

HOSPITAL :

NON HOSPITAL :

# Wattanosoth Cancer Registry 2014

## Table of CONTENTS

Message from CEO.....	1
Message from Director.....	2
Cancer Registry 2014 : Abstract.....	3
Annual Cancer Registry 2014.....	4
<i>The Top 10 Leading Site of Cancer, Distribution of All Cancer by Age and Gender, Method of Diagnosis, Staging, Type of Treatment, Patient Follow up, Patient Nationality</i>	
Review of Breast Cancer.....	15
Review of Colorectal Cancer.....	20
Review of Lung Cancer.....	25
Review of Liver & Hepatobiliary Cancer.....	30
Review of Head & Neck Cancer.....	38
Hematologic Malignancies 2014.....	44
Age Distribution in All Male Cancer Number of Case.....	62
Age Distribution in All Female Cancer Number of Case.....	64
Breast Cancer Survival.....	67
Colorectal Cancer Survival.....	69
Lung Cancer Survival.....	72
Cancer Registry Team.....	75



Wattanosoth Hospital has successfully completed and proudly presents the 2014 Cancer Registry Year Book. This book is an ultimate achievement of the team conscientious hard working throughout the year with accumulated clinical informatics of the cancer treatments practiced at Wattanosoth Hospital. The statistical collections in the book include the overview of experiences, clinical practices and the qualified cancer patient analyses. These collections have been made possible because Wattanosoth Hospital is highly specialized in cancer treatments with one of the most case volumes in Thailand, thus given a large datasets available.

This Year Book is undoubtedly a valuable evident-based data mining as well as analyses which will be beneficiary to all practitioners, academies and general public.

We thank you all individuals and corporates who wholeheartedly have made this Year Book complete and become available to all community.



**Krittavith Lertutsahakul, M.D.**  
Chief Executive Officer – Group 1  
Bangkok Hospital Headquarter



The Cancer Registry 2014 of Wattanosoth Hospital has been annually published for 9 years and still counting on.

All the data is intently collecting in order to forecast cancer trend and to make contribution in hospital management. By the data, we can compare to other cancer centers to be more excellent in cancer treatment, to be a leading cancer center in Asia Pacific. Moreover, we also plan to provide special issue analysis by specifying each particular type of cancer aimed for the best treatment plan for our patients.

On behalf of Wattanosoth Hospital management, we are appreciated for the all the efforts and cooperation of the production team to be success on *The Cancer Registry 2014*.

**Thiravud Khuhaprema, M.D., FRCST., FICS.,**  
Visiting Professor  
Hospital Director, Wattanosoth Cancer Hospital  
Bangkok Medical Services Center

The total of new cases diagnosed as a malignancy at Bangkok Hospital Headquarter (BHQ) is 2055 cases (Tumor registry is 1919 cases and Hematologic malignancies is 136 cases). There was a little bit increase in the total number as compared to 2042 cases in 2013.

The sex ratio is 1:1. This age distribution has not changed since the year 2013. Patients who are between 50-69 y/o are the majority accounting for more than half of the total. The average age in male patients is 65-69 y/o which is slightly older than the female age of 55-59 and 60-64 y/o.

Top 5 malignancies are:

- |   |   |
|---|---|
| 1) Breast (included DCIS) - 23.45 percent | 2) Colorectal - 10.66 percent             |
| 3) Lung - 9.88 percent                    | 4) Liver and Hepatobiliary - 7.45 percent |
| 5) Head and Neck - 6.76 percent           |   |

The trend for the top 5 malignancies has not changed over the past 8 years (2006-2013). For the past 8 years the top 5 have been: Breast, Colorectal, Lung, Liver and Hepatobiliary and Head and Neck cancer. However, when compared to last year, the overall number of cases in Breast cancer increased significantly by 8.5 percent, Colorectal cancer increased by 5.3 percent, Lung cancer decreased by 8.1 percent, Liver and Hepatobiliary increased by 11.7 percent and Head and Neck cancer increased by 14.9 percent.

The results of overall staging of patients who received treatment at Bangkok Hospital Headquarter (BHQ) are: Stage 0 is 2.73 percent, Stage I is 22.95 percent, Stage II is 23.14 percent, Stage III is 19.73 percent, and Stage IV is 23.83 percent. Unspecified stage (due to lack of pertinent information) is 6.15 percent. And in cases of Brain cancer has no stage grouping applies in AJCC Staging manual is 1.46 percent. All results are similar to 2013 staging results.

Analysis of the primary treatments modalities indicates that surgery continues to be the majority (22 percent), followed by Radiation therapy (16 percent), Chemotherapy (5 percent) and Concurrent chemo-radiation (4 percent). Intervention treatment (3 percent) and Brachytherapy at 2 percent.

Patients with a cancer diagnosis decide to receive treatment at Wattanosoth Cancer Hospital at 21 percent (22 percent in 2013), and 9 percent (equal to last year) of cancer patients decide to have primary treatment in other hospitals. Patients who came from other hospitals for a second opinion at BHQ significantly at 36 percent equal to last year, however, those who decided to receive treatment at BHQ equal to the year 2012 is 55 percent.

Patients who are still living after diagnosis or treatment in 2014 is 34 percent, patients alive without disease are 22 percent, and patients who have died with cancer as the cause are 3 percent. At this time no patients receiving treatment have been lost to follow-up.

Ratio of Thai to non-Thai patients is 1:1 in year 2014 equal to the year 2013. The top 5 rankings of non-Thai patients are: Myanmar, Bangladesh, United Arab Emirates, Oman and Ethiopia, respectively.

The Top 5 malignancies of non-Thai patients are:

- |   |   |
|---|---|
| 1) Breast (included DCIS) - 20.37 percent | 2) Colorectal - 11.66 percent             |
| 3) Lung - 9.69 percent                    | 4) Liver and Hepatobiliary - 9.37 percent |
| 5) Head and Neck - 8.50 percent           |   |

It is the fourth time BHQ can follow the patients for 5 years and report the 5-years survival. We have shown and discussed the data of those survivors of top 3 cancers which are breast, colorectal and lung in separated chapters.

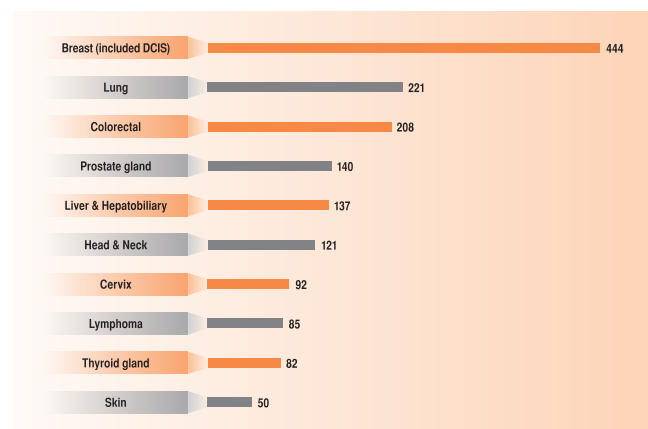
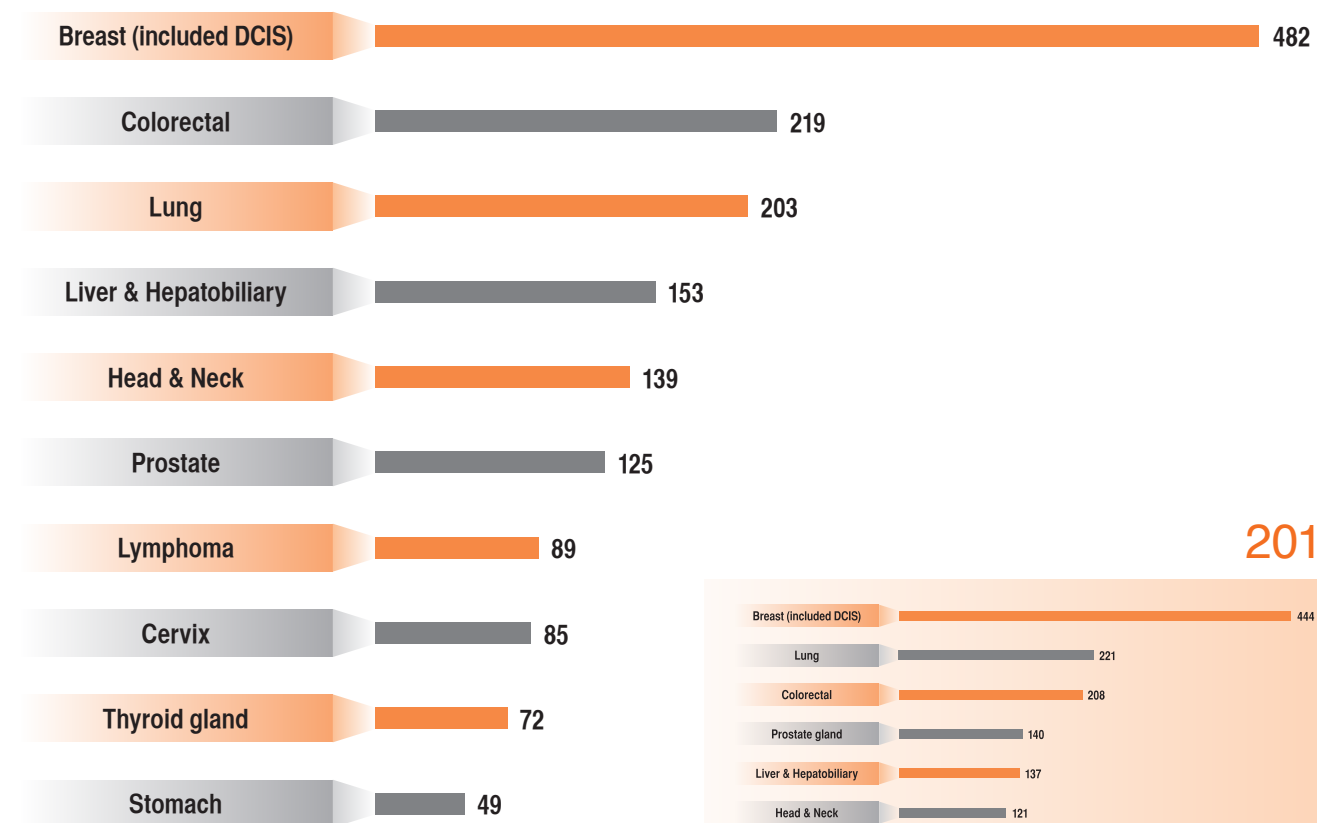


