7	11.4	7.2	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	2.2	0.0	3.5	0.3	0.2	C37-38
Bone	5	0.0	0.0	0.0	1.3	1.6	1.5	1.3	0.0	1.0	1.9	2.2	0.0	3.5	4.5	0.0	1.7	1.2	1.0	C40-C41
Melanoma of skin	4	0.0	0.0	0.0	1.3	1.6	3.0	0.0	0.0	1.0	0.0	0.0	1.3	0.0	6.7	0.0	3.5	1.0	0.9	C43
Other skin	22	0.0	0.0	0.0	1.3	1.6	0.0	1.3	1.2	1.0	2.9	5.5	2.6	21.2	11.2	24.7	45.0	5.9	3.6	C44
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	6	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	1.0	1.0	2.2	3.9	1.8	0.0	5.5	8.7	1.5	0.9	C47,C49
Breast	166	0.0	0.0	0.0	0.0	7.8	21.1	25.7	54.2	63.8	79.7	92.9	70.5	97.2	55.8	84.9	31.1	43.5	31.1	C50
Vulva	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	1.3	0.0	0.0	0.0	3.5	0.3	0.2	C51
Vagina	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	2.2	0.0	5.2	0.4	0.2	C52
Cervix uteri	86	0.0	0.0	0.0	0.0	4.7	4.5	11.6	33.0	39.5	42.3	46.5	33.9	30.0	31.2	41.1	29.4	22.5	15.5	C53
Corpus uteri	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	6.1	10.6	22.1	11.7	12.4	6.7	8.2	6.9	5.6	3.6	C54
Uterus unspecified	2	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	2.0	0.0	0.0	2.6	1.8	0.0	0.0	0.0	0.5	0.4	C55
Ovary	37	0.0	0.0	0.0	0.0	1.6	3.0	3.9	10.6	14.2	15.4	22.1	14.4	15.9	24.6	13.7	15.6	9.6	6.6	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.1	0.1	C57
Placenta	1	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	3	0.0	0.0	0.0	0.0	1.6	0.0	0.0	1.2	0.0	0.0	1.1	1.3	1.8	0.0	2.7	3.5	0.7	0.5	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.1	0.0	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.1	0.0	C66
Bladder	7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.3	3.5	8.9	5.5	17.3	1.8	1.2	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C68
Eye	2	3.3	0.0	0.0	0.0	0.0	1.5	0.0	1.2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	C69
Brain, nervous system	15	0.0	2.8	3.9	0.0	1.6	1.5	5.1	2.4	6.1	9.6	1.1	3.9	7.1	4.5	5.5	6.9	3.9	3.1	C70-72
Thyroid	23	0.0	0.0	0.0	2.6	3.1	6.0	7.7	10.6	8.1	9.6	7.7	7.8	5.3	6.7	21.9	1.7	6.0	4.7	C73
Adrenal gland	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.2	0.1	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C75
Hodgkin disease	0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C81
Non-Hodgkin lymphoma	21	0.0	0.0	0.0	0.0	1.6	6.0	7.7	1.2	3.0	4.8	8.8	15.7	7.1	17.9	16.4	8.7	5.5	4.0	C82-85,C96
Multiple myeloma	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	5.2	3.5	8.9	2.7	3.5	1.3	0.9	C90
Lymphoid leukemia	3	1.7	2.8	1.3	1.3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.3	0.0	2.2	2.7	1.7	0.9	1.0	C91
Myeloid leukemia	7	1.7	0.0	1.3	1.3	0.0	0.0	0.0	2.4	1.0	1.0	3.3	2.6	7.1	2.2	8.2	1.7	1.8	1.5	C92-94
Leukemia unspecified	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	1.9	0.0	1.3	1.8	4.5	2.7	5.2	1.0	0.7	C95
Myelodysplastic disease	1	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	2.7	0.0	0.3	0.4	D45-D47
Other and unspecified	22	1.7	0.0	0.0	0.0	1.6	3.0	0.0	4.7	4.0	2.9	8.8	9.1	12.4	11.2	27.4	24.2	5.8	3.9	O&U
All sites	**723**	**9.9**	**5.6**	**7.8**	**14.4**	**31.2**	**60.3**	**75.8**	**147.4**	**178.1**	**227.7**	**311.9**	**323.8**	**431.1**	**439.7**	**558.9**	**536.3**	**189.6**	**129.7**	**ALL**

Table 3.8.3 Mean annual incidence, Lop Buri, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	2	0.2	0.4	0.3	0.0	0.0	7	1.0	1.9	1.0	0.0	0.1	C00
Tongue	15	2.0	3.9	3.1	0.2	0.3	6	0.9	1.7	1.1	0.1	0.1	C01-02
Mouth	15	2.1	3.9	2.9	0.2	0.3	10	1.4	2.6	1.5	0.1	0.1	C03-06
Salivary glands	2	0.2	0.4	0.3	0.0	0.0	3	0.5	0.9	0.5	0.0	0.1	C07-08
Tonsil	7	1.0	1.8	1.4	0.1	0.2	2	0.2	0.4	0.3	0.0	0.0	C09
Other oropharynx	2	0.3	0.6	0.5	0.0	0.0	1	0.1	0.3	0.2	0.0	0.0	C10
Nasopharynx	11	1.6	3.0	2.2	0.2	0.3	2	0.3	0.5	0.4	0.0	0.0	C11
Hypopharynx	14	1.9	3.6	2.6	0.2	0.3	1	0.2	0.3	0.2	0.0	0.0	C12-13
Pharynx unspecified	1	0.2	0.4	0.3	0.0	0.0	1	0.1	0.2	0.1	0.0	0.0	C14
Oesophagus	25	3.5	6.7	5.0	0.4	0.6	5	0.7	1.4	0.8	0.0	0.1	C15
Stomach	20	2.7	5.2	3.8	0.3	0.4	11	1.5	2.9	1.9	0.1	0.3	C16
Small intestine	3	0.4	0.8	0.6	0.0	0.0	2	0.3	0.5	0.3	0.0	0.0	C17
Colon	49	6.8	13.0	9.5	0.5	1.2	44	6.1	11.5	7.4	0.4	1.0	C18
Rectum	36	4.9	9.4	7.1	0.5	0.9	30	4.2	8.0	5.3	0.3	0.7	C19-20
Anus	2	0.3	0.6	0.4	0.0	0.1	2	0.2	0.4	0.3	0.0	0.0	C21
Liver and bile duct	150	20.7	39.6	29.4	2.0	3.5	67	9.3	17.6	10.9	0.6	1.4	C22,C24
Gallbladder	2	0.3	0.5	0.4	0.0	0.1	5	0.7	1.4	0.8	0.0	0.1	C23
Pancreas	10	1.4	2.6	2.0	0.1	0.2	7	1.0	1.8	1.2	0.1	0.1	C25
Nose, sinuses etc.	4	0.5	1.0	0.8	0.1	0.1	2	0.3	0.5	0.3	0.0	0.0	C30-31
Larynx	17	2.3	4.5	3.4	0.2	0.3	2	0.2	0.4	0.2	0.0	0.0	C32
Trachea, Bronchus and lung	109	15.1	28.8	21.1	1.0	2.6	43	6.0	11.4	7.2	0.5	0.9	C33-34
Other thoracic organs	2	0.2	0.4	0.3	0.0	0.0	1	0.2	0.3	0.2	0.0	0.0	C37-38
Bone	5	0.7	1.3	1.1	0.1	0.1	5	0.6	1.2	1.0	0.1	0.1	C40-C41
Melanoma of skin	5	0.6	1.2	1.0	0.1	0.1	4	0.5	1.0	0.9	0.0	0.1	C43
Other skin	22	3.1	5.9	4.3	0.2	0.4	22	3.1	5.9	3.6	0.2	0.4	C44
Kaposi's sarcoma	1	0.1	0.3	0.2	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	6	0.8	1.5	1.1	0.1	0.1	6	0.8	1.5	0.9	0.1	0.1	C47,C49
Breast	3	0.5	0.9	0.7	0.0	0.1	166	23.0	43.5	31.1	2.6	3.3	C50
Vulva							1	0.2	0.3	0.2	0.0	0.0	C51
Vagina							2	0.2	0.4	0.2	0.0	0.0	C52
Cervix uteri							86	11.8	22.5	15.5	1.2	1.6	C53
Corpus uteri							21	3.0	5.6	3.6	0.3	0.4	C54
Uterus unspecified							2	0.3	0.5	0.4	0.0	0.0	C55
Ovary							37	5.1	9.6	6.6	0.5	0.7	C56
Other female genital organs							0	0.0	0.1	0.1	0.0	0.0	C57
Placenta							1	0.1	0.2	0.2	0.0	0.0	C58
Penis	5	0.7	1.3	0.9	0.1	0.1							C60
Prostate	45	6.2	11.8	7.9	0.2	0.8							C61
Testis	2	0.2	0.4	0.4	0.0	0.0							C62
Other male genital organs	2	0.3	0.5	0.5	0.0	0.0							C63
Kidney	5	0.7	1.4	1.2	0.1	0.1	3	0.4	0.7	0.5	0.0	0.0	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.1	0.0	0.0	0.0	C65
Ureter	0	0.0	0.1	0.0	0.0	0.0	0	0.0	0.1	0.0	0.0	0.0	C66
Bladder	22	3.0	5.8	4.0	0.2	0.5	7	1.0	1.8	1.2	0.0	0.1	C67
Other urinary organs	0	0.0	0.1	0.1	0.0	0.0	0	0.0	0.1	0.1	0.0	0.0	C68
Eye	0	0.0	0.1	0.0	0.0	0.0	2	0.2	0.4	0.6	0.0	0.0	C69
Brain, nervous system	9	1.2	2.3	2.1	0.1	0.2	15	2.1	3.9	3.1	0.2	0.3	C70-72
Thyroid	7	1.0	1.8	1.5	0.1	0.1	23	3.2	6.0	4.7	0.3	0.5	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	1	0.1	0.2	0.1	0.0	0.0	C74
Other endocrine	1	0.1	0.2	0.2	0.0	0.0	0	0.0	0.1	0.1	0.0	0.0	C75
Hodgkin disease	0	0.0	0.1	0.1	0.0	0.0	0	0.0	0.1	0.1	0.0	0.0	C81
Non-Hodgkin lymphoma	33	4.5	8.6	6.6	0.5	0.8	21	2.9	5.5	4.0	0.3	0.5	C82-85,C96
Multiple myeloma	4	0.6	1.1	0.9	0.1	0.1	5	0.7	1.3	0.9	0.1	0.1	C90
Lymphoid leukemia	4	0.6	1.1	1.3	0.1	0.1	3	0.5	0.9	1.0	0.0	0.1	C91
Myeloid leukemia	8	1.1	2.1	1.6	0.1	0.1	7	1.0	1.8	1.5	0.1	0.2	C92-94
Leukemia unspecified	3	0.5	0.9	0.6	0.0	0.1	4	0.6	1.0	0.7	0.0	0.1	C95
Myelodysplastic disease	3	0.4	0.8	0.6	0.0	0.1	1	0.2	0.3	0.4	0.0	0.0	D45-D47
Other and unspecified	32	4.4	8.3	6.3	0.4	0.8	22	3.0	5.8	3.9	0.2	0.4	O&U
All sites	**725**	**100.0**	**190.9**	**142.7**	**8.5**	**16.5**	**723**	**100.0**	**189.6**	**129.7**	**9.1**	**14.1**	**ALL**

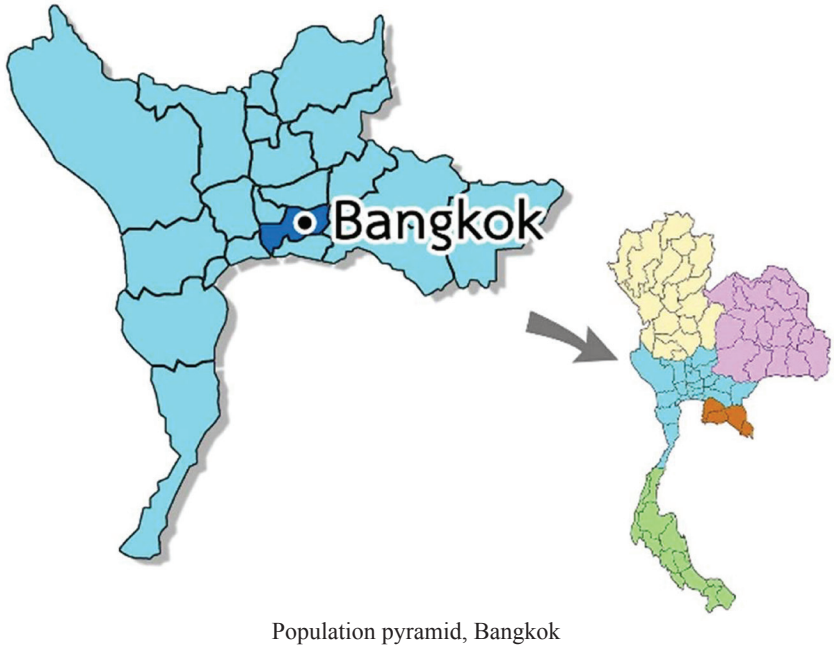
Table 3.8.4 Percentage of morphologically verified and death certificate only cases, Lop Buri

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	99	82.8	5.1	81	79.0	2.5	C00-C08
Oropharynx	32	75.0	3.1	10	80.0	10.0	C09-C10,C14
Nasopharynx	34	79.4	0.0	6	50.0	0.0	C11
Hypopharynx	41	90.2	0.0	4	100.0	0.0	C12-C13
Esophagus	76	72.4	10.5	16	56.3	12.5	C15
Stomach	59	67.8	6.8	33	66.7	6.1	C16
Small intestine	9	66.7	11.1	6	83.3	0.0	C17
Colon and rectum	262	76.7	5.0	228	74.6	2.6	C18-C21
Liver and bile duct	451	22.4	27.5	201	23.9	24.9	C22,C24
Gallbladder	6	33.3	50.0	16	50.0	25.0	C23
pancrease	30	23.3	23.3	21	19.0	19.0	C25
Nose,sinuses etc	11	54.5	0.0	6	50.0	0.0	C30-C31
Larynx	51	68.6	3.9	5	80.0	0.0	C32
Trachea, brochus and lung	328	51.8	21.6	130	49.2	20.0	C33-C34
Other thoracic organs	5	60.0	0.0	4	50.0	25.0	C37-C38
Bone	15	46.7	6.7	14	21.4	21.4	C40-C41
Melanoma of skin	14	100.0	0.0	11	100.0	0.0	C43
Other skin	67	80.6	7.5	67	71.6	3.0	C44
Mesothelioma	0	0.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	3	100.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	17	70.6	0.0	17	58.8	0.0	C47,C49
Breast	10	70.0	0.0	498	88.8	1.6	C50
Vulva				4	100.0	0.0	C51
Vagina				5	60.0	0.0	C52
Cervix uteri				257	89.9	2.3	C53
Corpus uteri				64	90.6	1.6	C54
Uterus unspecified				6	66.7	0.0	C55
Ovary				110	53.6	10.0	C56
Other female genital organs				1	100.0	0.0	C57
Placenta				2	50.0	0.0	C58
Penis	15	73.3	13.3				C60
Prostate	134	78.4	3.0				C61
Testis	5	100.0	0.0				C62
Other male genital organs	6	16.7	0.0				C63
Kidney	16	50.0	18.8	8	62.5	0.0	C64
Renal pelvis	0	0.0	0.0	1	100.0	0.0	C65
Ureter	1	100.0	0.0	1	100.0	0.0	C66
Bladder	66	78.8	7.6	21	71.4	4.8	C67
Other urinary organs	1	0.0	0.0	1	100.0	0.0	C68
Eye	1	100.0	0.0	5	40.0	0.0	C69
Brain, nervous system	26	38.5	23.1	45	44.4	24.4	C70-C72
Thyroid	21	81.0	4.8	69	84.1	0.0	C73
Adrenal gland	0	0.0	0.0	2	0.0	50.0	C74
Other endocrine	2	100.0	0.0	1	0.0	0.0	C75
Hodgkin disease	1	100.0	0.0	1	100.0	0.0	C81
Non-Hodgkin lymphoma	98	98.0	1.0	63	96.8	1.6	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	12	100.0	0.0	15	100.0	0.0	C90
Leukemia	46	100.0	0.0	43	100.0	0.0	C91-C95
Myelodysplastic	9	100.0	0.0	4	100.0	0.0	D45-D47
Other and unspecified	95	20.0	49.5	66	27.3	36.4	O&U
All sites	**2,175**	**59.3**	**14.4**	**2,169**	**70.9**	**7.7**	**All**

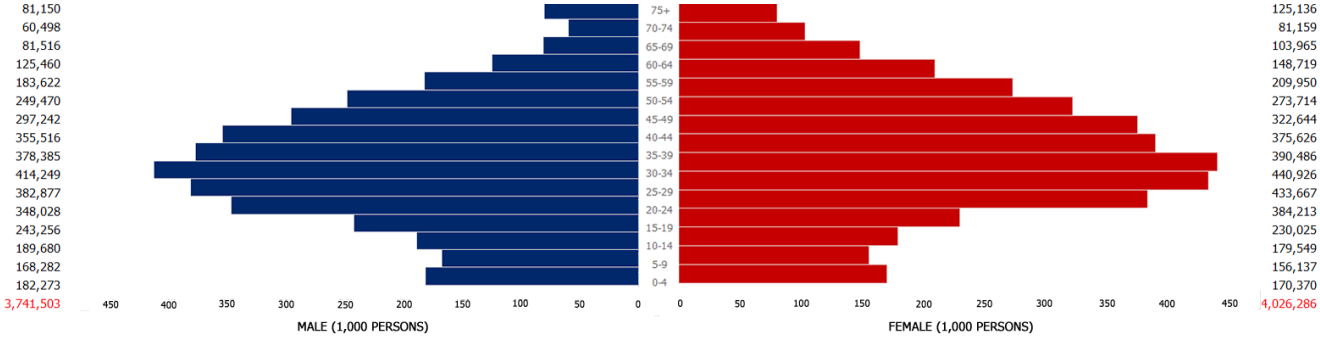
Bangkok Cancer Registry

Registration area

Bangkok Metropolis is the capital of Thailand, located in the central part of the country on the low-flat plain of the Chao Phraya River at latitude 13:45 N and longitude 100:28 E. It is the centre of politics, economy, education, culture and transportation. The climate is tropical, influenced by seasonal monsoons, with long hours of sunshine, high temperature and humidity. Bangkok comprises 50 districts with a total area of 1,569 square kilometers. Bangkok Metropolitan Administration is the sole organization at the local authority level responsible for the well-being of Bangkok residents with some financial support from the central government. Bangkok is the commercial center of Thailand, as well as Southeast Asia, for import and export. Bangkok is moving towards a westernized metropolitan status with a wide range of standards of living. Traffic congestion is a major unsolved problem and cause of air pollution.



Population pyramid, Bangkok
estimated population in 2011 (average 2010-2012)



Cancer care facilities

In Bangkok, there are 9 excellent government cancer centers of all 12 centers in Thailand, namely the National Cancer Institute, King Chulalongkorn Memorial hospital, Siriraj hospital, Ramathibodi hospital, Phra Mongkutklao hospital, Queen Sirikit National Institute of Child Health, Rajavithi hospital, Vajira hospital and Bhumibhol Adulyadej hospital. Moreover, there are three international private cancer centers; Bangkok hospital, Bumrungrad hospital and Samitivej hospital. From historical data, more than half of patients are treated in government hospitals. Regarding Public Health statistics, Bangkok has the highest level of facilities for general health care. The ratio of population per physician is 793:1, while it is 6,237:1 in other parts of Thailand. The Bangkok cancer registry is an important base for collection of cancer cases and in addition, referring the data of those non-resident patients treated in Bangkok back to other cancer registries.

Registry procedures

The cancer registry functions as one unit of the National Cancer Institute (NCI). The registry is supported by the government and funded partly by the Cancer Research Foundation of the NCI, which first established a population - based cancer registry for Bangkok Metropolis in 1990. The work began with a retrospective review of records covering the period 1988-1990. Data are collected both actively and passively from the government cancer centers, university, hospital, government hospitals, private hospitals, pathology laboratories and from death certificates. All death certificates are reviewed to match with the incident case records, and efforts are made to trace further information before registering the case as a DCO.

Summary of results

New cases registered in 2011, 5,498 were males and 6,644 were females, making 12,142 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 146.2 per 100,000, with lung cancer ranking first (ASR = 23.9), followed by liver and bile duct (ASR = 23.5) and colon and rectum (ASR = 18.7). The ASR of all cancer sites in females was 136.9 per 100,000, the three leading cancer sites being breast (ASR = 35.1), colon and rectum (ASR = 13.6) and cervix (ASR = 11.1).

Figure 3.9 Leading cancer in Bangkok (mean annual ASR 2010-2012)

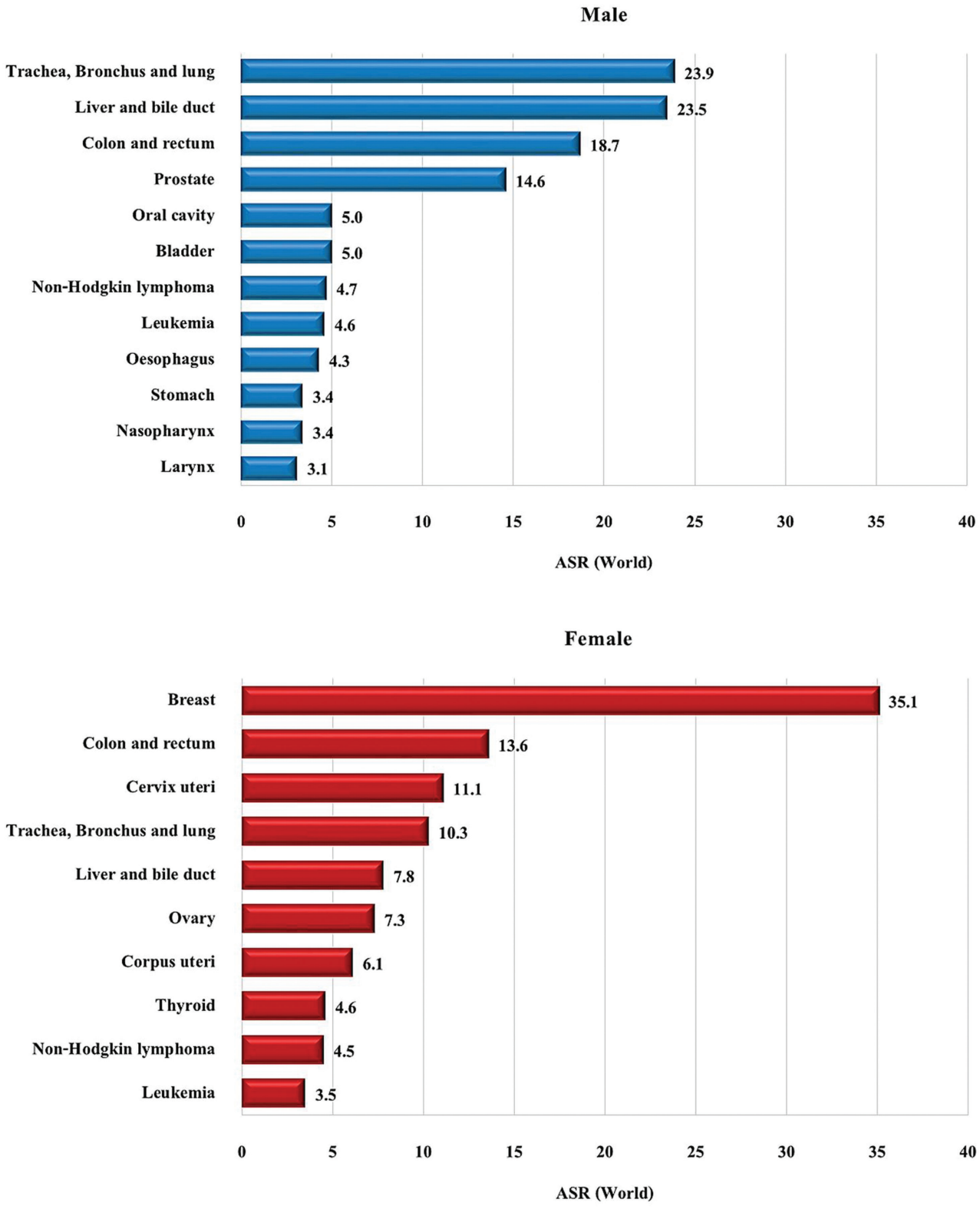


Table 3.9.1 Bangkok (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.2	0.8	0.8	0.6	0.8	0.1	0.1	C00
Tongue	81	0.0	0.0	0.0	0.1	0.1	0.3	0.4	1.1	1.9	3.7	4.9	6.5	9.6	6.5	14.3	7.0	2.2	2.0	C01-02
Mouth	83	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.4	0.8	2.6	5.3	6.9	9.3	12.3	17.1	13.6	2.2	2.2	C03-06
Salivary glands	26	0.0	0.2	0.2	0.1	0.2	0.1	0.2	0.3	0.6	0.6	0.9	2.2	2.4	4.5	4.4	3.3	0.7	0.7	C07-08
Tonsil	40	0.0	0.0	0.2	0.0	0.1	0.1	0.3	0.6	0.8	2.1	3.5	2.9	2.9	5.3	2.2	3.7	1.1	0.9	C09
Other oropharynx	9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.7	0.7	0.5	1.1	1.6	0.6	0.8	0.2	0.2	C10
Nasopharynx	149	0.0	0.0	0.7	0.5	0.3	0.5	1.5	2.4	4.2	8.1	11.9	11.8	11.4	14.7	11.0	5.3	4.0	3.4	C11
Hypopharynx	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	1.6	2.7	5.3	4.8	4.1	7.7	6.2	1.2	1.1	C12-13
Pharynx unspecified	11	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.3	0.3	0.7	1.1	0.8	2.0	1.7	1.2	0.3	0.3	C14
Oesophagus	161	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.7	1.9	4.8	9.0	13.4	21.3	34.3	21.5	26.3	4.3	4.3	C15
Stomach	132	0.2	0.0	0.2	0.3	0.2	0.3	0.2	0.9	2.2	3.9	6.4	8.5	12.2	12.3	27.5	39.0	3.5	3.4	C16
Small intestine	10	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.2	0.3	0.7	0.5	1.2	2.8	2.9	0.3	0.2	C17
Colon	432	0.0	0.0	0.2	0.0	0.2	0.3	0.7	3.1	3.8	8.0	15.2	31.6	49.9	76.1	100.3	119.1	11.5	11.7	C18
Rectum	250	0.2	0.0	0.0	0.1	0.0	0.3	0.6	1.9	2.9	6.2	10.3	19.2	28.2	39.3	65.6	51.3	6.7	6.7	C19-20
Anus	13	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.1	0.3	0.7	0.5	2.1	0.8	3.3	1.2	0.3	0.3	C21
Liver and bile duct	926	0.9	0.0	0.2	0.1	0.7	0.7	2.5	8.2	14.3	30.8	53.6	86.6	103.9	123.1	144.4	152.8	24.7	23.5	C22,C24
Gallbladder	19	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.1	1.1	0.5	1.9	3.3	4.4	7.0	0.5	0.5	C23
Pancreas	105	0.2	0.0	0.0	0.0	0.1	0.0	0.5	0.5	0.8	1.3	4.1	10.0	10.6	12.3	24.2	33.7	2.8	2.8	C25
Nose, sinuses etc.	19	0.2	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.3	0.7	1.2	1.6	1.6	2.9	2.2	2.5	0.5	0.5	C30-31
Larynx	117	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	0.8	3.3	6.8	8.0	13.6	18.8	28.1	23.4	3.1	3.1	C32
Trachea, Bronchus and lung	887	0.0	0.0	0.2	0.5	0.3	0.4	1.0	3.3	8.5	19.5	36.2	61.4	95.9	151.7	212.7	248.9	23.7	23.9	C33-34
Other thoracic organs	16	0.0	0.0	0.0	0.5	0.3	0.3	0.0	0.2	0.1	0.6	0.5	1.1	1.9	0.8	1.1	3.3	0.4	0.4	C37-38
Bone	37	0.5	0.8	1.6	2.3	1.3	0.3	0.2	0.2	0.8	0.7	0.9	0.5	1.6	2.9	2.8	5.8	1.0	1.1	C40-C41
Melanoma of skin	8	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.4	0.4	0.5	1.6	1.1	2.5	0.2	0.2	C43
Other skin	91	0.0	0.2	0.2	0.0	0.1	0.6	0.3	0.3	0.8	1.7	2.8	5.1	6.9	11.9	14.9	41.5	2.4	2.4	C44
Mesothelioma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.0	0.4	0.0	0.0	C45
Kaposi's sarcoma	3	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C46
Connective tissue	59	0.9	1.0	0.4	0.7	0.9	0.5	0.8	1.4	1.1	2.0	2.1	3.3	4.5	4.5	2.8	8.6	1.6	1.5	C47,C49
Breast	12	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.4	0.6	0.1	0.7	1.1	0.8	1.7	2.9	0.3	0.3	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	17	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3	0.4	1.3	1.3	2.4	1.6	0.6	3.7	0.5	0.4	C60
Prostate	501	0.2	0.0	0.0	0.4	0.3	0.1	0.2	0.2	0.5	1.7	4.7	22.0	55.5	97.7	185.7	218.1	13.4	14.6	C61
Testis	17	0.7	0.0	0.0	0.8	0.5	0.3	0.6	0.5	0.6	0.4	0.3	0.4	0.5	0.8	1.1	0.4	0.5	0.5	C62
Other male genital organs	4	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.4	0.0	0.0	1.1	0.4	0.1	0.1	C63
Kidney	79	0.5	0.2	0.0	0.0	0.0	0.1	0.5	0.4	1.2	2.1	3.9	6.5	7.4	8.6	15.4	19.3	2.1	2.1	C64
Renal pelvis	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.2	0.5	0.0	0.6	1.6	0.1	0.1	C65
Ureter	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.0	2.2	1.2	0.1	0.1	C66
Bladder	181	0.2	0.2	0.2	0.0	0.0	0.2	0.3	0.3	1.5	2.0	6.1	8.4	20.2	25.4	49.0	73.1	4.8	5.0	C67
Other urinary organs	10	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.4	1.1	1.2	2.8	2.9	0.3	0.3	C68
Eye	5	1.1	0.2	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.2	0.3	0.0	0.5	0.4	0.0	0.0	0.1	0.2	C69
Brain, nervous system	103	0.9	2.8	2.8	1.1	0.5	1.2	1.3	1.7	1.7	2.7	6.3	4.7	7.2	11.4	11.0	8.6	2.7	2.8	C70-72
Thyroid	62	0.0	0.2	0.0	0.4	0.6	1.0	1.2	1.3	1.7	1.9	2.0	3.3	5.8	7.4	6.6	6.6	1.7	1.5	C73
Adrenal gland	3	0.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.4	0.0	0.0	0.0	0.8	0.1	0.1	C74
Other endocrine	4	0.2	0.4	0.5	0.3	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.4	0.1	0.2	C75
Hodgkin disease	17	0.2	0.0	0.5	0.7	1.2	0.3	0.3	0.3	0.3	0.1	0.3	0.7	0.3	0.8	0.6	1.6	0.5	0.4	C81
Non-Hodgkin lymphoma	183	0.9	0.8	1.1	1.2	1.2	2.1	1.1	2.6	3.0	6.4	6.9	12.0	15.1	22.9	27.0	30.4	4.9	4.7	C82-85,C96
Multiple myeloma	35	0.2	0.2	0.0	0.3	0.2	0.0	0.2	0.4	0.4	1.0	0.9	1.8	4.5	4.9	8.3	7.4	0.9	1.0	C90
Lymphoid leukemia	39	4.0	2.2	1.1	1.5	0.5	0.2	0.2	0.4	0.3	0.8	0.4	1.5	1.9	2.0	3.9	5.3	1.0	1.5	C91
Myeloid leukemia	59	0.7	0.8	1.4	1.2	1.1	0.7	0.7	1.1	1.4	1.5	1.1	3.1	4.0	4.1	5.5	9.0	1.6	1.6	C92-94
Leukemia unspecified	54	0.5	0.8	0.9	0.5	0.2	0.5	0.4	0.9	0.9	1.1	0.9	3.4	3.5	6.5	10.5	12.3	1.5	1.5	C95
Myelodysplastic disease	23	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.2	0.5	0.6	0.8	1.5	1.3	3.3	3.3	8.6	0.6	0.6	D45-D47
Other and unspecified	352	0.5	0.0	0.2	1.0	0.9	1.7	1.8	2.4	5.6	9.9	13.9	21.1	35.6	53.2	67.8	87.5	9.4	9.2	O&U
All sites	**5,498**	**15.2**	**11.1**	**12.7**	**15.2**	**12.3**	**14.2**	**19.7**	**40.4**	**68.5**	**138.3**	**234.4**	**383.8**	**569.1**	**802.7**	**1123.4**	**1314.4**	**146.9**	**146.2**	**ALL**

