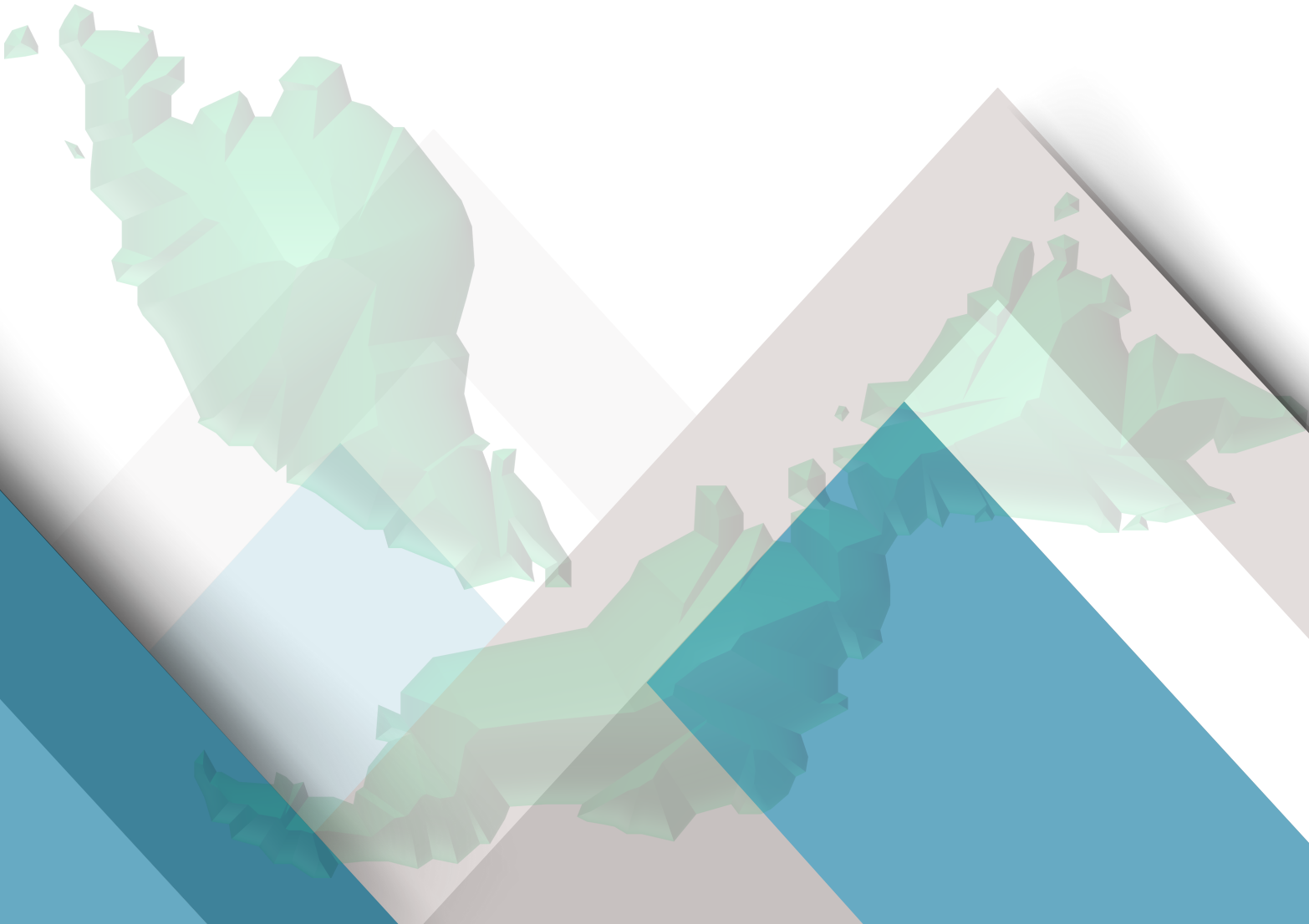




INSTITUT KANSER NEGARA
MINISTRY OF HEALTH



SUMMARY OF THE MALAYSIA NATIONAL CANCER REGISTRY REPORT 2017-2021



NATIONAL CANCER REGISTRY DEPARTMENT
INSTITUT KANSER NEGARA

DIRECTOR OF INSTITUT KANSER NEGARA

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ACKNOWLEDGEMENT

Institut Kanser Negara acknowledges that this publication would not be possible without the continuous and active support of all contributors, despite our inability to mention each of them individually.



INSTITUT KANSER NEGARA
MINISTRY OF HEALTH

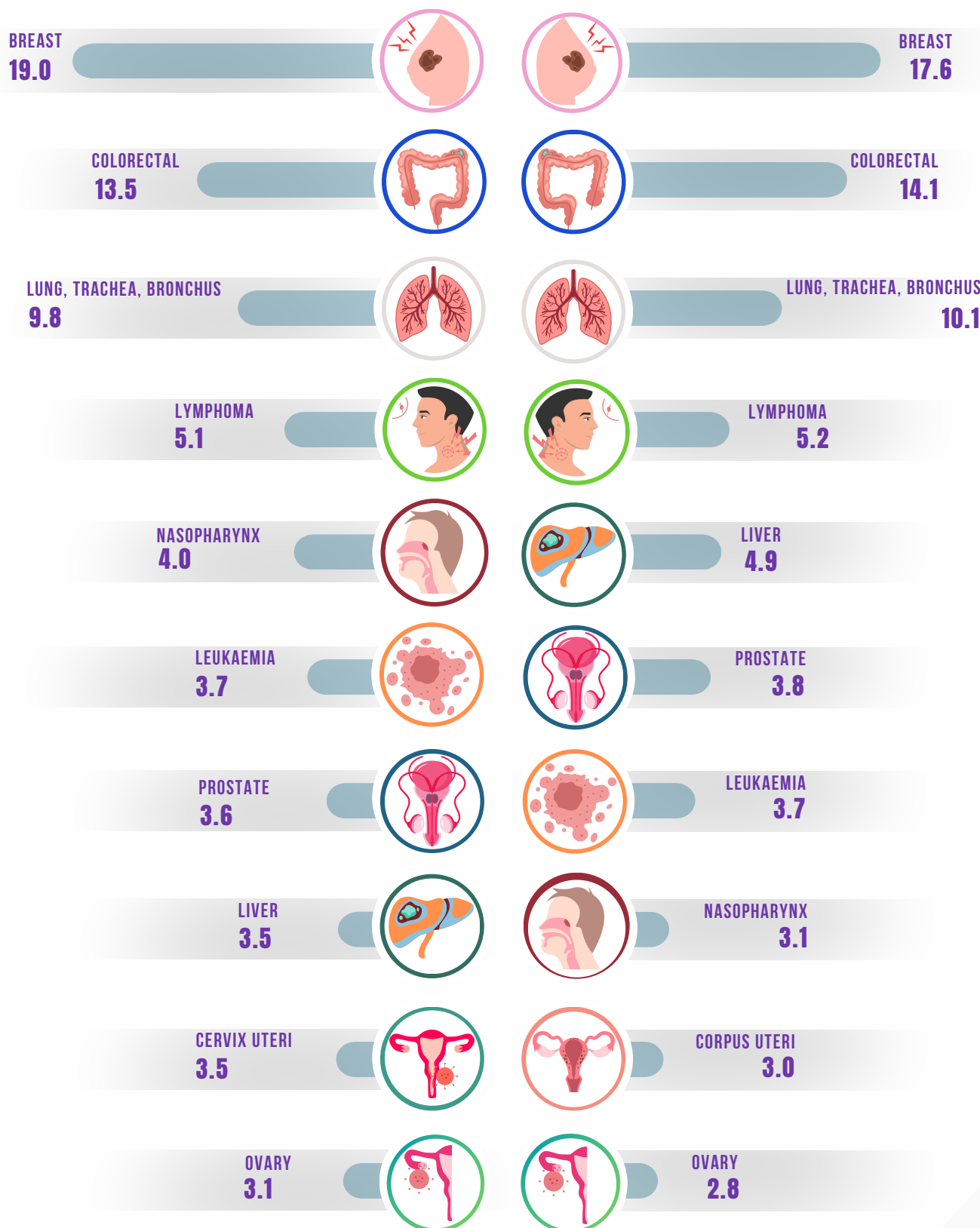
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Tel: (603) 88925555 Fax: (603) 88925625 Email: ncr.putrajaya@nci.gov.my

10 MOST COMMON CANCERS IN MALAYSIA

2012-2016

(PERCENTAGES)

