

SUMMARY OF PENANG CANCER REGISTRY REPORT 2009-2011



PENANG CANCER REGISTRY PENANG STATE HEALTH DEPARTMENT

DIRECTOR OF PENANG STATE HEALTH DEPARTMENT

Dato' Dr. Asmayani Binti Khalib

DEPUTY DIRECTOR (PUBLIC HEALTH) OF PENANG STATE HEALTH DEPARTMENT

Dr. Marina Binti Kamaruddin, Public Health Medicine Specialist

ADVISOR

Datin Dr. Azizah Binti Ab. Manan, Public Health Medicine Specialist
North-East District Health Officer

STAFF MEMBERS OF THE REGISTRY:

HEAD OF PENANG CANCER REGISTRY

Dr. Farzaana Binti Adam, Public Health Medicine Specialist

MEDICAL OFFICERS

Dr. Nadia Salwa Binti Mustafar Ramdzuan
Dr. Siti Maisarah Binti Shekh Jaafar

CHIEF NURSE

Puan Noor Hayati Binti Abu Bakar

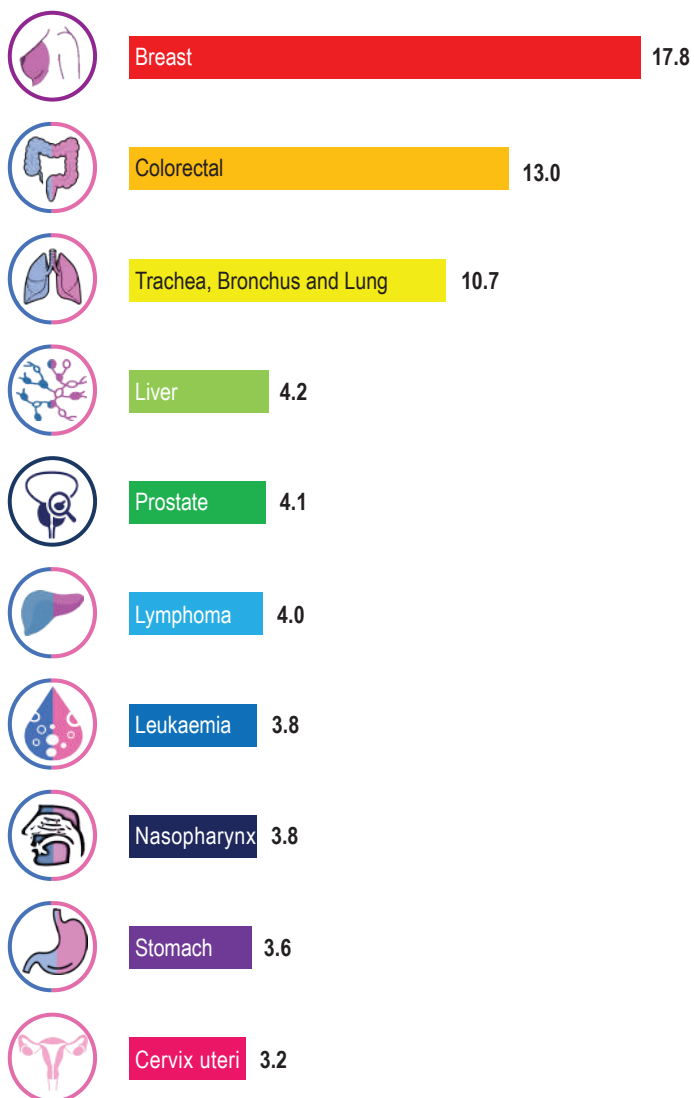
ASSISTANT ADMINISTRATORS

Cik Norshahida Binti Amran
Puan Siti Rafiqhaq Binti Rusli



TEN MOST COMMON CANCERS IN PENANG, 2009 - 2011

(PERCENTAGES)



TEN MOST COMMON CANCERS IN PENANG BY SEX, 2009 - 2011

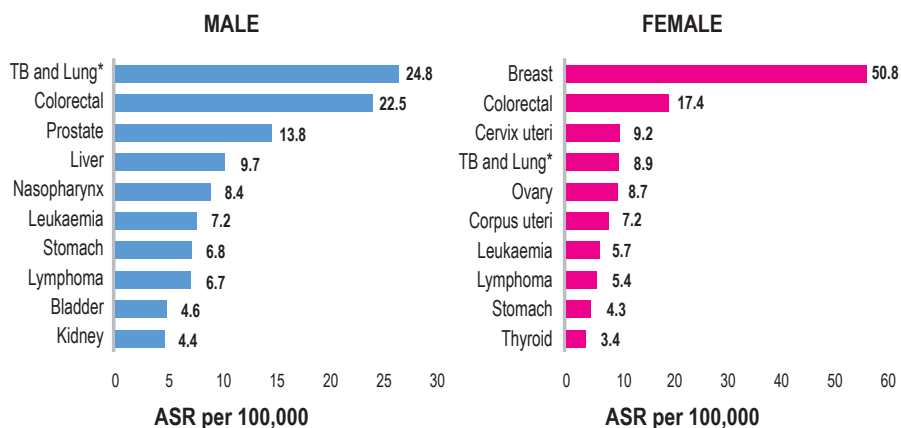
MALE					
ICD (10 th)	Sites	NO.	%	CR	ASR
C33-34	TB and Lung*	535	16.8	24.2	24.8
C18-21	Colorectal	489	15.4	22.2	22.5
C61	Prostate	282	8.9	12.8	13.8
C22	Liver	217	6.8	9.8	9.7
C11	Nasopharynx	202	6.3	9.2	8.4
C81-85,C96	Lymphoma	149	4.7	6.8	6.7
C16	Stomach	147	4.6	6.7	6.8
C91-95	Leukaemia	146	4.6	6.6	7.2
C67	Bladder	99	3.1	4.5	4.6
C64	Kidney	96	3.0	4.4	4.4
	Others	823	25.8		
Total		3185	100.0	144.3	146.6