Table 3.9.2 Bangkok (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	8	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	0.2	1.0	1.2	2.4	0.2	0.2	C00
Tongue	47	0.0	0.0	0.0	0.0	0.3	0.2	0.4	0.4	1.1	1.9	1.6	3.0	4.3	5.8	2.9	4.8	1.2	1.0	C01-02
Mouth	28	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.6	0.4	0.7	1.1	1.3	2.0	2.6	3.7	4.5	0.7	0.6	C03-06
Salivary glands	20	0.0	0.0	0.0	0.3	0.0	0.4	0.3	0.4	0.5	0.6	0.4	1.3	1.8	1.6	2.1	0.8	0.5	0.4	C07-08
Tonsil	7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.4	1.0	0.4	0.3	1.2	0.5	0.2	0.1	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	61	0.0	0.0	0.0	0.3	0.4	0.3	1.1	1.3	2.4	2.4	3.9	4.0	2.9	3.5	2.9	1.1	1.5	1.2	C11
Hypopharynx	2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C12-13
Pharynx unspecified	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.2	0.0	0.4	0.5	0.0	0.0	C14
Oesophagus	24	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.5	1.3	2.9	2.2	2.1	7.2	0.6	0.5	C15
Stomach	158	0.0	0.0	0.2	0.3	0.2	0.6	1.1	1.4	2.6	5.1	5.4	8.6	11.7	15.4	19.3	28.2	3.9	3.2	C16
Small intestine	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.5	0.6	0.4	1.0	0.4	2.4	0.2	0.2	C17
Colon	427	0.0	0.0	0.0	0.1	0.4	0.5	1.4	2.2	3.7	7.6	14.6	25.7	32.3	43.9	70.6	99.4	10.6	8.8	C18
Rectum	214	0.0	0.0	0.0	0.0	0.3	0.2	0.5	1.5	2.5	4.9	10.8	13.0	18.6	25.0	32.4	32.8	5.3	4.5	C19-20
Anus	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.5	1.1	0.9	1.0	2.9	2.9	0.4	0.3	C21
Liver and bile duct	371	0.6	0.0	0.4	0.1	0.0	0.5	1.1	2.0	3.2	6.7	14.2	18.3	32.1	43.3	65.3	78.0	9.2	7.8	C22,C24
Gallbladder	31	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.6	0.9	1.9	2.2	4.2	2.9	9.6	0.8	0.6	C23
Pancreas	115	0.2	0.0	0.0	0.0	0.2	0.1	0.0	0.9	1.1	1.4	3.4	6.0	11.4	14.7	23.0	22.6	2.8	2.5	C25
Nose, sinuses etc.	17	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.3	1.0	0.5	1.3	0.0	1.0	2.1	2.4	0.4	0.3	C30-31
Larynx	10	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.6	0.7	1.0	0.8	2.4	0.3	0.2	C32
Trachea, Bronchus and lung	496	0.0	0.0	0.0	0.1	0.4	0.9	0.6	2.5	7.1	9.8	16.4	31.1	44.8	53.5	77.2	98.8	12.3	10.3	C33-34
Other thoracic organs	15	0.4	0.0	0.2	0.0	0.0	0.1	0.2	0.3	0.2	0.6	0.6	0.6	1.8	0.6	1.6	1.1	0.4	0.4	C37-38
Bone	31	0.2	0.2	1.7	1.4	0.1	0.3	0.3	0.3	0.4	1.0	1.3	1.0	1.3	1.3	2.1	2.9	0.8	0.8	C40-C41
Melanoma of skin	16	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.9	0.6	0.8	1.6	1.6	2.1	1.3	0.4	0.3	C43
Other skin	131	0.0	0.4	0.4	0.1	0.5	0.5	0.4	0.6	1.0	2.4	3.4	6.0	8.7	13.8	14.8	38.4	3.2	2.7	C44
Mesothelioma	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.2	0.0	0.0	0.5	0.0	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	63	0.4	0.4	0.6	1.4	0.8	1.1	1.1	1.1	0.9	1.7	2.6	3.7	3.4	2.2	4.1	5.3	1.6	1.4	C47,C49
Breast	1,769	0.2	0.0	0.0	0.9	0.9	3.3	13.5	24.6	53.7	91.2	104.5	120.5	132.9	126.6	119.9	105.5	43.9	35.1	C50
Vulva	12	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.1	0.6	1.1	0.4	0.6	2.5	1.9	0.3	0.2	C51
Vagina	14	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.0	0.2	0.4	1.0	1.3	1.9	0.8	3.2	0.3	0.3	C52
Cervix uteri	566	0.0	0.0	0.2	0.0	0.4	2.3	5.7	10.9	17.1	22.7	33.4	36.4	37.4	36.2	46.8	39.7	14.1	11.1	C53
Corpus uteri	291	0.0	0.0	0.0	0.0	0.3	0.6	1.1	2.4	4.7	8.3	16.3	26.2	32.3	27.3	28.8	23.2	7.2	6.1	C54
Uterus unspecified	26	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.4	0.7	0.9	2.1	2.2	2.9	3.7	4.0	0.6	0.5	C55
Ovary	356	0.0	0.0	2.2	2.5	1.6	2.2	4.1	5.5	9.0	14.2	19.1	23.2	26.4	26.3	22.6	21.0	8.9	7.3	C56
Other female genital organs	7	0.0	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.7	1.0	0.4	0.5	0.2	0.2	C57
Placenta	11	0.0	0.0	0.0	0.4	0.3	0.5	0.5	0.3	0.3	0.4	0.0	0.0	0.0	0.0	0.4	0.3	0.3	0.2	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	54	0.2	0.0	0.4	0.1	0.0	0.2	0.1	0.2	0.4	1.4	1.3	3.0	5.4	7.1	8.6	9.6	1.3	1.2	C64
Renal pelvis	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.7	0.6	1.2	0.0	0.1	0.1	C65
Ureter	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.2	1.0	0.4	3.2	0.2	0.1	C66
Bladder	90	0.0	0.0	0.0	0.1	0.0	0.2	0.2	0.6	0.9	1.0	1.9	3.5	6.3	10.6	18.5	24.5	2.2	1.9	C67
Other urinary organs	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.4	0.2	0.2	0.6	0.0	1.9	0.1	0.1	C68
Eye	6	1.6	0.2	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.8	0.5	0.1	0.3	C69
Brain, nervous system	101	2.5	1.3	1.3	0.6	0.6	1.1	0.9	2.0	1.4	3.9	3.5	5.4	4.7	6.1	8.6	9.9	2.5	2.4	C70-72
Thyroid	233	0.0	0.0	0.7	2.9	3.0	4.1	4.7	5.6	7.1	7.4	9.4	10.2	17.5	9.9	12.7	6.7	5.8	4.6	C73
Adrenal gland	6	0.6	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.6	0.3	0.2	0.6	0.4	0.0	0.1	0.2	C74
Other endocrine	6	0.2	0.0	0.2	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.5	0.7	0.0	1.2	0.3	0.2	0.2	C75
Hodgkin disease	13	0.0	0.0	1.1	0.1	0.0	0.9	0.4	0.5	0.2	0.1	0.2	0.2	0.2	0.6	0.0	0.3	0.3	0.3	C81
Non-Hodgkin lymphoma	207	1.2	0.9	0.7	2.9	0.7	1.6	2.3	2.7	4.0	3.1	7.4	12.2	15.2	21.8	22.6	24.5	5.1	4.5	C82-85,C96
Multiple myeloma	38	0.4	0.4	0.2	0.1	0.0	0.0	0.1	0.1	0.6	0.4	2.3	1.3	3.4	3.8	5.3	7.7	1.0	0.9	C90
Lymphoid leukemia	29	2.5	1.3	1.9	0.6	0.1	0.2	0.2	0.0	0.2	0.8	0.9	1.3	0.4	2.6	0.8	3.5	0.7	1.0	C91
Myeloid leukemia	60	0.4	0.2	0.4	1.6	0.6	0.5	0.6	1.1	1.8	2.3	1.9	3.0	3.6	2.2	4.5	4.8	1.5	1.3	C92-94
Leukemia unspecified	53	0.8	0.2	0.6	0.4	0.5	0.2	0.2	0.7	0.5	1.3	1.5	2.4	3.8	5.5	6.6	8.8	1.3	1.2	C95
Myelodysplastic disease	26	0.2	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.1	0.2	0.6	1.0	1.6	1.0	4.9	8.5	0.7	0.5	D45-D47
Other and unspecified	333	1.4	0.0	0.4	1.4	1.2	1.0	2.1	3.2	5.1	8.3	11.8	16.8	28.9	26.6	50.1	57.3	8.3	7.0	O&U
All sites	**6,644**	**13.9**	**5.6**	**14.3**	**19.4**	**14.7**	**26.0**	**46.1**	**77.9**	**136.0**	**219.3**	**304.7**	**406.4**	**513.7**	**564.3**	**711.4**	**822.0**	**165.0**	**136.9**	**ALL**

Table 3.9.3 Mean annual incidence, Bangkok, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	4	0.1	0.1	0.1	0.0	0.0	8	0.1	0.2	0.2	0.2	0.2	C00
Tongue	81	1.5	2.2	2.0	0.1	0.2	47	0.7	1.2	1.0	1.2	1.0	C01-02
Mouth	83	1.5	2.2	2.2	0.1	0.3	28	0.4	0.7	0.6	0.7	0.6	C03-06
Salivary glands	26	0.5	0.7	0.7	0.0	0.1	20	0.3	0.5	0.4	0.5	0.4	C07-08
Tonsil	40	0.7	1.1	0.9	0.1	0.1	7	0.1	0.2	0.1	0.2	0.1	C09
Other oropharynx	9	0.2	0.2	0.2	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	149	2.7	4.0	3.4	0.3	0.4	61	0.9	1.5	1.2	1.5	1.2	C11
Hypopharynx	44	0.8	1.2	1.1	0.1	0.1	2	0.0	0.1	0.0	0.1	0.0	C12-13
Pharynx unspecified	11	0.2	0.3	0.3	0.0	0.0	2	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	161	2.9	4.3	4.3	0.3	0.5	24	0.4	0.6	0.5	0.6	0.5	C15
Stomach	132	2.4	3.5	3.4	0.2	0.4	158	2.4	3.9	3.2	3.9	3.2	C16
Small intestine	10	0.2	0.3	0.2	0.0	0.0	9	0.1	0.2	0.2	0.2	0.2	C17
Colon	432	7.9	11.5	11.7	0.6	1.4	427	6.4	10.6	8.8	10.6	8.8	C18
Rectum	250	4.5	6.7	6.7	0.3	0.9	214	3.2	5.3	4.5	5.3	4.5	C19-20
Anus	13	0.2	0.3	0.3	0.0	0.0	14	0.2	0.4	0.3	0.4	0.3	C21
Liver and bile duct	926	16.8	24.7	23.5	1.5	2.9	371	5.6	9.2	7.8	9.2	7.8	C22,C24
Gallbladder	19	0.3	0.5	0.5	0.0	0.1	31	0.5	0.8	0.6	0.8	0.6	C23
Pancreas	105	1.9	2.8	2.8	0.1	0.3	115	1.7	2.8	2.5	2.8	2.5	C25
Nose, sinuses etc.	19	0.3	0.5	0.5	0.0	0.1	17	0.3	0.4	0.3	0.4	0.3	C30-31
Larynx	117	2.1	3.1	3.1	0.2	0.4	10	0.2	0.3	0.2	0.3	0.2	C32
Trachea, Bronchus and lung	887	16.1	23.7	23.9	1.1	3.0	496	7.5	12.3	10.3	12.3	10.3	C33-34
Other thoracic organs	16	0.3	0.4	0.4	0.0	0.0	15	0.2	0.4	0.4	0.4	0.4	C37-38
Bone	37	0.7	1.0	1.1	0.1	0.1	31	0.5	0.8	0.8	0.8	0.8	C40-C41
Melanoma of skin	8	0.1	0.2	0.2	0.0	0.0	16	0.2	0.4	0.3	0.4	0.3	C43
Other skin	91	1.7	2.4	2.4	0.1	0.2	131	2.0	3.2	2.7	3.2	2.7	C44
Mesothelioma	1	0.0	0.0	0.0	0.0	0.0	2	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	3	0.1	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	59	1.1	1.6	1.5	0.1	0.1	63	0.9	1.6	1.4	1.6	1.4	C47,C49
Breast	12	0.2	0.3	0.3	0.0	0.0	1,769	26.6	43.9	35.1	43.9	35.1	C50
Vulva							12	0.2	0.3	0.2	0.3	0.2	C51
Vagina							14	0.2	0.3	0.3	0.3	0.3	C52
Cervix uteri							566	8.5	14.1	11.1	14.1	11.1	C53
Corpus uteri							291	4.4	7.2	6.1	7.2	6.1	C54
Uterus unspecified							26	0.4	0.6	0.5	0.6	0.5	C55
Ovary							356	5.4	8.9	7.3	8.9	7.3	C56
Other female genital organs							7	0.1	0.2	0.2	0.2	0.2	C57
Placenta							11	0.2	0.3	0.2	0.3	0.2	C58
Penis	17	0.3	0.5	0.4	0.0	0.0							C60
Prostate	501	9.1	13.4	14.6	0.4	1.8							C61
Testis	17	0.3	0.5	0.5	0.0	0.0							C62
Other male genital organs	4	0.1	0.1	0.1	0.0	0.0							C63
Kidney	79	1.4	2.1	2.1	0.1	0.2	54	0.8	1.3	1.2	1.3	1.2	C64
Renal pelvis	4	0.1	0.1	0.1	0.0	0.0	5	0.1	0.1	0.1	0.1	0.1	C65
Ureter	4	0.1	0.1	0.1	0.0	0.0	7	0.1	0.2	0.1	0.2	0.1	C66
Bladder	181	3.3	4.8	5.0	0.2	0.6	90	1.3	2.2	1.9	2.2	1.9	C67
Other urinary organs	10	0.2	0.3	0.3	0.0	0.0	5	0.1	0.1	0.1	0.1	0.1	C68
Eye	5	0.1	0.1	0.2	0.0	0.0	6	0.1	0.1	0.3	0.1	0.3	C69
Brain, nervous system	103	1.9	2.7	2.8	0.2	0.3	101	1.5	2.5	2.4	2.5	2.4	C70-72
Thyroid	62	1.1	1.7	1.5	0.1	0.2	233	3.5	5.8	4.6	5.8	4.6	C73
Adrenal gland	3	0.1	0.1	0.1	0.0	0.0	6	0.1	0.1	0.2	0.1	0.2	C74
Other endocrine	4	0.1	0.1	0.2	0.0	0.0	6	0.1	0.2	0.2	0.2	0.2	C75
Hodgkin disease	17	0.3	0.5	0.4	0.0	0.0	13	0.2	0.3	0.3	0.3	0.3	C81
Non-Hodgkin lymphoma	183	3.3	4.9	4.7	0.3	0.5	207	3.1	5.1	4.5	5.1	4.5	C82-85,C96
Multiple myeloma	35	0.6	0.9	1.0	0.1	0.1	38	0.6	1.0	0.9	1.0	0.9	C90
Lymphoid leukemia	39	0.7	1.0	1.5	0.1	0.1	29	0.4	0.7	1.0	0.7	1.0	C91
Myeloid leukemia	59	1.1	1.6	1.6	0.1	0.1	60	0.9	1.5	1.3	1.5	1.3	C92-94
Leukemia unspecified	54	1.0	1.5	1.5	0.1	0.2	53	0.8	1.3	1.2	1.3	1.2	C95
Myelodysplastic disease	23	0.4	0.6	0.6	0.0	0.1	26	0.4	0.7	0.5	0.7	0.5	D45-D47
Other and unspecified	352	6.4	9.4	9.2	0.5	1.1	333	5.0	8.3	7.0	8.3	7.0	O&U
All sites	**5,498**	**100.0**	**146.9**	**146.2**	**7.7**	**17.3**	**6,644**	**100.0**	**165.0**	**136.9**	**165.0**	**136.9**	**ALL**

Table 3.9.4 Percentage of morphologically verified and death certificate only cases, Bangkok

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	582	79.4	4.0	307	79.8	2.3	C00-C08
Oropharynx	178	75.8	5.6	31	61.3	6.5	C09-C10,C14
Nasopharynx	446	80.5	1.3	182	76.9	3.8	C11
Hypopharynx	132	84.1	0.0	7	71.4	0.0	C12-C13
Esophagus	483	68.3	3.9	71	64.8	5.6	C15
Stomach	395	78.5	3.8	474	72.8	4.2	C16
Small intestine	29	69.0	6.9	26	73.1	3.8	C17
Colon and rectum	2,083	79.0	3.5	1,965	79.5	2.9	C18-C21
Liver and bile duct	2,779	27.7	10.1	1,113	30.8	6.6	C22,C24
Gallbladder	56	39.3	12.5	94	55.3	12.8	C23
pancrease	316	55.4	6.6	344	57.3	4.4	C25
Nose,sinuses etc	56	75.0	3.6	52	67.3	5.8	C30-C31
Larynx	350	72.6	4.0	31	67.7	0.0	C32
Trachea, brochus and lung	2,660	48.4	5.5	1,489	55.4	4.2	C33-C34
Other thoracic organs	47	76.6	2.1	46	80.4	4.3	C37-C38
Bone	111	64.0	9.0	92	58.7	8.7	C40-C41
Melanoma of skin	24	100.0	0.0	47	100.0	0.0	C43
Other skin	273	83.9	1.1	392	83.7	1.3	C44
Mesothelioma	4	100.0	0.0	6	100.0	0.0	C45
Kaposi sarcoma	9	100.0	0.0	0	0.0		C46
Connective and soft tissue	176	79.0	1.7	189	72.5	2.1	C47,C49
Breast	37	81.1	0.0	5,308	86.2	1.7	C50
Vulva				35	74.3	0.0	C51
Vagina				42	90.5	0.0	C52
Cervix uteri				1,699	80.0	3.1	C53
Corpus uteri				873	89.9	0.5	C54
Uterus unspecified				79	65.8	13.9	C55
Ovary				1,069	73.4	2.4	C56
Other female genital organs				21	76.2	0.0	C57
Placenta				32	43.8	0.0	C58
Penis	52	84.6	0.0				C60
Prostate	1,504	84.8	2.1				C61
Testis	52	80.8	0.0				C62
Other male genital organs	11	54.5	0.0				C63
Kidney	237	78.1	6.8	161	78.9	3.1	C64
Renal pelvis	12	91.7	0.0	14	78.6	0.0	C65
Ureter	11	63.6	0.0	21	85.7	0.0	C66
Bladder	543	81.2	1.1	269	74.3	1.1	C67
Other urinary organs	29	82.8	3.4	15	73.3	13.3	C68
Eye	16	81.3	0.0	17	94.1	0.0	C69
Brain, nervous system	308	57.1	8.8	302	54.0	7.6	C70-C72
Thyroid	187	84.5	1.6	698	87.4	0.9	C73
Adrenal gland	10	60.0	10.0	18	61.1	11.1	C74
Other endocrine	13	76.9	7.7	19	31.6	5.3	C75
Hodgkin disease	51	100.0	0.0	40	100.0	0.0	C81
Non-Hodgkin lymphoma	548	99.6	0.4	621	99.7	0.2	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	104	100.0	0.0	115	100.0	0.0	C90
Leukemia	456	96.5	3.1	427	96.5	3.0	C91-C95
Myelodysplastic	69	98.6	0.0	79	96.2	0.0	D45-D47
Other and unspecified	1,056	23.6	19.2	1,000	25.1	15.7	O&U
All sites	**16,495**	**62.6**	**5.7**	**19,932**	**74.2**	**3.4**	**All**

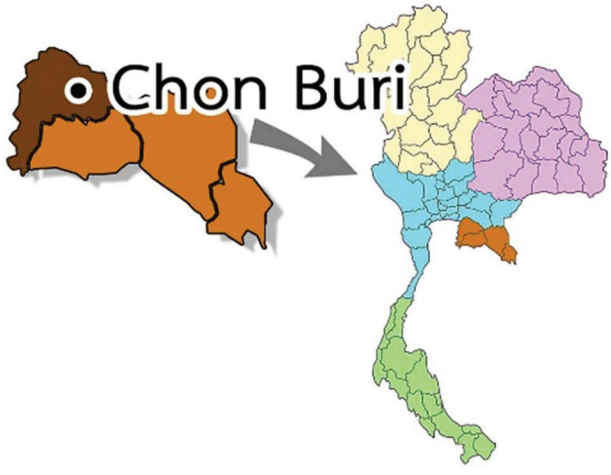
Chon Buri Cancer Registry

Registration area

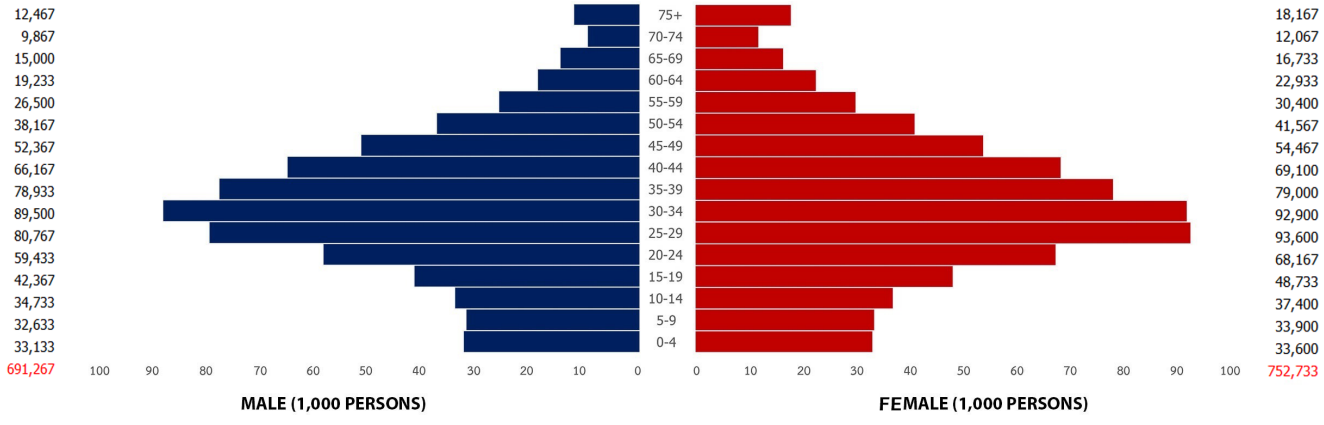
Chon Buri is situated in the eastern part of Thailand, between12°-13° N and 100-102 ° E,80 kilometers from Bangkok by car or bus and train, with land area 4,363 square kilometers and is bounded in the north by Chachoengsao, in the east by Chanthaburi, in the south by Rayong and in the west by the bank of Gulf of Thailand. The districts of Chon Buri were: Muang Chon Buri, Sri Racha, Ban Bung, Nong Yai, Bang Lamung, Sattahip, Phan Thong, Phanat Nikhom, Bo Thong, Ko Sichang and subdistrict Ko Chan.

The central part of the province is predominantly mountainous stretching from north-west to south-east, about 200 meters above the sea level. The climate is hot and dry the highest temperature about 42 ° C in summer from March to May, in winter from November to February, rainy season started from June to October. The average total rainfall is 1,342.2 millimeters per year.

The most important occupations are farming of sugar beans, fishing and shrimp farming. The Industrial Estate Authority of Eastern part of Thailand is situated in this area.Nowadays, it is becoming appreciated for its tourism potential, especially Bang Saen, Ko si chang, Pattaya.



Population pyramid, Chon Buri
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The total number of hospitals in Chon Buri province was 26 hospitals composed of 12 community hospitals, 9 private hospitals and 1 provincial hospital, 3 military hospitals and university hospital providing 4745 total beds. Cancer diagnostic services including radiological diagnosis equipment such as: X-ray, ultrasound, computed radiography, mammogram, CT scan and pathological investigations are available in Chon Buri provincial hospital, private hospitals and Chonburi Cancer Hospital. MRI is available only in Smitivej Sriracha Hospital. Cancer treatment, radiotherapy equipments: one simulator, cobalt-60 machine, linear accelerator and remote after-loading devices for brachytherapy are available at the Chonburi Cancer Hospital. Cancer surgery and cancer chemotherapy service are provided in Chonburi Cancer Hospital, provincial hospital and private hospitals.

Registry procedures

All data on cancer patients were collected by mixture of passive and active methods involving notification by the staff of all hospital in Chon Buri. New cancer cases were collected from out and in patient departments, wards, radiotherapy unit, surgery unit, cytology unit, hematology unit, medical record, pathological unit and autopsy service. The data information collected includes demographic details for each cancer patient that consists of: registry number, name, residential address, date of birth, age, sex, date of diagnosis, site of cancer, histology of cancer, staging, extension of disease, method of diagnosis, treatment, date of last contact and status of cancer patients (alive or dead). Multiple primary cases are checked by physicians using their original records and with any other physicians concerned. All cancer death certificates are matched with the incidence case records of the registry. Individual certified as having died of cancer are registered as “Death Certificate Only (DCO)” cases if no other information about the individual can be traced from the other sources.

Summary of results

New cases registered in 2011, 1,057 were males and 1,292 were females, making 2,349 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 169.0 per 100,000, with lung cancer ranks first (ASR = 34.2) followed by liver and bile duct (ASR =22.5) and colon and rectum (ASR =19.9). The ASR of all cancer sites in females was 160.0 per 100,000, three leading cancer sites being breast (ASR = 36.0), cervix (ASR =19.5) and colon and rectum (ASR =16.6).