2017-2021



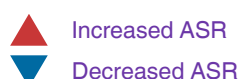
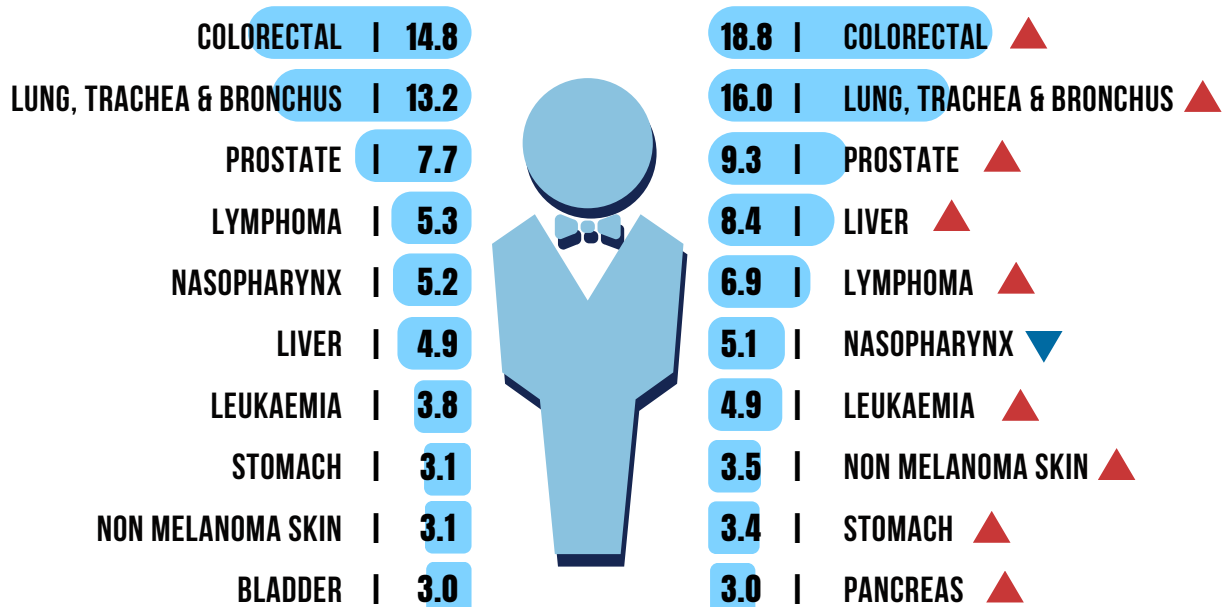
Sources: This data was compiled from notifications to the National Cancer Registry up until 31st December 2023 (64.4%), pathology department records (16.4%), the *Sistem Maklumat Rawatan Pelanggan* (SMRP) register (13.7%), and death records alone (5.5%). Approximately 5% of cases were from university hospitals and 10% from private hospitals. The implementation of a web-based notification system in 2018 and the issuance of a circular order for online notifications in 2020 have significantly increased the notification volume, leading to a notable rise in cancer cases detected between 2017 and 2021.

INCIDENCE RATE (ASR) FOR 10 MOST COMMON CANCERS BY GENDER

AGE STANDARDISED RATE (WORLD) PER 100,000 POPULATION

2012 - 2016

2017 - 2021

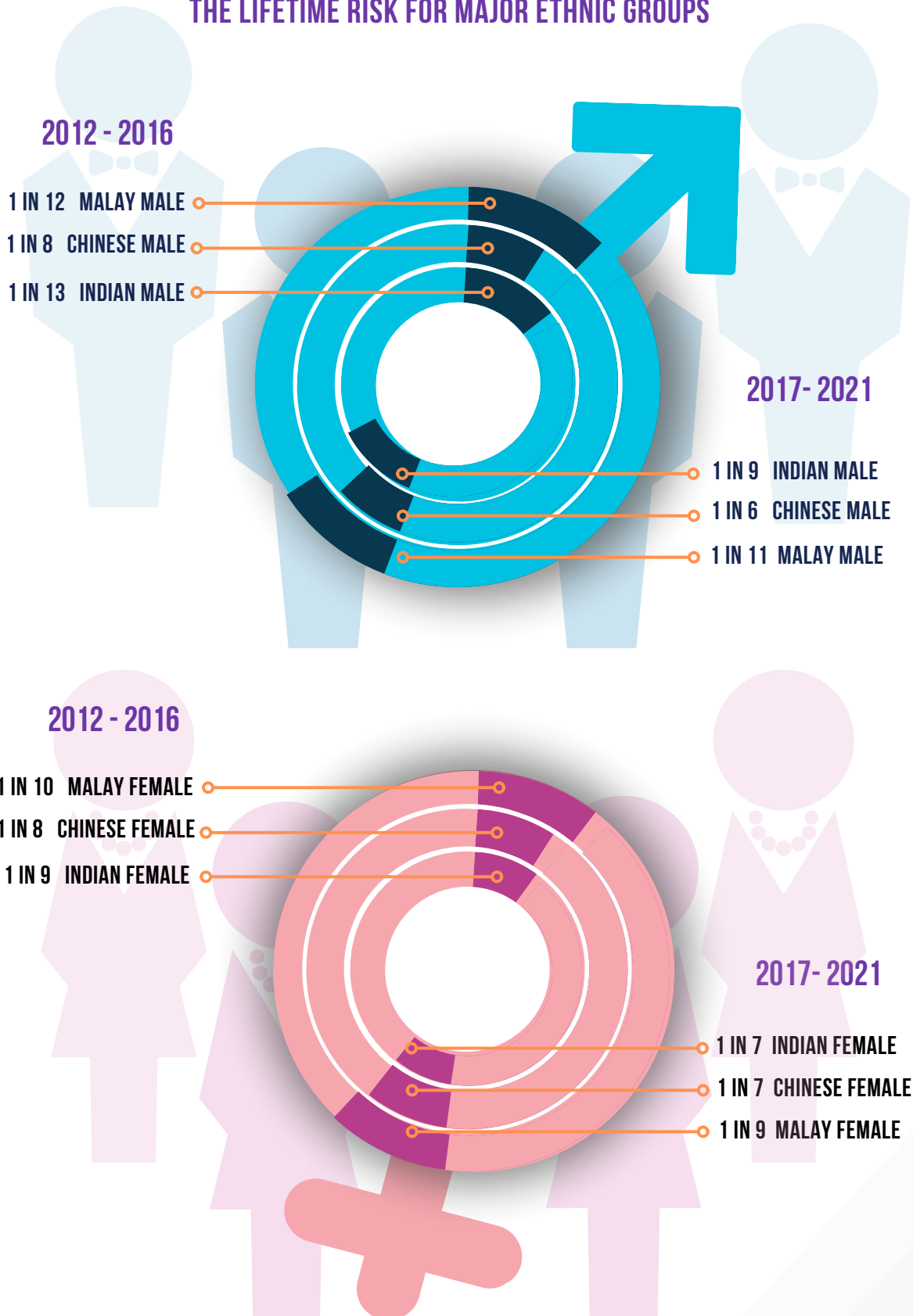


Definition of Age-Standardised Rate (ASR): ASR is a summary measure, indicating the incidence rate that a population would have if it had standard age structure.

LIFETIME RISK

In 2017-2021, the lifetime risk for both males and females increased to **1 in 8**.

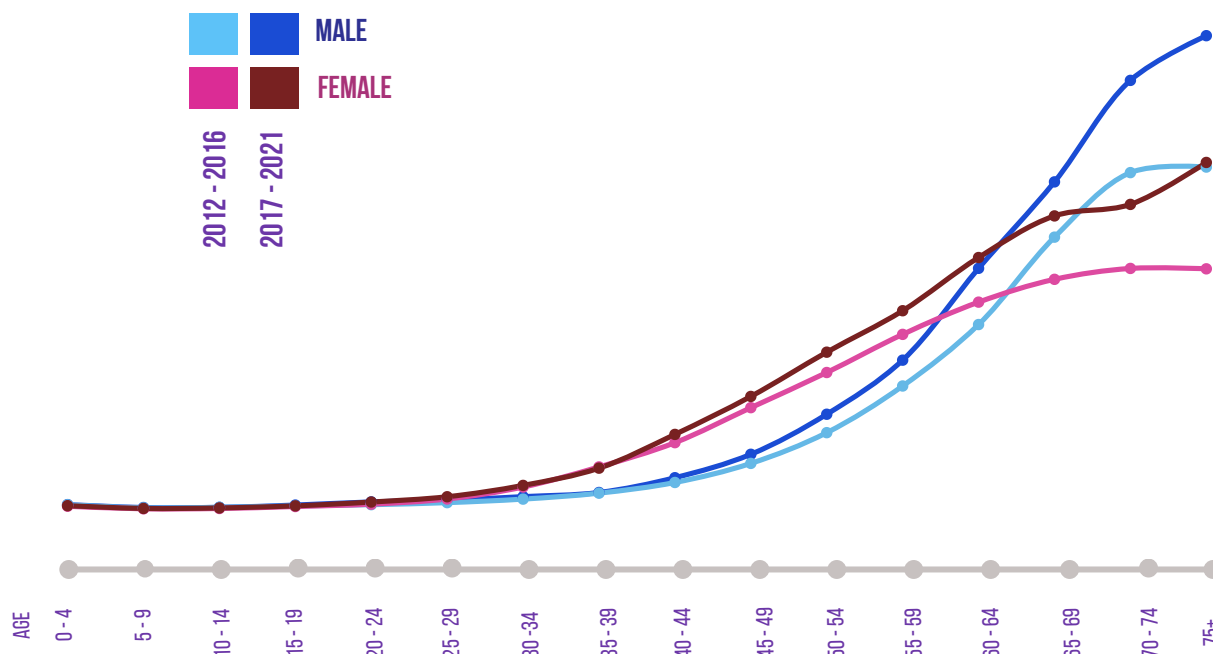
THE LIFETIME RISK FOR MAJOR ETHNIC GROUPS



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 CANCER

INCIDENCE PER 100,000 POPULATION



When comparing the incidence by gender, females aged 25 to 64 had a higher rate of cancer in 2017-2021, similar to 2012-2016. Male incidence was higher than female incidence after age 65.