FEMALE					
ICD (10 th)	Sites	NO.	%	CR	ASR
C50	Breast	1231	32.7	55.5	50.8
C18-21	Colorectal	416	11.0	18.8	17.4
C53	Cervix uteri	222	5.9	10.0	9.2
C33-34	TB and Lung*	210	5.6	9.5	8.9
C56	Ovary	207	5.5	9.3	8.7
C54	Corpus uteri	175	4.6	7.9	7.2
C81-85,C96	Lymphoma	128	3.4	5.8	5.4
C91-95	Leukaemia	119	3.2	5.4	5.7
C16	Stomach	103	2.7	4.7	4.3
C73	Thyroid	84	2.2	3.8	3.4
	Others	870	23.1		
Total		3765	100.0	169.9	158.2



*TB and Lung = Trachea, Bronchus and Lung

INCIDENCE RATE (ASR) FOR TEN MOST COMMON CANCERS BY SEX

AGE STANDARDISED RATE (WORLD) PER 100,000 POPULATION



AGE-STANDARDISED INCIDENCE RATES FOR TEN MOST COMMON CANCERS BY SEX AND MAJOR ETHNIC GROUPS, PENANG, 2009 - 2011

Sites 	ASR per 100,000 population			Sites 	ASR per 100,000 population		
	Malay	Chinese	Indian		Malay	Chinese	Indian
TB and Lung*	21.0	27.2	17.7	Breast	36.0	60.2	46.8
Colorectal	14.8	26.6	14.9	Colorectal	9.5	22.2	11.5
Prostate	5.9	17.1	15.4	Cervix uteri	4.3	12.3	8.7
Liver	8.1	11.4	3.2	TB and Lung*	4.8	11.3	7.0
Nasopharynx	2.7	13.5	0.4	Ovary	7.7	9.8	7.3
Lymphoma	6.3	6.6	4.2	Corpus uteri	6.0	8.0	5.5
Stomach	2.4	8.2	10.0	Lymphoma	5.6	5.4	4.3
Leukaemia	9.5	5.6	6.0	Leukaemia	5.8	5.0	4.2
Bladder	3.8	5.2	3.0	Stomach	1.8	6.0	2.2
Kidney	2.6	5.3	3.8	Thyroid	3.7	3.1	2.5

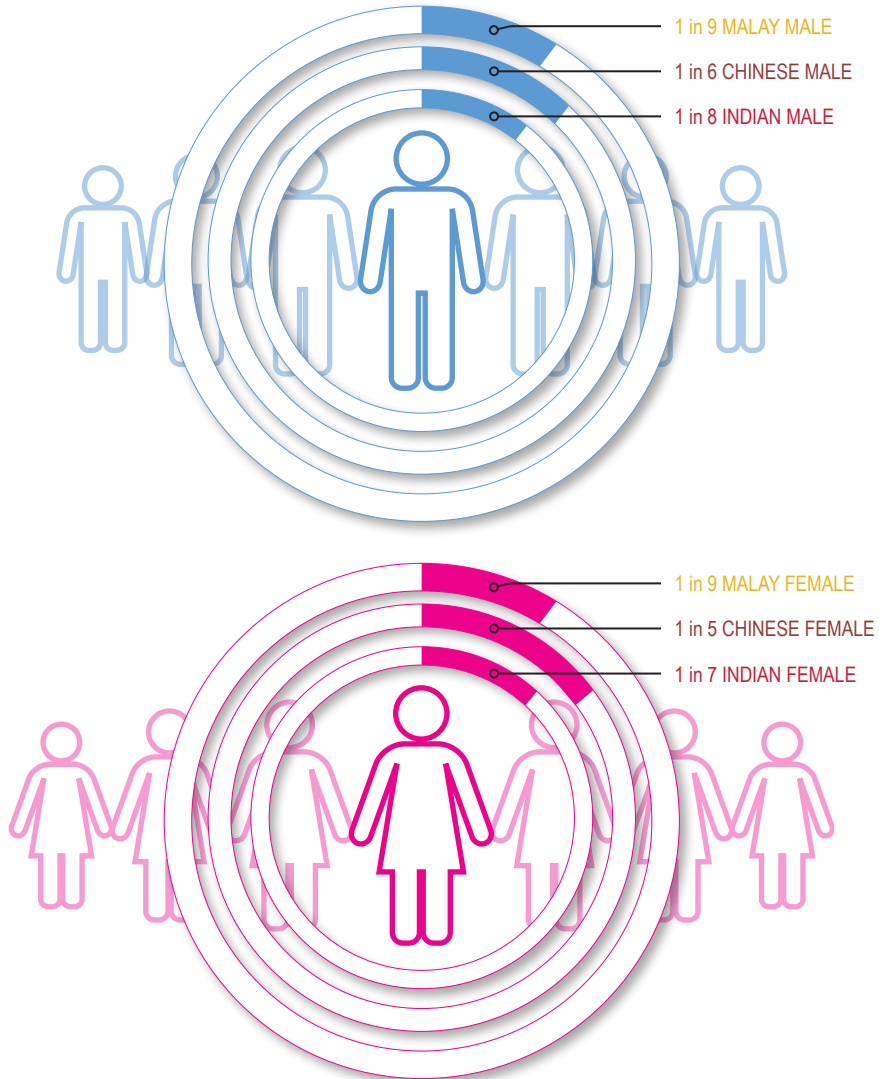
*TB and Lung = Trachea, Bronchus and Lung

Definition of Age-Standardised Rate (ASR) : ASR is a summary measure, indicating the incidence rate that a population would have if it had a standard age structure.