Figure 3.10 Leading cancer in Chon Buri (mean annual ASR 2010-2012)

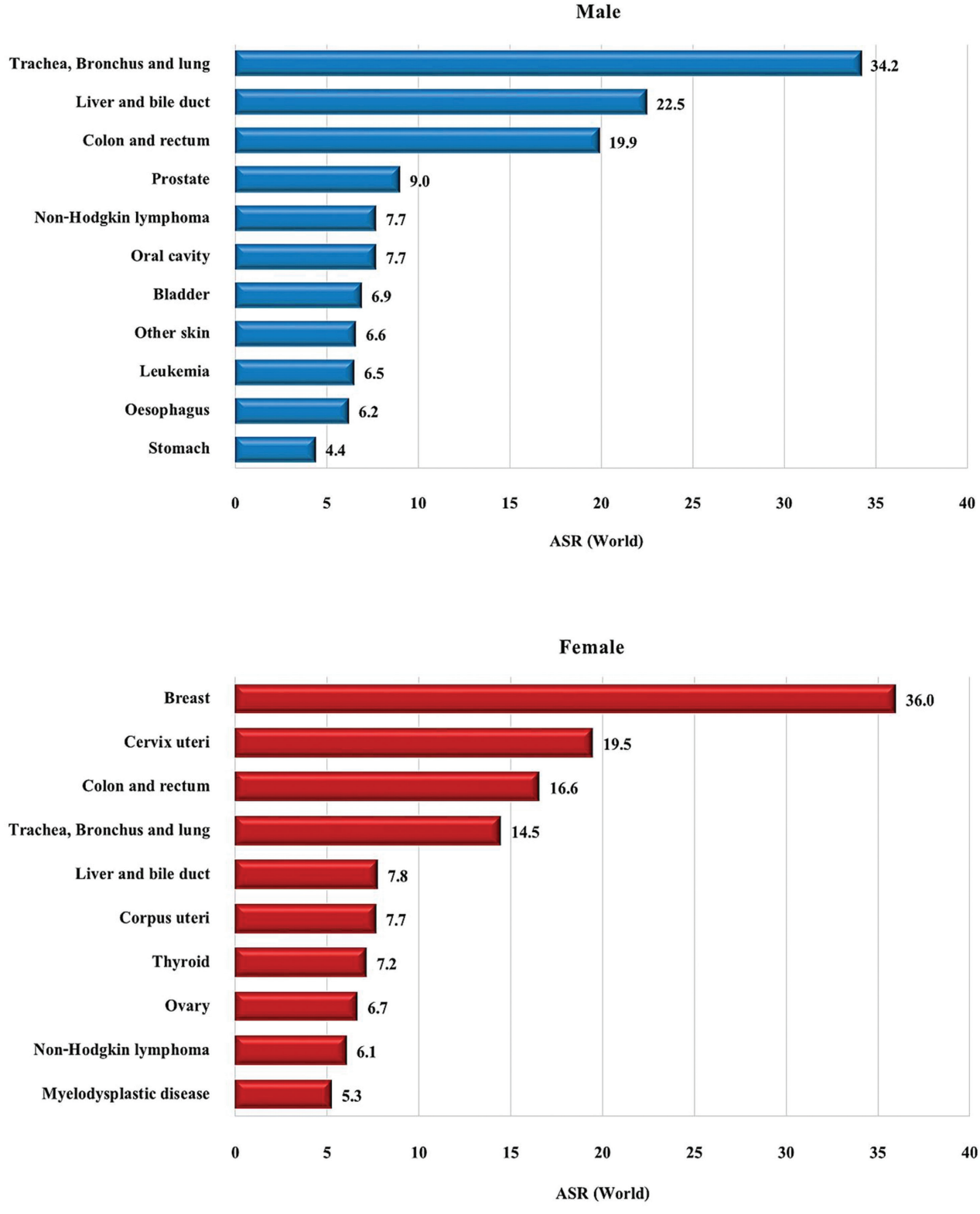


Table 3.10.1 Chon Buri (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.1	C00
Tongue	25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	7.0	14.0	20.1	15.6	17.8	23.6	13.4	3.6	3.9	C01-02
Mouth	19	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.8	2.5	5.7	7.0	11.3	13.9	11.1	16.9	13.4	2.8	2.9	C03-06
Salivary glands	6	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.4	1.0	1.3	2.6	1.3	5.2	0.0	6.8	5.3	0.9	0.8	C07-08
Tonsil	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.5	4.4	7.5	12.1	4.4	10.1	2.7	1.5	1.6	C09
Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.9	1.3	1.7	2.2	3.4	0.0	0.3	0.3	C10
Nasopharynx	30	0.0	1.0	0.0	2.4	0.0	1.7	1.9	3.0	4.5	10.8	8.7	20.1	17.3	13.3	6.8	0.0	4.3	4.1	C11
Hypopharynx	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	4.5	4.4	6.3	3.5	8.9	20.3	8.0	1.6	1.8	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.1	C14
Oesophagus	39	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	3.5	9.5	14.8	21.4	27.7	28.9	50.7	40.1	5.7	6.2	C15
Stomach	27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	3.5	3.8	5.2	12.6	17.3	24.4	50.7	34.8	4.0	4.4	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	3.5	0.0	6.8	2.7	0.3	0.4	C17
Colon	77	0.0	0.0	0.0	0.0	0.6	0.8	1.5	5.5	5.5	10.8	23.6	36.5	43.3	53.3	121.6	115.0	11.2	12.2	C18
Rectum	47	0.0	0.0	0.0	0.0	0.0	0.0	0.7	2.5	5.5	6.4	15.7	22.6	24.3	46.7	60.8	58.8	6.8	7.4	C19-20
Anus	3	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.3	0.0	0.0	0.9	1.3	0.0	2.2	0.0	2.7	0.4	0.3	C21
Liver and bile duct	148	1.0	0.0	0.0	0.0	0.0	2.1	2.6	5.5	13.1	36.9	72.5	94.3	93.6	88.9	108.1	136.4	21.5	22.5	C22,C24
Gallbladder	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	3.8	0.0	2.2	0.0	8.0	0.4	0.4	C23
Pancreas	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	1.9	3.5	5.0	10.4	8.9	13.5	32.1	1.9	2.2	C25
Nose, sinuses etc.	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	0.0	1.7	2.5	0.0	0.0	3.4	10.7	0.6	0.6	C30-31
Larynx	24	0.0	0.0	1.0	0.0	0.0	0.0	0.4	0.0	0.5	3.2	6.1	13.8	26.0	31.1	27.0	26.7	3.5	4.2	C32
Trachea, Bronchus and lung	204	0.0	0.0	0.0	0.0	0.0	1.2	1.9	2.5	8.1	25.5	62.9	89.3	124.8	224.4	327.7	342.2	29.5	34.2	C33-34
Other thoracic organs	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	0.0	1.3	0.0	2.2	6.8	0.0	0.3	0.3	C37-38
Bone	6	0.0	0.0	1.9	2.4	0.6	0.0	0.7	0.0	0.5	0.6	0.9	0.0	3.5	2.2	6.8	2.7	0.8	1.0	C40-C41
Melanoma of skin	4	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.5	1.3	0.0	1.3	0.0	2.2	6.8	10.7	0.6	0.6	C43
Other skin	40	0.0	0.0	0.0	0.8	1.1	0.4	1.1	2.1	1.5	2.5	6.1	12.6	17.3	42.2	50.7	109.6	5.8	6.6	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C45
Kaposi's sarcoma	1	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.2	0.2	C46
Connective tissue	10	2.0	0.0	2.9	0.0	0.0	0.4	0.7	1.7	1.5	0.6	1.7	2.5	1.7	8.9	10.1	8.0	1.5	1.7	C47,C49
Breast	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.9	0.0	1.7	4.4	10.1	5.3	0.5	0.6	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	8	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.4	1.5	3.2	2.6	0.0	6.9	4.4	6.8	8.0	1.2	1.2	C60
Prostate	49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.6	1.7	8.8	36.4	73.3	87.8	152.4	7.1	9.0	C61
Testis	6	1.0	0.0	0.0	0.8	2.8	0.8	0.7	1.7	0.0	0.0	0.0	2.5	0.0	2.2	0.0	2.7	0.9	0.8	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.1	C63
Kidney	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.9	4.4	5.0	1.7	8.9	3.4	10.7	1.3	1.3	C64
Renal pelvis	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.5	2.2	3.4	2.7	0.3	0.4	C65
Ureter	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	3.4	0.0	0.1	0.1	C66
Bladder	41	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	1.0	3.8	7.0	17.6	27.7	26.7	74.3	104.3	5.9	6.9	C67
Eye	1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.7	0.0	0.0	2.7	0.2	0.3	C69
Brain, nervous system	14	0.0	1.0	1.9	0.0	0.0	1.2	0.7	0.8	3.5	2.5	2.6	6.3	10.4	2.2	16.9	5.3	2.1	2.1	C70-72
Thyroid	15	0.0	0.0	0.0	0.0	0.6	2.1	2.6	3.8	1.0	2.5	4.4	1.3	5.2	2.2	16.9	2.7	2.1	1.7	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	C74
Hodgkin disease	3	1.0	0.0	0.0	0.0	1.1	0.0	0.4	0.8	0.5	0.6	0.0	0.0	1.7	0.0	3.4	0.0	0.5	0.5	C81
Non-Hodgkin lymphoma	53	1.0	1.0	0.0	3.1	0.6	2.9	6.3	5.1	5.5	9.5	11.4	17.6	32.9	35.6	50.7	34.8	7.7	7.7	C82-85,C96
Multiple myeloma	7	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.4	1.0	0.0	0.0	1.3	10.4	6.7	16.9	5.3	1.0	1.2	C90
Lymphoid leukemia	9	10.1	3.1	3.8	1.6	0.0	0.0	1.1	0.0	0.5	0.6	0.0	1.3	1.7	2.2	3.4	0.0	1.4	2.4	C91
Myeloid leukemia	14	1.0	4.1	0.0	1.6	0.0	1.7	1.5	1.3	1.0	1.3	2.6	3.8	1.7	8.9	13.5	16.0	2.1	2.3	C92-94
Leukemia unspecified	11	2.0	1.0	1.0	1.6	0.6	0.0	1.1	0.8	1.0	1.9	0.9	2.5	5.2	11.1	3.4	8.0	1.5	1.8	C95
Myelodysplastic disease	26	2.0	0.0	0.0	2.4	0.6	2.1	2.2	0.4	4.5	1.9	4.4	10.1	6.9	15.6	23.6	42.8	3.7	3.9	D45-D47
Other and unspecified	23	0.0	0.0	0.0	0.8	0.0	0.8	0.4	2.1	2.0	4.5	11.4	6.3	8.7	17.8	23.6	32.1	3.4	3.5	O&U
All sites	**1,057**	**22.1**	**11.2**	**12.5**	**17.3**	**9.0**	**20.2**	**31.3**	**48.1**	**84.1**	**171.9**	**313.5**	**476.7**	**627.4**	**853.3**	**1300.7**	**1430.5**	**153.0**	**169.0**	**ALL**

Table 3.10.2 Chon Buri (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.5	0.0	0.0	0.0	0.0	0.0	2.8	5.5	0.3	0.2	C00
Tongue	6	0.0	0.0	0.0	0.0	0.0	0.7	0.4	0.4	0.0	0.6	1.6	1.1	5.8	4.0	2.8	5.5	0.8	0.8	C01-02
Mouth	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	1.2	1.6	2.2	5.8	0.0	8.3	14.7	1.1	1.0	C03-06
Salivary glands	3	0.0	0.0	0.0	0.7	0.5	0.0	0.0	0.4	0.5	0.6	0.8	2.2	0.0	0.0	2.8	0.0	0.4	0.4	C07-08
Tonsil	2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	1.8	0.8	1.1	0.0	0.0	0.0	0.0	0.3	0.2	C09
Other oropharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	13	0.0	0.0	0.0	0.0	0.0	0.7	1.4	1.7	1.4	2.4	4.8	4.4	7.3	0.0	5.5	7.3	1.7	1.4	C11
Hypopharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C12-13
Pharynx unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.2	0.1	C14
Oesophagus	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	2.2	10.2	2.0	5.5	5.5	0.7	0.8	C15
Stomach	24	0.0	0.0	0.0	0.0	0.0	0.7	1.4	3.0	1.4	4.3	4.8	9.9	5.8	10.0	19.3	33.0	3.2	2.9	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	1.1	0.0	0.0	0.0	3.7	0.2	0.2	C17
Colon	84	0.0	0.0	0.0	0.7	2.0	1.4	2.2	2.5	5.8	11.6	20.9	34.0	52.3	53.8	63.5	102.8	11.1	11.1	C18
Rectum	39	0.0	0.0	0.0	0.0	0.0	0.4	1.1	2.1	4.8	5.5	13.6	11.0	29.1	27.9	19.3	40.4	5.2	5.2	C19-20
Anus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.6	0.0	1.1	1.5	0.0	2.8	3.7	0.3	0.3	C21
Liver and bile duct	58	1.0	0.0	0.0	0.0	0.5	0.0	1.4	0.8	6.3	12.9	15.2	15.4	34.9	31.9	63.5	66.1	7.7	7.8	C22,C24
Gallbladder	6	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.5	0.0	1.6	3.3	1.5	4.0	13.8	7.3	0.8	0.9	C23
Pancreas	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.8	5.5	0.0	8.0	16.6	27.5	1.5	1.5	C25
Nose, sinuses etc.	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.4	0.0	0.8	2.2	1.5	2.0	0.0	3.7	0.6	0.5	C30-31
Larynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	1.1	0.0	2.0	0.0	1.8	0.2	0.2	C32
Trachea, Bronchus and lung	107	0.0	0.0	0.0	0.0	1.5	0.7	1.4	3.8	6.8	18.4	20.9	34.0	56.7	87.6	132.6	128.4	14.2	14.5	C33-34
Other thoracic organs	2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.5	2.0	0.0	1.8	0.2	0.3	C37-38
Bone	3	0.0	0.0	0.9	0.0	1.0	0.0	0.0	0.0	0.5	0.6	1.6	1.1	0.0	2.0	0.0	1.8	0.4	0.4	C40-C41
Melanoma of skin	4	0.0	0.0	0.0	0.0	0.5	0.0	0.4	0.8	0.5	0.0	0.0	0.0	1.5	2.0	2.8	5.5	0.5	0.4	C43
Other skin	40	0.0	0.0	0.0	0.7	0.0	1.1	0.7	1.7	1.4	4.9	8.0	12.1	5.8	23.9	41.4	88.1	5.4	5.1	C44
Mesothelioma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.5	0.0	0.0	0.0	0.1	0.1	C45
Kaposi's sarcoma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.0	0.0	0.0	0.0	1.8	0.1	0.1	C46
Connective tissue	9	1.0	1.0	0.9	0.0	1.5	1.1	0.7	0.4	1.4	1.2	2.4	2.2	2.9	2.0	2.8	0.0	1.2	1.2	C47,C49
Breast	309	0.0	0.0	0.0	0.0	0.5	4.3	19.7	34.2	66.6	99.8	128.3	123.9	107.6	103.6	113.3	66.1	41.0	36.0	C50
Vulva	4	0.0	0.0	0.0	0.0	0.5	0.4	0.0	0.4	0.0	0.6	2.4	1.1	0.0	0.0	5.5	1.8	0.5	0.4	C51
Vagina	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	1.5	0.0	0.0	1.8	0.2	0.2	C52
Cervix uteri	171	0.0	0.0	0.0	0.0	0.5	3.6	11.5	25.3	44.9	38.6	56.9	61.4	64.0	65.7	44.2	60.6	22.7	19.5	C53
Corpus uteri	59	0.0	0.0	0.0	0.0	0.0	0.7	1.1	3.4	7.7	9.2	28.1	37.3	30.5	39.8	30.4	20.2	7.8	7.7	C54
Ovary	59	0.0	0.0	0.0	0.7	1.5	2.5	4.3	8.4	9.6	20.8	19.2	21.9	13.1	21.9	19.3	18.3	7.9	6.7	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	1	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	4	1.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.6	0.8	1.1	2.9	2.0	8.3	1.8	0.5	0.6	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	2.8	3.7	0.2	0.2	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	13	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.0	1.2	3.2	2.2	4.4	6.0	22.1	23.9	1.7	1.7	C67
Eye	1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.1	0.1	C69
Brain, nervous system	16	0.0	2.0	0.0	0.7	0.5	0.4	1.4	1.7	2.4	1.8	4.8	8.8	2.9	8.0	8.3	9.2	2.2	2.1	C70-72
Thyroid	65	0.0	0.0	0.9	2.1	6.8	7.1	9.3	6.8	11.1	12.9	16.0	6.6	21.8	21.9	19.3	20.2	8.6	7.2	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C74
Hodgkin disease	4	0.0	0.0	1.8	0.0	0.5	0.4	0.4	0.0	0.5	1.2	0.8	0.0	0.0	0.0	2.8	1.8	0.5	0.5	C81
Non-Hodgkin lymphoma	47	2.0	2.0	3.6	2.1	2.4	2.5	3.6	5.5	6.8	7.3	5.6	20.8	16.0	12.0	38.7	23.9	6.3	6.1	C82-85,C96
Multiple myeloma	7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	1.8	1.6	1.1	5.8	8.0	5.5	7.3	1.0	1.0	C90
Lymphoid leukemia	9	6.0	3.9	2.7	1.4	0.0	1.4	0.7	0.0	1.0	0.0	1.6	1.1	0.0	0.0	0.0	3.7	1.2	1.9	C91
Myeloid leukemia	11	0.0	0.0	0.0	0.7	1.0	0.4	1.8	0.8	0.5	1.8	2.4	4.4	2.9	2.0	5.5	12.8	1.5	1.3	C92-94
Leukemia unspecified	10	3.0	0.0	0.9	0.0	0.5	0.0	0.7	1.3	2.4	0.6	1.6	1.1	4.4	4.0	5.5	9.2	1.4	1.5	C95
Myelodysplastic disease	40	1.0	0.0	0.9	1.4	1.5	0.0	0.7	1.3	3.4	3.7	12.0	11.0	14.5	15.9	52.5	60.6	5.3	5.3	D45-D47
Other and unspecified	19	0.0	0.0	0.0	0.0	0.0	0.4	0.7	1.3	1.9	4.3	4.8	6.6	10.2	8.0	19.3	18.3	2.5	2.4	O&U
All sites	**1,292**	**15.9**	**8.8**	**12.5**	**10.9**	**23.5**	**31.3**	**71.4**	**112.2**	**194.9**	**276.0**	**396.2**	**458.3**	**527.6**	**585.7**	**812.2**	**921.1**	**171.6**	**160.0**	**ALL**

Table 3.10.3 Mean annual incidence, Chon Buri, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	0	0.0	0.0	0.1	0.0	0.0	2	0.2	0.3	0.2	0.0	0.0	C00
Tongue	25	2.4	3.6	3.9	0.3	0.5	6	0.5	0.8	0.8	0.1	0.1	C01-02
Mouth	19	1.8	2.8	2.9	0.2	0.4	8	0.6	1.1	1.0	0.1	0.1	C03-06
Salivary glands	6	0.6	0.9	0.8	0.1	0.1	3	0.2	0.4	0.4	0.0	0.0	C07-08
Tonsil	10	1.0	1.5	1.6	0.1	0.2	2	0.2	0.3	0.2	0.0	0.0	C09
Other oropharynx	2	0.2	0.3	0.3	0.0	0.1	0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	30	2.8	4.3	4.1	0.4	0.5	13	1.0	1.7	1.4	0.1	0.1	C11
Hypopharynx	11	1.1	1.6	1.8	0.1	0.2	0	0.0	0.0	0.0	0.0	0.0	C12-13
Pharynx unspecified	0	0.0	0.0	0.1	0.0	0.0	1	0.1	0.2	0.1	0.0	0.0	C14
Oesophagus	39	3.7	5.7	6.2	0.4	0.8	5	0.4	0.7	0.8	0.1	0.1	C15
Stomach	27	2.6	4.0	4.4	0.2	0.6	24	1.9	3.2	2.9	0.2	0.3	C16
Small intestine	2	0.2	0.3	0.4	0.0	0.1	2	0.1	0.2	0.2	0.0	0.0	C17
Colon	77	7.3	11.2	12.2	0.6	1.5	84	6.5	11.1	11.1	0.7	1.3	C18
Rectum	47	4.4	6.8	7.4	0.4	0.9	39	3.0	5.2	5.2	0.3	0.6	C19-20
Anus	3	0.3	0.4	0.3	0.0	0.0	2	0.2	0.3	0.3	0.0	0.0	C21
Liver and bile duct	148	14.0	21.5	22.5	1.6	2.6	58	4.5	7.7	7.8	0.4	0.9	C22,C24
Gallbladder	3	0.3	0.4	0.4	0.0	0.0	6	0.5	0.8	0.9	0.0	0.1	C23
Pancreas	13	1.3	1.9	2.2	0.1	0.2	11	0.9	1.5	1.5	0.0	0.2	C25
Nose, sinuses etc.	4	0.4	0.6	0.6	0.0	0.0	5	0.4	0.6	0.5	0.0	0.0	C30-31
Larynx	24	2.3	3.5	4.2	0.3	0.5	2	0.1	0.2	0.2	0.0	0.0	C32
Trachea, Bronchus and lung	204	19.3	29.5	34.2	1.6	4.3	107	8.3	14.2	14.5	0.7	1.8	C33-34
Other thoracic organs	2	0.2	0.3	0.3	0.0	0.1	2	0.1	0.2	0.3	0.0	0.0	C37-38
Bone	6	0.5	0.8	1.0	0.1	0.1	3	0.3	0.4	0.4	0.0	0.0	C40-C41
Melanoma of skin	4	0.4	0.6	0.6	0.0	0.1	4	0.3	0.5	0.4	0.0	0.0	C43
Other skin	40	3.8	5.8	6.6	0.2	0.7	40	3.1	5.4	5.1	0.2	0.5	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C45
Kaposi's sarcoma	1	0.1	0.2	0.2	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C46
Connective tissue	10	1.0	1.5	1.7	0.1	0.2	9	0.7	1.2	1.2	0.1	0.1	C47,C49
Breast	3	0.3	0.5	0.6	0.0	0.1	309	23.9	41.0	36.0	2.9	4.0	C50
Vulva							4	0.3	0.5	0.4	0.0	0.1	C51
Vagina							2	0.1	0.2	0.2	0.0	0.0	C52
Cervix uteri							171	13.2	22.7	19.5	1.5	2.1	C53
Corpus uteri							59	4.5	7.8	7.7	0.6	0.9	C54
Ovary							59	4.6	7.9	6.7	0.5	0.7	C56
Other female genital organs							0	0.0	0.0	0.0	0.0	0.0	C57
Placenta							1	0.1	0.1	0.1	0.0	0.0	C58
Penis	8	0.8	1.2	1.2	0.1	0.1	0	0.0					C60
Prostate	49	4.7	7.1	9.0	0.2	1.0							C61
Testis	6	0.6	0.9	0.8	0.1	0.1							C62
Other male genital organs	0	0.0	0.0	0.1	0.0	0.0							C63
Kidney	9	0.8	1.3	1.3	0.1	0.1	4	0.3	0.5	0.6	0.0	0.1	C64
Renal pelvis	2	0.2	0.3	0.4	0.0	0.1	1	0.1	0.2	0.2	0.0	0.0	C65
Ureter	1	0.1	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	41	3.8	5.9	6.9	0.3	0.8	13	1.0	1.7	1.7	0.1	0.2	C67
Eye	1	0.1	0.2	0.3	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C69
Brain, nervous system	14	1.4	2.1	2.1	0.2	0.3	16	1.3	2.2	2.1	0.1	0.2	C70-72
Thyroid	15	1.4	2.1	1.7	0.1	0.2	65	5.0	8.6	7.2	0.5	0.7	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C74
Hodgkin disease	3	0.3	0.5	0.5	0.0	0.0	4	0.3	0.5	0.5	0.0	0.0	C81
Non-Hodgkin lymphoma	53	5.0	7.7	7.7	0.5	0.9	47	3.7	6.3	6.1	0.4	0.7	C82-85,C96
Multiple myeloma	7	0.7	1.0	1.2	0.1	0.2	7	0.6	1.0	1.0	0.1	0.1	C90
Lymphoid leukemia	9	0.9	1.4	2.4	0.1	0.1	9	0.7	1.2	1.9	0.1	0.1	C91
Myeloid leukemia	14	1.4	2.1	2.3	0.1	0.2	11	0.9	1.5	1.3	0.1	0.1	C92-94
Leukemia unspecified	11	1.0	1.5	1.8	0.1	0.2	10	0.8	1.4	1.5	0.1	0.1	C95
Myelodysplastic disease	26	2.4	3.7	3.9	0.2	0.4	40	3.1	5.3	5.3	0.3	0.6	D45-D47
Other and unspecified	23	2.2	3.4	3.5	0.2	0.4	19	1.5	2.5	2.4	0.2	0.3	O&U
All sites	**1,057**	**100.0**	**153.0**	**169.0**	**9.2**	**20.0**	**1,292**	**100.0**	**171.6**	**160.0**	**10.7**	**17.7**	**ALL**

Table 3.10.4 Percentage of morphologically verified and death certificate only cases, Chon Buri

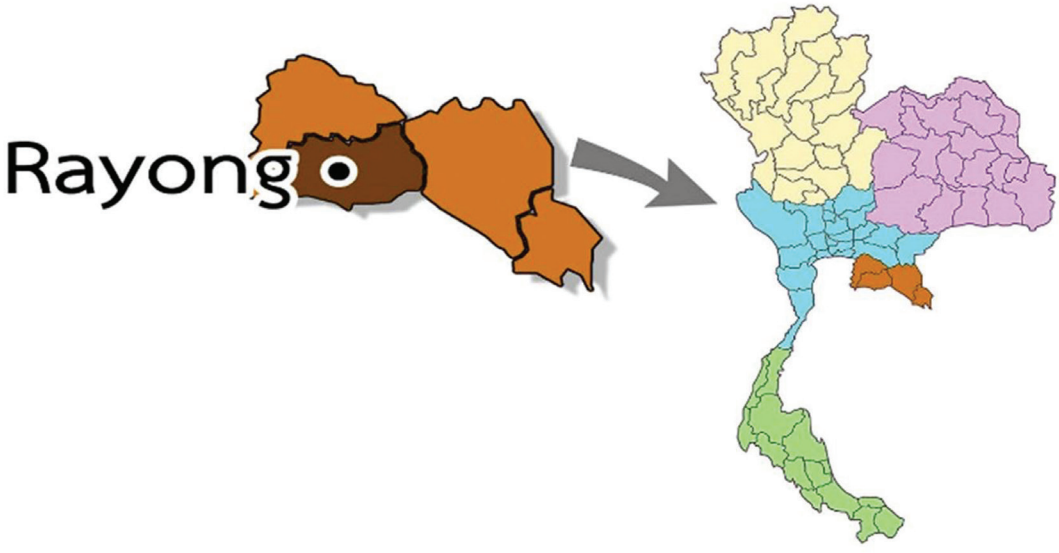
Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	152	91.4	1.3	57	80.7	0.0	C00-C08
Oropharynx	38	97.4	0.0	11	45.5	0.0	C09-C10,C14
Nasopharynx	90	94.4	0.0	38	86.8	0.0	C11
Hypopharynx	34	94.1	0.0	1	100.0	0.0	C12-C13
Esophagus	118	82.2	0.0	16	75.0	6.3	C15
Stomach	82	79.3	0.0	72	73.6	4.2	C16
Small intestine	6	83.3	0.0	5	40.0	0.0	C17
Colon and rectum	380	79.2	2.4	376	77.1	2.4	C18-C21
Liver and bile duct	445	22.0	3.8	174	17.8	13.8	C22,C24
Gallbladder	8	62.5	0.0	19	63.2	0.0	C23
pancrease	40	32.5	5.0	34	26.5	17.6	C25
Nose,sinuses etc	12	75.0	0.0	14	71.4	0.0	C30-C31
Larynx	73	80.8	4.1	5	80.0	0.0	C32
Trachea, brochus and lung	611	69.2	3.4	320	67.5	3.8	C33-C34
Other thoracic organs	6	83.3	0.0	5	60.0	0.0	C37-C38
Bone	17	41.2	0.0	10	20.0	10.0	C40-C41
Melanoma of skin	12	100.0	0.0	11	100.0	0.0	C43
Other skin	121	96.7	0.0	121	94.2	0.0	C44
Mesothelioma	0	0.0	0.0	2	100.0	0.0	C45
Kaposi sarcoma	4	100.0	0.0	3	100.0	0.0	C46
Connective and soft tissue	31	96.8	0.0	26	100.0	0.0	C47,C49
Breast	10	100.0	0.0	926	89.8	0.5	C50
Vulva				11	81.8	0.0	C51
Vagina				5	100.0	0.0	C52
Cervix uteri				512	90.2	0.8	C53
Corpus uteri				176	96.6	0.0	C54
Uterus unspecified				0	0.0	0.0	C55
Ovary				178	78.7	1.1	C56
Other female genital organs				1	100.0	0.0	C57
Placenta				2	100.0	0.0	C58
Penis	25	92.0	0.0				C60
Prostate	148	67.6	0.0				C61
Testis	19	89.5	5.3				C62
Other male genital organs	1	100.0	0.0				C63
Kidney	26	53.8	3.8	12	83.3	0.0	C64
Renal pelvis	7	100.0	0.0	4	100.0	0.0	C65
Ureter	2	100.0	0.0	0	0.0	0.0	C66
Bladder	122	76.2	0.0	38	78.9	0.0	C67
Other urinary organs	0	0.0	0.0	0	0.0	0.0	C68
Eye	4	75.0	0.0	2	50.0	0.0	C69
Brain, nervous system	43	55.8	2.3	49	51.0	6.1	C70-C72
Thyroid	44	93.2	0.0	194	86.1	0.0	C73
Adrenal gland	1	100.0	0.0	1	100.0	0.0	C74
Other endocrine	0	0.0	0.0	0	0.0	0.0	C75
Hodgkin disease	10	100.0	0.0	11	100.0	0.0	C81
Non-Hodgkin lymphoma	159	100.0	0.0	142	100.0	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	21	100.0	0.0	22	100.0	0.0	C90
Leukemia	103	100.0	0.0	93	100.0	0.0	C91-C95
Myelodysplastic	77	100.0	0.0	120	100.0	0.0	D45-D47
Other and unspecified	70	48.6	0.0	57	50.9	7.0	O&U
All sites	**3,172**	**72.0**	**1.8**	**3,876**	**81.6**	**1.9**	**All**

Rayong Cancer Registry

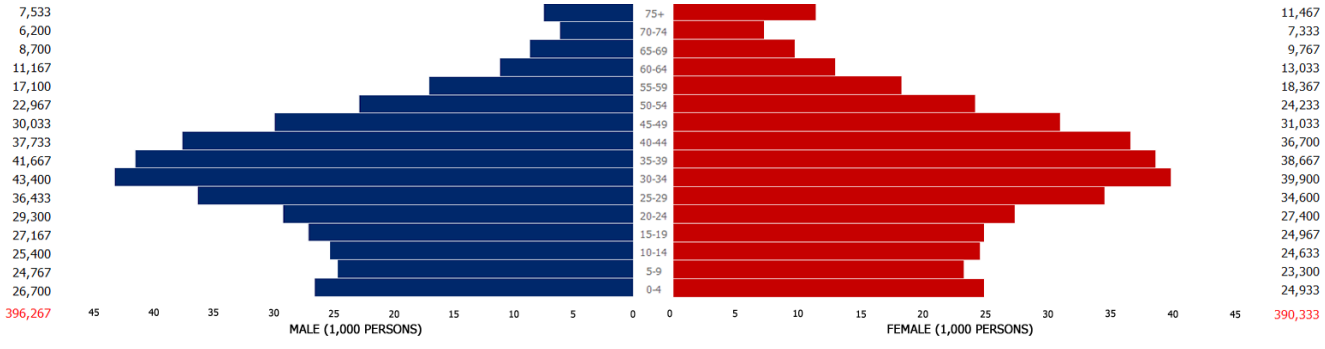
Registration area

Rayong is situated between 12°-13° N and 101-102 ° E, with land area 3552 square kilometers, 5 meters above sea level and is bounded on the North and the West by Chon Buri, on the East by Chanthaburi and the Golf of Thailand on the South. The province had comprising of coastal plains, slope, hilly land, mountains and two major rivers which flow to the sea about 100 kilometers of sea shore on the South. The districts of Rayong were: Muang Rayong, Klaeng, Ban Chang, Wang Chan, Ban Khai, Pluak Daeng and Khao Chamao, Nikhom Phatthana subdistricts.

The climate is rather warm, the highest temperature about 38.7 ° C in summer from March to May, 17.8° C in winter from November to February, rainy season started from May to October. The average total rainfall is 3509.4 millimeters per year. The most important occupations are farming of vegetables and fruits, fishing and shrimp farming. The Map Ta Phut Industrial Estate is situated in Muang Rayong since 1981 composed of 1663 factories and 121568 workers.



Population pyramid, Rayong
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The total number of hospitals in Rayong province was 12 hospitals composed of 8 community hospitals, 3 private hospitals and 1 provincial hospital, providing 1225 total beds. The medical personals composed of 191 registered medical practitioners, 38 dentists, 76 pharmacists and 1117 nurses. The population to doctor ratio was 2722:1.

Cancer diagnostic services including radiological diagnosis equipment such as: X-ray, ultrasound, mammography, CT and pathological investigation are available in Rayong provincial hospital andprivate hospital. MRI is available only in Bangkok Rayong hospital. Cancer surgery services and cancer chemotherapy are provided in Rayong provincial hospital andprivate Hospital. Most of the cancer patients were referred to Chonburi Cancer Hospital for radiotherapy.