2012 - 2016

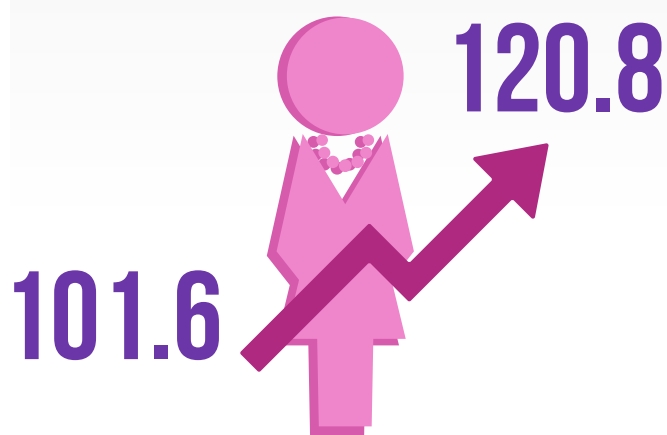
2017 - 2021



PER 100,000 MALES WERE
DIAGNOSED WITH CANCER

2012 - 2016

2017 - 2021



PER 100,000 FEMALES WERE
DIAGNOSED WITH CANCER

Definition of Age-Specific Incidence Rate (AR): AR is the incidence rate in a specific age group

11 SELECTED CANCERS BY GENDER



MALE

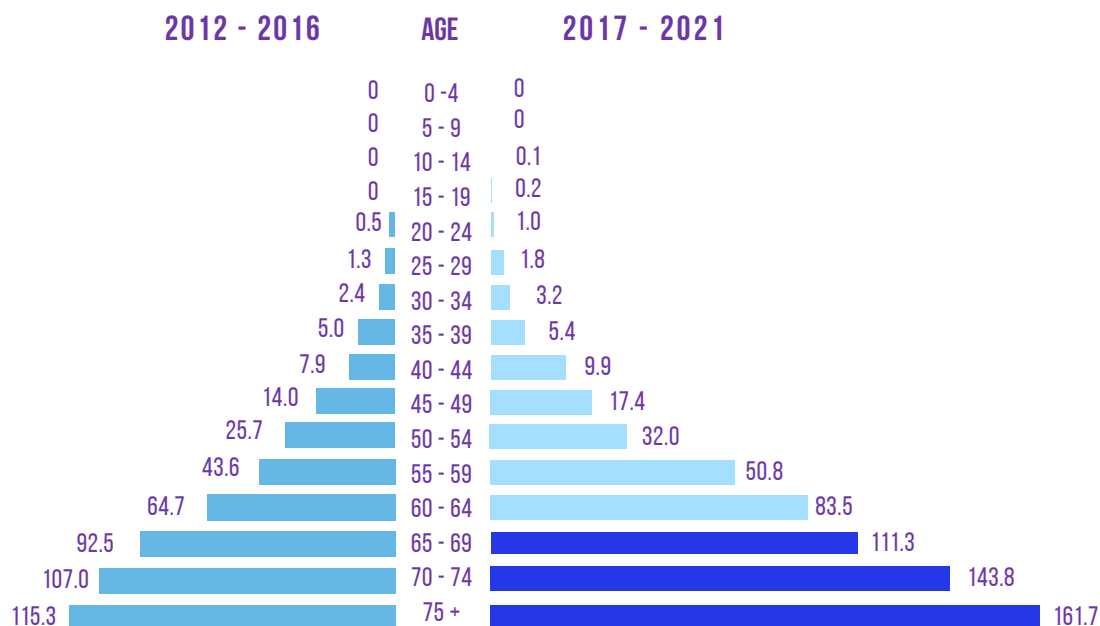
COLORECTAL	• PAGE 6
LUNG, TRACHEA, BRONCHUS	• PAGE 7
PROSTATE	• PAGE 8
LIVER	• PAGE 9
NASOPHARYNX	• PAGE 10

FEMALE

BREAST	• PAGE 11
COLORECTAL	• PAGE 12
LUNG, TRACHEA, BRONCHUS	• PAGE 13
CORPUS UTERI	• PAGE 14
OVARIAN	• PAGE 15
CERVIX UTERI	• PAGE 16

MALE COLORECTAL CANCER

AGE SPECIFIC INCIDENCE RATE



Colorectal cancer is the commonest cancer among males. Incidence increases with age and an increased rate is seen in all age groups in 2017-2021.

THE LIFETIME RISK

2012 - 2016 : 1 in 56 for all males

1 in 65 for Malays

1 in 39 for Chinese

1 in 82 for Indians

2017 - 2021 : 1 in 44 for all males

1 in 57 for Malays

1 in 30 for Chinese

1 in 47 for Indians

2012 - 2016 (n = 4,806)

STAGING

2017 - 2021 (n = 6,546)

STAGE 1 : 7.4 %

STAGE 2 : 20.2 %

STAGE 3 : 32.8 %

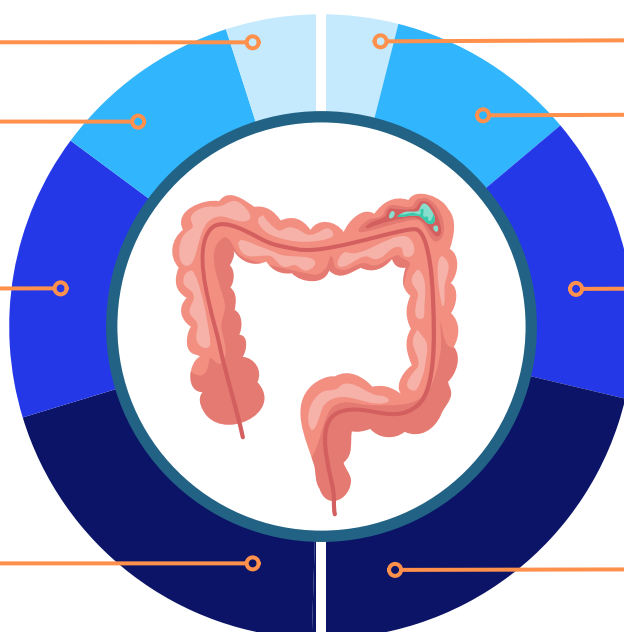
STAGE 4 : 39.6 %

STAGE 1 : 6.5 %

STAGE 2 : 18.6 %

STAGE 3 : 35.5 %

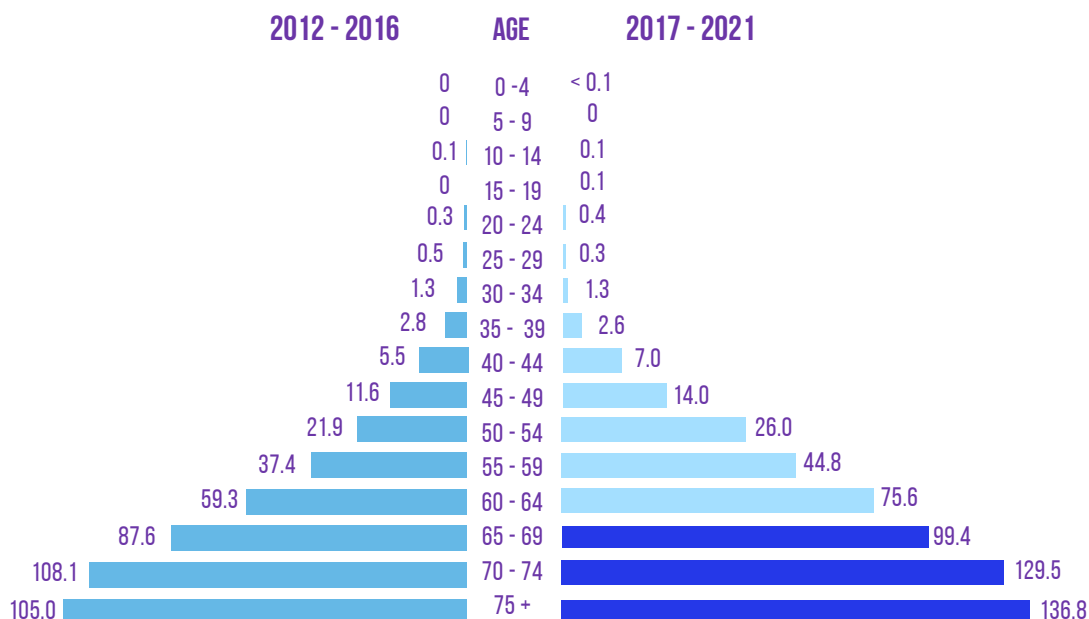
STAGE 4 : 39.4 %



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) increased to 74.9%.