LIFETIME RISK

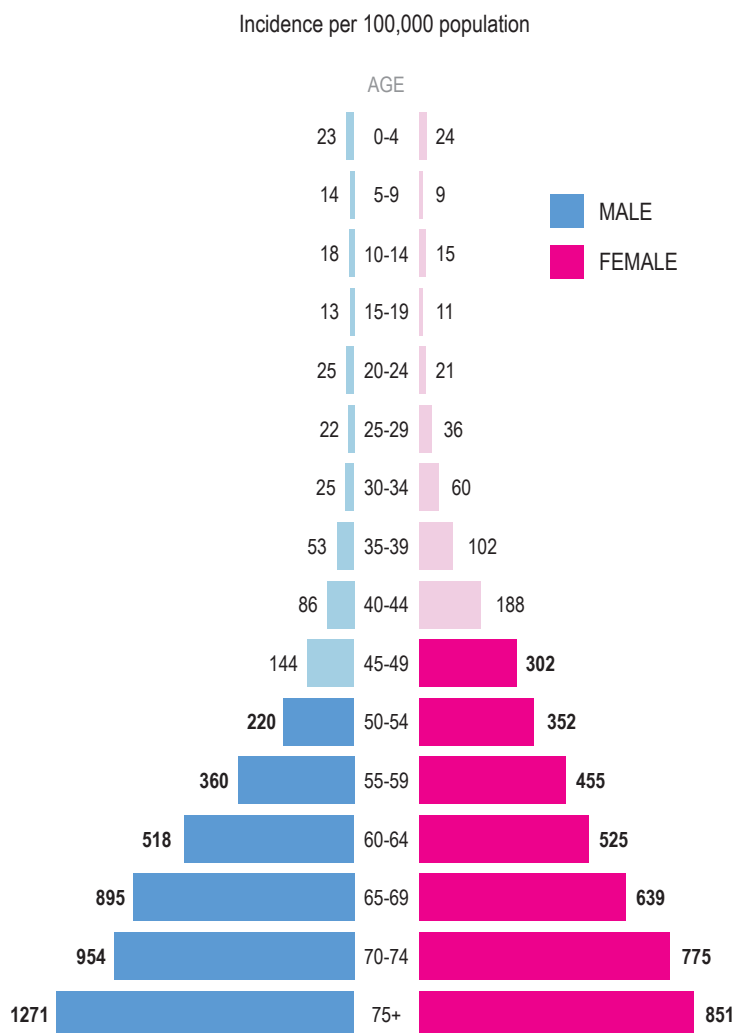
THE LIFETIME RISK IN BOTH MALE AND FEMALE IS 1 IN 6

LIFETIME RISK FOR MAJOR ETHNIC GROUPS



Definition of Lifetime Risk : The probability of an individual developing cancer before the age of 75 years in the absence of other causes of death.

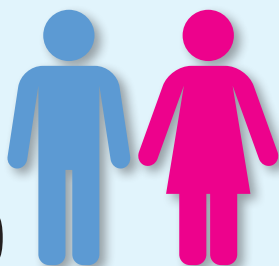
AGE- SPECIFIC INCIDENCE RATE FOR ALL CANCERS



The incidence of cancer increased for both male and female after the age of 40 years. The incidence rate in male exceeded the rate in female after the age 65 years.



10 SELECTED CANCERS BY GENDER



Breast



Colorectal



Trachea, Bronchus, Lung



Liver



Prostate



Lymphoma



Leukaemia



Nasopharynx



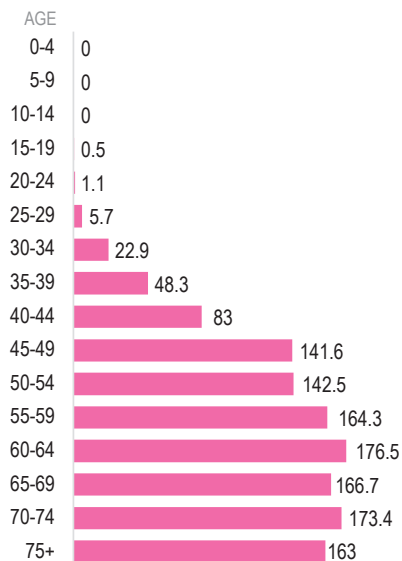
Stomach



Cervix Uteri

FEMALE BREAST CANCER

AGE SPECIFIC INCIDENCE RATE



Breast cancer was the **most common** cancer in Penang. The incidence was **highest among Chinese** followed by Indian and Malay. Most of the cases were presented at the age of 40-69 years and reduced after the age of 70 years.