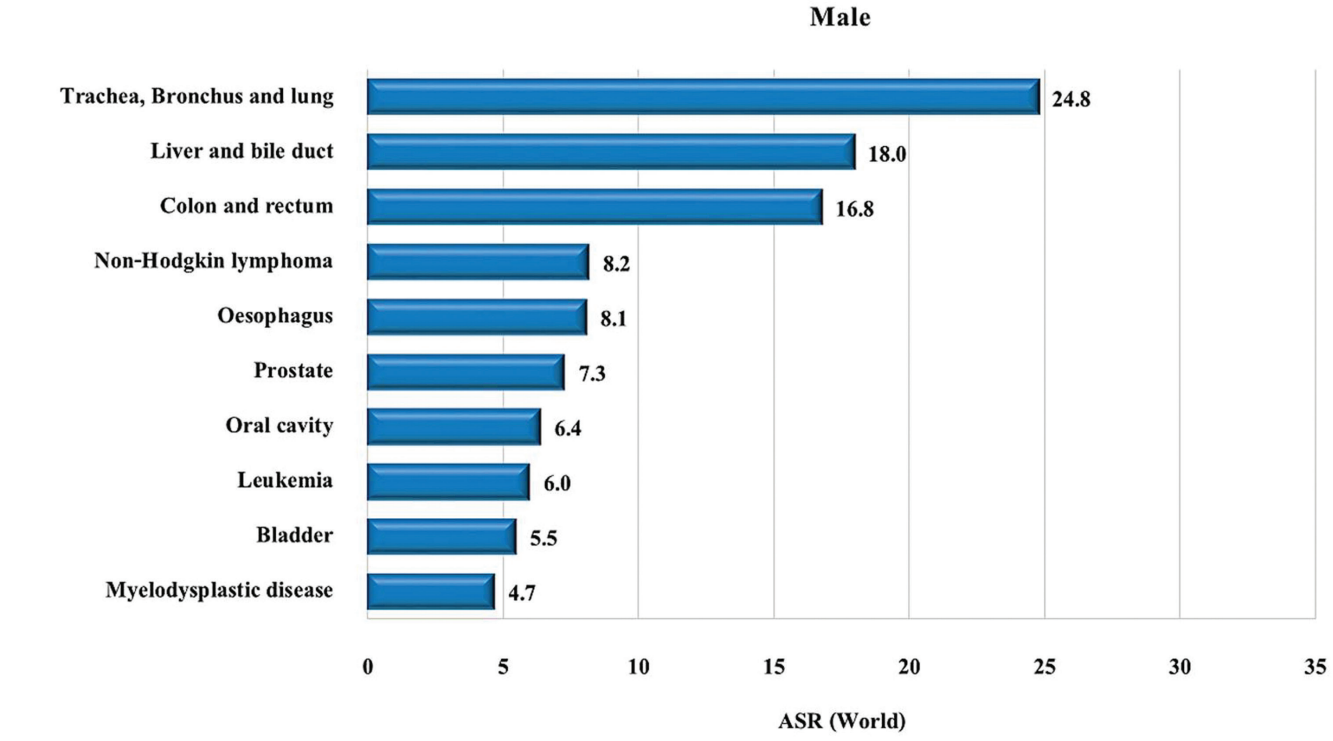
Registry procedures

All data on cancer patients were collected by mixture of passive and active methods involving notification by the staff of all hospital in Rayong. New cancer cases were collected from out and in patient departments, wards, radiotherapy unit, surgery unit, cytology unit, hematology unit, medical record and pathological unit. The data information collected includes demographic details for each cancer patient that consists of: registry number, name, residential address, date of birth, age, sex, date of diagnosis, site of cancer, histology of cancer, staging, extension of disease, method of diagnosis, treatment, date of last contact and status of cancer patients (alive or dead). Multiple primary cases are checked by physicians using their original records and with any other physicians concerned. All cancer death certificates are matched with the incidence case records of the registry. Individual certified as having died of cancer are registered as “Death Certificate Only (DCO)” cases if no other information about the individual can be traced from the other sources.

Summary of results

New cases registered in 2011, 542 were males and 647 were females, making 1,189 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 141.5 per 100,000, with lung cancer ranks first (ASR = 24.8) followed by liver and bile duct (ASR =18.0) and colon and rectum (ASR =16.8).The ASR of all cancer sites in females was 140.5 per 100,000, three leading cancer sites being breast (ASR = 30.3), cervix (ASR =15.8) and lung (ASR =10.9).

Figure 3.11 Leading cancer in Rayong (mean annual ASR 2010-2012)



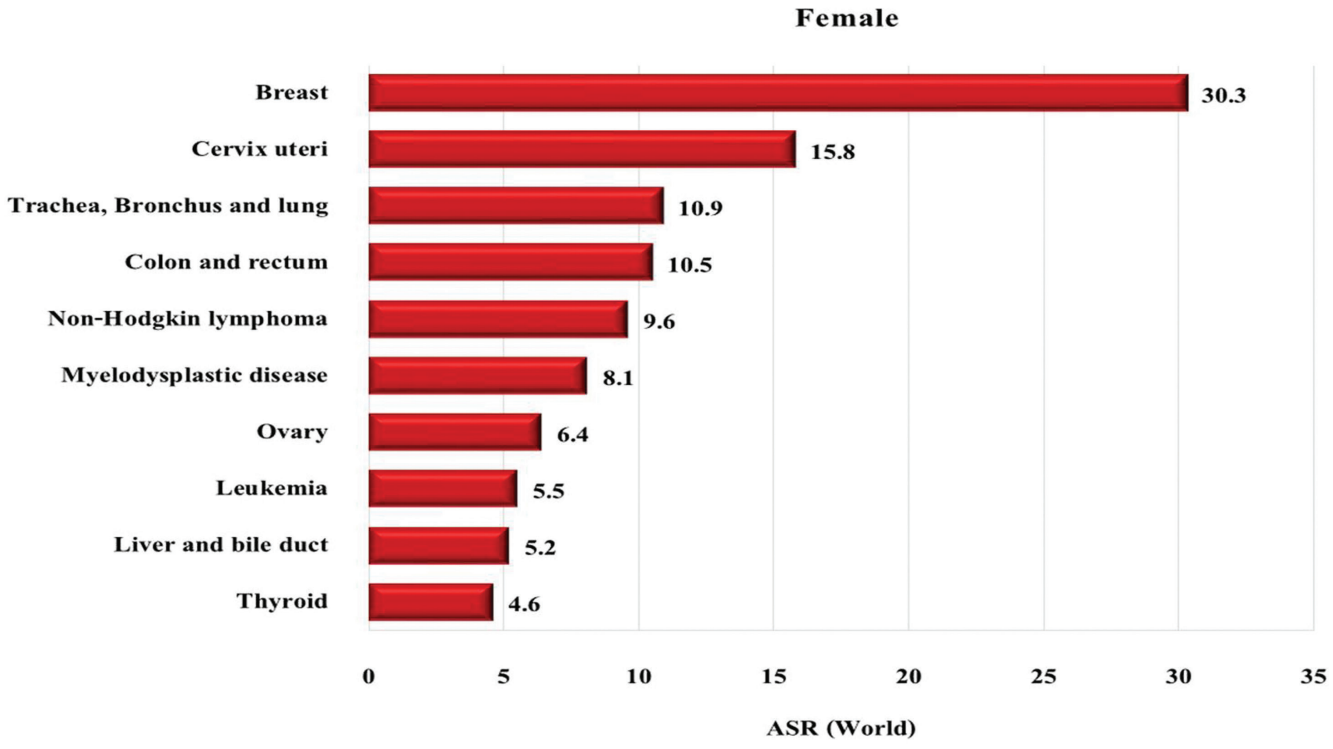


Table 3.11.1 Rayong (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	5.4	0.0	0.2	0.2	C00
Tongue	10	0.0	0.0	0.0	0.0	1.1	0.0	0.8	0.8	4.4	4.4	5.8	1.9	6.0	19.2	21.5	13.3	2.6	2.6	C01-02
Mouth	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	4.4	4.4	10.2	11.7	11.9	11.5	16.1	26.5	3.3	3.2	C03-06
Salivary glands	2	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.9	1.1	0.0	0.0	3.0	3.8	0.0	0.0	0.4	0.4	C07-08
Tonsil	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	8.7	11.7	6.0	0.0	0.0	0.0	1.3	1.2	C09
Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.9	0.0	3.0	0.0	0.0	4.4	0.5	0.5	C10
Nasopharynx	14	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.4	4.4	8.9	11.6	13.6	14.9	0.0	10.8	4.4	3.4	3.1	C11
Hypopharynx	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	4.4	8.7	5.8	6.0	7.7	10.8	4.4	2.0	1.9	C12-13
Pharynx unspecified	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.9	0.0	7.7	5.4	4.4	0.5	0.6	C14
Oesophagus	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.5	4.4	24.7	27.3	38.8	46.0	75.3	39.8	7.4	8.1	C15
Stomach	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.5	5.5	7.3	9.7	6.0	23.0	21.5	26.5	3.3	3.3	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	1.5	3.9	0.0	0.0	0.0	4.4	0.5	0.5	C17
Colon	36	0.0	0.0	0.0	0.0	0.0	2.7	1.5	4.0	3.5	5.5	24.7	19.5	41.8	53.6	48.4	110.6	9.1	9.6	C18
Rectum	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.9	3.3	14.5	21.4	23.9	11.5	59.1	79.6	5.6	6.0	C19-20
Anus	5	0.0	0.0	0.0	0.0	1.1	3.7	1.5	1.6	0.9	0.0	1.5	1.9	3.0	0.0	10.8	4.4	1.3	1.2	C21
Liver and bile duct	70	0.0	0.0	1.3	0.0	0.0	0.0	3.1	5.6	14.1	26.6	53.7	66.3	68.7	118.8	69.9	92.9	17.7	18.0	C22,C24
Gallbladder	4	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.8	1.1	0.0	0.0	0.0	15.3	10.8	4.4	0.9	1.0	C23
Pancreas	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.1	2.9	5.8	6.0	3.8	10.8	17.7	1.4	1.5	C25
Nose, sinuses etc.	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.1	0.0	1.9	3.0	0.0	0.0	4.4	0.4	0.4	C30-31
Larynx	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.7	1.1	5.8	13.6	17.9	7.7	10.8	8.8	2.4	2.4	C32
Trachea, Bronchus and lung	92	0.0	0.0	0.0	0.0	2.3	0.0	6.1	4.8	9.7	24.4	45.0	44.8	80.6	141.8	215.1	305.3	23.2	24.8	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	10.8	0.0	0.3	0.3	C37-38
Bone	4	0.0	0.0	0.0	2.5	0.0	1.8	0.0	0.8	0.9	2.2	1.5	1.9	0.0	0.0	5.4	4.4	1.0	0.9	C40-C41
Melanoma of skin	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.0	5.8	0.0	3.0	3.8	10.8	0.0	0.8	0.8	C43
Other skin	14	0.0	0.0	0.0	0.0	1.1	0.0	0.8	4.0	3.5	4.4	2.9	7.8	6.0	15.3	16.1	48.7	3.4	3.3	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C46
Connective tissue	6	0.0	0.0	0.0	0.0	1.1	0.9	0.0	0.8	2.7	1.1	0.0	3.9	6.0	11.5	16.1	4.4	1.5	1.6	C47,C49
Breast	1	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.9	0.0	0.0	0.0	3.0	3.8	0.0	0.0	0.3	0.4	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	6	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.6	1.8	2.2	8.7	0.0	0.0	7.7	10.8	4.4	1.6	1.4	C60
Prostate	24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	7.8	23.9	53.6	80.6	137.2	6.1	7.3	C61
Testis	2	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	C62
Other male genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	0.0	0.2	0.2	C63
Kidney	3	1.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	1.5	5.8	3.0	3.8	0.0	8.8	0.8	0.9	C64
Renal pelvis	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	3.0	3.8	0.0	4.4	0.4	0.5	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.1	0.1	C66
Bladder	20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.9	1.1	8.7	13.6	14.9	19.2	59.1	97.3	5.0	5.5	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C68
Eye	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.1	0.1	C69
Brain, nervous system	10	1.2	1.3	0.0	0.0	1.1	0.0	3.8	0.8	0.9	1.1	11.6	3.9	9.0	0.0	10.8	17.7	2.5	2.4	C70-72
Thyroid	7	0.0	0.0	0.0	0.0	2.3	0.9	0.8	2.4	1.8	3.3	2.9	1.9	3.0	7.7	5.4	4.4	1.7	1.5	C73
Adrenal gland	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	C74
Other endocrine	1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C75
Hodgkin disease	3	0.0	0.0	2.6	0.0	0.0	0.9	0.8	1.6	0.9	1.1	1.5	0.0	0.0	0.0	5.4	0.0	0.8	0.8	C81
Non-Hodgkin lymphoma	33	6.2	4.0	0.0	2.5	6.8	8.2	7.7	5.6	6.2	7.8	7.3	17.5	17.9	23.0	32.3	44.2	8.2	8.2	C82-85,C96
Multiple myeloma	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	1.5	3.9	0.0	0.0	10.8	22.1	1.0	1.0	C90
Lymphoid leukemia	6	6.2	2.7	0.0	0.0	0.0	0.9	1.5	2.4	0.0	1.1	0.0	3.9	6.0	0.0	0.0	0.0	1.5	1.8	C91
Myeloid leukemia	8	0.0	0.0	0.0	1.2	2.3	0.9	1.5	0.8	0.9	0.0	1.5	5.8	11.9	19.2	5.4	13.3	2.1	2.3	C92-94
Leukemia unspecified	7	1.2	2.7	0.0	0.0	0.0	0.9	0.8	0.8	1.8	1.1	1.5	1.9	6.0	3.8	16.1	17.7	1.8	1.9	C95
Myelodysplastic disease	17	0.0	2.7	0.0	2.5	2.3	0.9	2.3	0.8	1.8	3.3	4.4	9.7	9.0	19.2	32.3	61.9	4.4	4.7	D45-D47
Other and unspecified	9	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.8	0.9	3.3	5.8	5.8	14.9	15.3	5.4	17.7	2.4	2.5	O&U
All sites	**542**	**16.2**	**13.5**	**3.9**	**9.8**	**22.8**	**25.6**	**38.4**	**56.0**	**91.9**	**138.7**	**299.0**	**362.6**	**483.6**	**693.5**	**935.5**	**1265.5**	**136.8**	**141.5**	**ALL**

Table 3.11.2 Rayong (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.8	0.0	0.0	4.5	5.8	0.4	0.3	C00
Tongue	5	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	2.1	2.8	5.4	5.1	3.4	0.0	11.6	1.3	1.1	C01-02
Mouth	12	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.9	1.8	4.3	6.9	5.4	5.1	10.2	27.3	26.2	3.1	2.6	C03-06
Salivary glands	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	4.5	2.9	0.3	0.2	C07-08
Tonsil	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	0.0	3.6	0.0	0.0	13.6	2.9	0.7	0.6	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	2.9	0.2	0.1	C10
Nasopharynx	5	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.9	1.8	1.1	4.1	5.4	0.0	3.4	0.0	5.8	1.2	0.9	C11
Hypopharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.1	0.1	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C14
Oesophagus	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	5.5	5.4	7.7	23.9	18.2	17.4	2.5	2.4	C15
Stomach	13	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.6	1.8	5.4	4.1	9.1	7.7	10.2	27.3	26.2	3.4	2.9	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.4	0.0	0.0	3.4	4.5	2.9	0.4	0.4	C17
Colon	28	0.0	0.0	0.0	0.0	1.2	0.0	1.7	3.4	4.5	14.0	13.8	16.3	35.8	17.1	9.1	55.2	7.2	6.1	C18
Rectum	18	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.7	2.7	5.4	13.8	20.0	5.1	10.2	27.3	32.0	4.6	3.8	C19-20
Anus	3	0.0	0.0	0.0	0.0	1.2	1.0	1.7	1.7	0.9	1.1	0.0	0.0	0.0	0.0	4.5	2.9	0.9	0.6	C21
Liver and bile duct	23	0.0	0.0	0.0	0.0	0.0	1.9	1.7	1.7	2.7	4.3	6.9	10.9	15.3	34.1	40.9	58.1	5.9	5.2	C22,C24
Gallbladder	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.1	0.0	1.8	5.1	3.4	9.1	2.9	0.8	0.7	C23
Pancreas	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0	2.8	3.6	7.7	6.8	18.2	14.5	1.7	1.6	C25
Nose, sinuses etc.	2	0.0	0.0	0.0	0.0	1.2	0.0	0.8	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	5.8	0.4	0.4	C30-31
Larynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	5.1	3.4	0.0	2.9	0.4	0.4	C32
Trachea, Bronchus and lung	51	0.0	0.0	0.0	0.0	0.0	0.0	1.7	6.0	11.8	12.9	19.3	30.9	33.2	41.0	86.4	125.0	13.0	10.9	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	2.9	0.2	0.1	C37-38
Bone	5	0.0	0.0	2.7	1.3	2.4	1.0	1.7	0.0	0.9	3.2	0.0	0.0	5.1	0.0	9.1	0.0	1.4	1.4	C40-C41
Melanoma of skin	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.1	0.0	1.8	0.0	3.4	4.5	2.9	0.5	0.4	C43
Other skin	18	0.0	0.0	0.0	0.0	0.0	1.9	1.7	2.6	2.7	3.2	4.1	10.9	7.7	17.1	27.3	52.3	4.6	3.8	C44
Mesothelioma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C45
Kaposi's sarcoma	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	6	1.3	0.0	0.0	0.0	0.0	1.9	0.8	1.7	0.9	1.1	4.1	3.6	5.1	0.0	9.1	5.8	1.6	1.4	C47,C49
Breast	150	0.0	0.0	0.0	0.0	4.9	16.4	27.6	47.4	76.3	65.5	107.3	83.5	84.4	71.7	50.0	20.3	38.4	30.3	C50
Vulva	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.4	0.0	5.1	3.4	9.1	5.8	0.8	0.7	C51
Vagina	1	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6	0.0	0.0	2.9	0.3	0.2	C52
Cervix uteri	74	0.0	0.0	0.0	0.0	0.0	4.8	7.5	16.4	30.0	41.9	41.3	43.6	76.7	34.1	54.5	34.9	19.0	15.8	C53
Corpus uteri	15	0.0	0.0	0.0	0.0	1.2	0.0	0.8	0.0	1.8	6.4	17.9	5.4	17.9	13.7	18.2	8.7	3.8	3.4	C54
Ovary	31	0.0	0.0	1.4	0.0	0.0	2.9	6.7	3.4	10.9	18.3	16.5	25.4	15.3	10.2	22.7	23.3	7.9	6.4	C56
Placenta	1	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	3	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	5.1	0.0	4.5	5.8	0.7	0.7	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.1	0.1	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.1	0.1	C66
Bladder	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	1.4	0.0	0.0	0.0	18.2	14.5	1.0	0.9	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.1	0.1	C68
Eye	1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	C69
Brain, nervous system	8	1.3	0.0	0.0	1.3	1.2	1.0	0.8	0.9	0.9	4.3	2.8	1.8	2.6	6.8	22.7	8.7	2.1	2.0	C70-72
Thyroid	21	0.0	0.0	1.4	2.7	6.1	1.9	5.0	6.9	3.6	5.4	13.8	5.4	15.3	6.8	9.1	20.3	5.4	4.6	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.1	0.1	C74
Other endocrine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C75
Hodgkin disease	2	0.0	0.0	0.0	0.0	1.2	1.9	0.0	1.7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	C81
Non-Hodgkin lymphoma	43	0.0	7.2	1.4	2.7	12.2	23.1	11.7	8.6	13.6	10.7	15.1	16.3	20.5	10.2	22.7	2.9	10.9	9.6	C82-85,C96
Multiple myeloma	4	0.0	0.0	1.4	0.0	0.0	0.0	0.8	0.0	0.9	1.1	0.0	3.6	2.6	0.0	18.2	2.9	1.0	1.0	C90
Lymphoid leukemia	5	5.3	2.9	2.7	2.7	0.0	0.0	0.0	0.9	1.8	0.0	0.0	0.0	0.0	3.4	0.0	2.9	1.3	1.7	C91
Myeloid leukemia	9	1.3	2.9	2.7	0.0	3.6	2.9	0.8	1.7	3.6	1.1	1.4	5.4	0.0	3.4	0.0	8.7	2.3	2.2	C92-94
Leukemia unspecified	7	1.3	1.4	0.0	0.0	0.0	1.9	0.0	0.9	3.6	1.1	2.8	3.6	2.6	6.8	4.5	5.8	1.7	1.6	C95
Myelodysplastic disease	36	0.0	1.4	1.4	1.3	4.9	3.9	4.2	2.6	3.6	5.4	6.9	10.9	17.9	37.5	54.5	116.3	9.3	8.1	D45-D47
Other and unspecified	6	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	1.8	0.0	5.5	0.0	5.1	6.8	18.2	5.8	1.5	1.4	O&U
All sites	**647**	**12.0**	**17.2**	**14.9**	**12.0**	**41.4**	**73.2**	**81.0**	**120.7**	**189.8**	**230.9**	**327.4**	**346.6**	**427.1**	**409.6**	**672.7**	**767.4**	**165.7**	**140.5**	**ALL**

Table 3.11.3 Mean annual incidence, Rayong, 2010-2012

Site	Male						Female						ICD10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	1	0.1	0.2	0.2	0.0	0.0	2	0.3	0.4	0.3	0.0	0.0	C00
Tongue	10	1.9	2.6	2.6	0.1	0.3	5	0.8	1.3	1.1	0.1	0.1	C01-02
Mouth	13	2.4	3.3	3.2	0.2	0.4	12	1.9	3.1	2.6	0.1	0.3	C03-06
Salivary glands	2	0.3	0.4	0.4	0.0	0.0	1	0.2	0.3	0.2	0.0	0.0	C07-08
Tonsil	5	1.0	1.3	1.2	0.1	0.1	3	0.4	0.7	0.6	0.0	0.1	C09
Other oropharynx	2	0.4	0.5	0.5	0.0	0.0	1	0.1	0.2	0.1	0.0	0.0	C10
Nasopharynx	14	2.5	3.4	3.1	0.3	0.3	5	0.7	1.2	0.9	0.1	0.1	C11
Hypopharynx	8	1.5	2.0	1.9	0.1	0.2	0	0.1	0.1	0.1	0.0	0.0	C12-13
Pharynx unspecified	2	0.4	0.5	0.6	0.0	0.1	0	0.1	0.1	0.1	0.0	0.0	C14
Oesophagus	29	5.4	7.4	8.1	0.5	1.1	10	1.5	2.5	2.4	0.1	0.3	C15
Stomach	13	2.4	3.3	3.3	0.2	0.4	13	2.1	3.4	2.9	0.2	0.3	C16
Small intestine	2	0.4	0.5	0.5	0.0	0.0	2	0.3	0.4	0.4	0.0	0.1	C17
Colon	36	6.6	9.1	9.6	0.5	1.0	28	4.3	7.2	6.1	0.5	0.6	C18
Rectum	22	4.1	5.6	6.0	0.3	0.7	18	2.8	4.6	3.8	0.2	0.4	C19-20
Anus	5	1.0	1.3	1.2	0.1	0.1	3	0.5	0.9	0.6	0.0	0.1	C21
Liver and bile duct	70	13.0	17.7	18.0	1.2	2.1	23	3.6	5.9	5.2	0.2	0.6	C22,C24
Gallbladder	4	0.7	0.9	1.0	0.0	0.1	3	0.5	0.8	0.7	0.0	0.1	C23
Pancreas	6	1.0	1.4	1.5	0.1	0.2	7	1.0	1.7	1.6	0.1	0.2	C25
Nose, sinuses etc.	2	0.3	0.4	0.4	0.0	0.0	2	0.3	0.4	0.4	0.0	0.0	C30-31
Larynx	9	1.7	2.4	2.4	0.2	0.3	2	0.3	0.4	0.4	0.0	0.1	C32
Trachea, Bronchus and lung	92	17.0	23.2	24.8	1.1	2.9	51	7.8	13.0	10.9	0.6	1.2	C33-34
Other thoracic organs	1	0.2	0.3	0.3	0.0	0.1	1	0.1	0.2	0.1	0.0	0.0	C37-38
Bone	4	0.7	1.0	0.9	0.1	0.1	5	0.8	1.4	1.4	0.1	0.1	C40-C41
Melanoma of skin	3	0.6	0.8	0.8	0.1	0.1	2	0.3	0.5	0.4	0.0	0.1	C43
Other skin	14	2.5	3.4	3.3	0.2	0.3	18	2.8	4.6	3.8	0.2	0.4	C44
Mesothelioma	0	0.1	0.1	0.0	0.0	0.0	0	0.1	0.1	0.1	0.0	0.0	C45
Kaposi's sarcoma	0	0.1	0.1	0.1	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C46
Connective tissue	6	1.1	1.5	1.6	0.1	0.2	6	1.0	1.6	1.4	0.1	0.1	C47,C49
Breast	1	0.2	0.3	0.4	0.0	0.0	150	23.2	38.4	30.3	2.6	3.2	C50
Vulva							3	0.5	0.8	0.7	0.0	0.1	C51
Vagina							1	0.2	0.3	0.2	0.0	0.0	C52
Cervix uteri							74	11.5	19.0	15.8	1.3	1.8	C53
Corpus uteri							15	2.3	3.8	3.4	0.3	0.4	C54
Ovary							31	4.8	7.9	6.4	0.5	0.7	C56
Placenta							1	0.1	0.2	0.2	0.0	0.0	C58
Penis	6	1.2	1.6	1.4	0.1	0.2							C60
Prostate	24	4.5	6.1	7.3	0.2	0.8							C61
Testis	2	0.3	0.4	0.2	0.0	0.0							C62
Other male genital organs	1	0.1	0.2	0.2	0.0	0.0							C63
Kidney	3	0.6	0.8	0.9	0.1	0.1	3	0.4	0.7	0.7	0.0	0.1	C64
Renal pelvis	2	0.3	0.4	0.5	0.0	0.1	0	0.1	0.1	0.1	0.0	0.0	C65
Ureter	0	0.1	0.1	0.1	0.0	0.0	0	0.1	0.1	0.1	0.0	0.0	C66
Bladder	20	3.7	5.0	5.5	0.2	0.6	4	0.6	1.0	0.9	0.0	0.1	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.1	0.0	0.0	C68
Eye	0	0.1	0.1	0.1	0.0	0.0	1	0.2	0.3	0.3	0.0	0.0	C69
Brain, nervous system	10	1.8	2.5	2.4	0.2	0.2	8	1.3	2.1	2.0	0.1	0.2	C70-72
Thyroid	7	1.2	1.7	1.5	0.1	0.2	21	3.2	5.4	4.6	0.3	0.4	C73
Adrenal gland	1	0.1	0.2	0.1	0.0	0.0	0	0.1	0.1	0.1	0.0	0.0	C74
Other endocrine	1	0.1	0.2	0.2	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C75
Hodgkin disease	3	0.6	0.8	0.8	0.0	0.1	2	0.4	0.6	0.5	0.0	0.0	C81
Non-Hodgkin lymphoma	33	6.0	8.2	8.2	0.5	0.8	43	6.6	10.9	9.6	0.7	0.9	C82-85,C96
Multiple myeloma	4	0.7	1.0	1.0	0.0	0.1	4	0.6	1.0	1.0	0.1	0.1	C90
Lymphoid leukemia	6	1.1	1.5	1.8	0.1	0.1	5	0.8	1.3	1.7	0.1	0.1	C91
Myeloid leukemia	8	1.5	2.1	2.3	0.1	0.3	9	1.4	2.3	2.2	0.1	0.2	C92-94
Leukemia unspecified	7	1.3	1.8	1.9	0.1	0.2	7	1.0	1.7	1.6	0.1	0.2	C95
Myelodysplastic disease	17	3.2	4.4	4.7	0.2	0.5	36	5.6	9.3	8.1	0.3	0.8	D45-D47
Other and unspecified	9	1.7	2.4	2.5	0.2	0.3	6	0.9	1.5	1.4	0.1	0.2	O&U
All sites	**542**	**100.0**	**136.8**	**141.5**	**7.8**	**16.0**	**647**	**100.0**	**165.7**	**140.5**	**9.5**	**14.9**	**ALL**

Table 3.11.4 Percentage of morphologically verified and death certificate only cases, Rayong

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	77	81.8	0.0	59	72.9	1.7	C00-C08
Oropharynx	28	85.7	3.6	11	81.8	0.0	C09-C10,C14
Nasopharynx	41	92.7	0.0	14	71.4	0.0	C11
Hypopharynx	24	91.7	0.0	1	0.0	0.0	C12-C13
Esophagus	88	85.2	3.4	29	72.4	10.3	C15
Stomach	39	82.1	0.0	40	72.5	2.5	C16
Small intestine	6	100.0	0.0	5	100.0	0.0	C17
Colon and rectum	191	73.3	0.5	148	83.1	0.7	C18-C21
Liver and bile duct	211	14.2	7.1	69	8.7	17.4	C22,C24
Gallbladder	11	36.4	0.0	9	44.4	0.0	C23
pancrease	17	35.3	0.0	20	30.0	15.0	C25
Nose,sinuses etc	5	80.0	0.0	5	60.0	0.0	C30-C31
Larynx	28	82.1	3.6	5	60.0	20.0	C32
Trachea, brochus and lung	276	56.9	1.8	152	60.5	7.2	C33-C34
Other thoracic organs	3	100.0	0.0	2	50.0	0.0	C37-C38
Bone	12	50.0	0.0	16	43.8	0.0	C40-C41
Melanoma of skin	10	100.0	0.0	6	100.0	0.0	C43
Other skin	41	82.9	0.0	54	85.2	0.0	C44
Mesothelioma	1	100.0	0.0	1	100.0	0.0	C45
Kaposi sarcoma	1	100.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	18	94.4	0.0	19	94.7	0.0	C47,C49
Breast	4	25.0	0.0	450	85.3	0.7	C50
Vulva				9	88.9	0.0	C51
Vagina				3	66.7	0.0	C52
Cervix uteri				223	86.5	0.9	C53
Corpus uteri				44	97.7	0.0	C54
Uterus unspecified				0	0.0	0.0	C55
Ovary				93	80.6	0.0	C56
Other female genital organs				0	0.0	0.0	C57
Placenta				2	50.0	0.0	C58
Penis	19	100.0	0.0				C60
Prostate	73	71.2	1.4				C61
Testis	5	100.0	0.0				C62
Other male genital organs	2	50.0	0.0				C63
Kidney	10	60.0	0.0	8	62.5	0.0	C64
Renal pelvis	5	100.0	0.0	1	100.0	0.0	C65
Ureter	1	100.0	0.0	1	100.0	0.0	C66
Bladder	60	78.3	3.3	12	50.0	16.7	C67
Other urinary organs	0	0.0	0.0	1	100.0	0.0	C68
Eye	1	0.0	0.0	3	100.0	0.0	C69
Brain, nervous system	30	60.0	6.7	25	52.0	12.0	C70-C72
Thyroid	20	70.0	0.0	63	87.3	0.0	C73
Adrenal gland	2	0.0	0.0	1	0.0	0.0	C74
Other endocrine	2	50.0	0.0	0	0.0	0.0	C75
Hodgkin disease	10	100.0	0.0	7	100.0	0.0	C81
Non-Hodgkin lymphoma	98	100.0	0.0	128	100.0	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	12	100.0	0.0	12	100.0	0.0	C90
Leukemia	64	100.0	0.0	62	100.0	0.0	C91-C95
Myelodysplastic	52	100.0	0.0	109	100.0	0.0	D45-D47
Other and unspecified	28	60.7	25.0	18	72.2	0.0	O&U
All sites	**1,626**	**68.8**	**2.3**	**1,940**	**80.2**	**2.2**	**All**

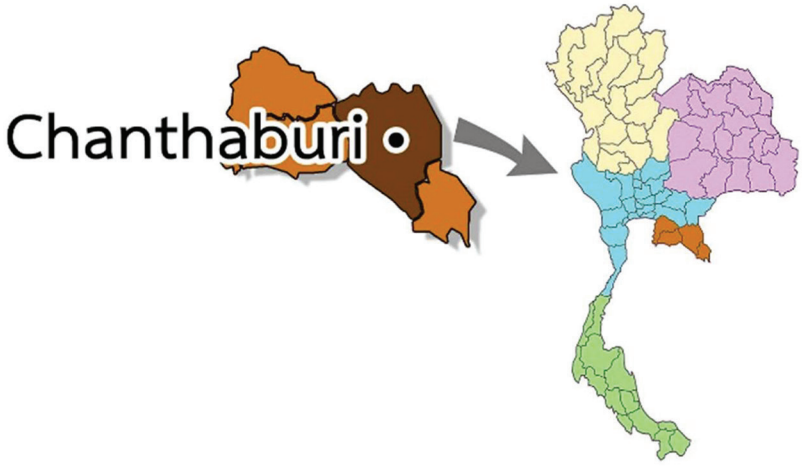
Chanthaburi Cancer Registry

Registration area

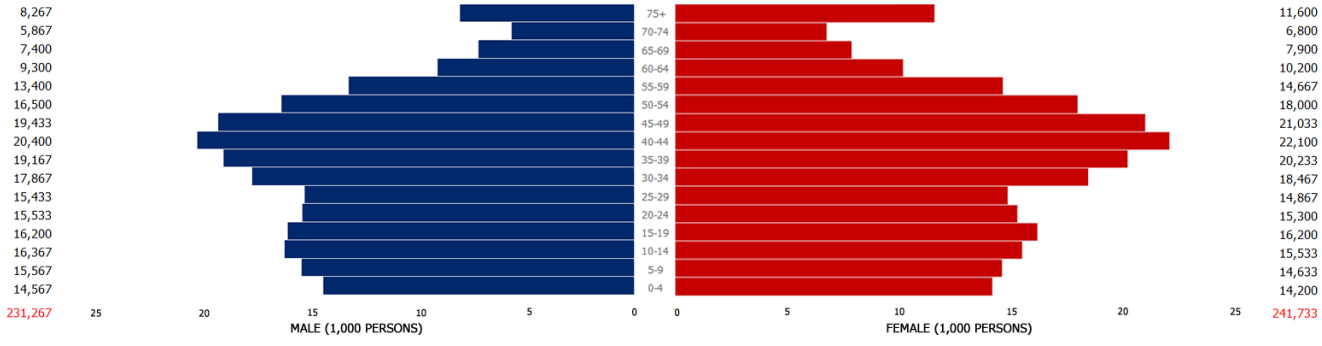
Chanthaburi is situated in the eastern part of Thailand, between 12°-13° N and 101-102 ° E, 245 kilometers from Bangkok by car or bus, with land area 6,338 square kilometers and is bounded in the north by Chon Buri, Chachoengsao and Srakaeo, in the east by the kingdom of combodia and trat, in the west by Rayong and Chon Buri and in the south by the bank of Gulf of Thailand.