MALE LUNG, TRACHEA & BRONCHUS CANCER

AGE SPECIFIC INCIDENCE RATE



Lung, trachea & bronchus cancer is the second-commonest cancer among males.
Incidence increases with age and an increased rate is seen in most age groups in 2017-2021.

THE LIFETIME RISK

2012 - 2016 : 1 in 60 for all males

1 in 62 for Malays

1 in 51 for Chinese

1 in 103 for Indians

2017 - 2021 : 1 in 50 for all males

1 in 61 for Malays

1 in 37 for Chinese

1 in 74 for Indians

STAGING

2012 - 2016 (n = 4,633)

2017 - 2021 (n = 4,664)

STAGE 1 : 2.5 %

STAGE 2 : 4.0 %

STAGE 3 : 15.5 %

STAGE 4 : 78.0 %

STAGE 1 : 1.8 %

STAGE 2 : 2.8 %

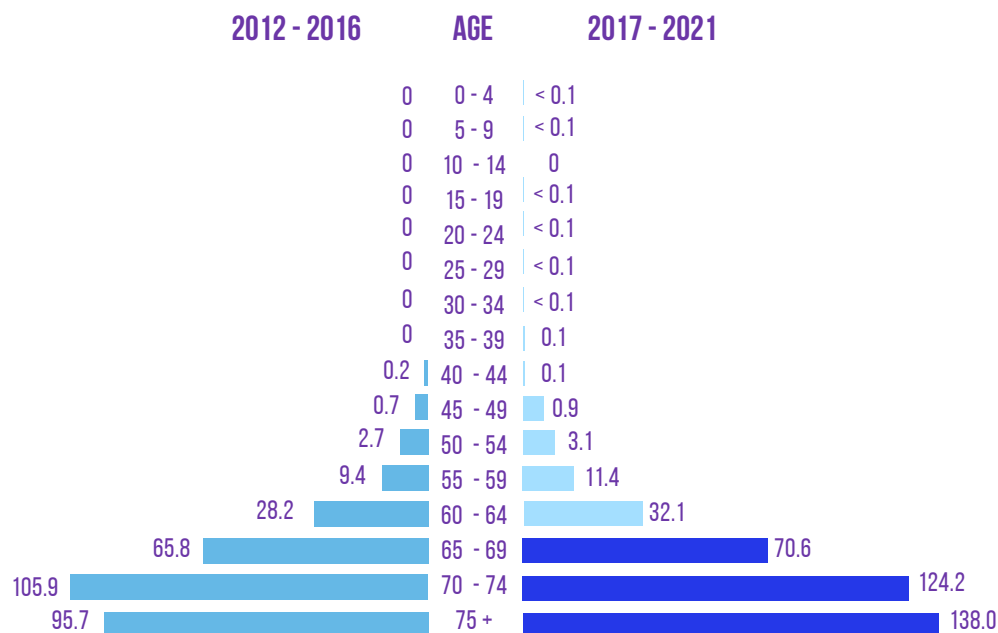
STAGE 3 : 15.2 %

STAGE 4 : 80.2 %

In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) increased to 95.4%.

PROSTATE CANCER

AGE SPECIFIC INCIDENCE RATE



Prostate cancer is the third-commonest cancer among males. Unlike 2012-2016, the incidence increases with age, and an increased rate is seen in most age groups in 2017-2021.

THE LIFETIME RISK

2012 - 2016 : 1 in 94 for all males

1 in 117 for Malays

1 in 72 for Chinese

1 in 108 for Indians

2017 - 2021 : 1 in 83 for all males

1 in 125 for Malays

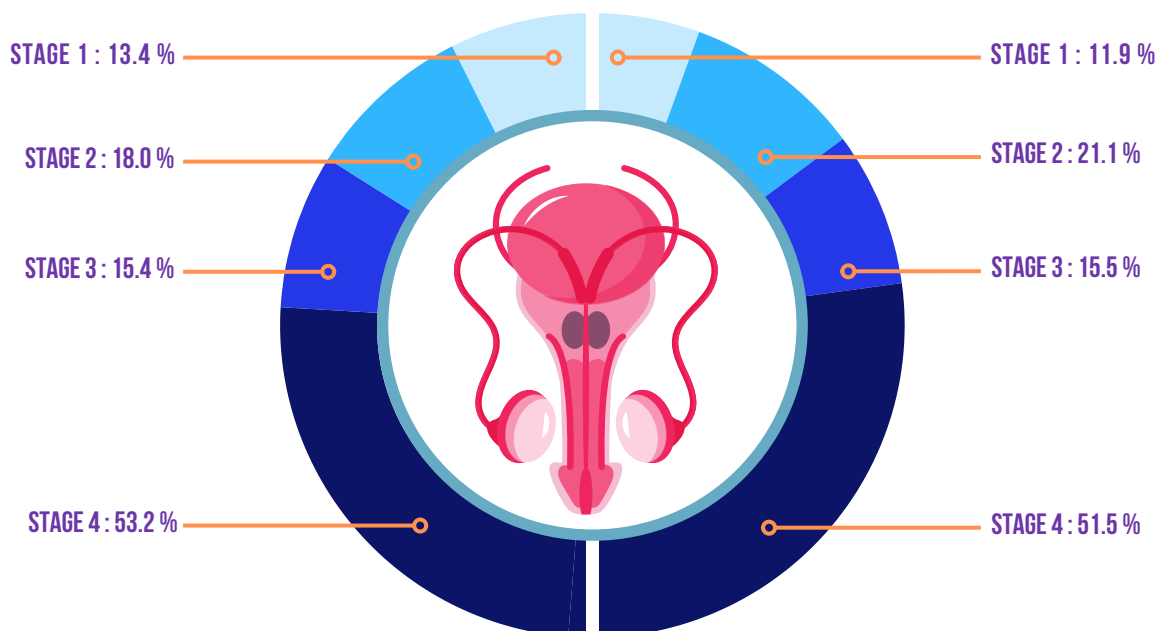
1 in 50 for Chinese

1 in 86 for Indians

2012 - 2016 (n = 1,682)

STAGING

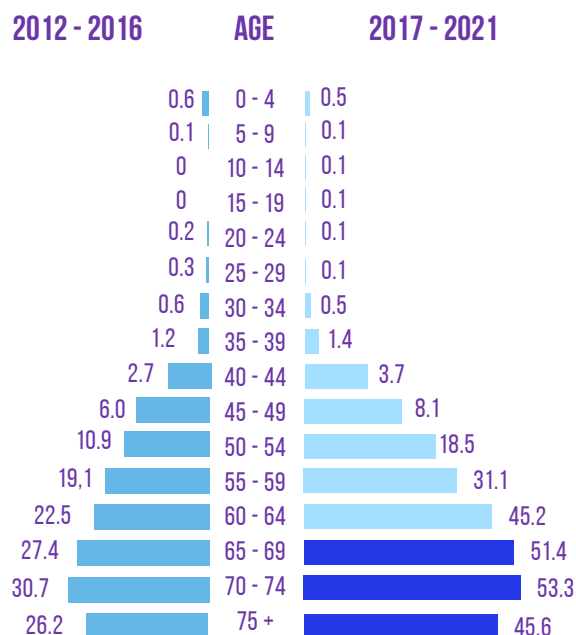
2017 - 2021 (n = 2,655)



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 67.0%.