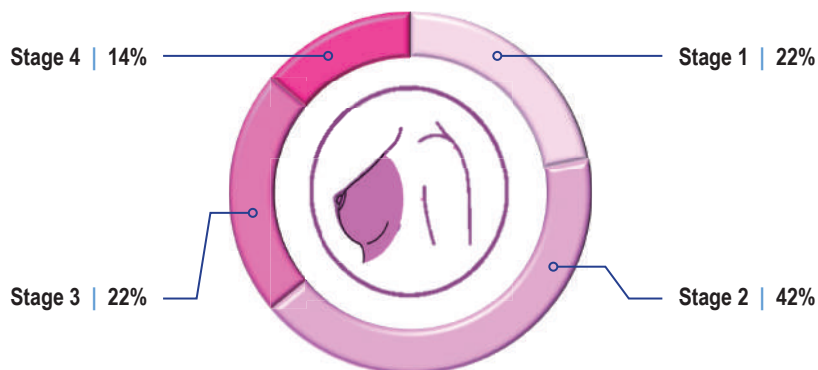
THE LIFETIME RISK:

1 in 18 for all females, 1 in 25 Malay, 1 in 16 Chinese, 1 in 20 Indian



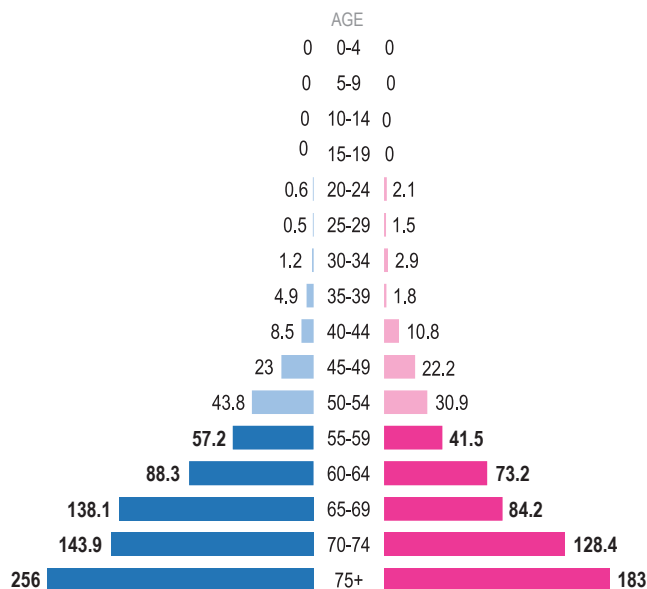
STAGING

n = 806 / 1,231



COLORECTAL CANCER

AGE SPECIFIC INCIDENCE RATE

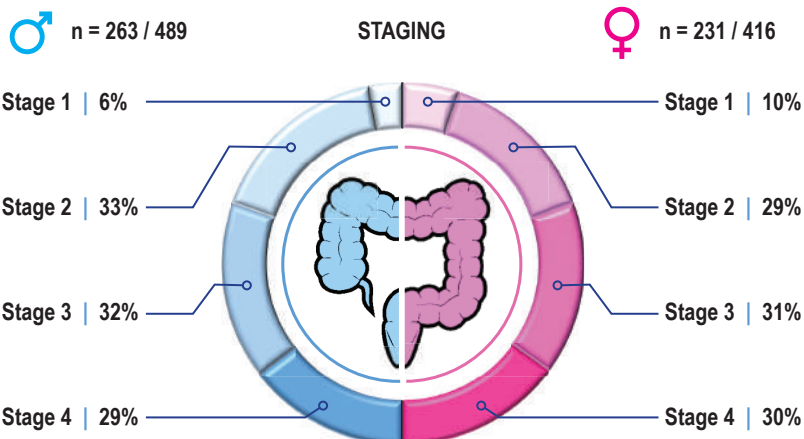


Colorectal cancer was the **second most common** cancer in **Penang**.

The incidence increased after the age of 55 years in both sexes.

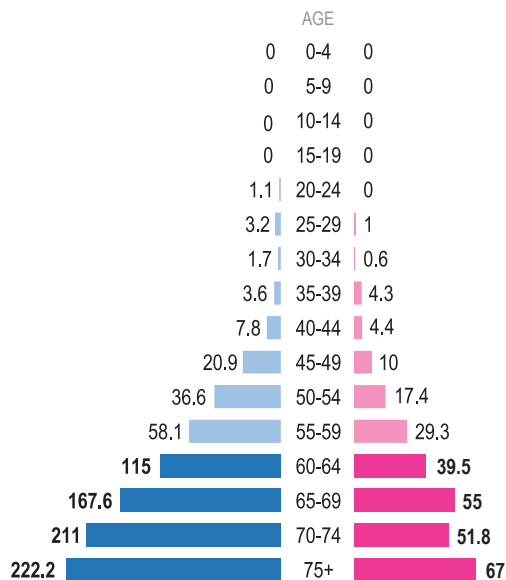
THE LIFETIME RISK:

1 in 40 for all males, 1 in 64 Malay, 1 in 33 Chinese, 1 in 62 Indian
 1 in 51 for all females, 1 in 85 Malay, 1 in 41 Chinese, 1 in 61 Indian



TRACHEA, BRONCHUS AND LUNG CANCER

AGE SPECIFIC INCIDENCE RATE

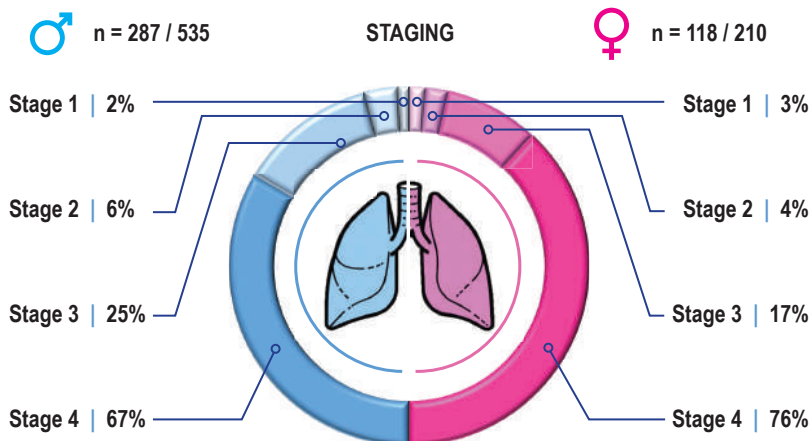


These cancers were the **most common** cancer among **male** and fourth among female.