The north-east of the province is predominantly mountainous and the forests which abundant in herbs and forest products such as gamboges, wax, cardamom, eagle wood, rattan and cinnamon, the sea shore stretching from north-west to south-west about 108 kilometers and 30-190 meters above the sea level. The climate is hot and dry the highest temperature about 42 ° C in summer from March to May, 13.1° C in winter from November to February, rainy season started from June to October. The average total rainfall is 3,509.4 millimeters per year.

The most important occupations are gemstone trading, making Kok mat, farming of vegetables, fruits and fishing. In Chanthaburi, there are many factories contributing to successful cultivation of fruits especially durian, rambutan, mangosteen and other economic crops such as pepper and para rubber tree. Nowadays, it is becoming appreciated for its tourism potential, especially the Khao Khitchakut National park, Chao Lao beach, Philu waterfall.



Population pyramid, Chanthaburi
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The total number of hospitals in Chanthaburi province was 14 hospitals composed of 11 community hospitals, 2 private hospitals and 1 provincial hospital, providing 1410 total beds. The medical personals composed of 183 registered medical practitioners, 31 dentists, 57 pharmacists and 1042 nurses.

Cancer diagnostic services including radiological diagnosis equipment such as: X-ray, ultrasound, computed tomography scan, mammogram and pathological investigations are available in Chanthaburi provincial hospital (Pahrapokklao Hospital). Cancer diagnosis is available in some private hospital. Most of the cancer patients were referred Pahrapokklao Hospital, or private hospital which can provide surgery, chemotherapy and targeted therapy. Radiotherapy can be performed only in Chonburi Cancer Hospital. All hospitals in the province provide palliative care.

Registry procedures

The data of Chanthaburi residents are extracted from the hospital-based cancer registry of Chonburi Cancer Hospital and mixture of passively and actively collected data of all hospital in Chanthaburi. New cancer cases were collected from out and in patient departments, wards, surgery unit, cytology unit, hematology unit, medical record, pathological unit and autopsy service. The data information collected includes demographic details for each cancer patient that consists of: registry number, name, residential address, date of birth, age, sex, date of diagnosis, site of cancer, histology of cancer, staging, extension of disease, method of diagnosis, treatment, date of last contact and status of cancer patients (alive or dead). Multiple primary cases are checked by physicians using their original records and with any other physicians concerned. All cancer death certificates are matched with the incidence case records of the registry. Individual certified as having died of cancer are registered as “Death Certificate Only (DCO)” cases if no other information about the individual can be traced from the other sources.

Summary of results

New cases registered in 2011, 550 were males and 514 were females, making 1,064 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 181.9 per 100,000, with lung cancer ranks first (ASR = 34.0) followed by liver and bile duct (ASR = 23.3) and colon and rectum (ASR = 18.0). The ASR of all cancer sites in females was 149.0 per 100,000, three leading cancer sites being breast (ASR = 30.3), cervix (ASR =20.2) and lung (ASR =14.7).

Figure 3.12 Leading cancer in Chanthaburi (mean annual ASR 2010-2012)

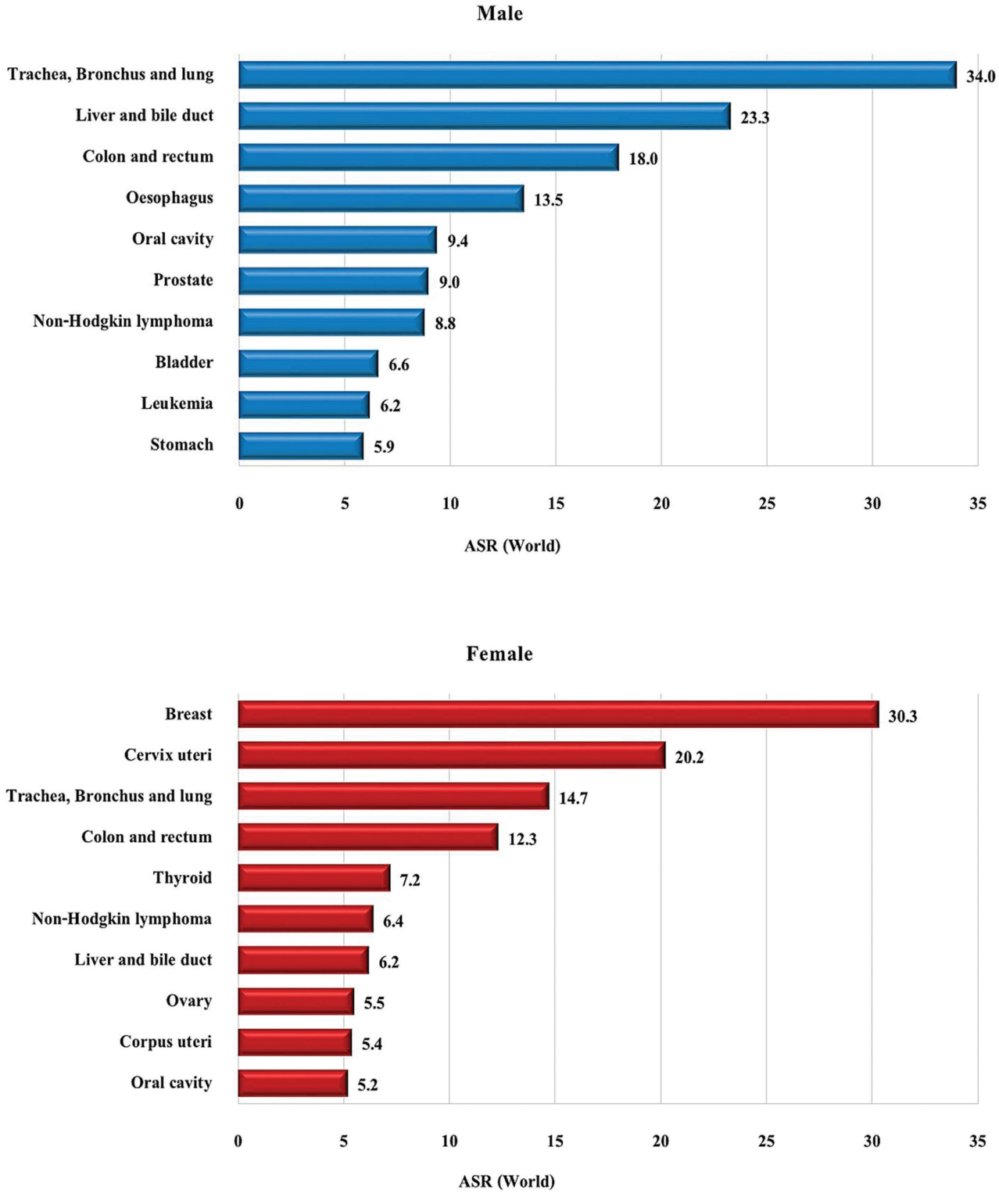


Table 3.12.1 Chanthaburi (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.1	0.1	C00
Tongue	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	5.1	20.2	24.9	14.3	31.5	11.4	32.3	6.6	4.9	C01-02
Mouth	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	10.3	6.1	5.0	14.3	18.0	28.4	20.2	4.3	3.3	C03-06
Salivary glands	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2	4.9	1.7	0.0	0.0	3.6	9.0	0.0	0.0	1.4	1.1	C07-08
Tonsil	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.6	3.4	10.1	7.5	3.6	4.5	17.0	0.0	2.5	1.8	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	2.5	7.2	0.0	0.0	0.0	0.6	0.5	C10
Nasopharynx	14	0.0	0.0	0.0	0.0	0.0	0.0	1.9	3.5	6.5	10.3	12.1	19.9	3.6	13.5	39.8	12.1	5.9	4.3	C11
Hypopharynx	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	5.1	4.0	7.5	7.2	9.0	28.4	4.0	3.0	2.3	C12-13
Pharynx unspecified	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	2.5	7.2	0.0	0.0	4.0	0.7	0.6	C14
Oesophagus	40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	14.7	24.0	40.4	44.8	75.3	67.6	62.5	48.4	17.4	13.5	C15
Stomach	19	0.0	0.0	0.0	0.0	0.0	2.2	1.9	3.5	6.5	1.7	8.1	14.9	21.5	18.0	56.8	68.5	8.1	5.9	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.0	0.0	3.6	9.0	0.0	0.0	0.7	0.6	C17
Colon	27	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	4.9	5.1	14.1	34.8	35.8	58.6	85.2	60.5	11.8	9.0	C18
Rectum	26	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.7	9.8	5.1	18.2	27.4	53.8	40.5	39.8	68.5	11.4	8.7	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	2.2	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	C21
Liver and bile duct	69	9.2	0.0	0.0	0.0	0.0	4.3	9.3	12.2	26.1	27.4	60.6	92.0	93.2	103.6	90.9	100.8	29.8	23.3	C22,C24
Gallbladder	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	4.5	11.4	4.0	1.0	0.7	C23
Pancreas	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	3.4	4.0	5.0	3.6	9.0	11.4	16.1	2.3	1.7	C25
Nose, sinuses etc.	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	3.6	9.0	0.0	4.0	0.7	0.6	C30-31
Larynx	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	6.1	10.0	21.5	27.0	17.0	32.3	4.9	3.8	C32
Trachea, Bronchus and lung	105	0.0	0.0	0.0	0.0	0.0	0.0	1.9	7.0	9.8	32.6	52.5	64.7	132.6	234.2	312.5	358.9	45.4	34.0	C33-34
Other thoracic organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C37-38
Bone	2	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	2.0	0.0	0.0	4.5	5.7	4.0	0.7	0.5	C40-C41
Melanoma of skin	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	0.0	1.7	0.0	0.0	3.6	4.5	5.7	24.2	1.6	1.1	C43
Other skin	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	8.2	6.9	8.1	7.5	21.5	18.0	45.5	68.5	7.5	5.4	C44
Connective tissue	3	2.3	0.0	0.0	0.0	0.0	0.0	1.9	3.5	1.6	3.4	2.0	2.5	0.0	0.0	0.0	4.0	1.4	1.2	C47,C49
Breast	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.7	0.0	0.0	0.0	4.5	5.7	0.0	0.6	0.4	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Placenta	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C58
Penis	4	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	3.4	2.0	0.0	7.2	13.5	11.4	8.1	1.9	1.6	C60
Prostate	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	2.0	10.0	25.1	31.5	119.3	201.6	13.1	9.0	C61
Testis	3	4.6	0.0	2.0	2.1	2.1	4.3	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	5.7	0.0	1.4	1.8	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	0.1	0.1	C63
Kidney	4	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	18.0	5.7	12.1	1.6	1.3	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C65
Bladder	21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7	1.6	1.7	10.1	14.9	25.1	27.0	68.2	100.8	9.2	6.6	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C68
Eye	1	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	4.0	0.4	0.5	C69
Brain, nervous system	9	4.6	0.0	0.0	4.1	2.1	2.2	3.7	0.0	3.3	5.1	6.1	2.5	3.6	9.0	17.0	12.1	3.7	3.4	C70-72
Thyroid	3	0.0	0.0	0.0	0.0	0.0	2.2	0.0	1.7	1.6	1.7	4.0	0.0	0.0	13.5	0.0	0.0	1.3	1.1	C73
Hodgkin disease	2	0.0	0.0	0.0	0.0	2.1	0.0	1.9	0.0	0.0	5.1	0.0	2.5	0.0	0.0	0.0	0.0	0.9	0.7	C81
Non-Hodgkin lymphoma	25	2.3	0.0	2.0	6.2	2.1	6.5	1.9	5.2	8.2	12.0	20.2	22.4	14.3	31.5	51.1	48.4	11.0	8.8	C82-85,C96
Multiple myeloma	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.4	2.0	2.5	7.2	22.5	17.0	12.1	2.7	2.1	C90
Lymphoid leukemia	4	0.0	0.0	0.0	4.1	0.0	2.2	0.0	1.7	3.3	0.0	0.0	5.0	3.6	0.0	17.0	4.0	1.9	1.6	C91
Myeloid leukemia	7	0.0	0.0	0.0	6.2	4.3	2.2	1.9	3.5	3.3	0.0	2.0	2.5	3.6	9.0	11.4	8.1	2.9	2.6	C92-94
Leukemia unspecified	6	2.3	2.1	0.0	0.0	0.0	0.0	1.9	1.7	1.6	0.0	4.0	0.0	3.6	4.5	5.7	32.3	2.6	2.0	C95
Myelodysplastic disease	17	0.0	0.0	0.0	0.0	2.1	0.0	5.6	10.4	8.2	1.7	4.0	17.4	17.9	4.5	39.8	48.4	7.2	5.2	D45-D47
Other and unspecified	11	0.0	0.0	0.0	0.0	0.0	2.2	0.0	1.7	3.3	5.1	4.0	5.0	14.3	18.0	45.5	28.2	4.9	3.8	O&U
All sites	**550**	**27.5**	**4.3**	**4.1**	**22.6**	**15.0**	**32.4**	**41.0**	**78.3**	**143.8**	**204.1**	**333.3**	**470.1**	**655.9**	**900.9**	**1301.1**	**1459.7**	**238.0**	**181.9**	**ALL**

Table 3.12.2 Chanthaburi (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	16.9	0.0	2.9	1.1	1.0	C00
Tongue	4	0.0	0.0	0.0	0.0	2.2	0.0	0.0	3.3	1.5	1.6	5.6	2.3	0.0	8.4	0.0	0.0	1.5	1.2	C01-02
Mouth	11	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.6	3.0	0.0	5.6	6.8	19.6	8.4	9.8	37.4	4.6	2.9	C03-06
Salivary glands	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.1	0.1	C07-08
Tonsil	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	4.2	0.0	0.0	0.3	0.2	C09
Other oropharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	6	0.0	0.0	0.0	0.0	0.0	0.0	1.8	4.9	6.0	1.6	5.6	2.3	3.3	0.0	0.0	14.4	2.6	1.6	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	4.9	0.0	0.3	0.2	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	3.2	5.6	11.4	19.6	33.8	24.5	23.0	5.2	3.8	C15
Stomach	11	0.0	0.0	0.0	0.0	0.0	0.0	1.8	9.9	1.5	3.2	7.4	13.6	9.8	0.0	9.8	25.9	4.7	3.0	C16
Small intestine	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	0.0	0.3	0.2	C17
Colon	23	0.0	0.0	0.0	2.1	0.0	2.2	0.0	1.6	1.5	6.3	13.0	18.2	13.1	25.3	39.2	80.5	9.5	6.0	C18
Rectum	22	0.0	0.0	0.0	0.0	0.0	2.2	3.6	0.0	9.0	1.6	9.3	18.2	29.4	38.0	49.0	40.2	9.0	6.3	C19-20
Anus	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C21
Liver and bile duct	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.5	6.3	13.0	15.9	26.1	46.4	44.1	51.7	9.1	6.2	C22,C24
Gallbladder	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	4.5	6.5	0.0	9.8	11.5	1.5	1.0	C23
Pancreas	4	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	3.7	0.0	0.0	4.2	14.7	11.5	1.5	0.9	C25
Nose, sinuses etc.	1	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.5	0.0	0.0	2.3	0.0	0.0	4.9	0.0	0.6	0.4	C30-31
Larynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	0.1	0.1	C32
Trachea, Bronchus and lung	56	0.0	0.0	0.0	2.1	0.0	0.0	3.6	3.3	15.1	19.0	20.4	34.1	49.0	71.7	98.0	178.2	23.0	14.7	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.9	0.0	6.5	0.0	0.0	0.0	0.6	0.4	C37-38
Bone	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	2.3	3.3	0.0	0.0	0.0	0.4	0.3	C40-C41
Melanoma of skin	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	1.6	0.0	2.3	0.0	8.4	4.9	2.9	1.2	0.9	C43
Other skin	16	0.0	0.0	0.0	2.1	0.0	0.0	1.8	0.0	4.5	1.6	11.1	11.4	9.8	4.2	4.9	71.8	6.5	3.7	C44
Connective tissue	4	4.7	0.0	4.3	0.0	0.0	0.0	1.8	3.3	3.0	1.6	0.0	0.0	0.0	4.2	0.0	0.0	1.5	1.7	C47,C49
Breast	102	0.0	0.0	0.0	0.0	2.2	6.7	27.1	31.3	60.3	95.1	87.0	84.1	104.6	88.6	53.9	57.5	42.2	30.3	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.1	0.1	C51
Cervix uteri	70	0.0	0.0	0.0	0.0	0.0	4.5	9.0	23.1	39.2	58.6	70.4	61.4	55.6	50.6	58.8	57.5	29.0	20.2	C53
Corpus uteri	17	0.0	0.0	0.0	0.0	0.0	2.2	1.8	3.3	4.5	4.8	24.1	15.9	39.2	12.7	19.6	8.6	7.2	5.4	C54
Ovary	18	0.0	0.0	0.0	2.1	0.0	4.5	1.8	1.6	9.0	14.3	25.9	6.8	19.6	12.7	19.6	11.5	7.4	5.5	C56
Other female genital organs	1	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C57
Placenta	1	0.0	0.0	0.0	0.0	2.2	0.0	0.0	1.6	0.0	0.0	1.9	0.0	0.0	0.0	0.0	0.0	0.4	0.4	C58
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Other male genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C63
Kidney	2	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	2.3	0.0	4.2	0.0	5.7	0.8	0.7	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.3	0.1	C65
Bladder	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	1.6	1.9	0.0	6.5	12.7	14.7	28.7	2.9	1.8	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.1	0.1	C68
Eye	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C69
Brain, nervous system	6	0.0	0.0	2.1	0.0	0.0	0.0	3.6	1.6	1.5	3.2	0.0	6.8	3.3	4.2	9.8	8.6	2.3	1.7	C70-72
Thyroid	22	0.0	0.0	0.0	4.1	2.2	15.7	12.6	9.9	16.6	4.8	16.7	6.8	22.9	4.2	14.7	14.4	9.0	7.2	C73
Hodgkin disease	1	0.0	0.0	2.1	2.1	0.0	0.0	1.8	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	C81
Non-Hodgkin lymphoma	21	2.3	0.0	0.0	2.1	2.2	2.2	3.6	8.2	7.5	19.0	1.9	22.7	19.6	12.7	24.5	28.7	8.7	6.4	C82-85,C96
Multiple myeloma	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	9.8	8.4	14.7	20.1	2.3	1.5	C90
Lymphoid leukemia	3	0.0	0.0	0.0	2.1	0.0	6.7	1.8	3.3	0.0	0.0	1.9	2.3	0.0	0.0	0.0	0.0	1.2	1.2	C91
Myeloid leukemia	7	0.0	0.0	0.0	4.1	2.2	0.0	0.0	0.0	6.0	0.0	5.6	4.5	3.3	8.4	9.8	8.6	2.8	2.1	C92-94
Leukemia unspecified	4	0.0	0.0	0.0	0.0	2.2	0.0	1.8	0.0	0.0	1.6	1.9	0.0	0.0	4.2	14.7	8.6	1.5	1.1	C95
Myelodysplastic disease	15	0.0	0.0	0.0	0.0	4.4	0.0	5.4	3.3	1.5	7.9	9.3	11.4	3.3	16.9	19.6	37.4	6.2	4.1	D45-D47
Other and unspecified	5	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	3.2	5.6	4.5	6.5	12.7	0.0	8.6	2.2	1.6	O&U
All sites	**514**	**7.0**	**2.3**	**8.6**	**22.6**	**19.6**	**49.3**	**92.1**	**118.6**	**202.1**	**267.8**	**359.3**	**381.8**	**500.0**	**535.9**	**607.8**	**864.9**	**212.8**	**149.0**	**ALL**

Table 3.12.3 Mean annual incidence, Chanthaburi, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	0	0.1	0.1	0.1	0.0	0.0	3	0.5	1.1	1.0	0.0	0.1	C00
Tongue	15	2.8	6.6	4.9	0.3	0.6	4	0.7	1.5	1.2	0.1	0.1	C01-02
Mouth	10	1.8	4.3	3.3	0.2	0.4	11	2.1	4.6	2.9	0.2	0.3	C03-06
Salivary glands	3	0.6	1.4	1.1	0.1	0.1	0	0.1	0.1	0.1	0.0	0.0	C07-08
Tonsil	6	1.0	2.5	1.8	0.1	0.2	1	0.1	0.3	0.2	0.0	0.0	C09
Other oropharynx	1	0.2	0.6	0.5	0.1	0.1	0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	14	2.5	5.9	4.3	0.3	0.6	6	1.2	2.6	1.6	0.1	0.1	C11
Hypopharynx	7	1.3	3.0	2.3	0.1	0.3	1	0.1	0.3	0.2	0.0	0.0	C12-13
Pharynx unspecified	2	0.3	0.7	0.6	0.1	0.1	0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	40	7.3	17.4	13.5	1.0	1.7	13	2.5	5.2	3.8	0.2	0.5	C15
Stomach	19	3.4	8.1	5.9	0.3	0.7	11	2.2	4.7	3.0	0.2	0.3	C16
Small intestine	2	0.3	0.7	0.6	0.0	0.1	1	0.1	0.3	0.2	0.0	0.0	C17
Colon	27	5.0	11.8	9.0	0.5	1.2	23	4.5	9.5	6.0	0.3	0.6	C18
Rectum	26	4.8	11.4	8.7	0.6	1.0	22	4.2	9.0	6.3	0.4	0.8	C19-20
Anus	1	0.1	0.3	0.3	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C21
Liver and bile duct	69	12.5	29.8	23.3	1.7	2.6	22	4.3	9.1	6.2	0.3	0.8	C22,C24
Gallbladder	2	0.4	1.0	0.7	0.0	0.1	4	0.7	1.5	1.0	0.1	0.1	C23
Pancreas	5	1.0	2.3	1.7	0.1	0.2	4	0.7	1.5	0.9	0.0	0.1	C25
Nose, sinuses etc.	2	0.3	0.7	0.6	0.0	0.1	1	0.3	0.6	0.4	0.0	0.1	C30-31
Larynx	11	2.1	4.9	3.8	0.2	0.4	0	0.1	0.1	0.1	0.0	0.0	C32
Trachea, Bronchus and lung	105	19.1	45.4	34.0	1.5	4.2	56	10.8	23.0	14.7	0.7	1.6	C33-34
Other thoracic organs	0	0.1	0.1	0.1	0.0	0.0	1	0.3	0.6	0.4	0.1	0.1	C37-38
Bone	2	0.3	0.7	0.5	0.0	0.1	1	0.2	0.4	0.3	0.0	0.0	C40-C41
Melanoma of skin	4	0.7	1.6	1.1	0.0	0.1	3	0.6	1.2	0.9	0.0	0.1	C43
Other skin	17	3.1	7.5	5.4	0.3	0.6	16	3.0	6.5	3.7	0.2	0.3	C44
Connective tissue	3	0.6	1.4	1.2	0.1	0.1	4	0.7	1.5	1.7	0.1	0.1	C47,C49
Breast	1	0.2	0.6	0.4	0.0	0.1	102	19.8	42.2	30.3	2.5	3.2	C50
Vulva							0	0.1	0.1	0.1	0.0	0.0	C51
Cervix uteri							70	13.6	29.0	20.2	1.6	2.2	C53
Corpus uteri							17	3.4	7.2	5.4	0.5	0.6	C54
Ovary							18	3.5	7.4	5.5	0.4	0.6	C56
Other female genital organs							1	0.1	0.3	0.2	0.0	0.0	C57
Placenta							1	0.2	0.4	0.4	0.0	0.0	C58
Penis	4	0.8	1.9	1.6	0.1	0.2							C60
Prostate	30	5.5	13.1	9.0	0.2	0.9							C61
Testis	3	0.6	1.4	1.8	0.1	0.1							C62
Other male genital organs	0	0.1	0.1	0.1	0.0	0.0							C63
Kidney	4	0.7	1.6	1.3	0.0	0.2	2	0.4	0.8	0.7	0.0	0.1	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	1	0.1	0.3	0.1	0.0	0.0	C65
Bladder	21	3.9	9.2	6.6	0.3	0.8	7	1.4	2.9	1.8	0.1	0.2	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.1	0.1	0.0	0.0	C68
Eye	1	0.2	0.4	0.5	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C69
Brain, nervous system	9	1.6	3.7	3.4	0.2	0.3	6	1.1	2.3	1.7	0.1	0.2	C70-72
Thyroid	3	0.5	1.3	1.1	0.1	0.1	22	4.2	9.0	7.2	0.6	0.7	C73
Hodgkin disease	2	0.4	0.9	0.7	0.1	0.1	1	0.3	0.6	0.6	0.0	0.0	C81
Non-Hodgkin lymphoma	25	4.6	11.0	8.8	0.5	0.9	21	4.1	8.7	6.4	0.5	0.6	C82-85,C96
Multiple myeloma	6	1.2	2.7	2.1	0.1	0.3	6	1.1	2.3	1.5	0.1	0.2	C90
Lymphoid leukemia	4	0.8	1.9	1.6	0.1	0.2	3	0.6	1.2	1.2	0.1	0.1	C91
Myeloid leukemia	7	1.2	2.9	2.6	0.1	0.2	7	1.3	2.8	2.1	0.1	0.2	C92-94
Leukemia unspecified	6	1.1	2.6	2.0	0.1	0.1	4	0.7	1.5	1.1	0.0	0.1	C95
Myelodysplastic disease	17	3.0	7.2	5.2	0.3	0.6	15	2.9	6.2	4.1	0.2	0.4	D45-D47
Other and unspecified	11	2.1	4.9	3.8	0.2	0.5	5	1.0	2.2	1.6	0.1	0.2	O&U
All sites	**550**	**100.0**	**238.0**	**181.9**	**10.2**	**21.2**	**514**	**100.0**	**212.8**	**149.0**	**10.2**	**15.9**	**ALL**

Table 3.12.4 Percentage of morphologically verified and death certificate only cases, Chanthaburi

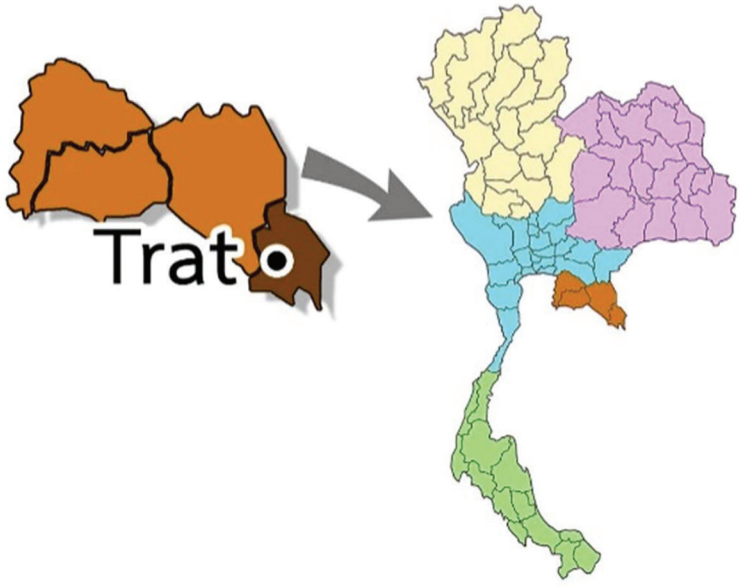
Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	87	96.6	0.0	53	100.0	0.0	C00-C08
Oropharynx	26	96.2	0.0	2	100.0	0.0	C09-C10,C14
Nasopharynx	41	92.7	0.0	19	89.5	0.0	C11
Hypopharynx	21	100.0	0.0	2	100.0	0.0	C12-C13
Esophagus	121	89.3	0.8	38	89.5	0.0	C15
Stomach	56	87.5	0.0	34	88.2	0.0	C16
Small intestine	5	80.0	0.0	2	100.0	0.0	C17
Colon and rectum	163	91.4	0.0	134	91.8	0.0	C18-C21
Liver and bile duct	207	25.6	1.4	66	24.2	3.0	C22,C24
Gallbladder	7	57.1	0.0	11	63.6	0.0	C23
pancrease	16	37.5	12.5	11	36.4	0.0	C25
Nose,sinuses etc	5	100.0	0.0	4	100.0	0.0	C30-C31
Larynx	34	94.1	2.9	1	100.0	0.0	C32
Trachea, brochus and lung	315	61.3	1.0	167	65.9	1.8	C33-C34
Other thoracic organs	1	100.0	0.0	4	75.0	0.0	C37-C38
Bone	5	40.0	0.0	3	33.3	0.0	C40-C41
Melanoma of skin	11	100.0	0.0	9	100.0	0.0	C43
Other skin	52	100.0	0.0	47	100.0	0.0	C44
Mesothelioma	0	0.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	0	0.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	10	90.0	0.0	11	90.9	0.0	C47,C49
Breast	4	75.0	0.0	306	94.8	1.0	C50
Vulva				1	100.0	0.0	C51
Vagina				0	0.0	0.0	C52
Cervix uteri				210	95.7	0.0	C53
Corpus uteri				52	100.0	0.0	C54
Uterus unspecified				0	0.0	0.0	C55
Ovary				54	83.3	0.0	C56
Other female genital organs				2	100.0	0.0	C57
Placenta				3	100.0	0.0	C58
Penis	13	100.0	0.0				C60
Prostate	91	92.3	0.0				C61
Testis	10	100.0	0.0				C62
Other male genital organs	1	100.0	0.0				C63
Kidney	11	72.7	0.0	6	66.7	0.0	C64
Renal pelvis	0	0.0	0.0	2	100.0	0.0	C65
Ureter	0	0.0	0.0	0	0.0	0.0	C66
Bladder	64	98.4	0.0	21	90.5	0.0	C67
Other urinary organs	0	0.0	0.0	1	0.0	0.0	C68
Eye	3	33.3	0.0	0	0.0	0.0	C69
Brain, nervous system	26	57.7	0.0	17	41.2	5.9	C70-C72
Thyroid	9	77.8	0.0	65	98.5	0.0	C73
Adrenal gland	0	0.0	0.0	0	0.0	0.0	C74
Other endocrine	0	0.0	0.0	0	0.0	0.0	C75
Hodgkin disease	6	100.0	0.0	4	100.0	0.0	C81
Non-Hodgkin lymphoma	76	100.0	0.0	63	100.0	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	19	100.0	0.0	17	100.0	0.0	C90
Leukemia	51	100.0	0.0	40	100.0	0.0	C91-C95
Myelodysplastic	50	100.0	0.0	45	100.0	0.0	D45-D47
Other and unspecified	34	44.1	5.9	16	37.5	0.0	O&U
All sites	**1,651**	**76.8**	**0.7**	**1,543**	**86.8**	**0.6**	**All**

Trat Cancer Registry

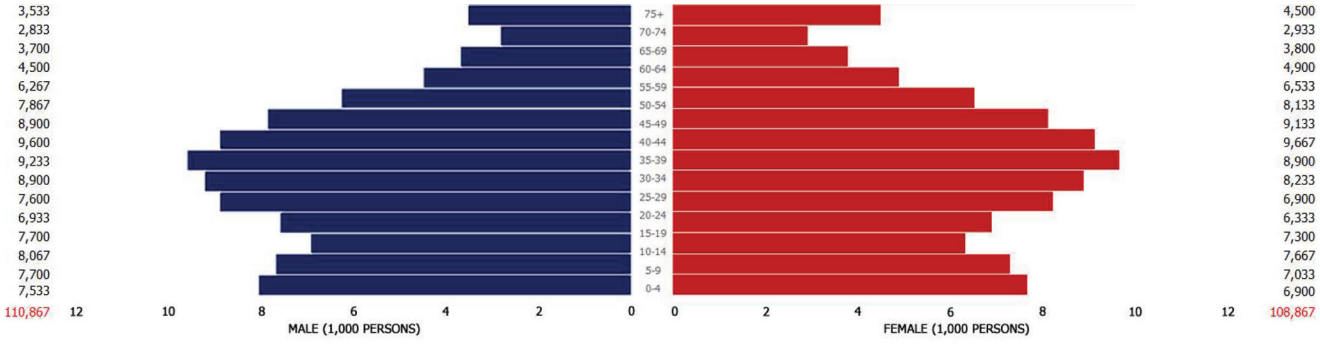
Registration area

Trat is one of the eighth provinces in the Eastern part of Thailand, situated between 12 °24' N 102 °31'E, 315 kilometers from Bangkok by car or bus, with land area 2,819 square kilometers, 2 meters above sea level and is bounded on the northwest by Chanthaburi Province, the east by Combodia with the Cardamom mountain range and the Gulf of Thailand on the South. The land area composed of 52 islands, Koh Chang is the third biggest island of Thailand after Phuket and Koh Samui. The smaller surrounding islands form the Mu Koh Chang Marine National Park.