# WATTANOSOTH ANNUAL CANCER REGISTRY 2014

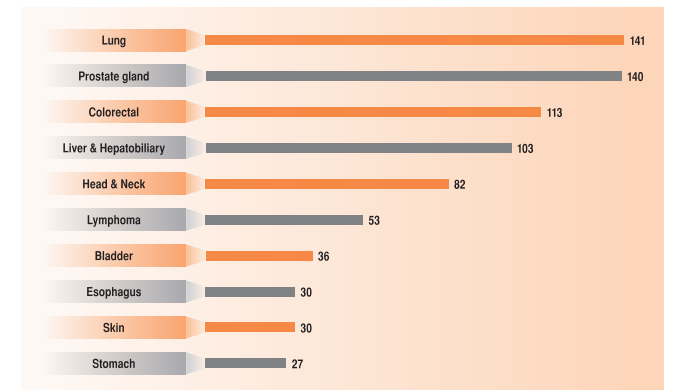
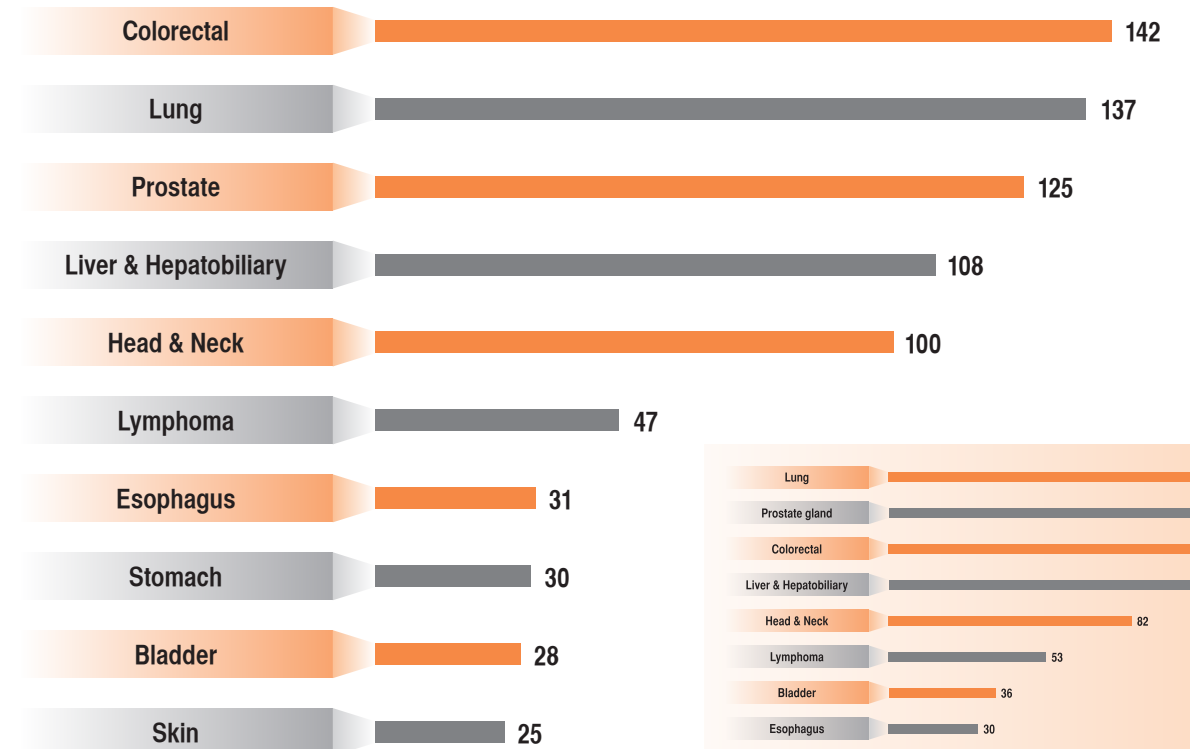
## THE TOP 10 LEADING SITE OF CANCER IN BANGKOK HOSPITAL HEADQUARTER

Code	Primary site	Male		Female		Total	
		Number	Percent	Number	Percent	Number	Percent
C50	Breast (included DCIS)	3	0.31	479	44.19	482	23.45
C18-C20	Colorectal	142	14.62	77	7.10	219	10.66
C33-C34	Lung	137	14.11	66	6.09	203	9.88
C22-C24	Liver & Hepatobiliary	108	11.12	45	4.15	153	7.45
C00-C14	Head & Neck	100	10.30	39	3.60	139	6.76
C61	Prostate	125	12.87	0	0.00	125	6.08
C81-C85	Lymphoma	47	4.84	42	3.87	89	4.33
C53	Cervix	0	0.00	85	7.84	85	4.14
C73	Thyroid gland	24	2.47	48	4.43	72	3.50
C16	Stomach	30	3.09	19	1.75	49	2.38

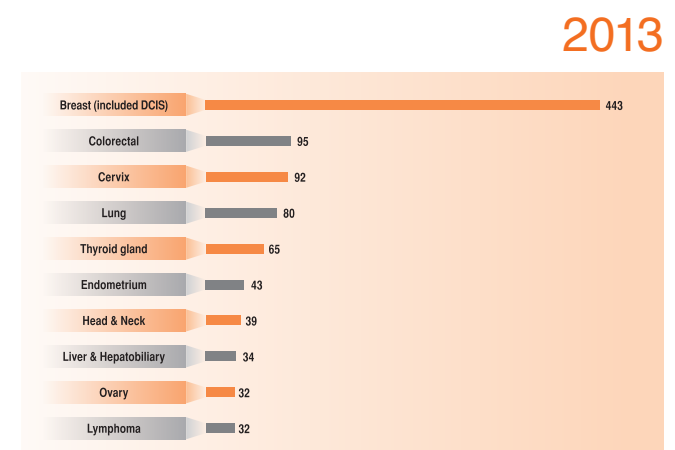
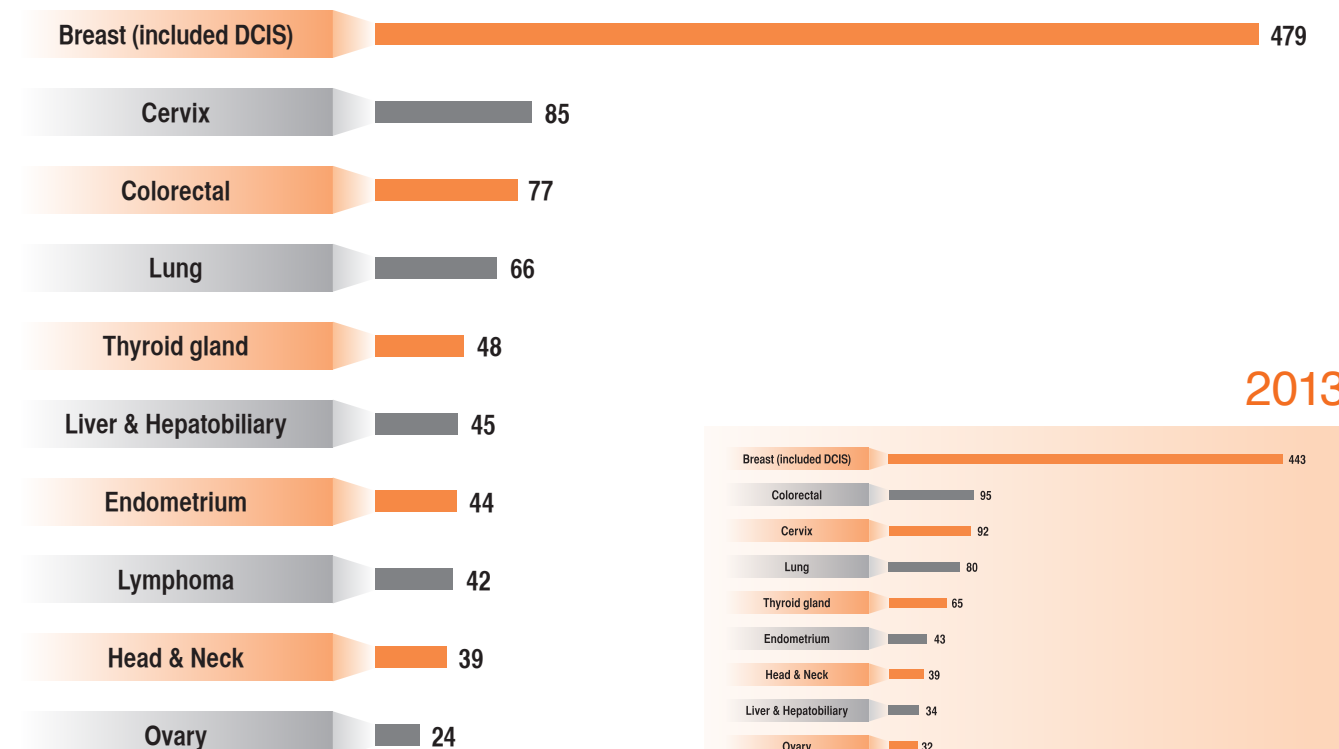
### TOP 10 CANCER FOR ALL GENDER



### TOP 10 CANCER IN MALE



### TOP 10 CANCER IN FEMALE

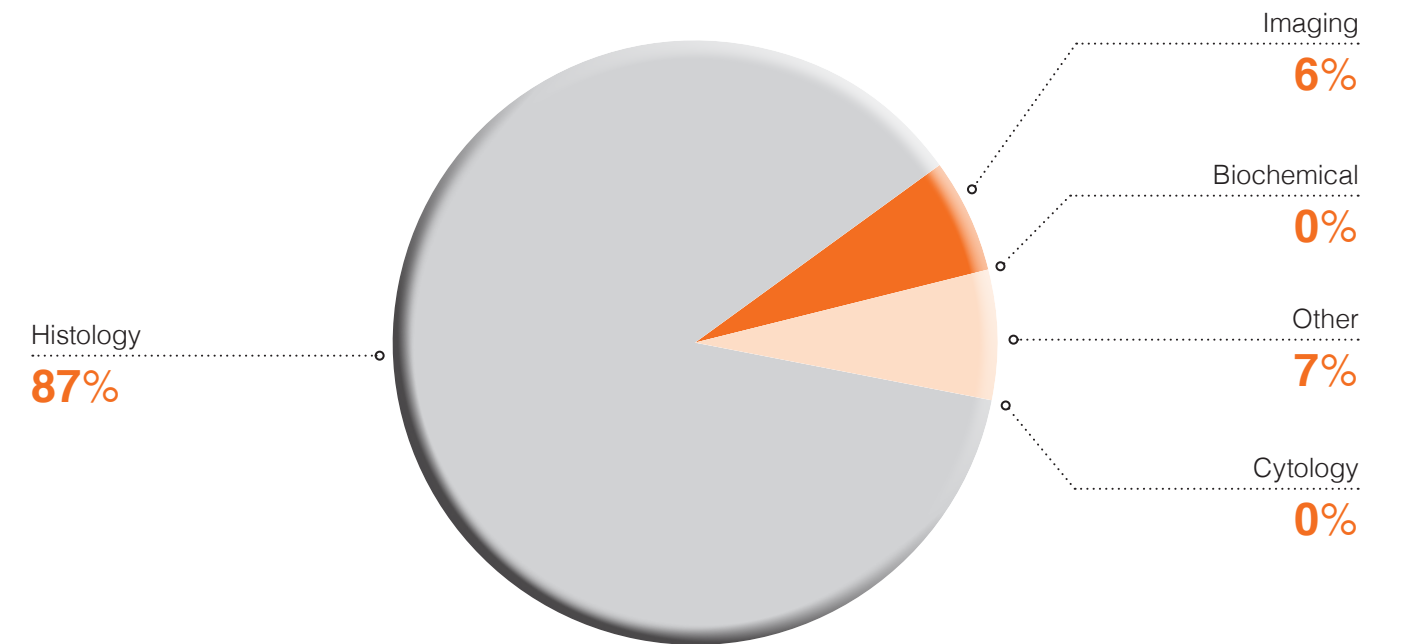


OVERALL CANCER

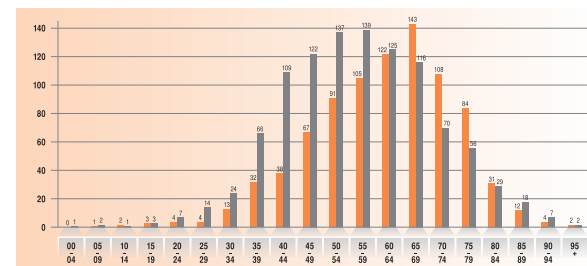
# DISTRIBUTION OF ALL CANCER BY AGE AND GENDER (EXCLUDED HEMATOLOGIC MALIGNANCIES)

# METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

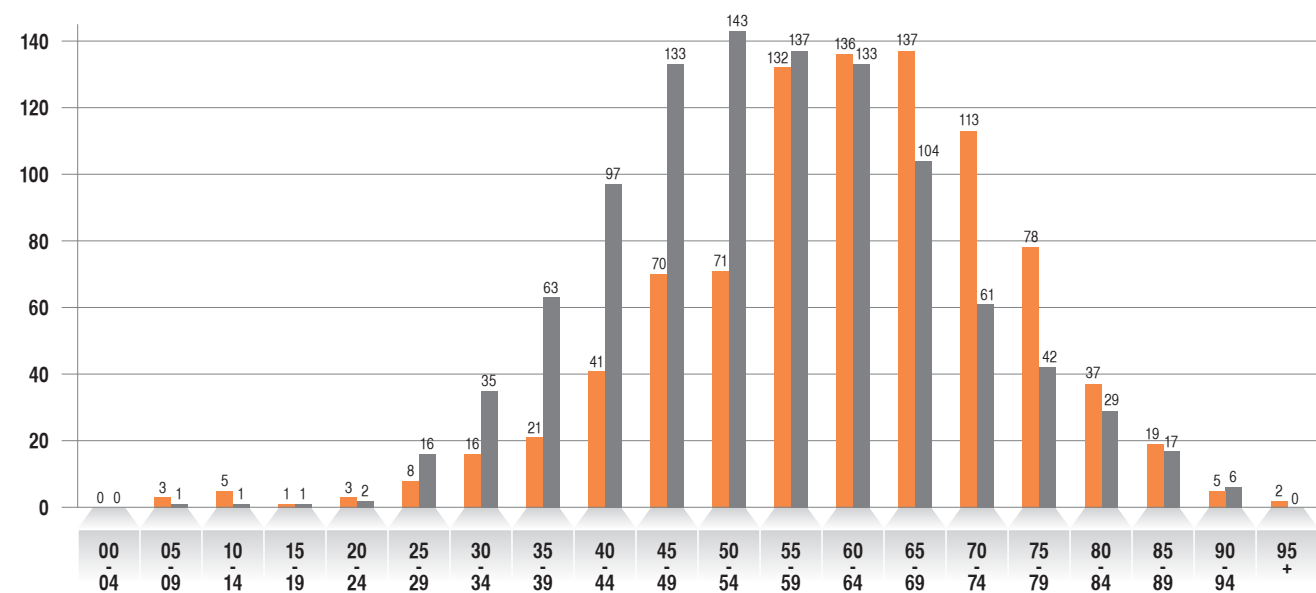
Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	3	0.33	1	0.10	4	0.21
10 - 14	5	0.56	1	0.10	6	0.31
15 - 19	1	0.11	1	0.10	2	0.10
20 - 24	3	0.33	2	0.20	5	0.26
25 - 29	8	0.89	16	1.57	24	1.25
30 - 34	16	1.78	35	3.43	51	2.66
35 - 39	21	2.34	63	6.17	84	4.38
40 - 44	41	4.57	97	9.50	138	7.19
45 - 49	70	7.80	133	13.03	203	10.58
50 - 54	71	7.91	143	14.01	214	11.15
55 - 59	132	14.70	137	13.42	269	14.02
60 - 64	136	15.14	133	13.03	269	14.02
65 - 69	137	15.26	104	10.19	241	12.56
70 - 74	113	12.58	61	5.97	174	9.07
75 - 79	78	8.69	42	4.11	120	6.25
80 - 84	37	4.12	29	2.84	66	3.44
85 - 89	19	2.12	17	1.67	36	1.88
90 - 94	5	0.56	6	0.59	11	0.57
95 +	2	0.22	0	0.00	2	0.10
<b>Total</b>	<b>898</b>	<b>100.00</b>	<b>1,021</b>	<b>100.00</b>	<b>1,919</b>	<b>100.00</b>



2013



Male Female



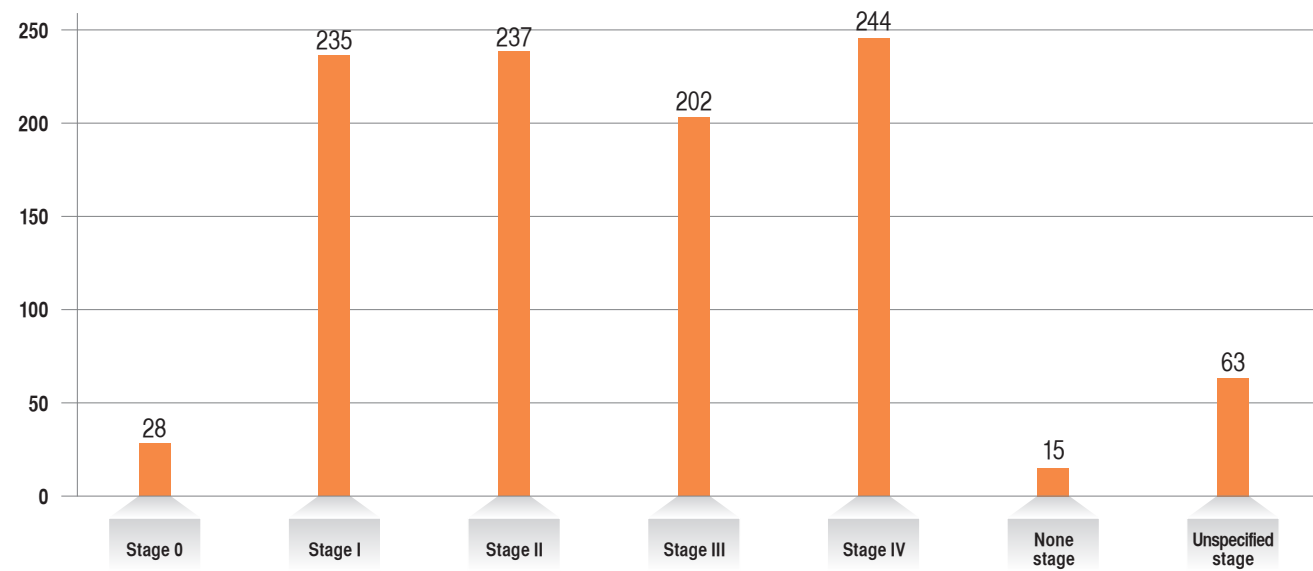
Other = Previously diagnosed as Cancer from other Hospital but no documentation of diagnosis