MALE LIVER CANCER

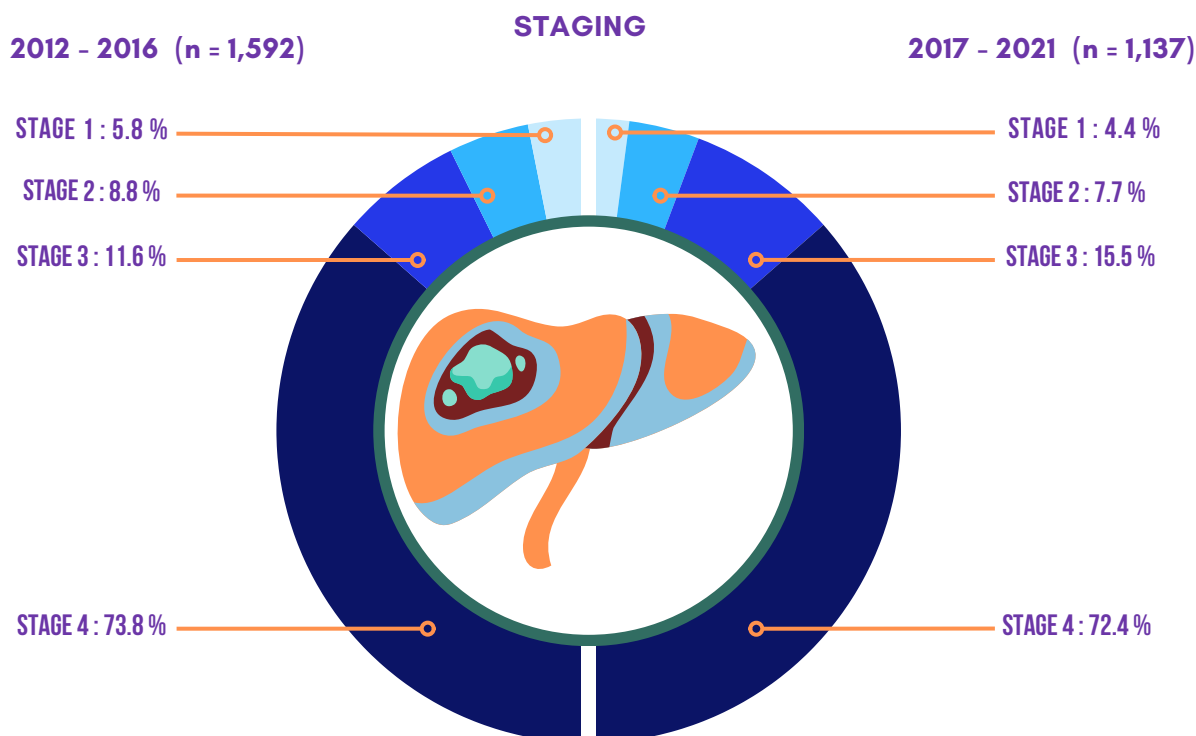
AGE SPECIFIC INCIDENCE RATE



Liver cancer is the fourth-commonest cancer among males in 2017-2021.
Similar to 2012-2016, incidence peaks in the 70-74 age group, followed by the 65-69 age group.
An increased rate is seen in most age groups in 2017-2021, especially after the age of 40.

THE LIFETIME RISK

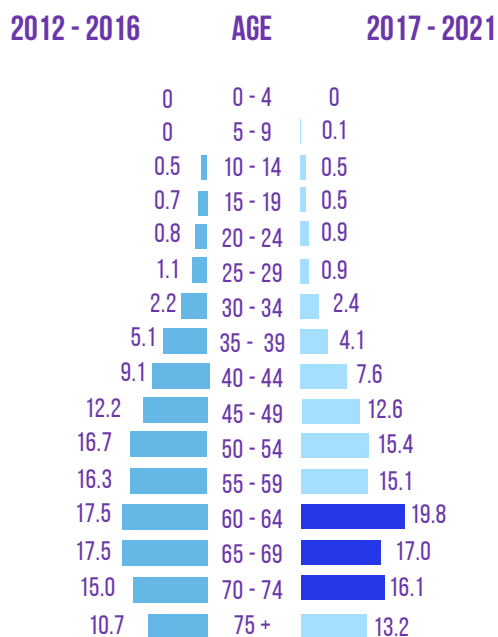
2012 - 2016	: 1 in 60 for all males	1 in 62 for Malays	1 in 51 for Chinese	1 in 103 for Indians
2017 - 2021	: 1 in 94 for all males	1 in 116 for Malays	1 in 65 for Chinese	1 in 130 for Indians



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 87.9%.

MALE NASOPHARYNGEAL CANCER

AGE SPECIFIC INCIDENCE RATE



Nasopharyngeal cancer is the sixth-commonest cancer among males in 2017-2021. Compared to 2012-2016, similar trend of incidence between age groups is seen in 2017-2021.

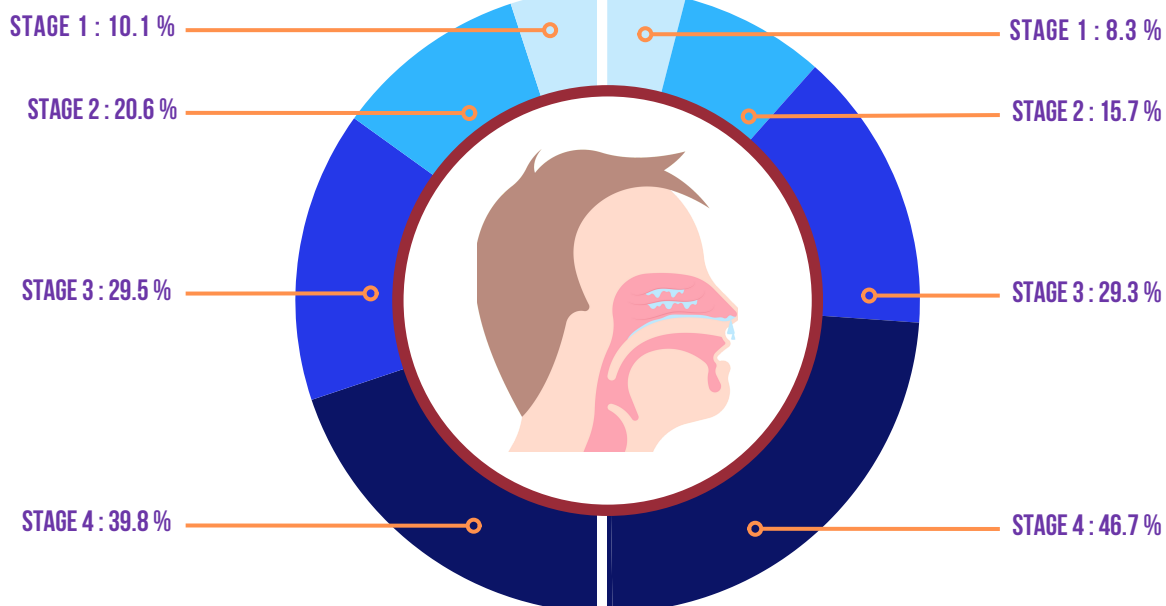
THE LIFETIME RISK

2012 - 2016 : 1 in 175 for all males	1 in 357 for Malays	1 in 112 for Chinese	1 in 2,028 for Indians
2017 - 2021 : 1 in 177 for all males	1 in 344 for Malays	1 in 101 for Chinese	1 in 1,233 for Indians

2012 - 2016 (n = 2,193)

STAGING

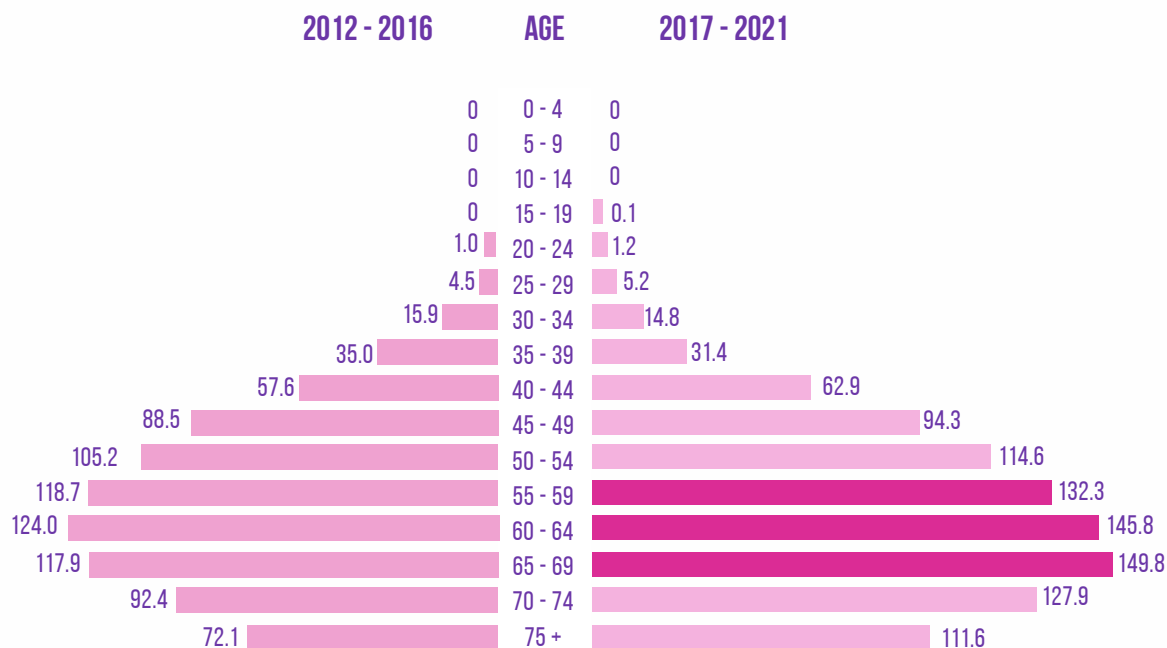
2017 - 2021 (n = 2,437)



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is increased to 76.0%.

FEMALE BREAST CANCER

AGE SPECIFIC INCIDENCE RATE



Breast cancer is the most common cancer among females. In 2017-2021, starting at age 40, a greater incidence rate is observed compared to 2012-2016, particularly in the 65-69 age group.