The climate is rather warm, the highest temperature about 34-38 ° C in summer from March to April, 17.8° C in winter from November to February, rainy season started from May to October. The average total rainfall is 4,398 millimeters per year. The most important occupations are fishing and farming of rice, vegetables, fruits especially pineapple and Sweet Zallaca and famous tourism such asdiving spot with beautiful corals at the Mu Koh Chang Marine National Park.



Population pyramid, Trat
estimated population in 2011 (average 2010-2012)



Cancer care facilities

The total number of hospitals in the province was 8 hospitals composed of 6 community hospitals, 1 private hospital and 1 provincial hospital, providing 402 total beds. The medical personals composed of 43 registered medical practitioners, 12 dentists and 16 pharmacists.

Cancer diagnostic services including radiological diagnosis equipment such as: X-ray, ultrasound. Mammography and computed tomography scan are available inprivate hospital. Cancer surgery services are provided in provincial hospital. Some of the cancer patients were referred to Chon Buri cancer center for radiotherapy. Most of cancer patients go to Chanthaburi provincial hospital (Pahrapokklao Hospital) which providing clinical consultations, radiological and pathological investigations for cancer diagnosis including cancer surgery services, chemotherapy and targeted therapy for cancer treatment. All hospitals in the province provide palliative care.

Registry procedures

The data of Trat residents are extracted from the hospital-based cancer registry of Chonburi Cancer Hospital, hospital-based cancer registry of Pahrapokklao Hospital and mixture of passively and actively collected data of all hospital in Trat. New cancer cases were collected from out and in patient departments, wards, surgery unit, cytology unit, hematology unit, medical record, pathological unit and autopsy service. The data information collected includes demographic details for each cancer patient that consists of: registry number, name, residential address, date of birth, age, sex, date of diagnosis, site of cancer, histology of cancer, staging, extension of disease, method of diagnosis, treatment, date of last contact and status of cancer patients (alive or dead). Multiple primary cases are checked by physicians using their original records and with any other physicians concerned. All cancer death certificates are matched with the incidence case records of the registry. Individual certified as having died of cancer are registered as “Death Certificate Only (DCO)” cases if no other information about the individual can be traced from the other sources.

Summary of results

New cases registered in 2011, 225 were males and 189 were females, making 414 for both sexes.

The age - standardized incidence rate (ASR) of all cancer sites in males was 157.2 per 100,000, with liver and bile duct cancer ranking first (ASR = 29.0) followed by lung (ASR = 22.9) and colon and rectum (ASR = 17.4). The ASR of all cancer sites in females was 124.9 per 100,000, the three leading cancer sites being breast (ASR = 25.7), cervix (ASR = 14.0) and liver and bile duct (ASR = 11.8).

Figure 3.13 Leading cancer in Trat (mean annual ASR 2010-2012)

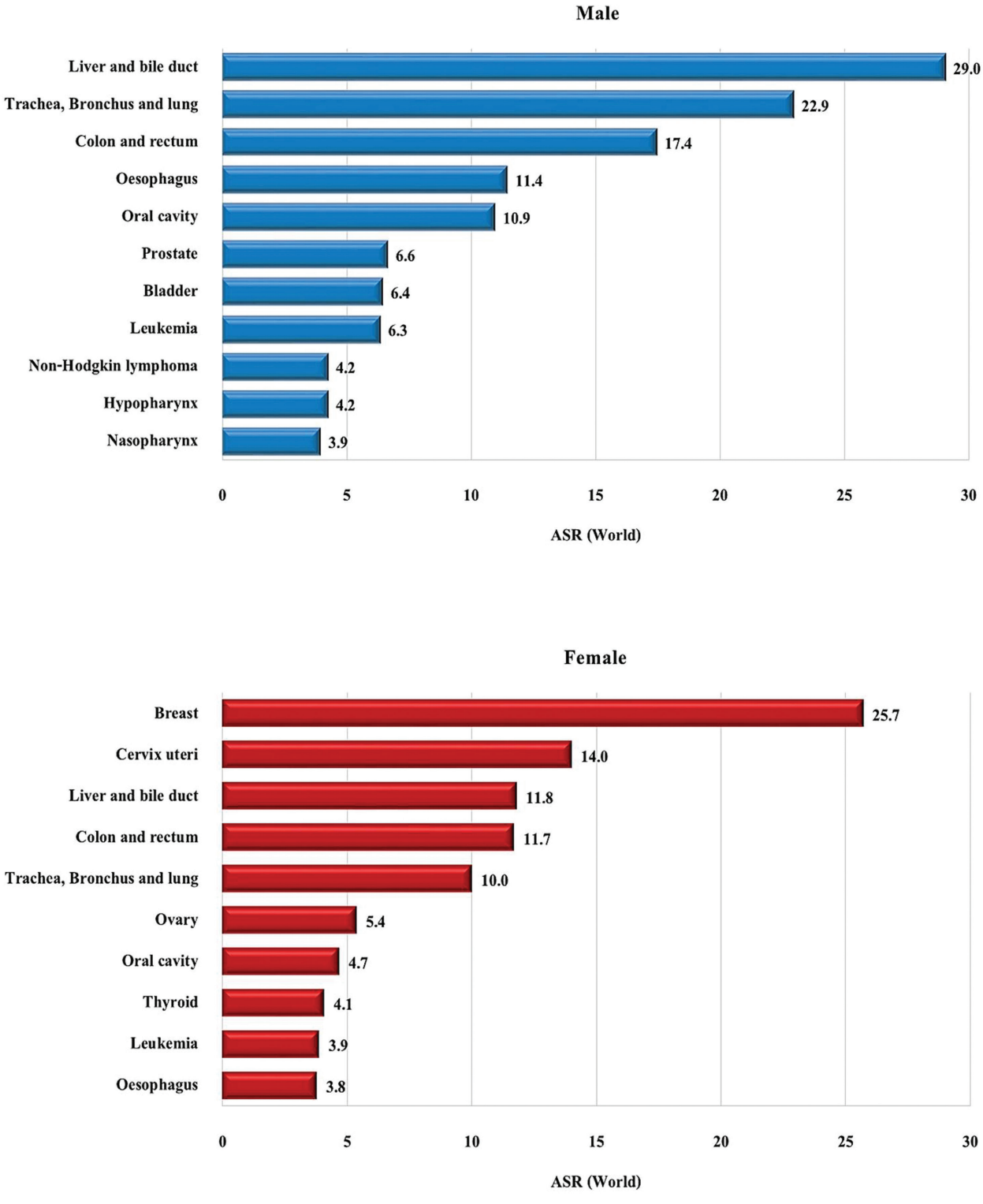


Table 3.13.1 Trat (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	9.4	0.6	0.4	C00
Tongue	7	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.6	3.5	0.0	12.7	26.6	37.0	27.0	23.5	0.0	6.3	5.1	C01-02
Mouth	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	7.5	4.2	10.6	14.8	18.0	47.1	47.2	5.7	4.3	C03-06
Salivary glands	1	0.0	0.0	0.0	4.3	0.0	0.0	3.7	0.0	0.0	3.7	0.0	0.0	7.4	0.0	0.0	0.0	1.2	1.1	C07-08
Tonsil	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.5	0.0	0.0	5.3	7.4	9.0	0.0	9.4	1.8	1.4	C09
Other oropharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	7.4	9.0	0.0	9.4	1.2	1.0	C10
Nasopharynx	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.5	18.7	25.4	5.3	14.8	0.0	11.8	0.0	5.1	3.9	C11
Hypopharynx	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	7.5	8.5	10.6	29.6	36.0	11.8	9.4	5.1	4.2	C12-13
Oesophagus	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	25.4	47.9	51.9	45.0	152.9	75.5	14.7	11.4	C15
Stomach	4	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	7.5	4.2	5.3	22.2	9.0	11.8	28.3	3.9	3.2	C16
Small intestine	0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	C17
Colon	12	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	10.4	11.2	25.4	16.0	7.4	63.1	70.6	66.0	11.1	8.4	C18
Rectum	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	7.5	25.4	26.6	37.0	27.0	94.1	47.2	10.5	8.1	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.5	0.0	0.0	0.0	0.0	9.0	0.0	9.4	1.2	0.9	C21
Liver and bile duct	42	0.0	0.0	0.0	0.0	0.0	4.4	7.5	18.1	17.4	74.9	110.2	63.8	96.3	180.2	70.6	141.5	37.6	29.0	C22,C24
Gallbladder	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	9.0	0.0	0.0	0.6	0.5	C23
Pancreas	4	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.7	8.5	5.3	7.4	9.0	23.5	18.9	3.3	2.5	C25
Nose, sinuses etc.	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	18.9	0.6	0.4	C30-31
Larynx	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	29.6	27.0	0.0	18.9	3.0	2.6	C32
Trachea, Bronchus and lung	35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	6.9	37.5	59.3	58.5	81.5	90.1	70.6	358.5	31.3	22.9	C33-34
Other thoracic organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C37-38
Bone	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	7.4	0.0	11.8	9.4	1.2	0.9	C40-C41
Melanoma of skin	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	3.7	0.0	5.3	0.0	9.0	0.0	0.0	1.2	0.9	C43
Other skin	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	16.0	14.8	0.0	0.0	47.2	3.3	2.4	C44
Connective tissue	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.6	0.5	C47,C49
Breast	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	0.0	0.3	0.2	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Penis	2	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.0	29.6	0.0	0.0	0.0	1.5	1.4	C60
Prostate	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	14.8	54.1	105.9	103.8	8.7	6.6	C61
Kidney	2	8.8	0.0	0.0	0.0	0.0	0.0	3.7	0.0	3.5	3.7	0.0	0.0	0.0	0.0	0.0	9.4	1.8	1.9	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.3	0.3	C65
Ureter	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	9.4	0.6	0.4	C66
Bladder	9	0.0	0.0	0.0	0.0	4.8	0.0	0.0	0.0	0.0	7.5	0.0	16.0	7.4	36.0	82.4	94.3	8.4	6.4	C67
Eye	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C69
Brain, nervous system	5	0.0	0.0	0.0	0.0	4.8	0.0	0.0	3.6	6.9	7.5	8.5	5.3	14.8	9.0	11.8	9.4	4.2	3.4	C70-72
Thyroid	2	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	3.7	4.2	0.0	0.0	0.0	11.8	9.4	1.5	1.2	C73
Hodgkin disease	1	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.0	0.6	0.7	C81
Non-Hodgkin lymphoma	6	0.0	0.0	4.1	0.0	4.8	0.0	3.7	3.6	10.4	3.7	4.2	5.3	0.0	18.0	11.8	47.2	5.4	4.2	C82-85,C96
Multiple myeloma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0	11.8	0.0	0.6	0.5	C90
Lymphoid leukemia	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4	0.6	0.4	C91
Myeloid leukemia	5	0.0	0.0	0.0	8.7	0.0	0.0	0.0	0.0	0.0	3.7	8.5	5.3	7.4	27.0	11.8	37.7	4.5	3.7	C92-94
Leukemia unspecified	3	0.0	4.3	0.0	0.0	0.0	0.0	0.0	7.2	3.5	0.0	0.0	10.6	7.4	0.0	0.0	18.9	2.7	2.2	C95
Myelodysplastic disease	3	0.0	0.0	0.0	4.3	0.0	0.0	3.7	3.6	0.0	0.0	0.0	0.0	7.4	18.0	23.5	9.4	2.7	2.3	D45-D47
Other and unspecified	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2	10.4	3.7	16.9	5.3	22.2	18.0	35.3	18.9	6.3	4.9	O&U
All sites	**225**	**8.8**	**4.3**	**12.4**	**21.6**	**14.4**	**8.8**	**37.5**	**75.8**	**97.2**	**221.0**	**381.4**	**356.4**	**600.0**	**765.8**	**929.4**	**1301.9**	**202.6**	**157.2**	**ALL**

Table 3.13.2 Trat (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	22.2	1.2	0.7	C00
Tongue	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	3.6	0.0	10.2	0.0	0.0	0.0	14.8	2.1	1.3	C01-02
Mouth	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	4.1	5.1	6.8	8.8	34.1	44.4	4.3	2.7	C03-06
Salivary glands	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C07-08
Tonsil	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C09
Other oropharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	6.8	0.0	0.0	0.0	0.6	0.5	C11
Hypopharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C12-13
Oesophagus	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	12.3	20.4	0.0	17.5	56.8	22.2	5.5	3.8	C15
Stomach	4	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	4.1	15.3	0.0	17.5	11.4	29.6	3.7	2.4	C16
Small intestine	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	13.6	0.0	0.0	0.0	0.9	0.7	C17
Colon	11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	6.9	14.6	24.6	5.1	27.2	35.1	45.5	44.4	9.8	6.9	C18
Rectum	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	3.6	8.2	5.1	34.0	17.5	22.7	44.4	6.1	4.3	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	11.4	0.0	0.6	0.5	C21
Liver and bile duct	18	0.0	0.0	0.0	0.0	0.0	4.8	0.0	3.7	3.4	7.3	16.4	15.3	88.4	26.3	113.6	125.9	16.8	11.8	C22,C24
Gallbladder	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	14.8	0.9	0.5	C23
Pancreas	3	0.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0	0.0	0.0	0.0	34.0	8.8	0.0	7.4	2.8	2.3	C25
Nose, sinuses etc.	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C30-31
Larynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.3	0.1	C32
Trachea, Bronchus and lung	16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.2	10.9	20.5	35.7	54.4	52.6	22.7	81.5	14.4	10.0	C33-34
Other thoracic organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.3	0.3	C37-38
Bone	1	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4	0.0	0.6	0.5	C40-C41
Melanoma of skin	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	6.8	0.0	0.0	7.4	0.9	0.6	C43
Other skin	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	3.6	0.0	0.0	13.6	8.8	11.4	14.8	2.4	1.8	C44
Connective tissue	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	8.8	0.0	0.0	0.6	0.5	C47,C49
Breast	39	0.0	0.0	0.0	0.0	0.0	4.8	4.0	26.2	72.4	83.9	73.8	71.4	74.8	52.6	90.9	59.3	36.1	25.7	C50
Vulva	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	4.1	5.1	0.0	0.0	0.0	0.0	0.9	0.6	C51
Cervix uteri	22	0.0	0.0	0.0	0.0	0.0	0.0	8.1	11.2	20.7	32.8	12.3	71.4	34.0	70.2	68.2	66.7	19.9	14.0	C53
Corpus uteri	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5	0.0	3.6	0.0	5.1	20.4	8.8	0.0	14.8	3.1	2.2	C54
Ovary	7	0.0	0.0	0.0	0.0	5.3	14.5	4.0	11.2	6.9	7.3	12.3	5.1	0.0	35.1	0.0	7.4	6.4	5.4	C56
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Kidney	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C65
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	8.8	0.0	37.0	2.1	1.2	C67
Eye	0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.6	C69
Brain, nervous system	3	0.0	4.7	0.0	0.0	5.3	0.0	0.0	0.0	0.0	3.6	8.2	5.1	20.4	0.0	11.4	0.0	3.1	2.8	C70-72
Thyroid	6	0.0	0.0	0.0	0.0	10.5	0.0	0.0	7.5	3.4	3.6	4.1	25.5	0.0	17.5	0.0	29.6	5.5	4.1	C73
Hodgkin disease	2	0.0	4.7	0.0	0.0	5.3	0.0	0.0	0.0	3.4	0.0	4.1	0.0	6.8	0.0	0.0	0.0	1.5	1.6	C81
Non-Hodgkin lymphoma	5	0.0	0.0	0.0	0.0	10.5	0.0	0.0	3.7	10.3	0.0	4.1	25.5	0.0	0.0	0.0	29.6	4.9	3.5	C82-85,C96
Multiple myeloma	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	5.1	0.0	8.8	11.4	0.0	1.2	0.9	C90
Lymphoid leukemia	0	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	C91
Myeloid leukemia	2	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	0.0	0.0	4.1	0.0	6.8	17.5	0.0	7.4	1.8	1.4	C92-94
Leukemia unspecified	3	0.0	0.0	0.0	0.0	5.3	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	22.7	29.6	2.8	2.1	C95
Myelodysplastic disease	5	0.0	0.0	0.0	0.0	0.0	0.0	4.0	0.0	3.4	7.3	0.0	5.1	20.4	8.8	34.1	22.2	4.6	3.3	D45-D47
Other and unspecified	4	0.0	0.0	0.0	0.0	5.3	0.0	0.0	0.0	3.4	7.3	4.1	5.1	0.0	26.3	0.0	14.8	3.4	2.6	O&U
All sites	**189**	**4.8**	**9.5**	**0.0**	**4.6**	**47.4**	**29.0**	**40.5**	**82.4**	**169.0**	**204.4**	**237.7**	**346.9**	**469.4**	**482.5**	**602.3**	**800.0**	**173.6**	**124.9**	**ALL**

Table 3.13.3 Mean annual incidence, Trat, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	1	0.3	0.6	0.4	0.0	0.0	1	0.7	1.2	0.7	0.0	0.1	C00
Tongue	7	3.1	6.3	5.1	0.4	0.7	2	1.2	2.1	1.3	0.1	0.1	C01-02
Mouth	6	2.8	5.7	4.3	0.2	0.5	5	2.5	4.3	2.7	0.1	0.3	C03-06
Salivary glands	1	0.6	1.2	1.1	0.1	0.1	0	0.0	0.0	0.0	0.0	0.0	C07-08
Tonsil	2	0.9	1.8	1.4	0.1	0.1	0	0.0	0.0	0.0	0.0	0.0	C09
Other oropharynx	1	0.6	1.2	1.0	0.1	0.1	0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	6	2.5	5.1	3.9	0.4	0.4	1	0.4	0.6	0.5	0.1	0.1	C11
Hypopharynx	6	2.5	5.1	4.2	0.3	0.5	0	0.2	0.3	0.2	0.0	0.0	C12-13
Oesophagus	16	7.3	14.7	11.4	0.6	1.6	6	3.2	5.5	3.8	0.2	0.6	C15
Stomach	4	1.9	3.9	3.2	0.2	0.3	4	2.1	3.7	2.4	0.1	0.3	C16
Small intestine	0	0.1	0.3	0.4	0.0	0.0	1	0.5	0.9	0.7	0.1	0.1	C17
Colon	12	5.5	11.1	8.4	0.4	1.0	11	5.6	9.8	6.9	0.4	0.8	C18
Rectum	12	5.2	10.5	8.1	0.5	1.1	7	3.5	6.1	4.3	0.3	0.5	C19-20
Anus	1	0.6	1.2	0.9	0.0	0.1	1	0.4	0.6	0.5	0.0	0.1	C21
Liver and bile duct	42	18.5	37.6	29.0	2.0	3.2	18	9.7	16.8	11.8	0.7	1.4	C22,C24
Gallbladder	1	0.3	0.6	0.5	0.0	0.1	1	0.5	0.9	0.5	0.0	0.1	C23
Pancreas	4	1.6	3.3	2.5	0.1	0.3	3	1.6	2.8	2.3	0.2	0.3	C25
Nose, sinuses etc.	1	0.3	0.6	0.4	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C30-31
Larynx	3	1.5	3.0	2.6	0.2	0.3	0	0.2	0.3	0.1	0.0	0.0	C32
Trachea, Bronchus and lung	35	15.4	31.3	22.9	1.3	2.1	16	8.3	14.4	10.0	0.7	1.1	C33-34
Other thoracic organs	0	0.0	0.0	0.0	0.0	0.0	0	0.2	0.3	0.3	0.0	0.0	C37-38
Bone	1	0.6	1.2	0.9	0.1	0.1	1	0.4	0.6	0.5	0.0	0.1	C40-C41
Melanoma of skin	1	0.6	1.2	0.9	0.1	0.1	1	0.5	0.9	0.6	0.1	0.1	C43
Other skin	4	1.6	3.3	2.4	0.2	0.2	3	1.4	2.4	1.8	0.1	0.2	C44
Connective tissue	1	0.3	0.6	0.5	0.0	0.1	1	0.4	0.6	0.5	0.0	0.1	C47,C49
Breast	0	0.1	0.3	0.2	0.0	0.1	39	20.8	36.1	25.7	2.1	2.8	C50
Vulva							1	0.5	0.9	0.6	0.1	0.1	C51
Cervix uteri							22	11.5	19.9	14.0	1.0	1.6	C53
Corpus uteri							3	1.8	3.1	2.2	0.2	0.2	C54
Ovary							7	3.7	6.4	5.4	0.3	0.5	C56
Penis	2	0.7	1.5	1.4	0.2	0.2							C60
Prostate	10	4.3	8.7	6.6	0.1	0.9							C61
Kidney	2	0.9	1.8	1.9	0.1	0.1	0	0.2	0.3	0.2	0.0	0.0	C64
Renal pelvis	0	0.1	0.3	0.3	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C65
Ureter	1	0.3	0.6	0.4	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	9	4.2	8.4	6.4	0.2	0.8	2	1.2	2.1	1.2	0.0	0.1	C67
Eye	0	0.1	0.3	0.2	0.0	0.0	0	0.2	0.3	0.6	0.0	0.0	C69
Brain, nervous system	5	2.1	4.2	3.4	0.3	0.4	3	1.8	3.1	2.8	0.2	0.3	C70-72
Thyroid	2	0.7	1.5	1.2	0.1	0.1	6	3.2	5.5	4.1	0.3	0.4	C73
Hodgkin disease	1	0.3	0.6	0.7	0.1	0.1	2	0.9	1.5	1.6	0.1	0.1	C81
Non-Hodgkin lymphoma	6	2.7	5.4	4.2	0.2	0.3	5	2.8	4.9	3.5	0.3	0.3	C82-85,C96
Multiple myeloma	1	0.3	0.6	0.5	0.0	0.1	1	0.7	1.2	0.9	0.0	0.1	C90
Lymphoid leukemia	1	0.3	0.6	0.4	0.0	0.0	0	0.2	0.3	0.4	0.0	0.0	C91
Myeloid leukemia	5	2.2	4.5	3.7	0.2	0.4	2	1.1	1.8	1.4	0.1	0.2	C92-94
Leukemia unspecified	3	1.3	2.7	2.2	0.2	0.2	3	1.6	2.8	2.1	0.1	0.2	C95
Myelodysplastic disease	3	1.3	2.7	2.3	0.1	0.3	5	2.6	4.6	3.3	0.2	0.4	D45-D47
Other and unspecified	7	3.1	6.3	4.9	0.3	0.6	4	1.9	3.4	2.6	0.1	0.3	O&U
All sites	**225**	**100.0**	**202.6**	**157.2**	**9.2**	**17.7**	**189**	**100.0**	**173.6**	**124.9**	**8.2**	**13.7**	**ALL**

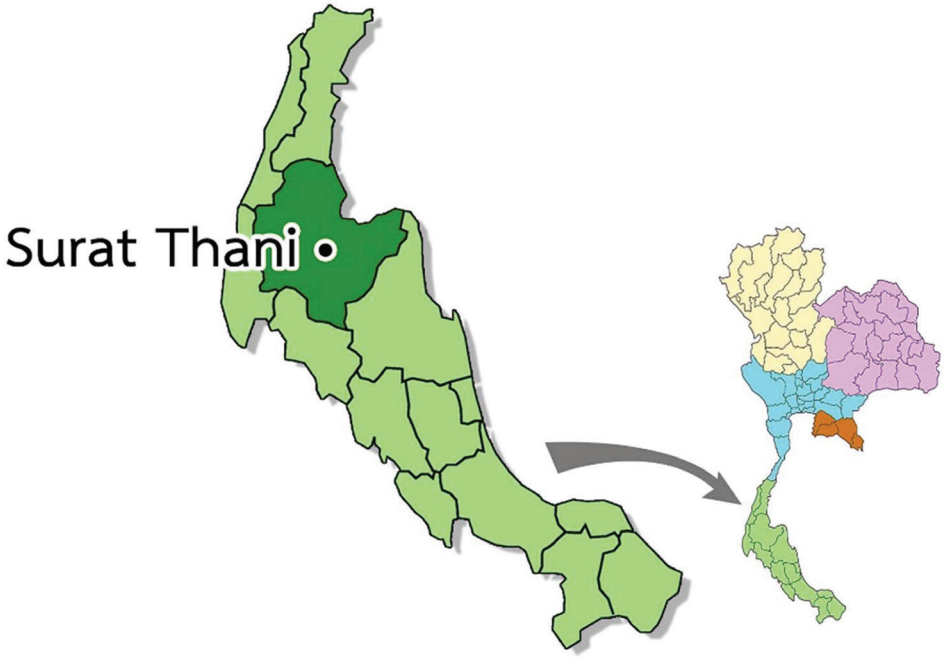
Table 3.13.4 Percentage of morphologically verified and death certificate only cases, Trat

Site	Male			Female			ICD-10
	Cases 3 Year	%MV	%DCO	Cases 3 Year	%MV	%DCO	
Oral cavity	46	89.1	0.0	25	88.0	0.0	C00-C08
Oropharynx	10	100.0	0.0	0	0.0	0.0	C09-C10,C14
Nasopharynx	17	94.1	0.0	2	100.0	0.0	C11
Hypopharynx	17	76.5	0.0	1	100.0	0.0	C12-C13
Esophagus	49	83.7	0.0	18	77.8	0.0	C15
Stomach	13	69.2	0.0	12	75.0	0.0	C16
Small intestine	1	100.0	0.0	3	100.0	0.0	C17
Colon and rectum	76	85.5	0.0	54	87.0	0.0	C18-C21
Liver and bile duct	125	13.6	4.8	55	16.4	7.3	C22,C24
Gallbladder	2	50.0	0.0	3	33.3	0.0	C23
pancrease	11	9.1	0.0	9	22.2	11.1	C25
Nose,sinuses etc	2	50.0	0.0	0	0.0	0.0	C30-C31
Larynx	10	90.0	0.0	1	0.0	0.0	C32
Trachea, brochus and lung	104	44.2	1.9	47	51.1	4.3	C33-C34
Other thoracic organs	0	0.0	0.0	1	100.0	0.0	C37-C38
Bone	4	50.0	0.0	2	0.0	0.0	C40-C41
Melanoma of skin	4	100.0	0.0	3	100.0	0.0	C43
Other skin	11	100.0	0.0	8	100.0	0.0	C44
Mesothelioma	0	0.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	0	0.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	2	100.0	0.0	2	100.0	0.0	C47,C49
Breast	1	100.0	0.0	118	91.5	0.0	C50
Vulva				3	100.0	0.0	C51
Vagina				0	0.0	0.0	C52
Cervix uteri				65	84.6	0.0	C53
Corpus uteri				10	90.0	0.0	C54
Uterus unspecified				0	0.0	0.0	C55
Ovary				21	81.0	4.8	C56
Other female genital organs							C57
Placenta							C58
Penis	5	60.0	20.0				C60
Prostate	29	82.8	0.0				C61
Testis	0	0.0	0.0				C62
Other male genital organs	0	0.0	0.0				C63
Kidney	6	66.7	0.0	1	100.0	0.0	C64
Renal pelvis	1	100.0	0.0	0	0.0	0.0	C65
Ureter	2	100.0	0.0	0	0.0	0.0	C66
Bladder	28	89.3	0.0	7	100.0	0.0	C67
Other urinary organs	0	0.0	0.0	0	0.0	0.0	C68
Eye	1	100.0	0.0	1	100.0	0.0	C69
Brain, nervous system	14	35.7	0.0	10	30.0	0.0	C70-C72
Thyroid	5	100.0	0.0	18	83.3	0.0	C73
Adrenal gland	0	0.0	0.0	0	0.0	0.0	C74
Other endocrine	0	0.0	0.0	0	0.0	0.0	C75
Hodgkin disease	2	100.0	0.0	5	100.0	0.0	C81
Non-Hodgkin lymphoma	18	100.0	0.0	16	100.0	0.0	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	2	100.0	0.0	4	100.0	0.0	C90
Leukemia	26	100.0	0.0	16	100.0	0.0	C91-C95
Myelodysplastic	9	100.0	0.0	15	100.0	0.0	D45-D47
Other and unspecified	21	28.6	4.8	11	36.4	0.0	O&U
All sites	**674**	**62.9**	**1.5**	**567**	**75.3**	**1.4**	**All**

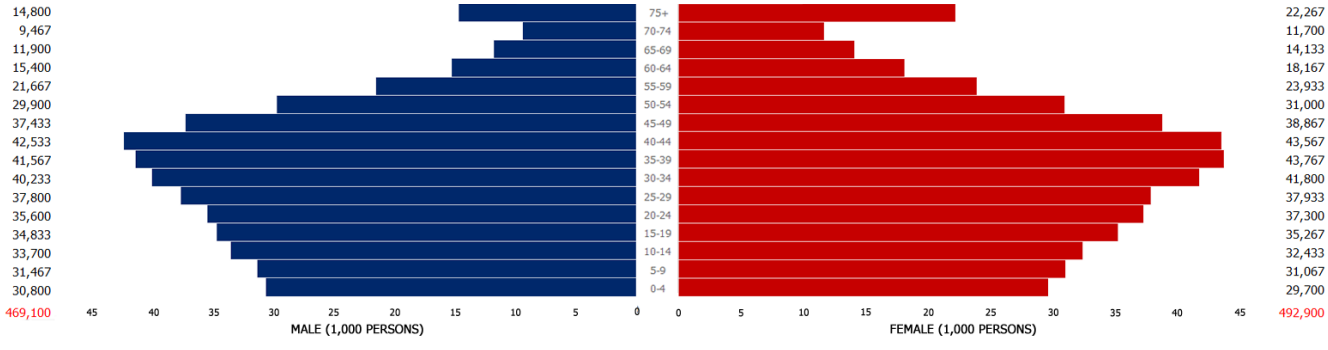
Surat Thani Cancer Registry

Registration area

Surat Thani, one of the 14 provinces of the Southern Region of Thailand, is subdivided into 19 districts, which are further subdivided into 131 subdistricts and 1,028 villages. The population in the year 2008 was 903,262, about 97.5% of which are Buddhists and nearly 2% are Moslems. Christians and others account for less than 0.5% of the population. Surat Thani province borders the Gulf of Thailand to the north and east, Chumphon province to the north, Nakhon Si Thammarat and Krabi provinces to the south, Phang Nga and Ranong provinces to the west and Nakhon Si Thammarat province to the east.