OVERALL CANCER

# STAGING (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

# TYPE OF TREATMENT

## All Gender

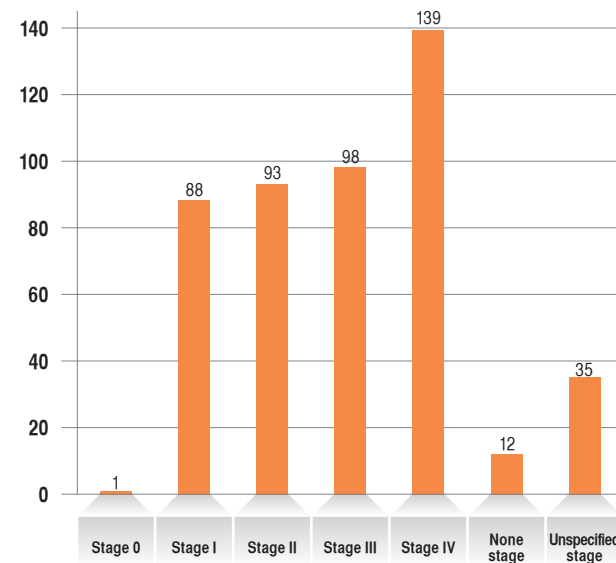


Stage 0 = Carcinoma in situ

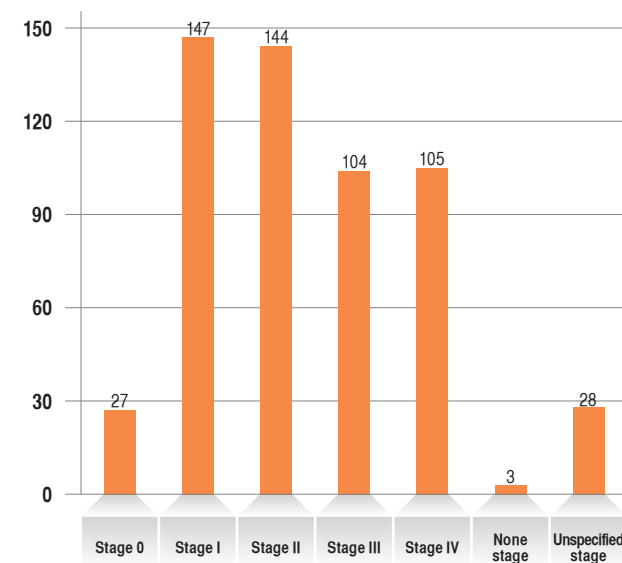
Non stage = In case of CA Brain

Unspecified stage = Incomplete staging due to insufficient patient information

## Male



## Female



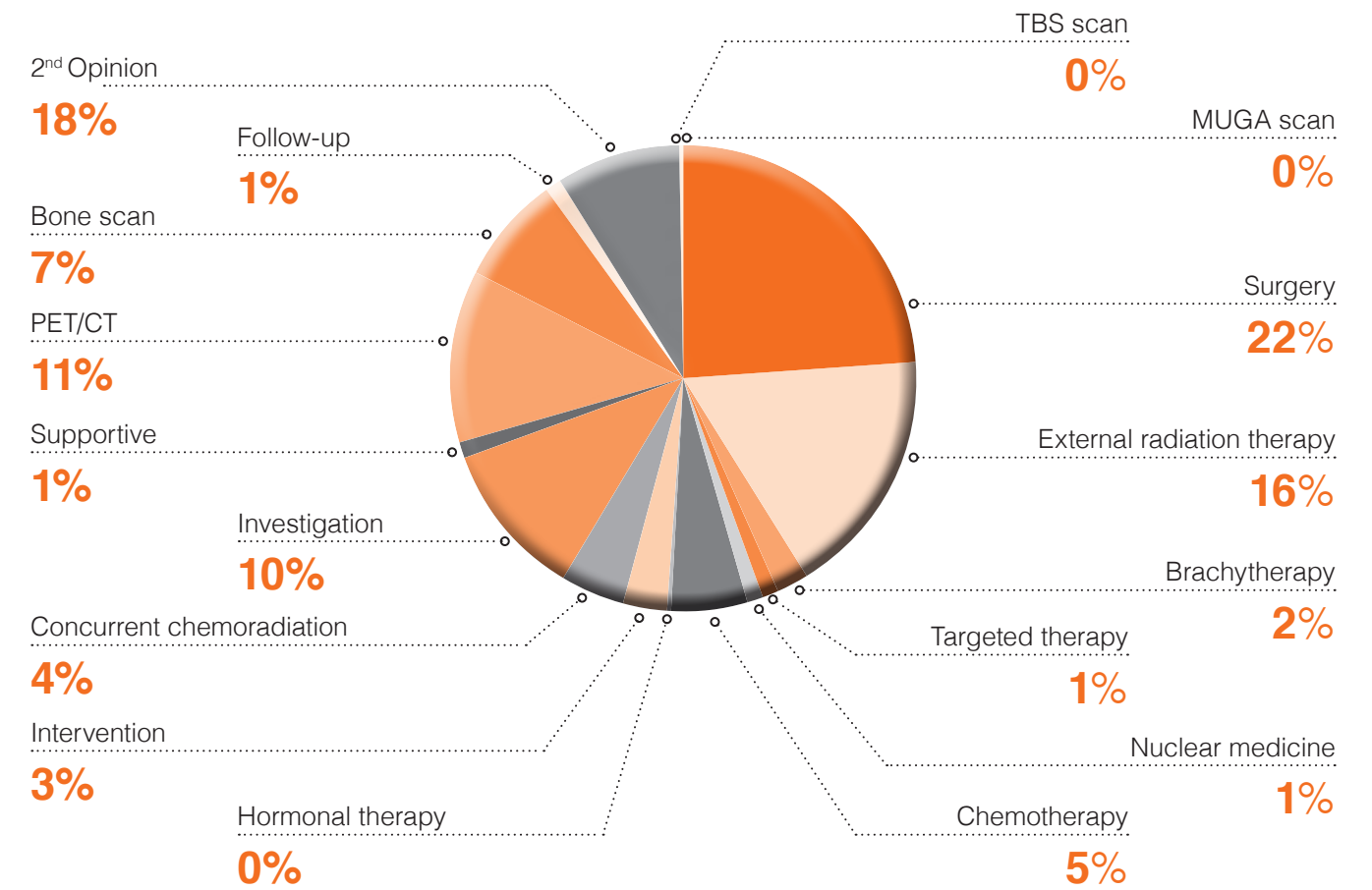
Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.only	104	11.58	109	10.68	213	11.10
RT only	126	14.03	127	12.44	253	13.18
Brachytherapy	1	0.11	34	3.33	35	1.82
CT only	30	3.34	29	2.84	59	3.07
Targeted therapy	5	0.56	4	0.39	9	0.47
Hormonal therapy	2	0.22	2	0.20	4	0.21
Intervention	39	4.34	20	1.96	59	3.07
Nuclear medicine	7	0.78	13	1.27	20	1.04
Concurrent chemoradiation	41	4.57	8	0.78	49	2.55
SUR.+RT	25	2.78	8	0.78	33	1.72
SUR.+CT	20	2.23	33	3.23	53	2.76
SUR.+Im	5	0.56	0	0.00	5	0.26
SUR.+H	2	0.22	26	2.55	28	1.46
SUR.+I	3	0.33	1	0.10	4	0.21
SUR.+N	8	0.89	10	0.98	18	0.94
SUR.+Concurrent CT-RT	6	0.67	7	0.69	13	0.68
SUR.+Concurrent CT-RT+Brachytherapy	0	0.00	1	0.10	1	0.05
SUR.+RT+Brachytherapy	0	0.00	2	0.20	2	0.10
RT+Brachytherapy	0	0.00	17	1.67	17	0.89
RT+Concurrent CT-RT	1	0.11	1	0.10	2	0.10
CT+Concurrent CT-RT	6	0.67	2	0.20	8	0.42
RT+T	5	0.56	0	0.00	5	0.26
RT+CT	10	1.11	9	0.88	19	0.99
RT+CT+H	0	0.00	10	0.98	10	0.52
RT+CT+T	0	0.00	4	0.39	4	0.21
RT+H	7	0.78	2	0.20	9	0.47
RT+I	0	0.00	1	0.10	1	0.05
CT+T	1	0.11	2	0.20	3	0.16
CT+H	0	0.00	3	0.29	3	0.16
I+T	2	0.22	1	0.10	3	0.16
Concurrent CT-RT+Brachytherapy	0	0.00	7	0.69	7	0.36
SUR.+RT+CT	6	0.67	14	1.37	20	1.04
SUR.+RT+H	0	0.00	15	1.47	15	0.78
SUR.+CT+I	1	0.11	1	0.10	2	0.10

OVERALL CANCER

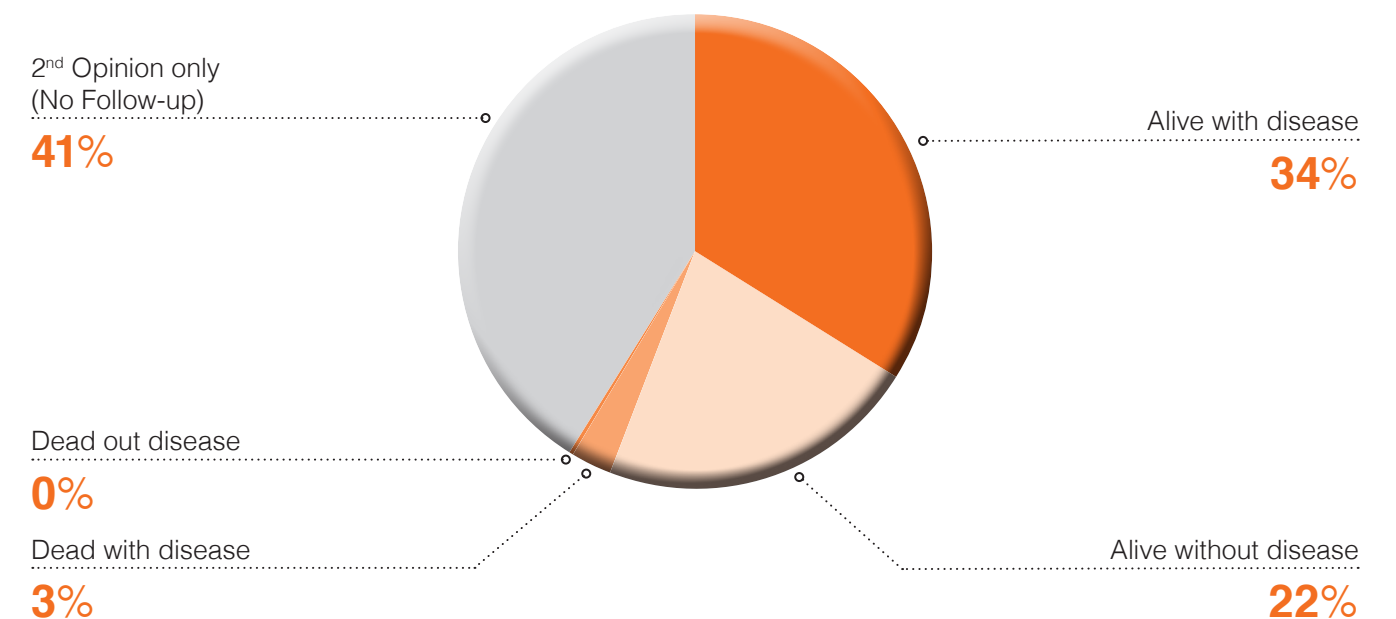
## TYPE OF PRIMARY MANAGEMENT (ALL PATIENT)

Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.+CT+T	1	0.11	4	0.39	5	0.26
SUR.+CT+H	0	0.00	2	0.20	2	0.10
SUR.+RT+CT+T	0	0.00	2	0.20	2	0.10
SUR.+RT+CT+H	0	0.00	19	1.86	19	0.99
RT+N	0	0.00	1	0.10	1	0.05
RT+Brachytherapy+CT	0	0.00	1	0.10	1	0.05
SUR.+RT+N	0	0.00	1	0.10	1	0.05
SUR.+RT+Brachytherapy+H	0	0.00	1	0.10	1	0.05
SUR.+CT+Concurrent CT-RT	2	0.22	1	0.10	3	0.16
SUR.+H+Concurrent CT-RT	0	0.00	1	0.10	1	0.05
SUR.+CT+T+H	0	0.00	2	0.20	2	0.10
Investigation	94	10.47	89	8.72	183	9.54
Supportive	11	1.22	6	0.59	17	0.89
PET/CT	110	12.25	94	9.21	204	10.63
Bone scan	52	5.79	79	7.74	131	6.83
Follow-up	6	0.67	11	1.08	17	0.89
2 <sup>nd</sup> Opinion	158	17.59	180	17.63	338	17.61
TBS scan	1	0.11	3	0.29	4	0.21
MUGA scan	0	0.00	1	0.10	1	0.05
<b>Total</b>	<b>898</b>	<b>100.00</b>	<b>1,021</b>	<b>100.00</b>	<b>1,919</b>	<b>100.00</b>

SUR. = Surgery  
 RT = External radiation therapy  
 CT = Chemotherapy  
 H (Hormone) = Hormonal therapy  
 T = Targeted therapy  
 I = Intervention  
 Im = Immunotherapy  
 N = Nuclear medicine

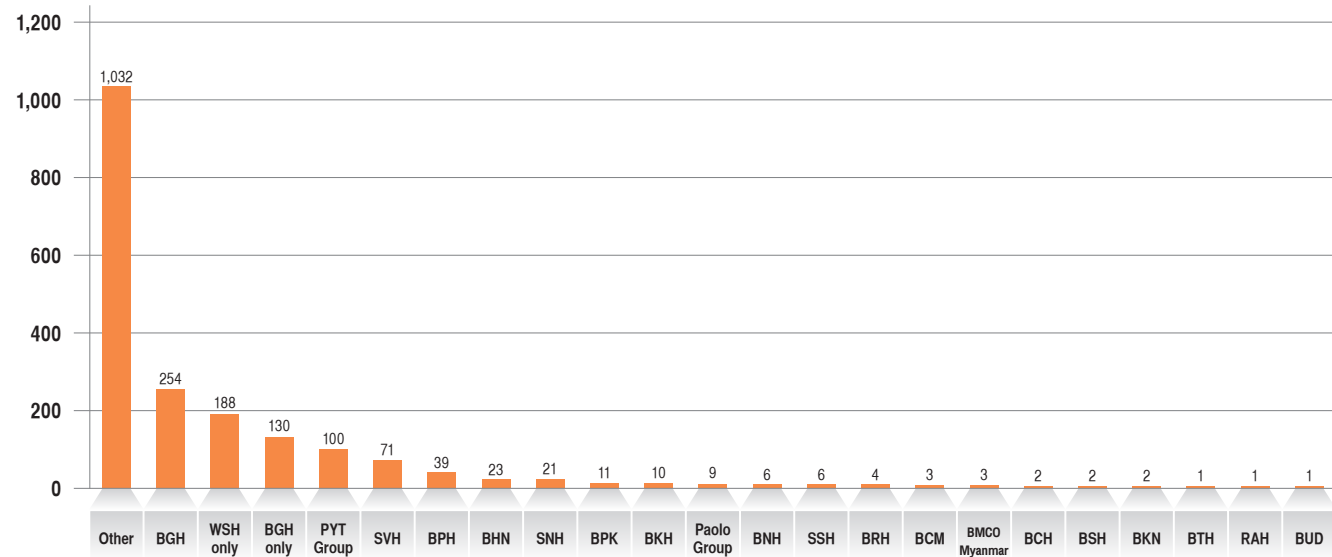


## PATIENT FOLLOW UP



2<sup>nd</sup> Opinion only = Intend not to continue diagnosis or treatment at BMC