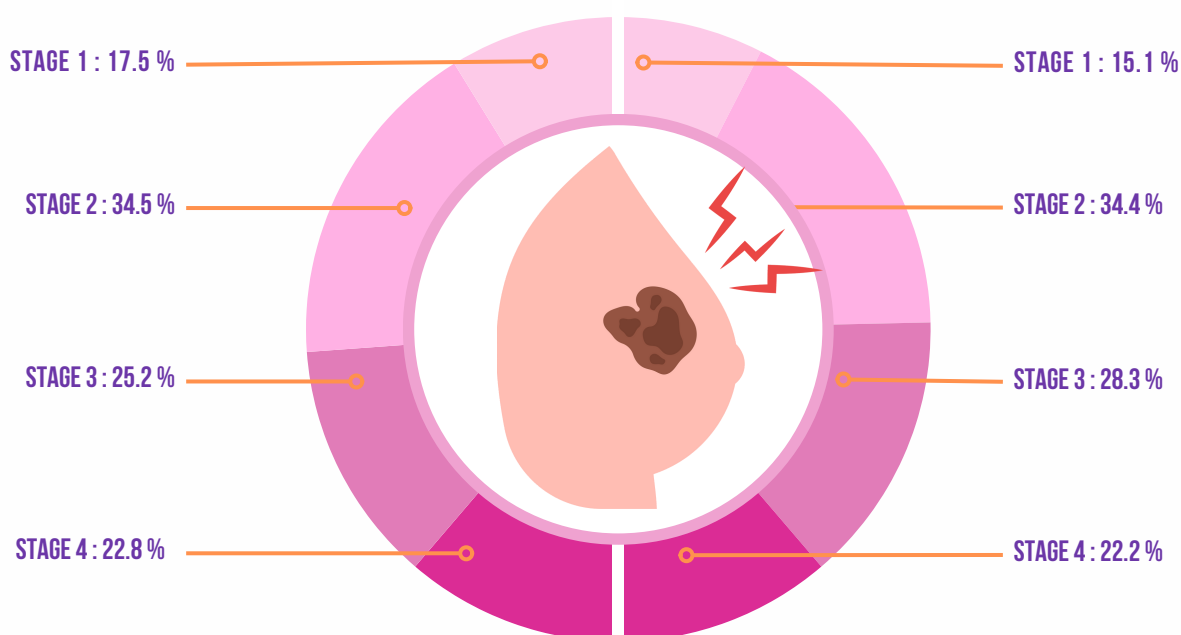
THE LIFETIME RISK

2012 - 2016	:	1 in 27 for all females	1 in 30 for Malays	1 in 22 for Chinese	1 in 24 for Indians
2017 - 2021	:	1 in 23 for all females	1 in 26 for Malays	1 in 19 for Chinese	1 in 17 for Indians

2012 - 2016 (n = 13,485)

STAGING

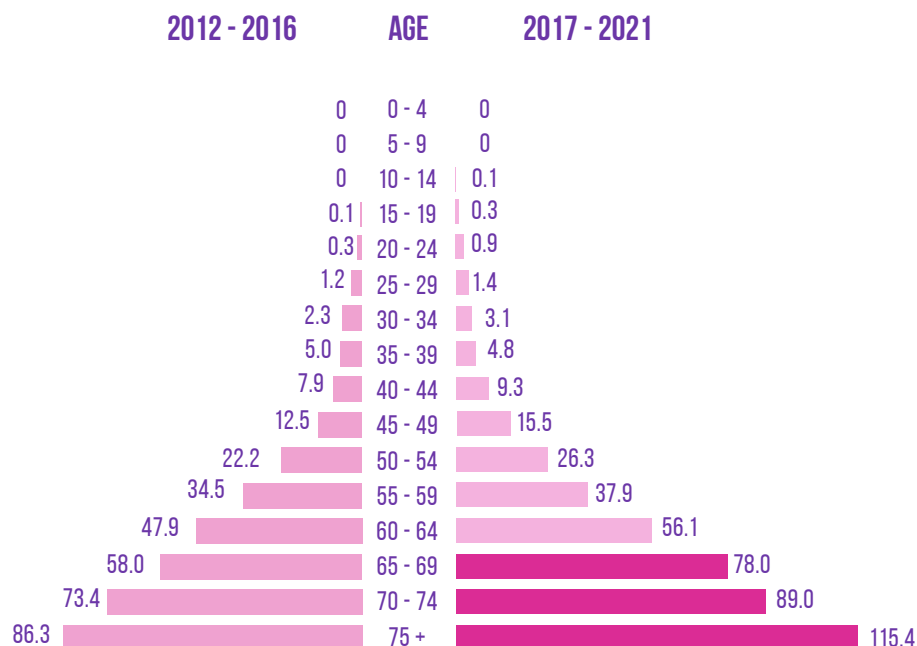
2017 - 2021 (n = 16,430)



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 50.5%.

FEMALE COLORECTAL CANCER

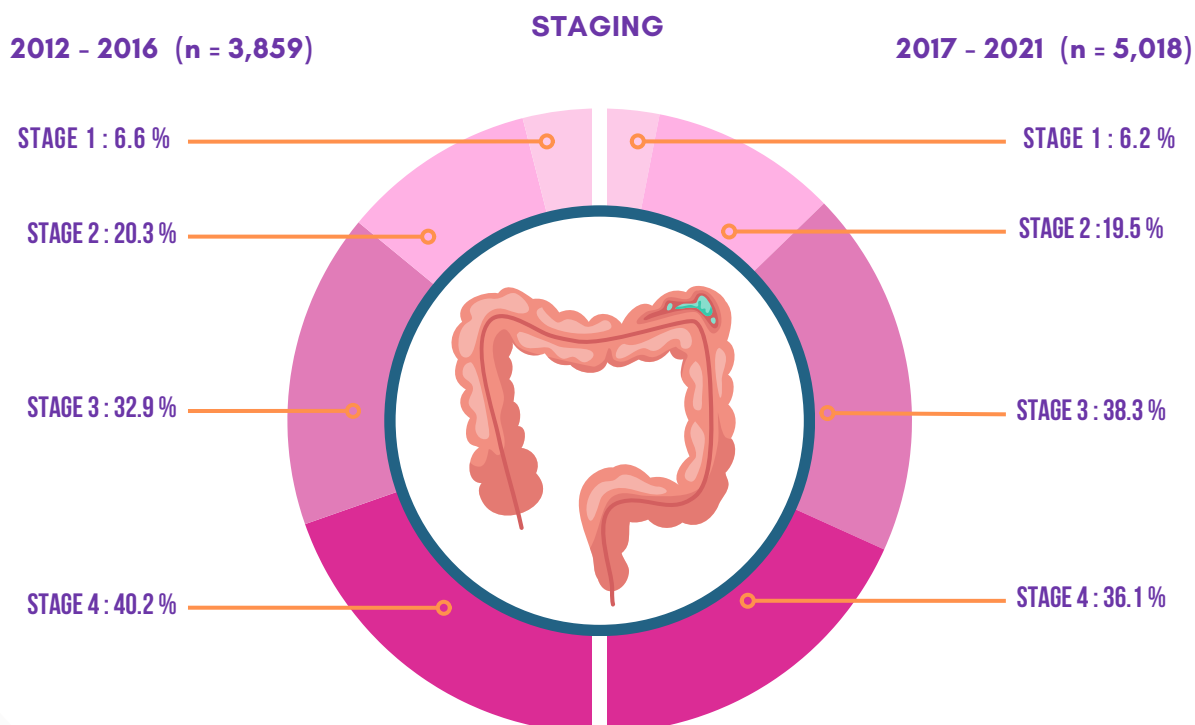
AGE SPECIFIC INCIDENCE RATE



Colorectal cancer is the second-commonest cancer among females. The incidence increases with age, and an increased rate is seen in most age groups in 2017-2021.

THE LIFETIME RISK

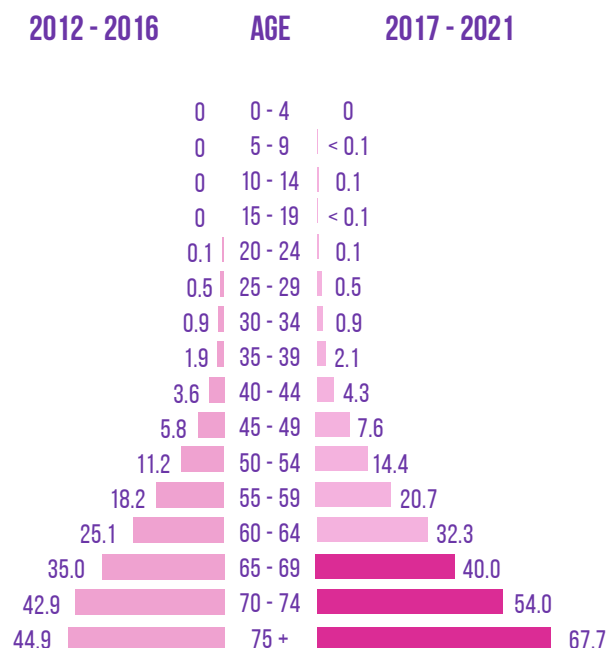
2012 - 2016	:	1 in 76 for all females	1 in 89 for Malays		1 in 57 for Chinese		1 in 95 for Indians
2017 - 2021	:	1 in 62 for all females	1 in 74 for Malays		1 in 45 for Chinese		1 in 67 for Indians



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 74.4%.