The incidence was higher in male and started to peak at the age of 60 years old.

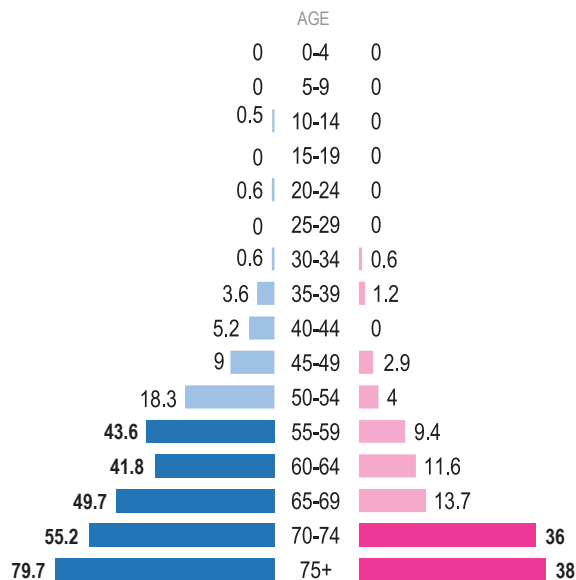
THE LIFETIME RISK:

1 in 32 for all males, 1 in 37 Malay, 1 in 30 Chinese, 1 in 50 Indian
 1 in 94 for all females, 1 in 171 Malay, 1 in 76 Chinese, 1 in 102 Indian



LIVER CANCER

AGE SPECIFIC INCIDENCE RATE



Liver cancer was **fourth most common** cancer in Penang. The incidence was **highest among male**. The incidence trend increased at the age of 55 years in male and 70 in female.

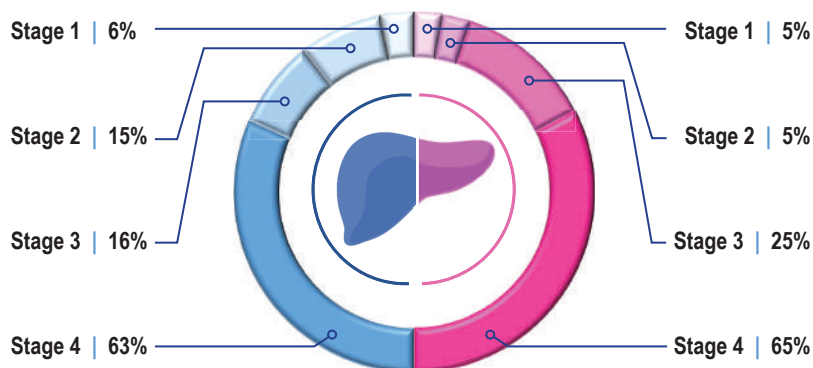
THE LIFETIME RISK:

1 in 88 for all males, 1 in 105 Malay, 1 in 77 Chinese, 1 in 176 Indian
1 in 252 for all females