## REFERING HOSPITAL



BGH = Consult from Bangkok general hospital

BGH only = Not consult from Bangkok general hospital

SVH = SAMITIVEJ SUKHUMVIT HOSPITAL

BHN = BANGKOK HUAHIN HOSPITAL

BPK = BANGKOK PHUKET HOSPITAL

Paolo Group = Paolo memorial hospital Group

SSH = SAMITIVEJ SRIRACHA HOSPITAL

BCM = BANGKOK CHIANG HOSPITAL

BSH = BANGKOK SAMUI HOSPITAL

BTH = BANGKOK TRAD HOSPITAL

BUD = BANGKOK UDON HOSPITAL

WSH only = WATTANOSOTH HOSPITAL

PYT Group = Payathai hospital Group

BPH = BANGKOK PATTAYA HOSPITAL

SNH = SAMITIVEJ SRINAKARIN HOSPITAL

BKH = BANGKOK RATCHASIMA HOSPITAL

BNH = BNH HOSPITAL

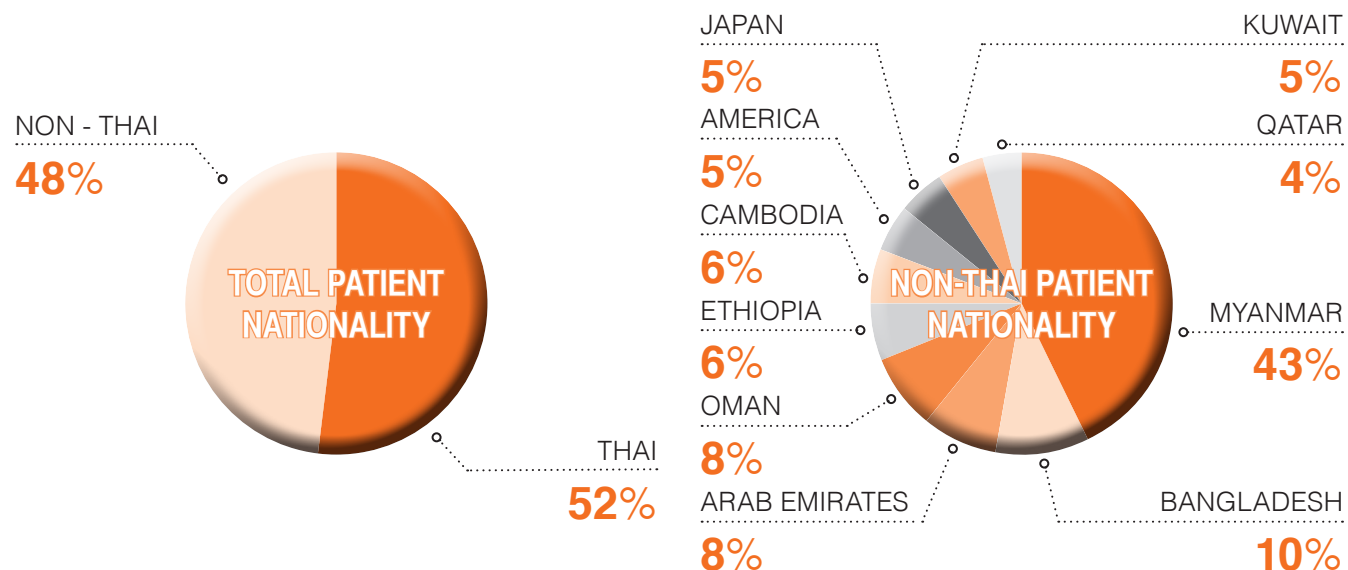
BRH = BANGKOK RAYONG HOSPITAL

BCH = BANGKOK CHANTHABURI HOSPITAL

BKN = BANGKOK KHON KHAN HOSPITAL

RAH = ROYAL AUNGOR HOSPITAL

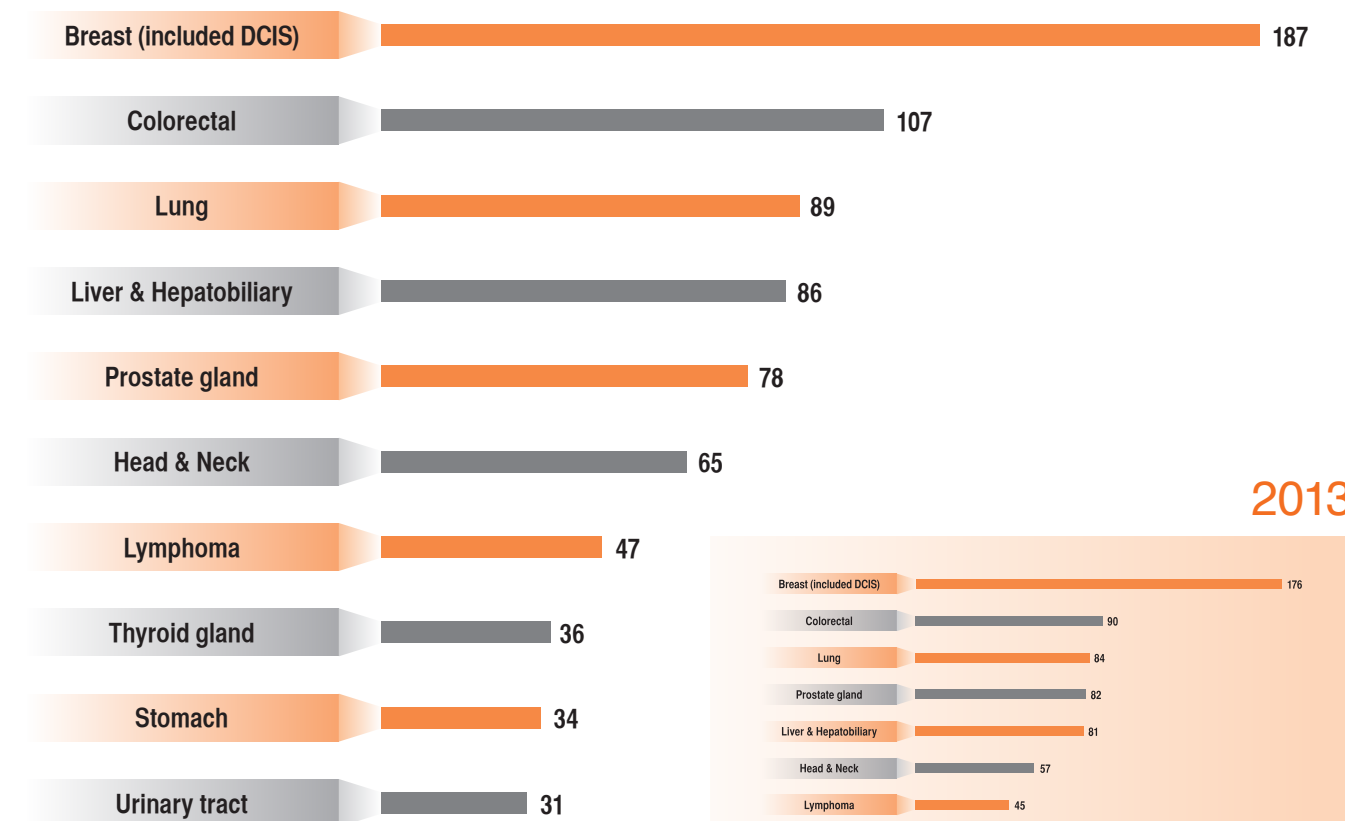
## PATIENT NATIONALITY



## THE TOP 10 LEADING SITE OF NON-THAI PATIENT CANCER IN BMC

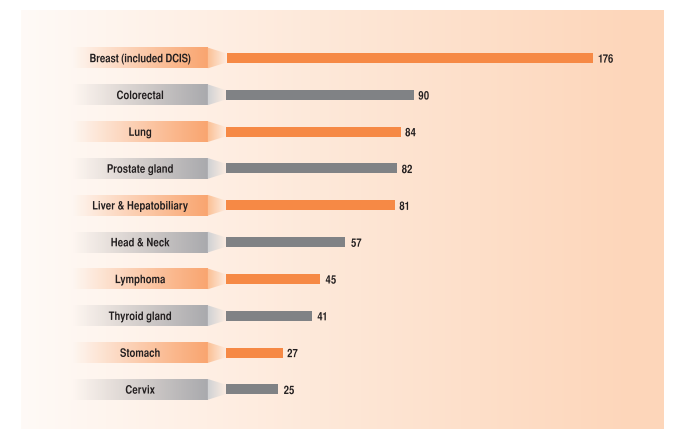
Code	Primary site	Male		Female		Total	
		Number	Percent	Number	Percent	Number	Percent
C50/D05	Breast (included DCIS)	2	0.40	185	44.58	187	20.37
C18-C20	Colorectal	67	13.32	40	9.64	107	11.66
C33-C34	Lung	70	13.92	19	4.58	89	9.69
C22-C24	Liver & Hepatobiliary	65	12.92	21	5.06	86	9.37
C61	Prostate gland	78	15.51	0	0.00	78	8.50
C00-C14	Head & Neck	46	9.15	19	4.58	65	7.08
C81-C85	Lymphoma	29	5.77	18	4.34	47	5.12
C73	Thyroid gland	11	2.19	25	6.02	36	3.92
C16	Stomach	23	4.57	11	2.65	34	3.70
C64-C65	Urinary tract	20	3.98	11	2.65	31	3.38