Population pyramid, Surat Thani
estimated population in 2011 (average 2010-2012)



Cancer care facilities

Community hospitals are provided in all 19 districts of Suratthani. One cancer center (Surat Thani cancer center) is situated in Muaeng district which is the center of the province. The Surat Thani provincial hospital has facilities for cancer surgery and chemotherapy. The Surat Thani cancer center is the only place in the province with radiotherapy services. Patients suspected to have cancer in the health care system and community hospitals are referred to the Surat Thani provincial hospital, Surat Thani cancer center or Songklanagarind hospital.

Registry procedures

All data on cancer patients are collected by a mixture of passive and active methods involving notification by the staff of Suratthani cancer center, Suratthani provincial hospital, one Suratthani provincial hospital, 19 community hospitals, pathological laboratory in Suratthani hospital, cancer registration unit of Songklanagarind hospital and information of deaths from all causes of death from Bureau of health policy and strategy, Ministry of Public Health. All death certificates are matched with the incidence case records of the registry.

Individual certified as having died of cancer are registered as “Death Certificate Only (DCO)” cases if no other information about the individual can be traced from the other sources.

Summary of results

New cases registered in 2011, 520 were males and 572 were females, making 1,092 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 100.0 per 100,000, with lung cancer ranks first (ASR = 14.2) followed by liver and bile duct (ASR = 13.5) and colon and rectum (ASR = 9.9). The ASR of all cancer sites in females was 91.0 per 100,000, the three leading cancer sites being breast (ASR = 24.0), cervix (ASR = 12.2) and colon and rectum (ASR = 6.5).

Figure 3.14 Leading cancer in Surat Thani (mean annual ASR 2010-2012)

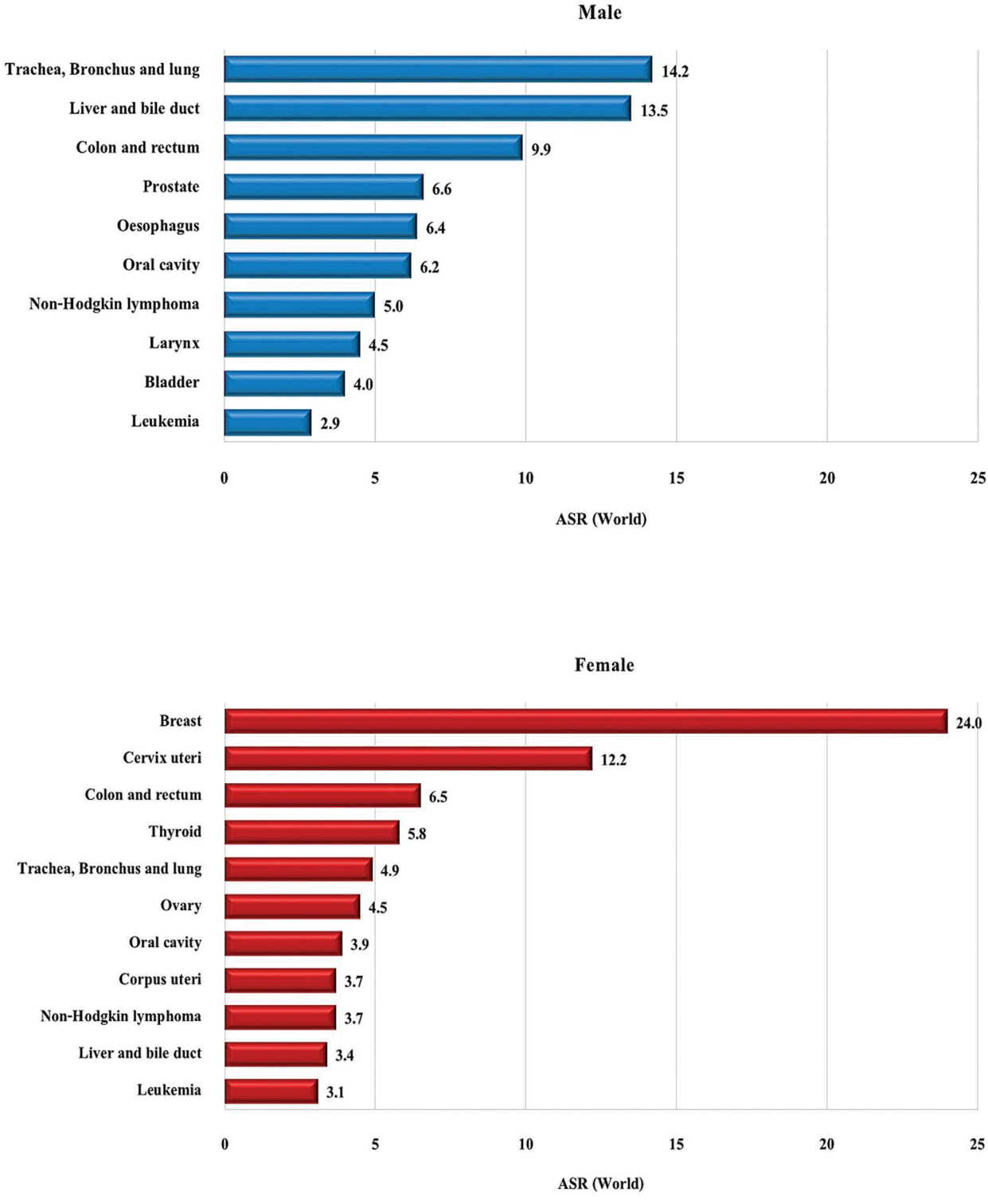


Table 3.14.1 Surat Thani (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.1	0.0	C00
Tongue	14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	3.6	8.9	4.6	4.3	25.2	28.2	13.5	3.1	2.7	C01-02
Mouth	17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	2.7	4.5	9.2	2.2	25.2	21.1	42.8	3.6	3.0	C03-06
Salivary glands	3	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.8	0.9	1.1	1.5	2.2	2.8	3.5	0.0	0.6	0.5	C07-08
Tonsil	9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.6	7.8	6.2	0.0	8.4	7.0	11.3	1.9	1.6	C09
Other oropharynx	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.9	2.2	1.5	6.5	0.0	0.0	9.0	0.9	0.8	C10
Nasopharynx	13	0.0	0.0	1.0	1.0	0.0	0.9	2.5	4.0	0.8	8.0	10.0	4.6	2.2	5.6	3.5	4.5	2.8	2.3	C11
Hypopharynx	11	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.8	1.8	7.8	9.2	8.7	2.8	10.6	15.8	2.3	2.0	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.1	0.0	C14
Oesophagus	32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.6	7.1	7.8	21.5	43.3	42.0	38.7	42.8	6.9	6.4	C15
Stomach	10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.8	3.3	3.1	13.0	14.0	28.2	9.0	2.2	2.1	C16
Small intestine	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	4.5	0.2	0.1	C17
Colon	29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	3.1	4.5	10.0	15.4	36.8	33.6	45.8	33.8	6.3	5.8	C18
Rectum	21	0.0	0.0	0.0	0.0	0.0	0.9	0.0	2.4	3.9	1.8	4.5	4.6	23.8	22.4	14.1	47.3	4.4	3.8	C19-20
Anus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	2.2	0.0	0.0	2.8	0.0	2.3	0.4	0.3	C21
Liver and bile duct	72	0.0	0.0	0.0	0.0	0.0	0.0	3.3	8.0	14.9	23.2	25.6	50.8	51.9	67.2	98.6	56.3	15.3	13.5	C22,C24
Gallbladder	1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5	2.3	0.2	0.2	C23
Pancreas	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	3.1	2.2	2.8	7.0	2.3	0.9	0.7	C25
Nose, sinuses etc.	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C30-31
Larynx	22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	4.5	5.6	12.3	34.6	25.2	35.2	29.3	4.8	4.5	C32
Trachea, Bronchus and lung	75	0.0	0.0	0.0	0.0	0.0	0.9	2.5	3.2	7.1	18.7	25.6	32.3	64.9	81.2	123.2	108.1	15.9	14.2	C33-34
Other thoracic organs	2	0.0	0.0	0.0	1.9	0.9	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	2.3	0.4	0.3	C37-38
Bone	2	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	2.8	0.0	2.3	0.4	0.3	C40-C41
Melanoma of skin	1	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	2.2	2.8	0.0	0.0	0.2	0.2	C43
Other skin	13	0.0	0.0	0.0	1.0	0.0	0.0	0.8	0.0	0.8	2.7	2.2	3.1	4.3	22.4	17.6	32.5	2.8	2.4	C44
Connective tissue	5	1.1	2.1	0.0	0.0	0.0	0.0	0.8	0.0	0.0	2.7	0.0	4.6	0.0	8.4	0.0	4.5	1.1	1.1	C47,C49
Breast	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	4.3	2.8	3.5	4.5	0.5	0.5	C50
Vulva	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C51
Vagina	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C52
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Other female genital organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C57
Penis	8	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.4	0.8	0.9	1.1	3.1	2.2	5.6	14.1	18.0	1.7	1.4	C60
Prostate	33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.3	10.8	32.5	36.4	105.6	69.8	7.1	6.6	C61
Testis	4	1.1	0.0	1.0	0.0	2.8	1.8	0.8	0.8	0.0	1.8	0.0	0.0	0.0	0.0	0.0	2.3	0.9	0.8	C62
Kidney	4	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.9	2.2	1.5	4.3	5.6	7.0	0.0	0.9	0.9	C64
Renal pelvis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.1	0.0	C65
Bladder	21	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.8	0.8	3.6	1.1	13.8	26.0	14.0	28.2	47.3	4.5	4.0	C67
Eye	2	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	2.2	0.0	0.0	2.3	0.4	0.6	C69
Brain, nervous system	13	2.2	3.2	0.0	0.0	1.9	1.8	2.5	3.2	2.4	1.8	4.5	4.6	8.7	5.6	3.5	11.3	2.8	2.7	C70-72
Thyroid	10	0.0	0.0	1.0	1.9	0.9	1.8	0.8	3.2	1.6	2.7	3.3	3.1	8.7	2.8	7.0	4.5	2.1	1.9	C73
Adrenal gland	0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C74
Hodgkin disease	1	0.0	0.0	1.0	1.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.3	0.3	C81
Non-Hodgkin lymphoma	26	0.0	3.2	2.0	0.0	1.9	2.6	0.8	2.4	6.3	6.2	10.0	9.2	10.8	22.4	28.2	31.5	5.6	5.0	C82-85,C96
Multiple myeloma	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.9	1.1	3.1	2.2	2.8	7.0	2.3	0.7	0.6	C90
Lymphoid leukemia	4	3.2	4.2	2.0	0.0	0.0	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.1	C91
Myeloid leukemia	4	0.0	0.0	0.0	0.0	0.9	0.0	1.7	0.8	0.8	0.0	1.1	3.1	6.5	0.0	3.5	0.0	0.9	0.8	C92-94
Leukemia unspecified	4	2.2	2.1	1.0	0.0	0.9	0.0	0.8	0.0	0.0	0.0	1.1	3.1	2.2	0.0	0.0	2.3	0.9	1.0	C95
Myelodysplastic disease	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	0.1	0.1	D45-D47
Other and unspecified	13	0.0	0.0	0.0	0.0	0.9	0.0	0.8	0.8	1.6	2.7	3.3	6.2	4.3	14.0	38.7	15.8	2.8	2.5	O&U
All sites	**520**	**15.2**	**14.8**	**8.9**	**8.6**	**13.1**	**11.5**	**21.5**	**40.1**	**58.8**	**115.8**	**166.1**	**250.8**	**417.7**	**512.6**	**732.4**	**695.3**	**110.7**	**100.0**	**ALL**

Table 3.14.2 Surat Thani (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	2.4	5.7	7.5	0.7	0.5	C00
Tongue	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	2.2	0.0	5.5	2.4	5.7	12.0	1.2	0.8	C01-02
Mouth	17	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	3.2	2.8	11.0	9.4	14.2	41.9	3.4	2.3	C03-06
Salivary glands	2	0.0	0.0	0.0	0.0	0.9	0.9	0.0	0.0	0.8	0.0	0.0	0.0	0.0	2.4	0.0	1.5	0.3	0.3	C07-08
Tonsil	2	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.7	4.5	0.4	0.3	C09
Other oropharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C10
Nasopharynx	3	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5	0.8	1.7	1.1	0.0	3.7	2.4	0.0	0.0	0.7	0.6	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.1	0.1	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.9	0.0	4.2	1.8	4.7	2.8	12.0	1.1	0.8	C15
Stomach	10	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.8	0.8	4.3	1.1	2.8	3.7	9.4	5.7	13.5	2.0	1.4	C16
Small intestine	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.7	2.4	0.0	3.0	0.4	0.3	C17
Colon	24	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	5.4	3.4	8.6	7.0	12.8	21.2	17.1	34.4	4.8	3.5	C18
Rectum	18	0.0	0.0	0.0	0.0	0.9	0.9	0.8	1.5	2.3	2.6	7.5	4.2	12.8	16.5	11.4	21.0	3.6	2.8	C19-20
Anus	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	2.4	0.0	1.5	0.2	0.2	C21
Liver and bile duct	23	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	2.6	5.4	5.6	11.0	21.2	42.7	35.9	4.6	3.4	C22,C24
Gallbladder	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	2.8	0.0	0.2	0.2	C23
Pancreas	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	2.6	1.1	1.4	3.7	2.4	2.8	9.0	1.1	0.8	C25
Nose, sinuses etc.	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C30-31
Larynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.4	1.8	0.0	5.7	0.0	0.3	0.3	C32
Trachea, Bronchus and lung	32	0.0	0.0	0.0	0.0	0.0	0.0	1.6	3.0	5.4	6.9	11.8	15.3	22.0	18.9	25.6	35.9	6.5	4.9	C33-34
Other thoracic organs	1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.0	0.0	1.1	0.0	0.0	0.0	0.0	1.5	0.3	0.2	C37-38
Bone	2	0.0	0.0	0.0	1.9	0.9	0.0	0.0	0.0	0.8	0.0	0.0	1.4	0.0	2.4	0.0	1.5	0.5	0.4	C40-C41
Melanoma of skin	4	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.9	2.2	2.8	1.8	0.0	2.8	4.5	0.8	0.6	C43
Other skin	15	0.0	1.1	0.0	0.0	0.9	0.9	0.8	0.0	0.8	0.9	6.5	4.2	7.3	11.8	5.7	28.4	3.0	2.2	C44
Connective tissue	7	1.1	0.0	0.0	0.0	1.8	2.6	2.4	0.8	0.0	0.0	2.2	2.8	1.8	4.7	2.8	6.0	1.5	1.3	C47,C49
Breast	151	0.0	0.0	0.0	0.0	1.8	6.2	23.1	27.4	50.5	77.2	68.8	93.3	69.7	42.5	42.7	29.9	30.6	24.0	C50
Vulva	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	1.4	0.0	0.0	0.0	1.5	0.3	0.2	C51
Vagina	1	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.1	0.1	C52
Cervix uteri	76	0.0	0.0	0.0	0.0	0.9	3.5	9.6	12.2	22.2	36.0	29.0	32.0	38.5	37.7	59.8	24.0	15.4	12.2	C53
Corpus uteri	22	0.0	0.0	0.0	0.0	0.9	0.9	0.0	1.5	2.3	3.4	17.2	19.5	23.9	9.4	8.5	6.0	4.4	3.7	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C55
Ovary	27	0.0	0.0	2.1	0.9	0.0	0.9	1.6	2.3	4.6	12.9	7.5	15.3	14.7	23.6	11.4	18.0	5.5	4.5	C56
Other female genital organs	1	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C57
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Kidney	3	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.8	0.0	0.9	1.1	1.4	0.0	4.7	5.7	0.0	0.6	0.5	C64
Renal pelvis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	1.5	0.1	0.1	C65
Bladder	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	2.2	4.2	1.8	0.0	2.8	9.0	1.0	0.7	C67
Eye	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.1	0.0	C69
Brain, nervous system	10	1.1	2.1	0.0	1.9	2.7	1.8	3.2	3.0	3.1	0.0	2.2	2.8	1.8	4.7	2.8	1.5	2.1	2.0	C70-72
Thyroid	34	0.0	1.1	0.0	3.8	3.6	9.7	5.6	6.1	6.1	10.3	16.1	12.5	12.8	7.1	19.9	9.0	6.9	5.8	C73
Adrenal gland	0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C74
Hodgkin disease	1	0.0	0.0	0.0	0.0	0.9	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	C81
Non-Hodgkin lymphoma	23	2.2	0.0	1.0	0.9	0.9	0.9	4.0	3.0	4.6	4.3	4.3	11.1	9.2	9.4	17.1	25.4	4.7	3.7	C82-85,C96
Multiple myeloma	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	1.8	7.1	0.0	3.0	0.5	0.5	C90
Lymphoid leukemia	2	2.2	1.1	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.4	0.6	C91
Myeloid leukemia	4	0.0	0.0	1.0	0.9	0.0	0.0	0.8	0.8	0.0	0.0	1.1	4.2	1.8	0.0	0.0	6.0	0.9	0.7	C92-94
Leukemia unspecified	10	1.1	2.1	1.0	1.9	0.0	0.0	4.0	0.8	0.0	1.7	3.2	2.8	1.8	2.4	5.7	12.0	2.1	1.8	C95
Myelodysplastic disease	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	0.1	D45-D47
Other and unspecified	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5	0.9	1.1	4.2	3.7	4.7	19.9	9.0	1.7	1.3	O&U
All sites	**572**	**9.0**	**7.5**	**6.2**	**12.3**	**18.8**	**31.6**	**63.8**	**70.1**	**117.1**	**178.4**	**212.9**	**264.6**	**297.2**	**292.5**	**356.1**	**437.1**	**116.0**	**91.0**	**ALL**

Table 3.14.3 Mean annual incidence, Surat Thani, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	0	0.1	0.1	0.0	0.0	0.0	3	0.6	0.7	0.5	0.0	0.1	C00
Tongue	14	2.8	3.1	2.7	0.1	0.4	6	1.0	1.2	0.8	0.0	0.1	C01-02
Mouth	17	3.2	3.6	3.0	0.1	0.3	17	2.9	3.4	2.3	0.1	0.2	C03-06
Salivary glands	3	0.5	0.6	0.5	0.0	0.1	2	0.3	0.3	0.3	0.0	0.0	C07-08
Tonsil	9	1.7	1.9	1.6	0.1	0.2	2	0.3	0.4	0.3	0.0	0.0	C09
Other oropharynx	4	0.8	0.9	0.8	0.1	0.1	0	0.1	0.1	0.1	0.0	0.0	C10
Nasopharynx	13	2.5	2.8	2.3	0.2	0.2	3	0.6	0.7	0.6	0.0	0.1	C11
Hypopharynx	11	2.1	2.3	2.0	0.1	0.2	1	0.1	0.1	0.1	0.0	0.0	C12-13
Pharynx unspecified	0	0.1	0.1	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	32	6.2	6.9	6.4	0.4	0.8	6	1.0	1.1	0.8	0.0	0.1	C15
Stomach	10	2.0	2.2	2.1	0.1	0.3	10	1.7	2.0	1.4	0.1	0.2	C16
Small intestine	1	0.2	0.2	0.1	0.0	0.0	2	0.3	0.4	0.3	0.0	0.0	C17
Colon	29	5.6	6.3	5.8	0.4	0.8	24	4.1	4.8	3.5	0.2	0.4	C18
Rectum	21	4.0	4.4	3.8	0.2	0.4	18	3.1	3.6	2.8	0.2	0.3	C19-20
Anus	2	0.4	0.4	0.3	0.0	0.0	1	0.2	0.2	0.2	0.0	0.0	C21
Liver and bile duct	72	13.9	15.3	13.5	0.9	1.7	23	4.0	4.6	3.4	0.1	0.5	C22,C24
Gallbladder	1	0.2	0.2	0.2	0.0	0.0	1	0.2	0.2	0.2	0.0	0.0	C23
Pancreas	4	0.8	0.9	0.7	0.0	0.1	5	0.9	1.1	0.8	0.0	0.1	C25
Nose, sinuses etc.	0	0.1	0.1	0.1	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C30-31
Larynx	22	4.3	4.8	4.5	0.3	0.6	2	0.3	0.3	0.3	0.0	0.1	C32
Trachea, Bronchus and lung	75	14.4	15.9	14.2	0.8	1.8	32	5.6	6.5	4.9	0.3	0.6	C33-34
Other thoracic organs	2	0.3	0.4	0.3	0.0	0.0	1	0.2	0.3	0.2	0.0	0.0	C37-38
Bone	2	0.3	0.4	0.3	0.0	0.0	2	0.4	0.5	0.4	0.0	0.0	C40-C41
Melanoma of skin	1	0.2	0.2	0.2	0.0	0.0	4	0.7	0.8	0.6	0.0	0.1	C43
Other skin	13	2.6	2.8	2.4	0.1	0.3	15	2.6	3.0	2.2	0.1	0.2	C44
Connective tissue	5	1.0	1.1	1.1	0.1	0.1	7	1.3	1.5	1.3	0.1	0.1	C47,C49
Breast	2	0.4	0.5	0.5	0.0	0.1	151	26.4	30.6	24.0	2.1	2.5	C50
Vulva							1	0.2	0.3	0.2	0.0	0.0	C51
Vagina							1	0.1	0.1	0.1	0.0	0.0	C52
Cervix uteri							76	13.3	15.4	12.2	0.9	1.4	C53
Corpus uteri							22	3.8	4.4	3.7	0.3	0.4	C54
Uterus unspecified							0	0.1	0.1	0.1	0.0	0.0	C55
Ovary							27	4.8	5.5	4.5	0.3	0.5	C56
Other female genital organs							1	0.1	0.1	0.1	0.0	0.0	C57
Penis	8	1.5	1.7	1.4	0.1	0.2							C60
Prostate	33	6.4	7.1	6.6	0.2	0.9							C61
Testis	4	0.8	0.9	0.8	0.1	0.1							C62
Kidney	4	0.8	0.9	0.9	0.1	0.1	3	0.5	0.6	0.5	0.0	0.1	C64
Renal pelvis	0	0.1	0.1	0.0	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C65
Bladder	21	4.0	4.5	4.0	0.2	0.4	5	0.9	1.0	0.7	0.0	0.1	C67
Eye	2	0.4	0.4	0.6	0.0	0.0	0	0.1	0.1	0.0	0.0	0.0	C69
Brain, nervous system	13	2.6	2.8	2.7	0.2	0.2	10	1.8	2.1	2.0	0.1	0.2	C70-72
Thyroid	10	1.9	2.1	1.9	0.1	0.2	34	5.9	6.9	5.8	0.4	0.6	C73
Adrenal gland	0	0.1	0.1	0.1	0.0	0.0	0	0.1	0.1	0.1	0.0	0.0	C74
Hodgkin disease	1	0.3	0.3	0.3	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	C81
Non-Hodgkin lymphoma	26	5.1	5.6	5.0	0.3	0.5	23	4.1	4.7	3.7	0.2	0.4	C82-85,C96
Multiple myeloma	3	0.6	0.7	0.6	0.0	0.1	3	0.5	0.5	0.5	0.0	0.1	C90
Lymphoid leukemia	4	0.7	0.8	1.1	0.1	0.1	2	0.3	0.4	0.6	0.0	0.0	C91
Myeloid leukemia	4	0.8	0.9	0.8	0.1	0.1	4	0.8	0.9	0.7	0.1	0.1	C92-94
Leukemia unspecified	4	0.8	0.9	1.0	0.1	0.1	10	1.8	2.1	1.8	0.1	0.1	C95
Myelodysplastic disease	0	0.1	0.1	0.1	0.0	0.0	1	0.1	0.1	0.1	0.0	0.0	D45-D47
Other and unspecified	13	2.6	2.8	2.5	0.1	0.4	8	1.5	1.7	1.3	0.1	0.2	O&U
All sites	**520**	**100.0**	**110.7**	**100.0**	**5.7**	**11.9**	**572**	**100.0**	**116.0**	**91.0**	**6.4**	**9.7**	**ALL**

Table 3.14.4 Percentage of morphologically verified and death certificate only cases, Surat Thani

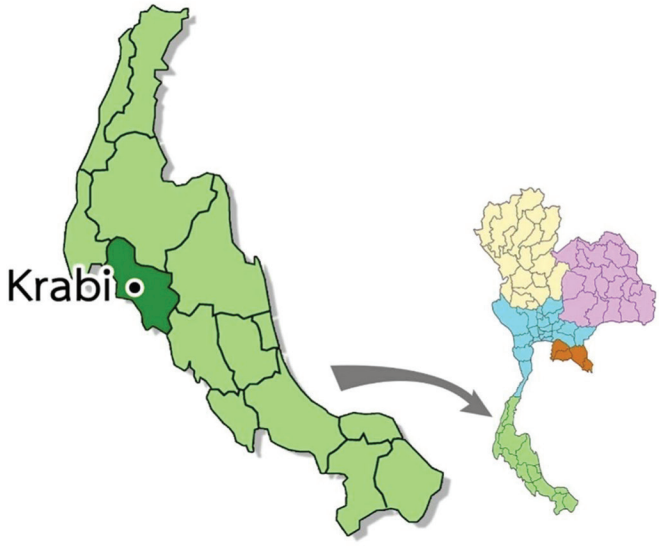
Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	102	93.1	3.9	83	90.4	7.2	C00-C08
Oropharynx	41	97.6	0.0	7	100.0	0.0	C09-C10,C14
Nasopharynx	39	94.9	2.6	10	80.0	20.0	C11
Hypopharynx	33	100.0	0.0	2	100.0	0.0	C12-C13
Esophagus	97	87.6	8.2	17	88.2	11.8	C15
Stomach	31	93.5	0.0	29	96.6	0.0	C16
Small intestine	3	100.0	0.0	6	100.0	0.0	C17
Colon and rectum	156	91.0	2.6	127	95.3	2.4	C18-C21
Liver and bile duct	216	27.3	51.9	68	33.8	50.0	C22,C24
Gallbladder	3	100.0	0.0	3	100.0	0.0	C23
pancrease	12	33.3	0.0	16	68.8	0.0	C25
Nose,sinuses etc	1	100.0	0.0	2	100.0	0.0	C30-C31
Larynx	67	97.0	0.0	5	100.0	0.0	C32
Trachea, brochus and lung	224	70.1	13.4	96	79.2	9.4	C33-C34
Other thoracic organs	5	100.0	0.0	4	100.0	0.0	C37-C38
Bone	5	100.0	0.0	7	85.7	0.0	C40-C41
Melanoma of skin	3	100.0	0.0	12	100.0	0.0	C43
Other skin	40	100.0	0.0	45	100.0	0.0	C44
Mesothelioma	0	0.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	0	0.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	15	93.3	0.0	22	100.0	0.0	C47,C49
Breast	7	100.0	0.0	452	96.2	0.0	C50
Vulva				4	100.0	0.0	C51
Vagina				2	100.0	0.0	C52
Cervix uteri				228	89.0	6.6	C53
Corpus uteri				65	98.5	0.0	C54
Uterus unspecified				1	0.0	0.0	C55
Ovary				82	87.8	4.9	C56
Other female genital organs				2	100.0	0.0	C57
Placenta				0			C58
Penis	24	100.0	0.0				C60
Prostate	100	90.0	0.0				C61
Testis	12	91.7	0.0				C62
Other male genital organs	0	0.0	0.0				C63
Kidney	13	92.3	0.0	9	100.0	0.0	C64
Renal pelvis	1	100.0	0.0	2	50.0	0.0	C65
Ureter	0	0.0	0.0	0	0.0	0.0	C66
Bladder	63	95.2	0.0	15	93.3	0.0	C67
Other urinary organs	0	0.0	0.0	0	0.0	0.0	C68
Eye	6	100.0	0.0	1	0.0	0.0	C69
Brain, nervous system	40	72.5	17.5	31	71.0	19.4	C70-C72
Thyroid	30	93.3	3.3	102	89.2	3.9	C73
Adrenal gland	1	100.0	0.0	1	100.0	0.0	C74
Other endocrine	0	0.0	0.0	0	0.0	0.0	C75
Hodgkin disease	4	100.0	0.0	2	100.0	0.0	C81
Non-Hodgkin lymphoma	79	91.1	8.9	70	95.7	4.3	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	10	100.0	0.0	8	87.5	12.5	C90
Leukemia	35	94.3	2.9	50	74.0	26.0	C91-C95
Myelodysplastic	1	100.0	0.0	2	100.0	0.0	D45-D47
Other and unspecified	40	85.0	0.0	25	64.0	0.0	O&U
All sites	**1,559**	**79.7**	**11.2**	**1,715**	**88.7**	**5.9**	**All**

Krabi Cancer Registry

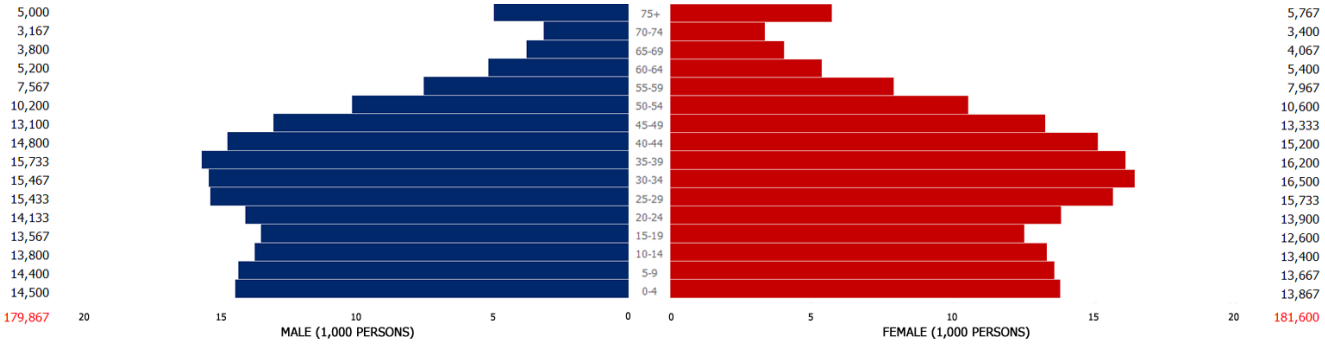
Registration area

Krabi A province in southern Thailand. Is a popular tourist town in the south. There are many tourist attractions including white sandy beaches, crystal clear waters, coral caves and islands, over 100 islands and is home to the house that sat pitched Hagnac certification. The region is divided into eight District 53 District 374 villages.The province is located along the Andaman Sea. 814 kilometers from Bangkok on Highway 4 (Phetkasem Road) with an area of 4,708 square kilometers. The inland mountains, plains, more than 154 large and small islands, rich mangrove islands. Krabi Town, a 5 km long river flows into the Andaman Sea at Tambon Pak Nam. There is also a canal Chaya. Khlong Yai, Krabi Krabi Noi and Khlong The origin of the highest peaks in the province is Khao Phanom Benja

Phang Nga and Surat Thani province north side. Plai Phraya district Khao Phanom and south end of the province and the Andaman Sea, Ko Lanta. Klong Muang district, Krabi and Nakhon Si Thammarat and Trang eastern border of Khao Phanom district, Krabi and Phang Nga Lam Thap west and take the Andaman Sea and Krabi Ao Luek.