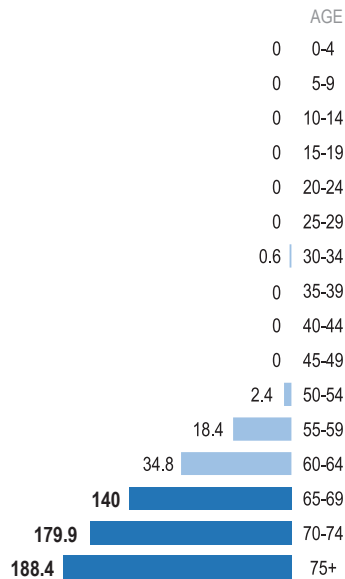
♂ n = 70 / 217

STAGING

♀ n = 20 / 77

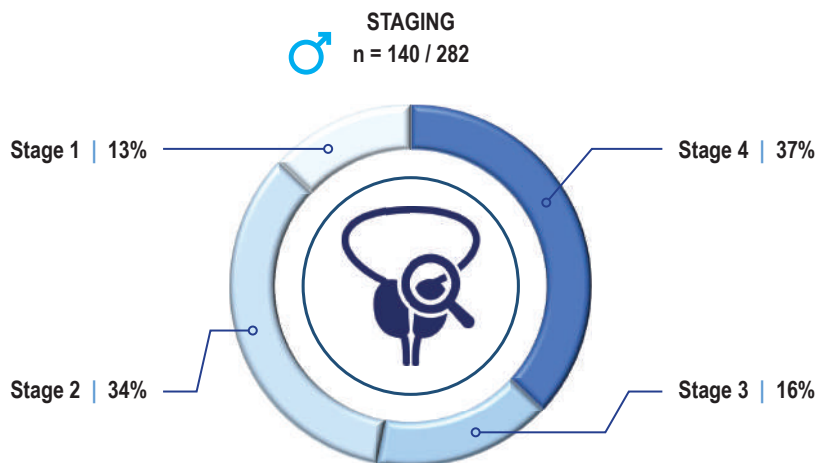


PROSTATE CANCER
AGE SPECIFIC INCIDENCE RATE



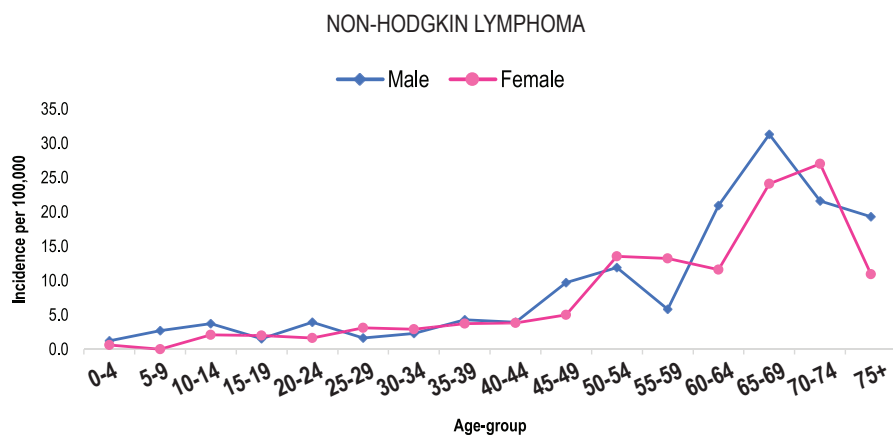
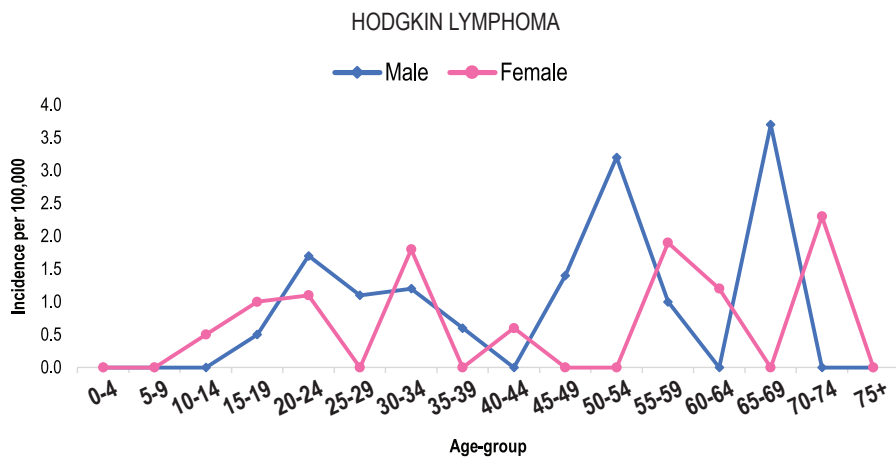
Prostate cancer was **third most common** cancer in male. The incidence trend increased at the age of 60 years and mostly diagnosed after the age of 65 years old.

THE LIFETIME RISK:
1 in 54 for all males, 1 in 61 Malay, 1 in 32 Chinese, 1 in 54 Indian



LYMPHOMA

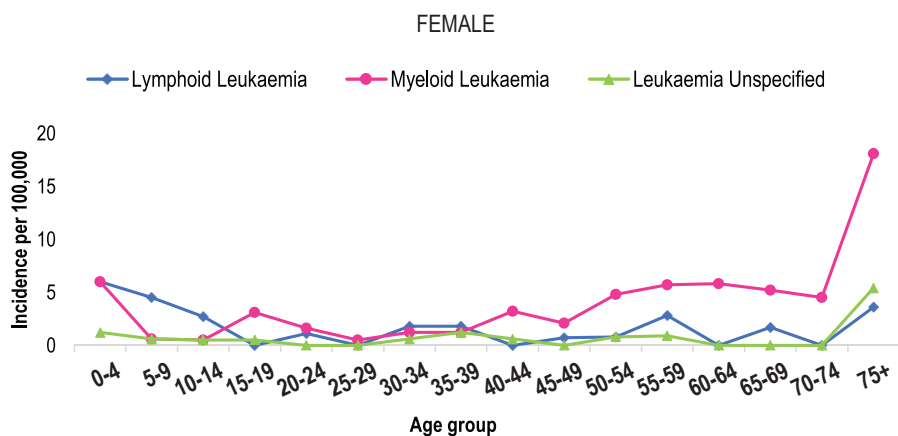
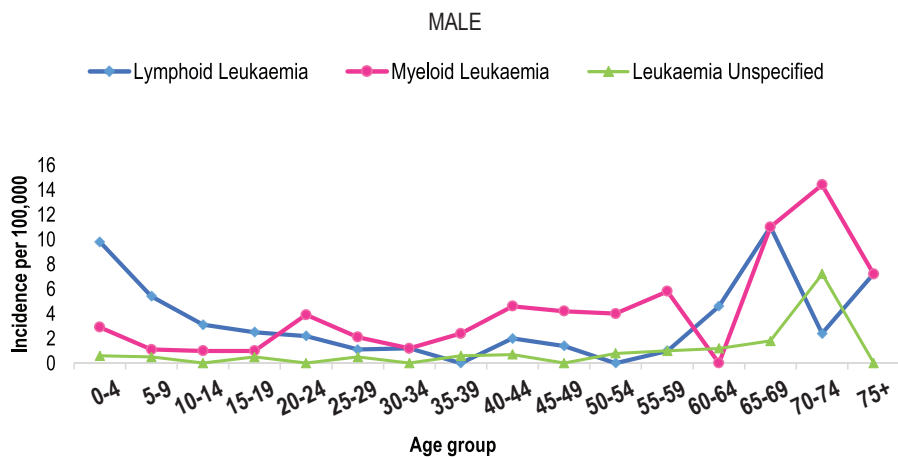
AGE SPECIFIC INCIDENCE RATE