## TOP 10 CANCER OF NON-THAI PATIENT ALL GENDER



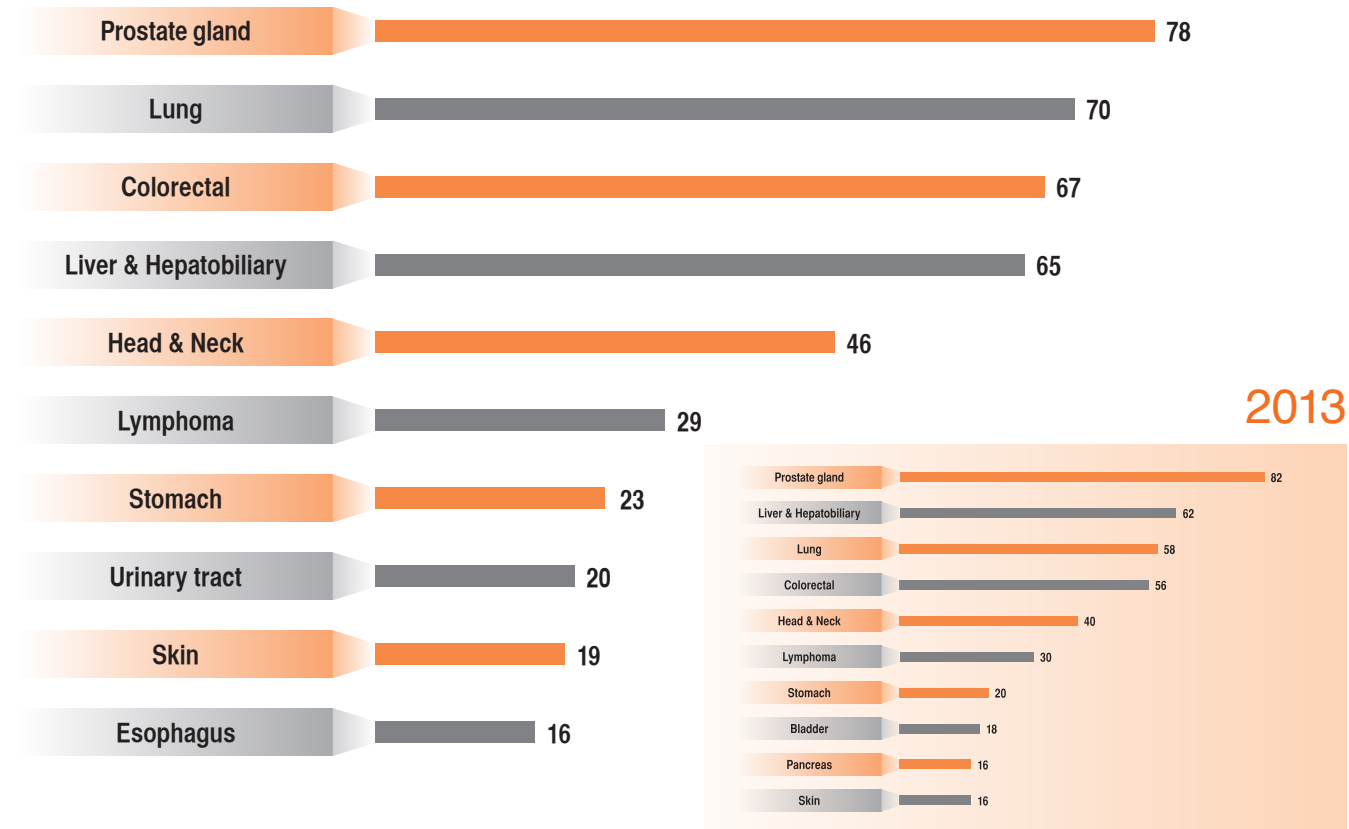
OVERALL CANCER

2013

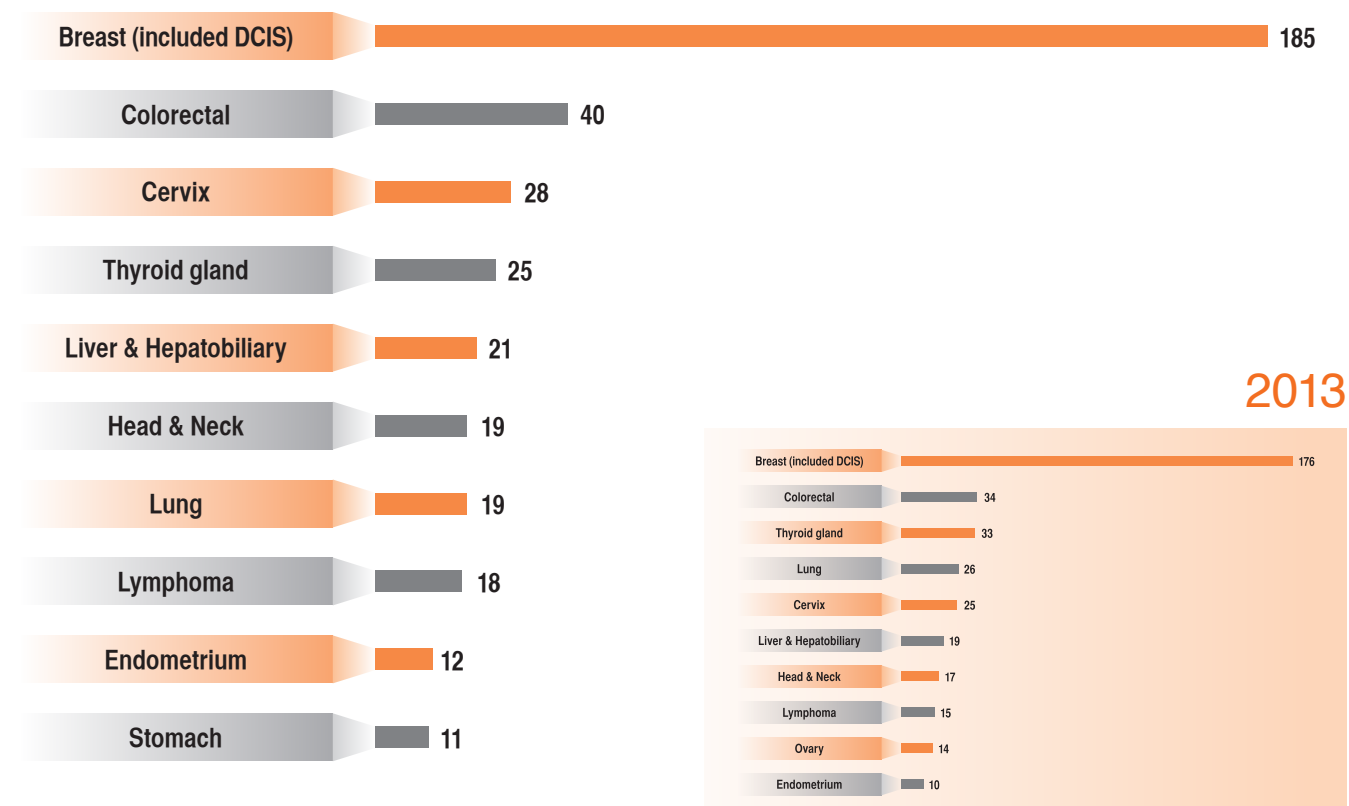




## TOP 10 CANCER OF NON-THAI PATIENT IN MALE



## TOP 10 CANCER OF NON-THAI PATIENT IN FEMALE



## BREAST CANCER : PATHOLOGY

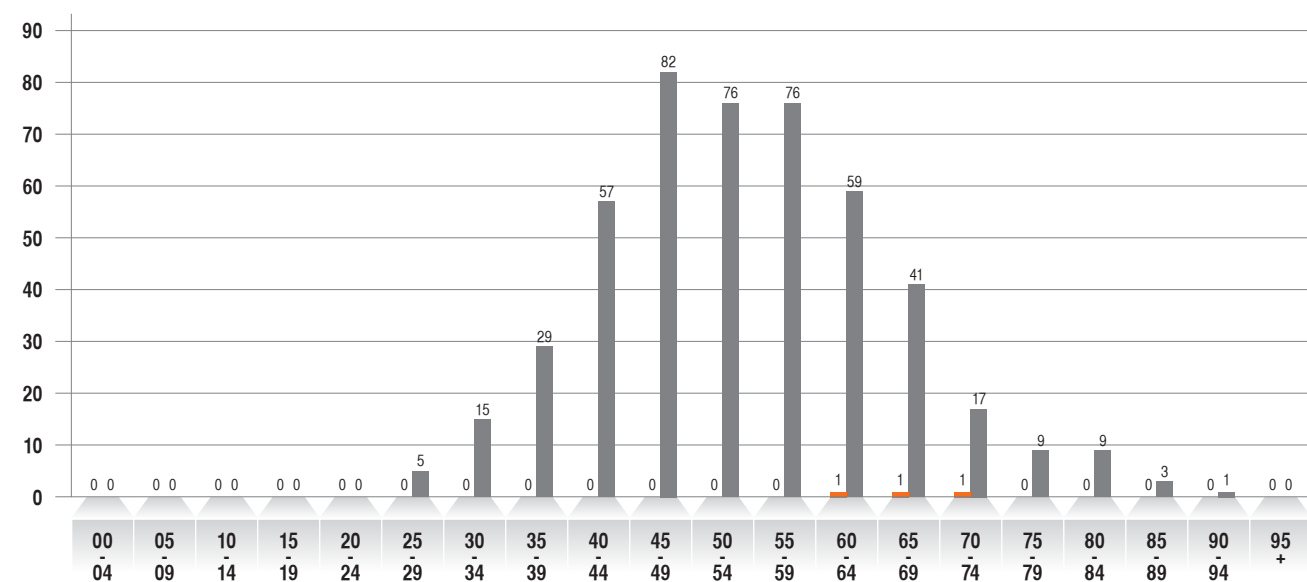
Tumor site	Number	
C50.0	Nipple	8
C50.1	Central portion of breast	3
C50.2	Upper-inner quadrant of breast	25
C50.3	Lower-inner quadrant of breast	17
C50.4	Upper-outer quadrant of breast	142
C50.5	Lower-outer quadrant of breast	27
C50.8	Overlapping lesion of breast	5
C50.9	Breast, NOS	255
<b>Total</b>		<b>482</b>

Pathology Report	Number	
M8000/3	Malignant neoplasm	126
M8010/3	Carcinoma, NOS	1
M8050/2	Papillary carcinoma in situ	1
M8050/3	Papillary carcinoma, NOS	1
M8140/3	Adenocarcinoma, NOS	1
M8211/3	Tubular carcinoma, NOS	1
M8480/2	Mucinous carcinoma in situ	1
M8480/3	Mucinous carcinoma	3
M8500/2	Ductal carcinoma in situ	38
M8500/3	Invasive ductal carcinoma	283
M8501/2	Ductal carcinoma in situ, comedo type	1
M8510/3	Medullary carcinoma, NOS	1
M8520/2	Lobular carcinoma in situ	1
M8520/3	Lobular carcinoma	16
M8523/3	Invasive duct mixed with other type of carcinoma	4
M8540/3	Paget disease, mammary	1
M8575/3	Metaplastic carcinoma, NOS	1
M9020/3	Malignant phyllodes tumor	1
<b>Total</b>		<b>482</b>

## AGE AND GENDER

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	0	0.00	0	0.00	0	0.00
10 - 14	0	0.00	0	0.00	0	0.00
15 - 19	0	0.00	0	0.00	0	0.00
20 - 24	0	0.00	0	0.00	0	0.00
25 - 29	0	0.00	5	1.04	5	1.04
30 - 34	0	0.00	15	3.13	15	3.11
35 - 39	0	0.00	29	6.05	29	6.02
40 - 44	0	0.00	57	11.90	57	11.83
45 - 49	0	0.00	82	17.12	82	17.01
50 - 54	0	0.00	76	15.87	76	15.77
55 - 59	0	0.00	76	15.87	76	15.77
60 - 64	1	33.33	59	12.32	60	12.45
65 - 69	1	33.33	41	8.56	42	8.71
70 - 74	1	33.33	17	3.55	18	3.73
75 - 79	0	0.00	9	1.88	9	1.87
80 - 84	0	0.00	9	1.88	9	1.87
85 - 89	0	0.00	3	0.63	3	0.62
90 - 94	0	0.00	1	0.21	1	0.21
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>3</b>	<b>100.00</b>	<b>479</b>	<b>100.00</b>	<b>482</b>	<b>100.00</b>