Population pyramid, Krabi
estimated population in 2011 (average 2010-2012)



Cancer care facilities

General health care in Thailand is mainly provided by the government. there are 1 municipal hospital, 7 private hospitals. The total number of hospital beds in Krabi was 642 beds with Medical personnel and public health 434 Most cancer patients are treated at the district hospital in Krabi. And forwards at the Hospital of Songkhla and Suratthani Cancer Hospital.

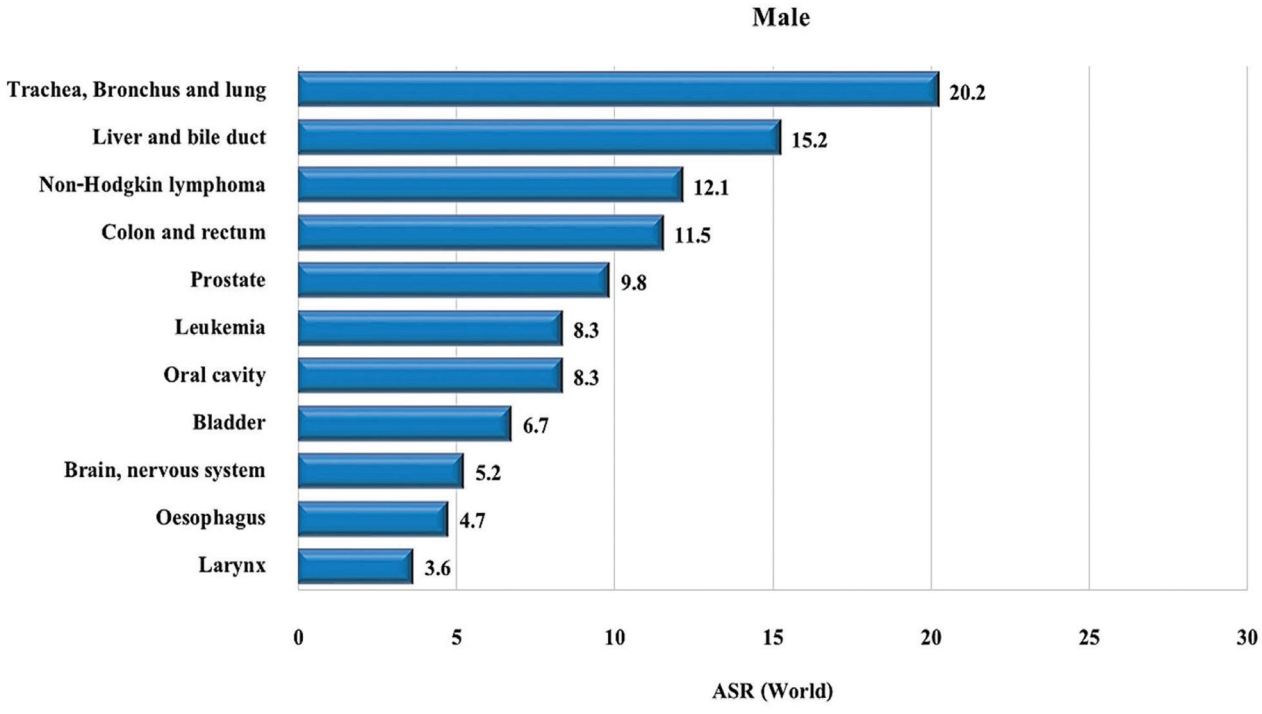
Registry procedures

Data on cancer patients are now collected actively from every hospital in Krabi. Data collection by, Surat Thani Cancer Registration and Krabi Hospital Cancer Registration. The collected data. Public hospitals in the province. Just outside hospital Bureau of health Policy and Strategy, Ministry of Public Health.This records data using Canceg4 Program and Coding disease by manual coding ICD-O 3th.

Summary of results

New cases registered in 2011, 257 were males and 252 were females, making 509 for both sexes. The age - standardized incidence rate (ASR) of all cancer sites in males was 142.4 per 100,000, with lung cancer ranking first (ASR = 20.2) followed by liver and bile duct (ASR = 15.2) and Lymphoma (ASR = 12.1). The ASR of all cancer sites in females was 125.0, the three leading cancer sites being breast (ASR = 24.8), cervix (ASR = 17.6) and colon and rectum (ASR = 10.5).

Figure 3.15 Leading cancer in Krabi (mean annual ASR 2010-2012)



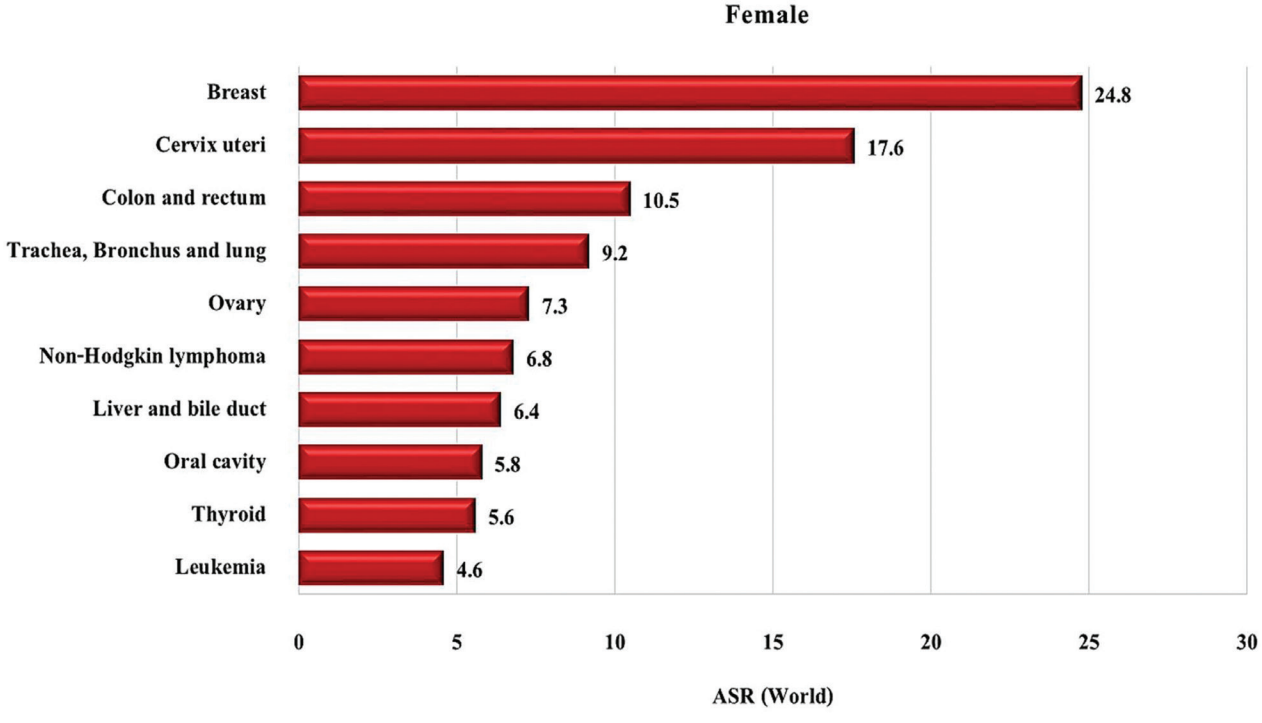


Table 3.15.1 Krabi (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Male

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	1	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.7	0.4	0.4	C00
Tongue	5	0.0	0.0	0.0	0.0	0.0	2.2	0.0	2.1	2.3	2.5	6.5	8.8	6.4	17.5	10.5	13.3	2.6	2.5	C01-02
Mouth	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	2.3	0.0	3.3	22.0	19.2	26.3	21.1	46.7	4.6	4.5	C03-06
Salivary glands	1	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	6.4	8.8	0.0	0.0	0.7	0.9	C07-08
Tonsil	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	4.4	19.2	8.8	0.0	26.7	2.0	2.0	C09
Other oropharynx	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	8.8	0.0	0.0	10.5	6.7	0.9	0.8	C10
Nasopharynx	5	0.0	0.0	0.0	0.0	0.0	2.2	2.2	4.2	9.0	7.6	0.0	4.4	0.0	17.5	0.0	6.7	2.8	2.4	C11
Hypopharynx	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.3	4.4	19.2	8.8	21.1	20.0	2.2	2.3	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C14
Oesophagus	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.5	9.8	13.2	12.8	43.9	31.6	46.7	4.6	4.7	C15
Stomach	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	3.3	8.8	6.4	8.8	0.0	20.0	1.9	1.7	C16
Small intestine	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	6.7	0.4	0.3	C17
Colon	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	19.6	22.0	25.6	43.9	73.7	100.0	8.2	8.0	C18
Rectum	6	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	2.5	6.5	17.6	19.2	8.8	21.1	33.3	3.5	3.5	C19-20
Anus	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C21
Liver and bile duct	27	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	15.8	20.4	32.7	74.9	70.5	61.4	94.7	80.0	15.2	15.2	C22,C24
Gallbladder	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	21.1	6.7	0.7	0.8	C23
Pancreas	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	13.1	0.0	0.0	26.3	42.1	33.3	3.2	3.1	C25
Nose, sinuses etc.	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	10.5	6.7	0.6	0.5	C30-31
Larynx	6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	2.5	3.3	4.4	25.6	26.3	31.6	26.7	3.3	3.6	C32
Trachea, Bronchus and lung	36	0.0	0.0	0.0	2.5	0.0	2.2	4.3	4.2	13.5	15.3	42.5	57.3	57.7	131.6	189.5	153.3	20.2	20.2	C33-34
Bone	2	0.0	0.0	2.4	0.0	0.0	0.0	0.0	4.2	2.3	0.0	0.0	0.0	0.0	0.0	10.5	0.0	0.9	0.8	C40-C41
Melanoma of skin	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	6.7	0.4	0.3	C43
Other skin	5	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	12.8	17.5	31.6	40.0	3.0	3.0	C44
Connective tissue	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	8.8	0.0	17.5	0.0	0.0	0.9	1.0	C47,C49
Breast	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3	0.6	0.4	C50
Cervix uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C53
Corpus uteri	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C54
Uterus unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C55
Ovary	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C56
Penis	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.5	6.5	8.8	0.0	0.0	21.1	6.7	1.7	1.5	C60
Prostate	18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	8.8	19.2	87.7	94.7	200.0	10.2	9.8	C61
Testis	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.4	0.3	C62
Kidney	2	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	0.0	8.8	0.0	0.0	10.5	0.0	1.3	1.3	C64
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8	0.0	0.0	0.2	0.3	C66
Bladder	12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	2.5	9.8	17.6	44.9	8.8	63.2	93.3	6.9	6.7	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C68
Eye	1	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	C69
Brain, nervous system	10	0.0	2.3	7.2	0.0	4.7	2.2	10.8	4.2	4.5	5.1	6.5	4.4	25.6	0.0	10.5	26.7	5.6	5.2	C70-72
Thyroid	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.3	5.1	0.0	22.0	6.4	0.0	21.1	13.3	2.6	2.4	C73
Adrenal gland	0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C74
Hodgkin disease	2	0.0	0.0	0.0	0.0	0.0	4.3	0.0	2.1	0.0	0.0	3.3	0.0	0.0	0.0	10.5	0.0	0.9	0.8	C81
Non-Hodgkin lymphoma	21	0.0	0.0	2.4	4.9	0.0	4.3	2.2	10.6	11.3	17.8	13.1	39.6	38.5	96.5	63.2	33.3	11.9	12.1	C82-85,C96
Multiple myeloma	3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	8.8	0.0	8.8	21.1	13.3	1.7	1.7	C90
Lymphoid leukemia	4	4.6	2.3	0.0	4.9	0.0	0.0	2.2	0.0	2.3	2.5	0.0	4.4	6.4	8.8	0.0	6.7	2.2	2.5	C91
Myeloid leukemia	5	2.3	2.3	0.0	2.5	0.0	0.0	0.0	0.0	0.0	2.5	6.5	8.8	12.8	35.1	0.0	6.7	2.8	3.3	C92-94
Leukemia unspecified	4	6.9	2.3	0.0	2.5	0.0	0.0	4.3	2.1	0.0	2.5	9.8	4.4	0.0	0.0	0.0	0.0	2.4	2.5	C95
Myelodysplastic disease	1	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.4	0.3	D45-D47
Other and unspecified	14	0.0	0.0	0.0	0.0	2.4	0.0	0.0	4.2	9.0	0.0	13.1	22.0	44.9	52.6	42.1	60.0	7.8	7.9	O&U
All sites	**257**	**20.7**	**16.2**	**16.9**	**22.1**	**7.1**	**21.6**	**25.9**	**55.1**	**85.6**	**122.1**	**232.0**	**427.3**	**500.0**	**789.5**	**978.9**	**1160.0**	**143.1**	**142.4**	**ALL**

Table 3.15.2 Krabi (2011), Mean annual ASR per 100,000 (2010-2012) by Age Group – Female

Site	No.Cases Year	0-	5-	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75+	Crude Rate	ASR World	ICD-10
Lip	4	0.0	0.0	0.0	2.6	0.0	2.1	0.0	0.0	0.0	0.0	0.0	4.2	0.0	8.2	29.4	28.9	2.2	2.0	C00
Tongue	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	4.2	0.0	24.6	19.6	11.6	1.7	1.7	C01-02
Mouth	4	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.1	0.0	2.5	0.0	4.2	6.2	8.2	0.0	28.9	2.0	1.6	C03-06
Salivary glands	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	11.6	0.7	0.5	C07-08
Tonsil	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C09
Other oropharynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	3	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	2.2	5.0	6.3	8.4	0.0	0.0	0.0	0.0	1.7	1.4	C11
Hypopharynx	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8	5.8	0.4	0.3	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.2	0.2	C14
Oesophagus	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	12.3	0.0	19.6	0.0	0.9	1.0	C15
Stomach	4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	3.1	4.2	12.3	8.2	9.8	28.9	2.2	2.0	C16
Small intestine	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.2	0.2	C17
Colon	13	0.0	0.0	0.0	0.0	2.4	0.0	4.0	4.1	4.4	0.0	3.1	12.6	37.0	41.0	68.6	63.6	7.3	7.0	C18
Rectum	7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.2	12.5	12.6	8.4	18.5	8.2	0.0	17.3	3.7	3.3	C19-20
Anus	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	0.0	0.0	0.0	0.2	0.2	C21
Liver and bile duct	12	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	8.8	2.5	9.4	25.1	24.7	65.6	19.6	40.5	6.6	6.4	C22,C24
Gallbladder	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.4	0.2	C23
Pancreas	5	0.0	0.0	0.0	0.0	2.4	2.1	0.0	4.1	6.6	2.5	6.3	0.0	6.2	8.2	29.4	5.8	2.9	2.7	C25
Nose, sinuses etc.	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.2	0.1	C30-31
Larynx	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C32
Trachea, Bronchus and lung	18	0.0	0.0	0.0	0.0	0.0	2.1	0.0	4.1	2.2	12.5	25.2	16.7	30.9	32.8	107.8	80.9	10.1	9.2	C33-34
Bone	1	0.0	0.0	0.0	2.6	2.4	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.8	0.7	0.7	C40-C41
Melanoma of skin	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	6.2	8.2	0.0	0.0	0.6	0.7	C43
Other skin	5	0.0	0.0	0.0	2.6	2.4	0.0	0.0	2.1	0.0	5.0	0.0	0.0	12.3	8.2	19.6	28.9	2.8	2.6	C44
Connective tissue	2	0.0	0.0	5.0	2.6	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.0	C47,C49
Breast	51	0.0	0.0	0.0	0.0	2.4	8.5	8.1	28.8	50.4	82.5	75.5	87.9	86.4	57.4	29.4	34.7	28.3	24.8	C50
Cervix uteri	37	0.0	0.0	0.0	0.0	0.0	4.2	20.2	16.5	35.1	50.0	59.7	54.4	49.4	32.8	68.6	23.1	20.4	17.6	C53
Corpus uteri	6	0.0	0.0	0.0	0.0	0.0	2.1	2.0	4.1	4.4	2.5	9.4	20.9	12.3	0.0	9.8	0.0	3.3	2.9	C54
Uterus unspecified	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	8.2	0.0	0.0	0.4	0.4	C55
Ovary	15	0.0	0.0	2.5	5.3	12.0	2.1	4.0	6.2	17.5	12.5	15.7	8.4	6.2	24.6	19.6	28.9	8.3	7.3	C56
Penis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C60
Prostate	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C61
Testis	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C62
Kidney	1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	3.1	0.0	0.0	0.0	0.0	5.8	0.6	0.4	C64
Ureter	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.1	0.0	0.0	0.0	9.8	17.3	1.1	0.9	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0	0.2	0.2	C68
Eye	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C69
Brain, nervous system	5	2.4	2.4	0.0	0.0	0.0	2.1	0.0	0.0	0.0	5.0	9.4	4.2	12.3	16.4	9.8	5.8	2.8	2.9	C70-72
Thyroid	12	0.0	0.0	0.0	2.6	7.2	4.2	6.1	10.3	15.4	12.5	12.6	16.7	0.0	8.2	0.0	11.6	6.8	5.6	C73
Adrenal gland	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	C74
Hodgkin disease	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.0	0.0	0.0	0.0	0.2	0.2	C81
Non-Hodgkin lymphoma	15	0.0	0.0	0.0	0.0	2.4	2.1	8.1	2.1	8.8	15.0	22.0	20.9	0.0	32.8	29.4	46.2	8.1	6.8	C82-85,C96
Multiple myeloma	3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	0.0	8.2	19.6	23.1	1.5	1.3	C90
Lymphoid leukemia	2	2.4	2.4	0.0	0.0	0.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.6	0.0	5.8	1.3	1.6	C91
Myeloid leukemia	2	2.4	0.0	0.0	5.3	0.0	0.0	0.0	2.1	2.2	0.0	0.0	0.0	6.2	0.0	0.0	5.8	1.3	1.4	C92-94
Leukemia unspecified	3	2.4	2.4	0.0	0.0	2.4	2.1	2.0	0.0	4.4	0.0	3.1	0.0	0.0	0.0	9.8	0.0	1.7	1.6	C95
Myelodysplastic disease	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	D45-D47
Other and unspecified	8	0.0	0.0	0.0	0.0	0.0	2.1	0.0	4.1	0.0	2.5	3.1	12.6	18.5	24.6	19.6	40.5	4.2	3.9	O&U
All sites	**252**	**9.6**	**7.3**	**7.5**	**23.8**	**36.0**	**42.4**	**60.6**	**94.7**	**173.2**	**237.5**	**295.6**	**322.2**	**370.4**	**467.2**	**558.8**	**618.5**	**138.8**	**125.0**	**ALL**

Table 3.15.3 Mean annual incidence, Krabi, 2010-2012

Site	Male						Female						ICD-10
	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	No.Cases Year	Freq. (%)	Crude rate (per 100,000)	ASR world (per 100,000)	Cum.Rate 0-64 (percent)	Cum.Rate 0-74 (percent)	
Lip	1	0.3	0.4	0.4	0.0	0.0	4	1.6	2.2	2.0	0.0	0.2	C00
Tongue	5	1.8	2.6	2.5	0.2	0.3	3	1.2	1.7	1.7	0.0	0.3	C01-02
Mouth	8	3.2	4.6	4.5	0.3	0.5	4	1.5	2.0	1.6	0.1	0.1	C03-06
Salivary glands	1	0.5	0.7	0.9	0.1	0.1	1	0.5	0.7	0.5	0.0	0.0	C07-08
Tonsil	4	1.4	2.0	2.0	0.1	0.2	0	0.0	0.0	0.0	0.0	0.0	C09
Other oropharynx	2	0.6	0.9	0.8	0.1	0.1	0	0.0	0.0	0.0	0.0	0.0	C10
Nasopharynx	5	1.9	2.8	2.4	0.1	0.2	3	1.2	1.7	1.4	0.1	0.1	C11
Hypopharynx	4	1.6	2.2	2.3	0.1	0.3	1	0.3	0.4	0.3	0.0	0.0	C12-13
Pharynx unspecified	0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.2	0.2	0.0	0.0	C14
Oesophagus	8	3.2	4.6	4.7	0.2	0.6	2	0.7	0.9	1.0	0.1	0.2	C15
Stomach	3	1.3	1.9	1.7	0.1	0.2	4	1.6	2.2	2.0	0.1	0.2	C16
Small intestine	1	0.3	0.4	0.3	0.0	0.0	0	0.1	0.2	0.2	0.0	0.0	C17
Colon	15	5.7	8.2	8.0	0.4	0.9	13	5.3	7.3	7.0	0.3	0.9	C18
Rectum	6	2.5	3.5	3.5	0.2	0.4	7	2.6	3.7	3.3	0.3	0.3	C19-20
Anus	0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.2	0.2	0.0	0.0	C21
Liver and bile duct	27	10.6	15.2	15.2	1.1	1.9	12	4.8	6.6	6.4	0.4	0.8	C22,C24
Gallbladder	1	0.5	0.7	0.8	0.0	0.1	1	0.3	0.4	0.2	0.0	0.0	C23
Pancreas	6	2.2	3.2	3.1	0.1	0.4	5	2.1	2.9	2.7	0.2	0.3	C25
Nose, sinuses etc.	1	0.4	0.6	0.5	0.0	0.1	0	0.1	0.2	0.1	0.0	0.0	C30-31
Larynx	6	2.3	3.3	3.6	0.2	0.5	0	0.0	0.0	0.0	0.0	0.0	C32
Trachea, Bronchus and lung	36	14.1	20.2	20.2	1.0	2.6	18	7.3	10.1	9.2	0.5	1.2	C33-34
Bone	2	0.6	0.9	0.8	0.0	0.1	1	0.5	0.7	0.7	0.0	0.0	C40-C41
Melanoma of skin	1	0.3	0.4	0.3	0.0	0.0	1	0.4	0.6	0.7	0.1	0.1	C43
Other skin	5	2.1	3.0	3.0	0.1	0.4	5	2.0	2.8	2.6	0.1	0.3	C44
Connective tissue	2	0.6	0.9	1.0	0.1	0.1	2	0.7	0.9	1.0	0.1	0.1	C47,C49
Breast	1	0.4	0.6	0.4	0.0	0.0	51	20.4	28.3	24.8	2.2	2.6	C50
Cervix uteri							37	14.7	20.4	17.6	1.4	2.0	C53
Corpus uteri							6	2.4	3.3	2.9	0.3	0.3	C54
Uterus unspecified							1	0.3	0.4	0.4	0.0	0.1	C55
Ovary							15	6.0	8.3	7.3	0.5	0.7	C56
Penis	3	1.2	1.7	1.5	0.1	0.2							C60
Prostate	18	7.1	10.2	9.8	0.2	1.1							C61
Testis	1	0.3	0.4	0.3	0.0	0.0							C62
Kidney	2	0.9	1.3	1.3	0.1	0.1	1	0.4	0.6	0.4	0.0	0.0	C64
Ureter	0	0.1	0.2	0.3	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C66
Bladder	12	4.8	6.9	6.7	0.4	0.7	2	0.8	1.1	0.9	0.0	0.1	C67
Other urinary organs	0	0.0	0.0	0.0	0.0	0.0	0	0.1	0.2	0.2	0.0	0.0	C68
Eye	1	0.3	0.4	0.6	0.0	0.0	0	0.1	0.2	0.2	0.0	0.0	C69
Brain, nervous system	10	3.9	5.6	5.2	0.4	0.4	5	2.0	2.8	2.9	0.2	0.3	C70-72
Thyroid	5	1.8	2.6	2.4	0.2	0.3	12	4.9	6.8	5.6	0.4	0.5	C73
Adrenal gland	0	0.1	0.2	0.2	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	C74
Hodgkin disease	2	0.6	0.9	0.8	0.0	0.1	0	0.1	0.2	0.2	0.0	0.0	C81
Non-Hodgkin lymphoma	21	8.3	11.9	12.1	0.7	1.5	15	5.8	8.1	6.8	0.4	0.7	C82-85,C96
Multiple myeloma	3	1.2	1.7	1.7	0.1	0.2	3	1.1	1.5	1.3	0.0	0.2	C90
Lymphoid leukemia	4	1.6	2.2	2.5	0.1	0.2	2	0.9	1.3	1.6	0.0	0.2	C91
Myeloid leukemia	5	1.9	2.8	3.3	0.2	0.4	2	0.9	1.3	1.4	0.1	0.1	C92-94
Leukemia unspecified	4	1.7	2.4	2.5	0.2	0.2	3	1.2	1.7	1.6	0.1	0.1	C95
Myelodysplastic disease	1	0.3	0.4	0.3	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	D45-D47
Other and unspecified	14	5.4	7.8	7.9	0.5	1.0	8	3.0	4.2	3.9	0.2	0.4	O&U
All sites	**257**	**100.0**	**143.1**	**142.4**	**7.8**	**16.6**	**252**	**100.0**	**138.8**	**125.0**	**8.4**	**13.5**	**ALL**

Table 3.15.4 Percentage of morphologically verified and death certificate only cases, Krabi

Site	Male			Female			ICD-10
	Cases 3 Year	% MV	% DCO	Cases 3 Year	% MV	% DCO	
Oral cavity	45	86.7	2.2	36	75.0	0.0	C00-C08
Oropharynx	16	87.5	0.0	1	100.0	0.0	C09-C10,C14
Nasopharynx	15	73.3	0.0	9	77.8	0.0	C11
Hypopharynx	12	75.0	0.0	2	50.0	0.0	C12-C13
Esophagus	25	92.0	0.0	5	100.0	0.0	C15
Stomach	10	60.0	20.0	12	66.7	0.0	C16
Small intestine	2	50.0	0.0	1	100.0	0.0	C17
Colon and rectum	63	60.3	1.6	61	67.2	1.6	C18-C21
Liver and bile duct	82	25.6	9.8	36	36.1	8.3	C22,C24
Gallbladder	4	75.0	0.0	2	0.0	0.0	C23
pancrease	17	41.2	0.0	16	56.3	0.0	C25
Nose,sinuses etc	3	100.0	0.0	1	100.0	0.0	C30-C31
Larynx	18	83.3	0.0	0	0.0	0.0	C32
Trachea, brochus and lung	109	56.0	5.5	55	52.7	9.1	C33-C34
Other thoracic organs	0	0.0	0.0	0	0.0	0.0	C37-C38
Bone	5	60.0	0.0	4	25.0	0.0	C40-C41
Melanoma of skin	2	100.0	0.0	3	100.0	0.0	C43
Other skin	16	75.0	0.0	15	93.3	0.0	C44
Mesothelioma	0	0.0	0.0	0	0.0	0.0	C45
Kaposi sarcoma	0	0.0	0.0	0	0.0	0.0	C46
Connective and soft tissue	5	80.0	0.0	5	100.0	0.0	C47,C49
Breast	3	66.7	0.0	154	87.7	1.3	C50
Vulva				0	0.0	0.0	C51
Vagina				0	0.0	0.0	C52
Cervix uteri				111	85.6	0.9	C53
Corpus uteri				18	83.3	0.0	C54
Uterus unspecified				2	100.0	0.0	C55
Ovary				45	48.9	0.0	C56
Other female genital organs				0			C57
Placenta				0			C58
Penis	9	77.8	0.0				C60
Prostate	55	60.0	1.8				C61
Testis	2	50.0	0.0				C62
Other male genital organs	0	0.0	0.0				C63
Kidney	7	85.7	0.0	3	66.7	0.0	C64
Renal pelvis	0	0.0	0.0	0	0.0	0.0	C65
Ureter	1	100.0	0.0	0	0.0	0.0	C66
Bladder	37	75.7	0.0	6	50.0	16.7	C67
Other urinary organs	0	0.0	0.0	1	0.0	0.0	C68
Eye	2	100.0	0.0	1	100.0	0.0	C69
Brain, nervous system	30	43.3	6.7	15	53.3	6.7	C70-C72
Thyroid	14	85.7	0.0	37	83.8	2.7	C73
Adrenal gland	1	100.0	0.0	0	0.0	0.0	C74
Other endocrine	0	0.0	0.0	0	0.0	0.0	C75
Hodgkin disease	5	100.0	0.0	1	100.0	0.0	C81
Non-Hodgkin lymphoma	64	100.0	0.0	44	95.5	2.3	C82-C85,C96
Immunoproliferative diseases	0	0.0	0.0	0	0.0	0.0	C88
Multiple myeloma	9	100.0	0.0	8	87.5	12.5	C90
Leukemia	40	97.5	2.5	23	95.7	4.3	C91-C95
Myelodysplastic	2	100.0	0.0	0	0.0	0.0	D45-D47
Other and unspecified	42	35.7	19.0	23	52.2	34.8	O&U
All sites	**772**	**66.3**	**3.9**	**756**	**74.6**	**3.4**	**All**

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