THE LIFETIME RISK:
 1 in 143 for all males
 1 in 161 for all females

LEUKAEMIA

AGE SPECIFIC INCIDENCE RATE

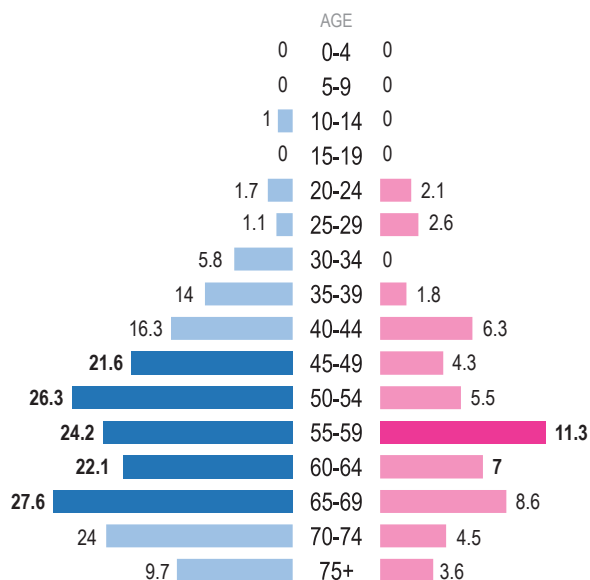


Leukemia was **seventh most common** cancer in Penang.

THE LIFETIME RISK:
 1 in 164 for all males
 1 in 261 for all females

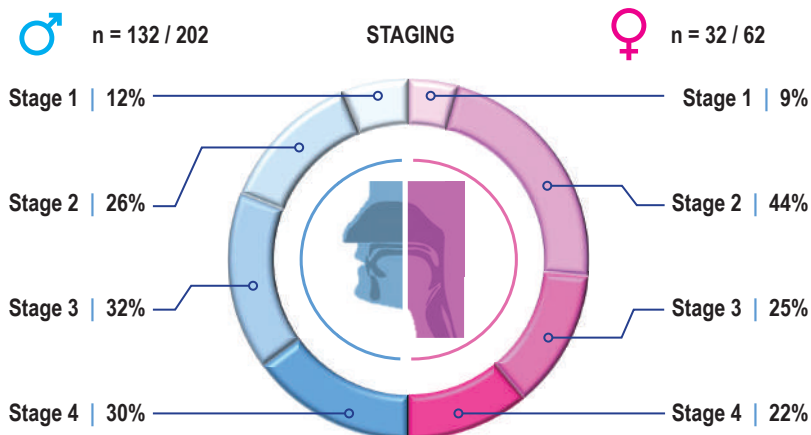
NASOPHARYNGEAL CANCER

AGE SPECIFIC INCIDENCE RATE



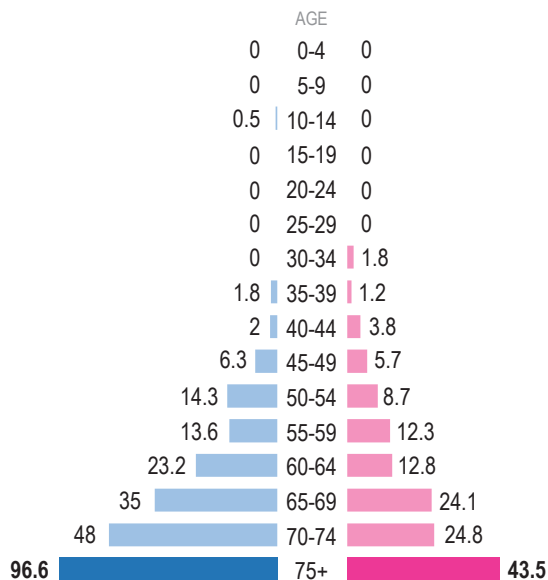
Nasopharynx cancer was the **fifth most common** cancer in male. The incidence was **highest among Chinese**. The incidence was highest among male compared to female. The trend was increased at the age of 35 and reduced at the age of 55 years for male and 70 years for female.

THE LIFETIME RISK:
1 in 161 for all males,
1 in 456 for all females



STOMACH CANCER

AGE SPECIFIC INCIDENCE RATE

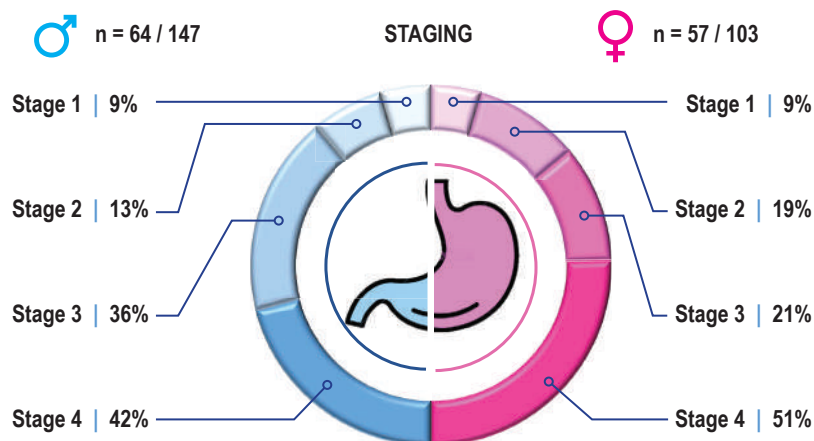


Stomach cancer was the **ninth most common** cancer in Penang. The incidence increased with the age and peak after 74 years old for both sexes.