FEMALE LUNG, TRACHEA & BRONCHUS CANCER

AGE SPECIFIC INCIDENCE RATE



Lung, trachea & bronchus cancer is the third-commonest cancer among females in 2017-2021. The incidence increases with age, and an increased rate is seen in most age groups in 2017-2021, particularly after the age of 75.

THE LIFETIME RISK

2012 - 2016	:	1 in 138 for all females	1 in 169 for Malays		1 in 108 for Chinese		1 in 251 for Indians
2017 - 2021	:	1 in 113 for all females	1 in 152 for Malays		1 in 80 for Chinese		1 in 184 for Indians

STAGING

2012 - 2016 (n = 2,187)

2017 - 2021 (n = 2,493)

STAGE 1 : 3.1 %

STAGE 2 : 4.6 %

STAGE 3 : 11.0 %

STAGE 4 : 81.3 %

STAGE 1 : 2.4 %

STAGE 2 : 3.2 %

STAGE 3 : 9.7 %

STAGE 4 : 84.6 %

In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 94.3%.

CORPUS UTERI CANCER

AGE SPECIFIC INCIDENCE RATE

2012 - 2016	AGE	2017 - 2021
0	0 - 4	0
0	5 - 9	0
0	10 - 14	0
<0.1	15 - 19	<0.1
0.1	20 - 24	0.2
0.7	25 - 29	0.8
1.8	30 - 34	3.2
4.0	35 - 39	5.4
5.5	40 - 44	8.4
8.1	45 - 49	12.7
12.2	50 - 54	17.7
19.2	55 - 59	26.3
20.8	60 - 64	28.1
15.1	65 - 69	30.5
13.6	70 - 74	24.8
7.8	75 +	16.6

Corpus uteri cancer is the fourth-commonest cancer among females. The incidence is highest in the 55-69 age group, and an increased rate is seen in most age groups in 2017-2021.

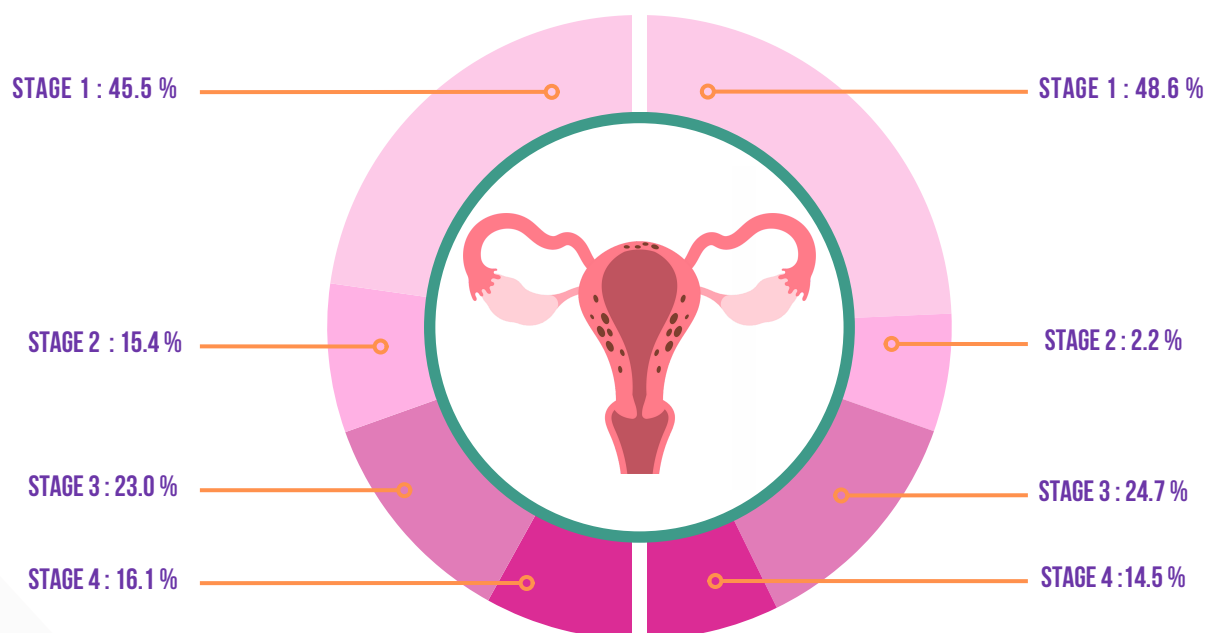
THE LIFETIME RISK

2012 - 2016	:	1 in 198 for all females	1 in 210 for Malays	1 in 177 for Chinese	1 in 161 for Indians
2017 - 2021	:	1 in 127 for all females	1 in 135 for Malays	1 in 118 for Chinese	1 in 87 for Indians

2012 - 2016 (n = 1,911)

STAGING

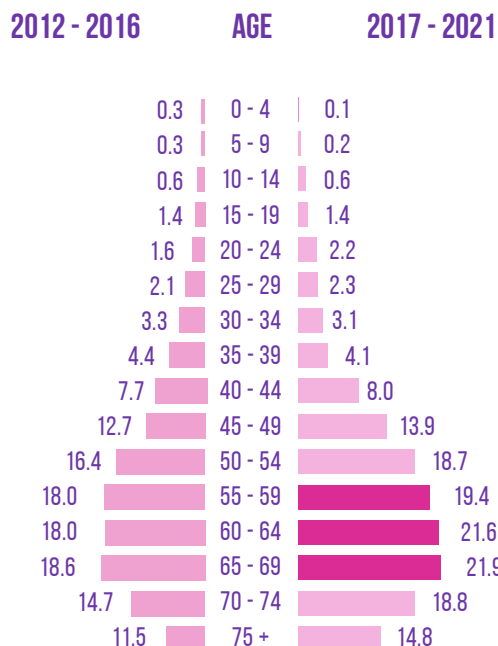
2017 - 2021 (n = 2,837)



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 39.2%.

OVARIAN CANCER

AGE SPECIFIC INCIDENCE RATE

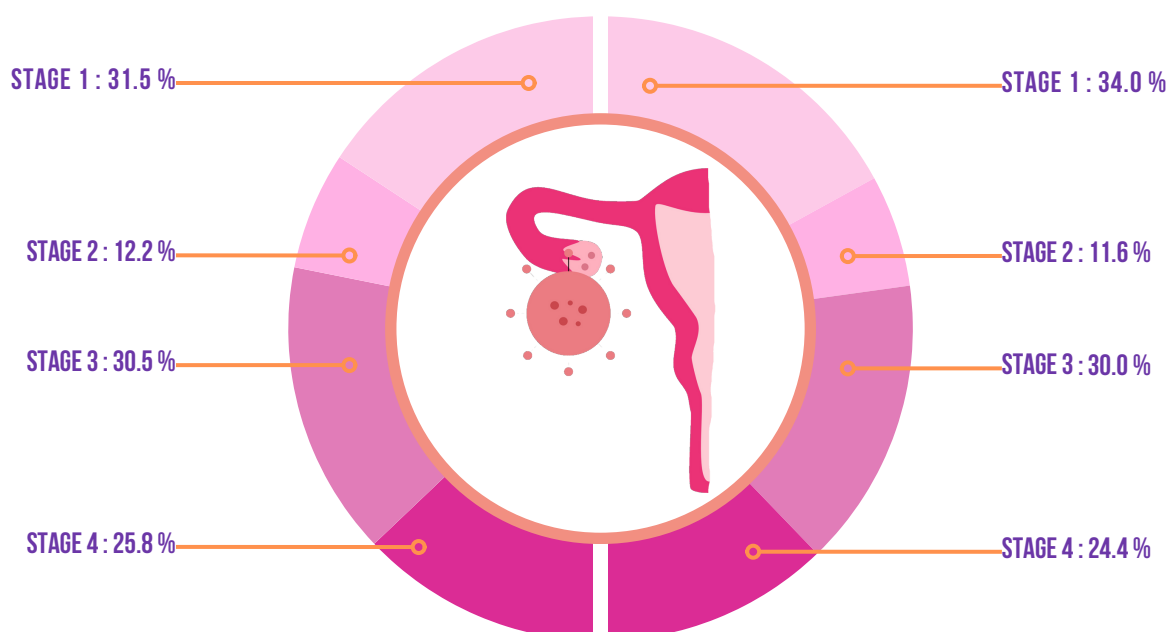


Ovarian cancer is the fifth-commonest cancer among females. After 40, there is an increasing incidence rate compared to 2012-2016, with the 55-69 age group exhibiting the highest rate.

THE LIFETIME RISK

2012 - 2016	:	1 in 167 for all females	1 in 160 for Malays		1 in 169 for Chinese		1 in 164 for Indians
2017 - 2021	:	1 in 147 for all females	1 in 149 for Malays		1 in 140 for Chinese		1 in 136 for Indians

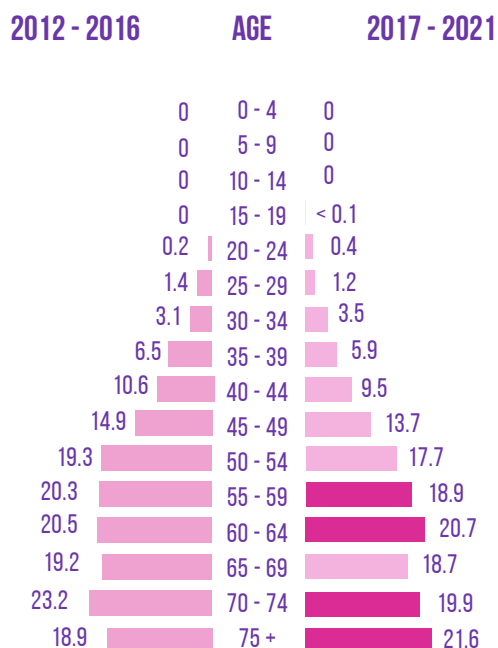
2012 - 2016 (n = 2,507) STAGING 2017 - 2021 (n = 2,513)



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 54.4%.

CERVIX UTERI CANCER

AGE SPECIFIC INCIDENCE RATE



Cervical cancer ranks as the sixth most common cancer among females. Compared to 2012-2016, a reduced incidence rate is seen in most age groups in 2017-2021. Additionally, two peaks in the incidence rate are identified.

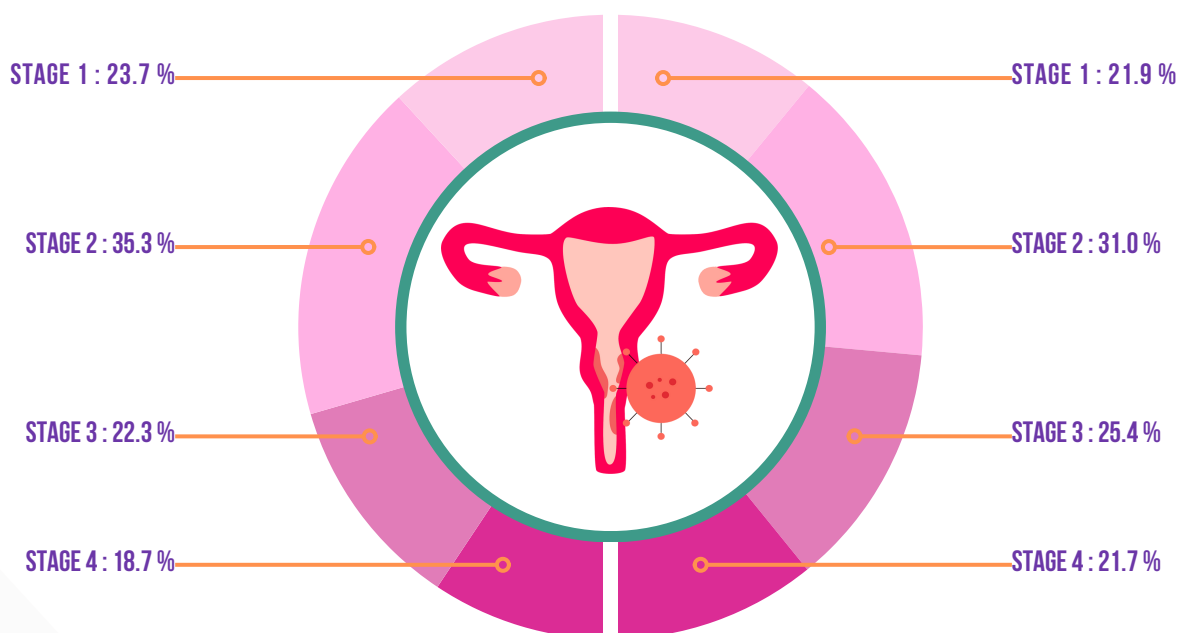
THE LIFETIME RISK

2012 - 2016	:	1 in 144 for all females	1 in 194 for Malays		1 in 129 for Chinese		1 in 157 for Indians
2017 - 2021	:	1 in 154 for all females	1 in 207 for Malays		1 in 132 for Chinese		1 in 162 for Indians

STAGING

2012 - 2016 (n = 2,771)

2017 - 2021 (n = 2,654)



In 2017-2021, the percentage diagnosed at late stages (Stage 3 & 4) is 47.1%.

INCIDENCE SUMMARY TABLES

INCIDENCE SUMMARY BY GENDER, ALL RESIDENTS, 2012-2021						
YEAR	Gender	Number	%	CR	ASR	CumR
2012-2016	MALE	51,505	44.7	75.4	86.1	9.8
	FEMALE	63,733	55.3	95.8	101.6	10.8
	TOTAL	115,238	100.0			
2017-2021	MALE	77,692	46.0	103.9	107.3	11.9
	FEMALE	91,131	54.0	125.6	120.8	12.7
	TOTAL	168,823	100.0			

INCIDENCE SUMMARY BY YEAR AND GENDER, 2012-2021								
YEAR	MALE				FEMALE			
	Number	CR	ASR	CumR	Number	CR	ASR	CumR
2012	9,728	71.2	81.4	9.2	12,329	92.7	97.9	10.4
2013	10,211	73.8	82.6	9.5	12,244	90.8	94.3	10.0
2014	10,450	75.5	84.1	9.6	12,684	94.1	98.0	10.4
2015	10,436	74.4	81.2	9.2	13,046	95.4	97.6	10.4
2016	10,680	76.2	83.5	9.5	13,430	98.2	100.5	10.7
2017	16,121	110.2	117.7	13.1	18,464	130.1	129.0	13.5
2018	15,627	105.6	111.0	12.2	18,313	127.5	124.6	13.0
2019	15,647	104.7	108.0	11.9	18,631	128.3	123.4	12.9
2020	15,729	104.2	104.9	11.7	18,603	126.9	119.1	12.6
2021	14,568	95.7	94.0	10.5	17,120	115.7	106.7	11.4

INCIDENCE SUMMARY BY ETHNIC GROUPS AND GENDER, 2012-2021								
2012-2016	Number	CR	ASR	CumR	Number	CR	ASR	CumR
MALAY	21,841	57.4	73.6	8.4	29,689	79.4	90.9	9.5
CHINESE	21,385	127.6	106.1	11.9	22,440	142.1	117.3	12.5
INDIAN	2,842	58.1	66.7	7.6	5,196	106.7	106.9	11.7
2017-2021								
MALAY	32,010	75.7	84.4	9.4	42,763	103.7	105.9	11.1
CHINESE	31,801	181.7	147.9	16.3	30,301	180.9	141.7	15.0
INDIAN	4,895	97.4	98.2	11.1	7,749	156.6	139.7	15.1

INCIDENCE (ASR PER 100,000) BY GENDER, SITE AND YEAR, 2007-2021							
SITE	MALE			FEMALE			ICD-10 CODE
	2007-2011	2012-2016	2017-2021	2007-2011	2012-2016	2017-2021	
BREAST	0.3	0.5	0.3	31.1	34.1	38.9	C50
COLORECTAL	14.6	14.8	18.8	11.1	11.1	13.7	C18-C21
LUNG, BRONCHUS & TRACHEA	14.4	13.2	16.0	6.0	5.9	7.4	C33-C34
PROSTATE	6.6	7.7	9.3	-	-	-	C61
LIVER	5.6	4.9	8.4	2.0	1.8	2.9	C22
LYMPHOMA	5.5	5.3	6.9	3.8	3.8	4.9	C81-C85,C96
NASOPHARYNX	6.4	5.2	5.1	2.2	1.9	1.7	C11
CORPUS UTERI	-	-	-	3.8	4.6	6.7	C54
OVARY	-	-	-	5.9	5.6	6.2	C56
CERVIX UTERI	-	-	-	7.6	6.2	6.0	C53
LEUKEMIA	4.2	3.8	4.9	3.4	3.0	3.9	C91-C95
STOMACH	3.9	3.1	3.4	2.6	1.9	2.1	C73
PANCREAS	2.0	2.0	3.0	1.5	1.5	2.2	C25
THYROID	1.0	1.2	1.4	2.9	3.2	4.2	C73

CR: CRUDE INCIDENCE RATE (PER 100,000); CUMR: CUMULATIVE RISK (RISK ACCUMULATED OVER AGE PERIOD OF 0 - 74 YEARS).



MINISTRY OF HEALTH
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