THE LIFETIME RISK:

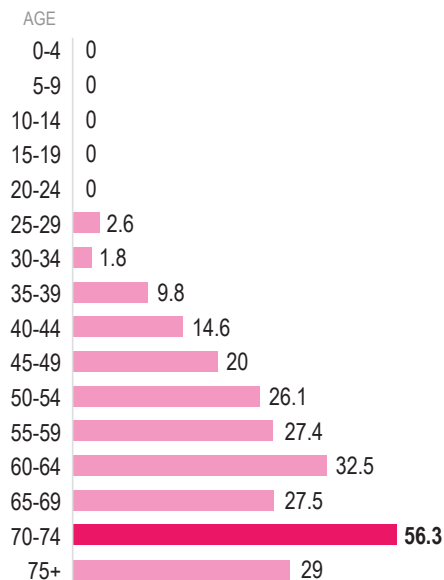
1 in 139 for all males

1 in 211 for all females



CERVIX UTERI CANCER

AGE SPECIFIC INCIDENCE RATE



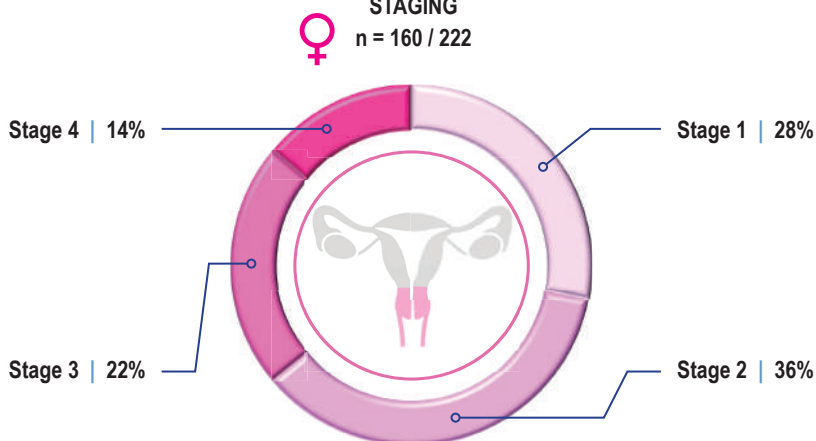
Cervix uteri cancer was the **third most common** cancer in female. The incidence trend increased at the age of 35 years and reducing trend after age of 70 years.

THE LIFETIME RISK:

1 in 92 for all females, 1 in 219 Malay, 1 in 69 Chinese, 1 in 95 Indian

STAGING

n = 160 / 222



INCIDENCE SUMMARY TABLES

Incidence Summary by Sex, All Residents, 2009 - 2011

Sex	No.	%	CR	ASR	CumR	Lifetime risk
Male	3185	45.8	144.2	146.6	15.5	1 in 6
Female	3765	54.2	169.8	158.2	16.1	1 in 6
Total	6950	100.0	314.0	304.8		

Incidence Summary by Ethnic Groups and Sex, 2009 - 2011

Ethnicity	Male					Female				
	No.	CR	ASR	CumR	Lifetime risk	No.	CR	ASR	CumR	Lifetime risk
Malay	756	78.7	104.9	11.3	1 in 9	912	94.2	108.5	11.2	1 in 9
Chinese	2173	214.7	168.9	17.8	1 in 6	2460	245.3	186.7	18.7	1 in 5
Indian	222	96.3	114.2	11.8	1 in 8	341	141.9	139.9	14.9	1 in 7

Incidence Summary by Year and Sex

Year	Male					Female				
	No.	CR	ASR	(95%CL)	CumR	No.	CR	ASR	(95%CL)	CumR
2009	1127	154.8	162	(152.47,171.58)	16.8	1266	173.4	164.6	(155.43,173.74)	17.0
2010	1011	137.3	139.9	(131.17,148.57)	15.0	1301	176.1	164.5	(155.46,173.52)	16.6
2011	1047	140.4	137.4	(128.98,145.73)	14.7	1198	160.2	145.3	(136.98,153.58)	14.7

Incidence Summary by Districts and Sex, 2009 - 2011

District	Male			Female		
	No.	CR	ASR	No.	CR	ASR
Timur Laut	1477	204.9	170.6	1766	236.2	191.5
Barat Daya	373	128.8	147.1	512	178.1	181.7
Seb. Perai Utara	485	113.4	121.6	481	110.7	107.6
Seb. Perai Tengah	585	112.3	129.6	725	143.2	144.7
Seb. Perai Selatan	265	106.3	132.4	281	115.9	121.3

Definition of Crude Incidence Rate (CR): The number of new cancer cases (incidence cases) observed in the population during a defined period, divided by the number population at risk in the same period. It is usually expressed per 100,000.

Definition of Cumulative Risk (CumR): Cumulative risk is defined as a probability that an individual would develop cancer during a certain age period, in the absence of any competing cause of death. The age period over which the risk is accumulated in this report is 0-74 years.