■ Male ■ Female

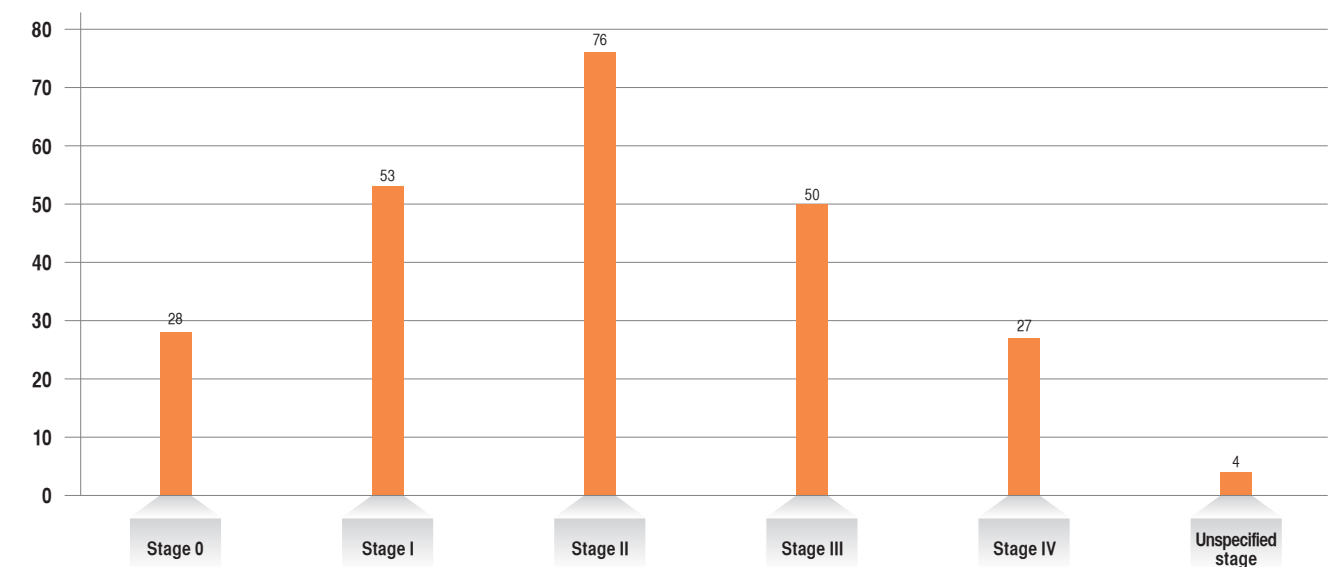


## METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Biochemical	0	0.00	0	0.00	0	0.00
Other	0	0.00	18	7.63	18	7.56
Cytology	0	0.00	0	0.00	0	0.00
Histology	2	100.00	218	92.37	220	92.44
Imaging	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>2</b>	<b>100.00</b>	<b>236</b>	<b>100.00</b>	<b>238</b>	<b>100.00</b>

Other = Previously diagnosed as Breast cancer from other Hospital but no documentation of diagnosis

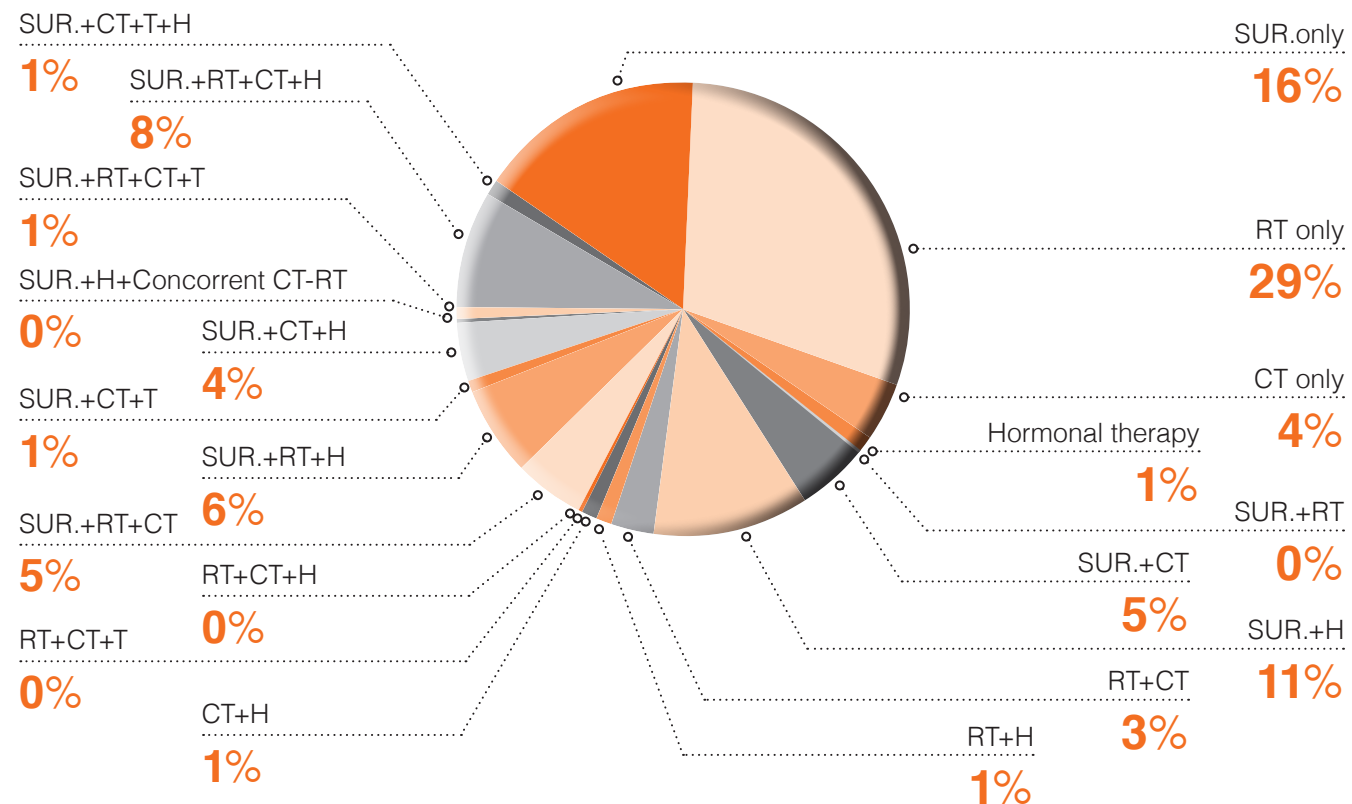
## STAGING (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



Unspecified stage = Incomplete staging due to insufficient patient information

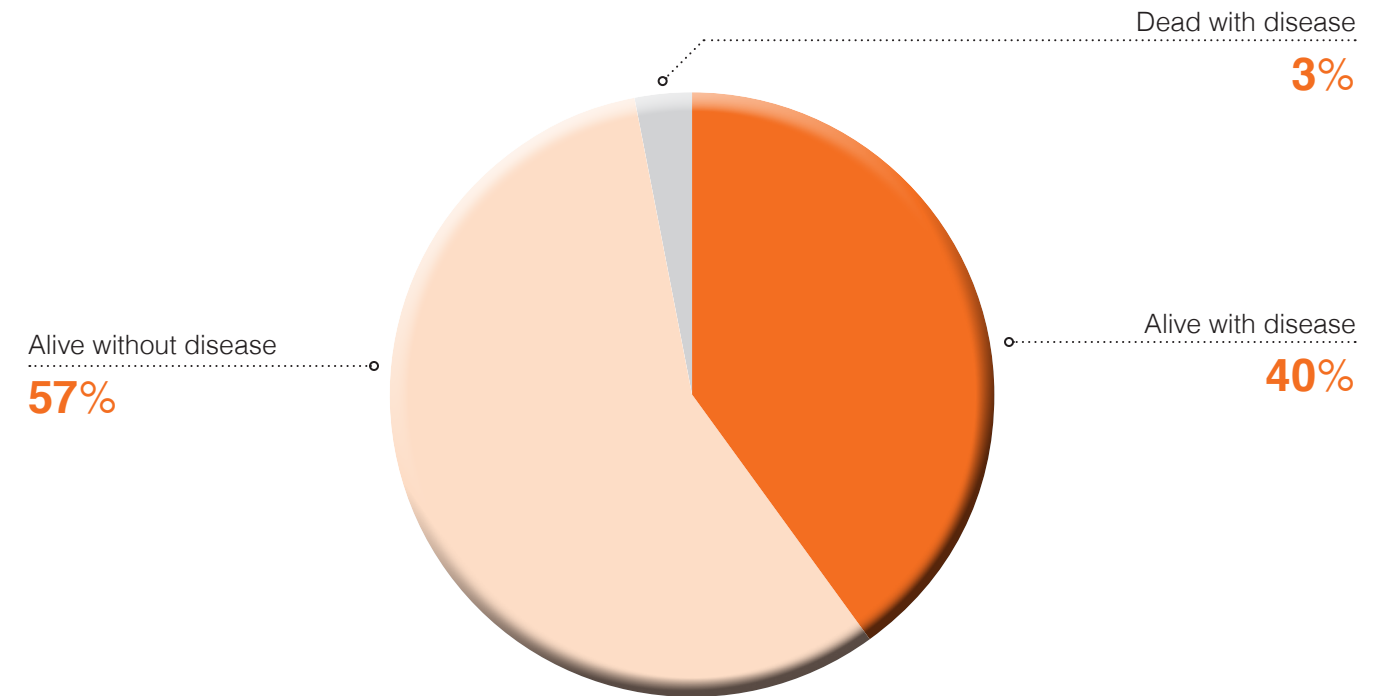
## TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.only	0	0.00	39	16.53	39	16.39
RT only	0	0.00	70	29.66	70	29.41
CT only	0	0.00	10	4.24	10	4.20
Hormonal therapy	0	0.00	2	0.85	2	0.84
SUR.+RT	0	0.00	1	0.42	1	0.42
SUR.+CT	0	0.00	11	4.66	11	4.62
SUR.+H	1	50.00	26	11.02	27	11.34
RT+CT	0	0.00	6	2.54	6	2.52
RT+H	1	50.00	2	0.85	3	1.26
CT+H	0	0.00	3	1.27	3	1.26
RT+CT+T	0	0.00	1	0.42	1	0.42
RT+CT+H	0	0.00	1	0.42	1	0.42
SUR.+RT+CT	0	0.00	12	5.08	12	5.04
SUR.+RT+H	0	0.00	15	6.36	15	6.30
SUR.+CT+T	0	0.00	3	1.27	3	1.26
SUR.+CT+H	0	0.00	10	4.24	10	4.20
SUR.+H+Concurrent CT-RT	0	0.00	1	0.42	1	0.42
SUR.+RT+CT+T	0	0.00	2	0.85	2	0.84
SUR.+RT+CT+H	0	0.00	19	8.05	19	7.98
SUR.+CT+T+H	0	0.00	2	0.85	2	0.84
<b>Total</b>	<b>2</b>	<b>100.00</b>	<b>236</b>	<b>100.00</b>	<b>238</b>	<b>100.00</b>



SUR. = Surgery, RT = External radiation therapy  
 CT = Chemotherapy, H (Hormone) = Hormonal therapy  
 T = Targeted therapy

## FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



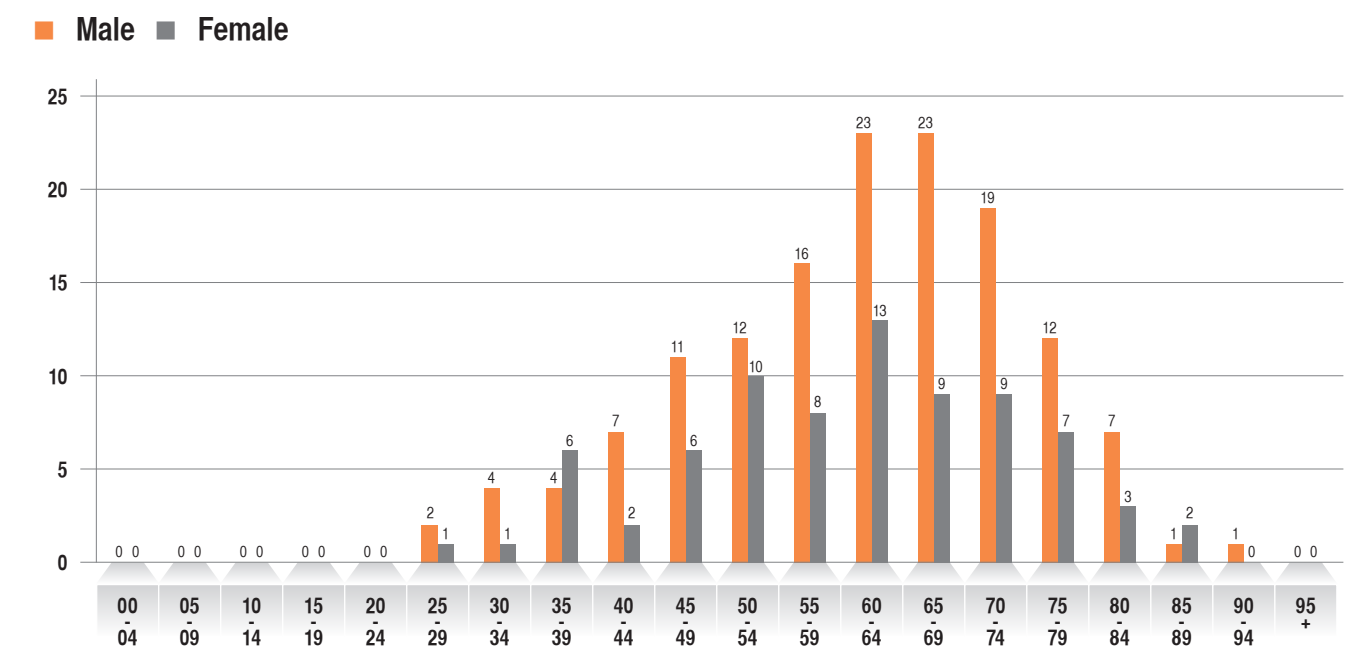
# COLORECTAL CANCER : PATHOLOGY

# AGE AND GENDER

Tumor site		Number
C18.0	Cecum colon	8
C18.1	Appendix	1
C18.2	Ascending colon	11
C18.3	Hepatic flexure of colon	5
C18.4	Transverse colon	5
C18.5	Splenic flexure of colon	3
C18.6	Descending colon	3
C18.7	Sigmoid colon	53
C18.9	Colon, NOS	43
C19.9	Rectosigmoid colon	15
C20.9	Rectum	72
<b>Total</b>		<b>219</b>

Pathology Report		Number
M8000/3	Malignant neoplasm	56
M8140/3	Adenocarcinoma	148
M8240/3	Carcinoid tumor, NOS	1
M8480/3	Mucinous adenocarcinoma	7
M8481/3	Mucin producing adenocarcinoma	1
M8490/3	Adenocarcinoma signet ring cell type	6
<b>Total</b>		<b>219</b>

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	0	0.00	0	0.00	0	0.00
10 - 14	0	0.00	0	0.00	0	0.00
15 - 19	0	0.00	0	0.00	0	0.00
20 - 24	0	0.00	0	0.00	0	0.00
25 - 29	2	1.41	1	1.30	3	1.37
30 - 34	4	2.82	1	1.30	5	2.28
35 - 39	4	2.82	6	7.79	10	4.57
40 - 44	7	4.93	2	2.60	9	4.11
45 - 49	11	7.75	6	7.79	17	7.76
50 - 54	12	8.45	10	12.99	22	10.05
55 - 59	16	11.27	8	10.39	24	10.96
60 - 64	23	16.20	13	16.88	36	16.44
65 - 69	23	16.20	9	11.69	32	14.61
70 - 74	19	13.38	9	11.69	28	12.79
75 - 79	12	8.45	7	9.09	19	8.68
80 - 84	7	4.93	3	3.90	10	4.57
85 - 89	1	0.70	2	2.60	3	1.37
90 - 94	1	0.70	0	0.00	1	0.46
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>142</b>	<b>100.00</b>	<b>77</b>	<b>100.00</b>	<b>219</b>	<b>100.00</b>



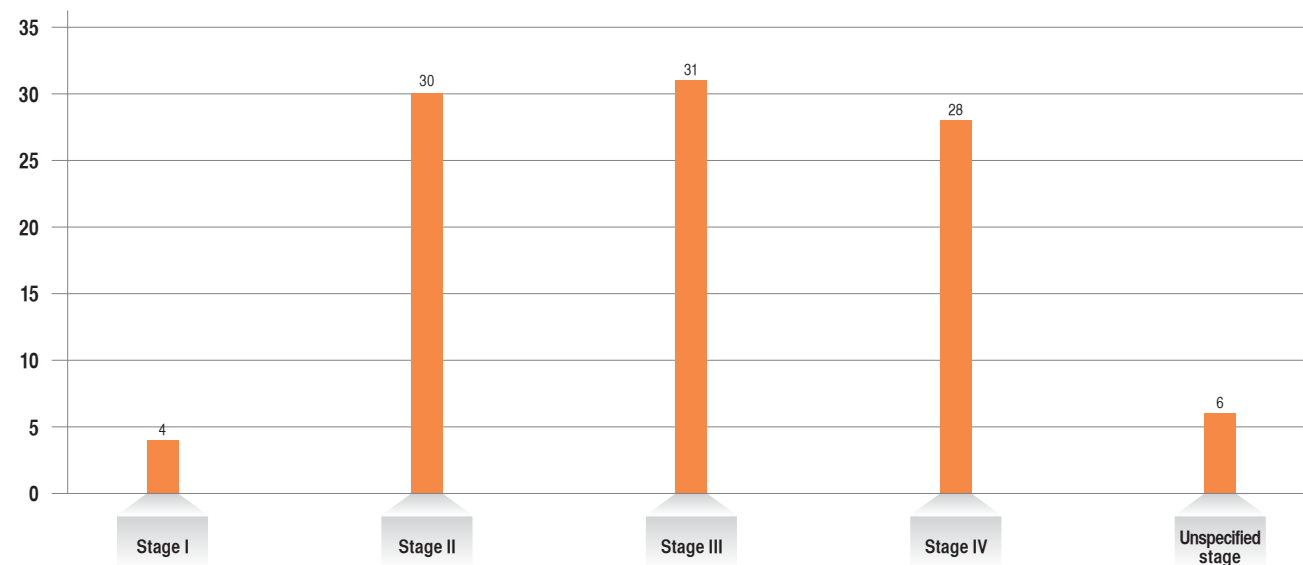
COLORECTAL CANCER

## METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Biochemical	0	0.00	0	0.00	0	0.00
Other	2	3.23	2	5.41	4	4.04
Cytology	0	0.00	0	0.00	0	0.00
Histology	60	96.77	35	94.59	95	95.96
Imaging	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>62</b>	<b>100.00</b>	<b>37</b>	<b>100.00</b>	<b>99</b>	<b>100.00</b>

Other = Previously diagnosed as Colorectal cancer from other Hospital but no documentation of diagnosis

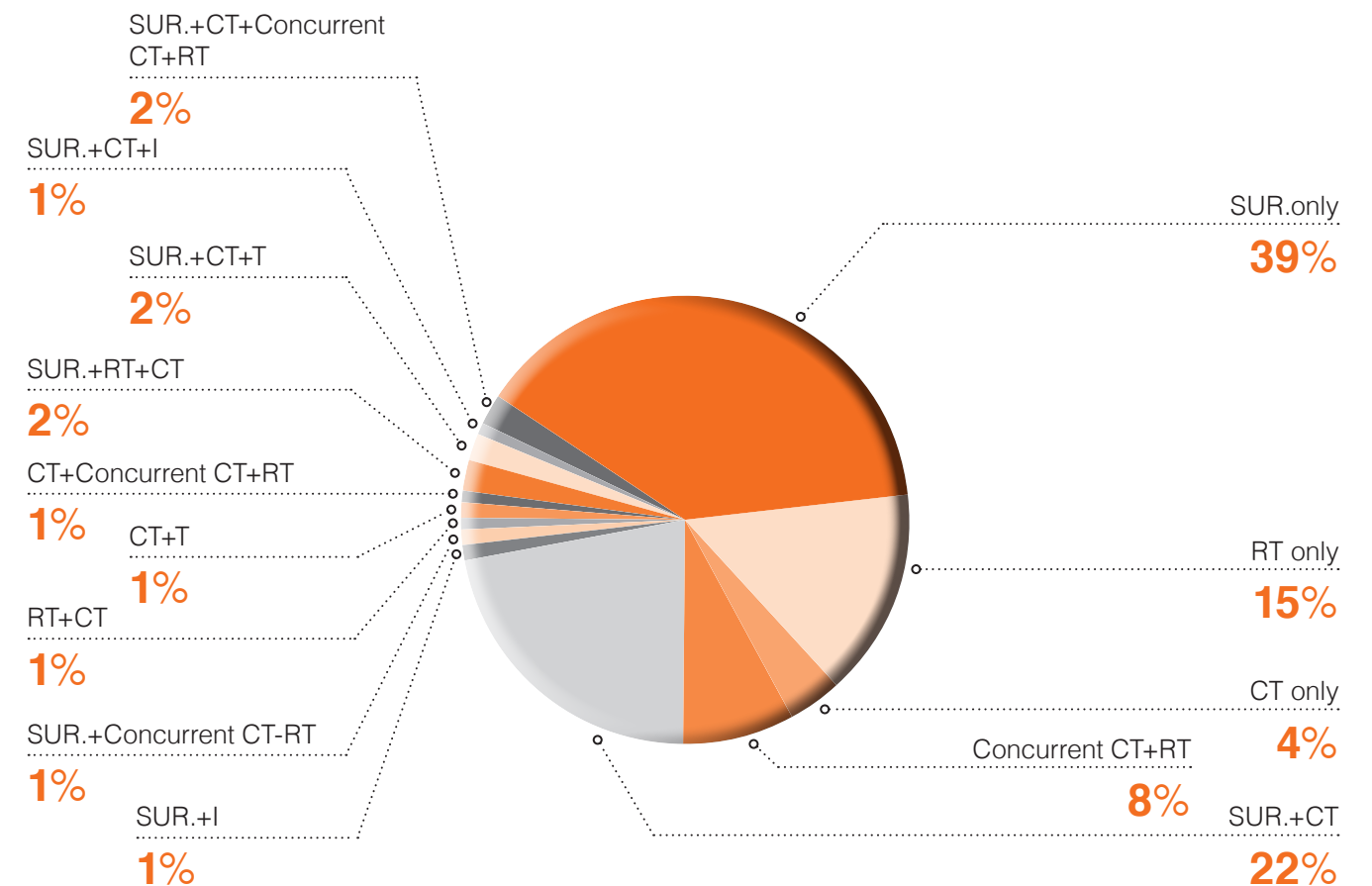
## STAGING (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



Unspecified stage = Incomplete staging due to insufficient patient information

## TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

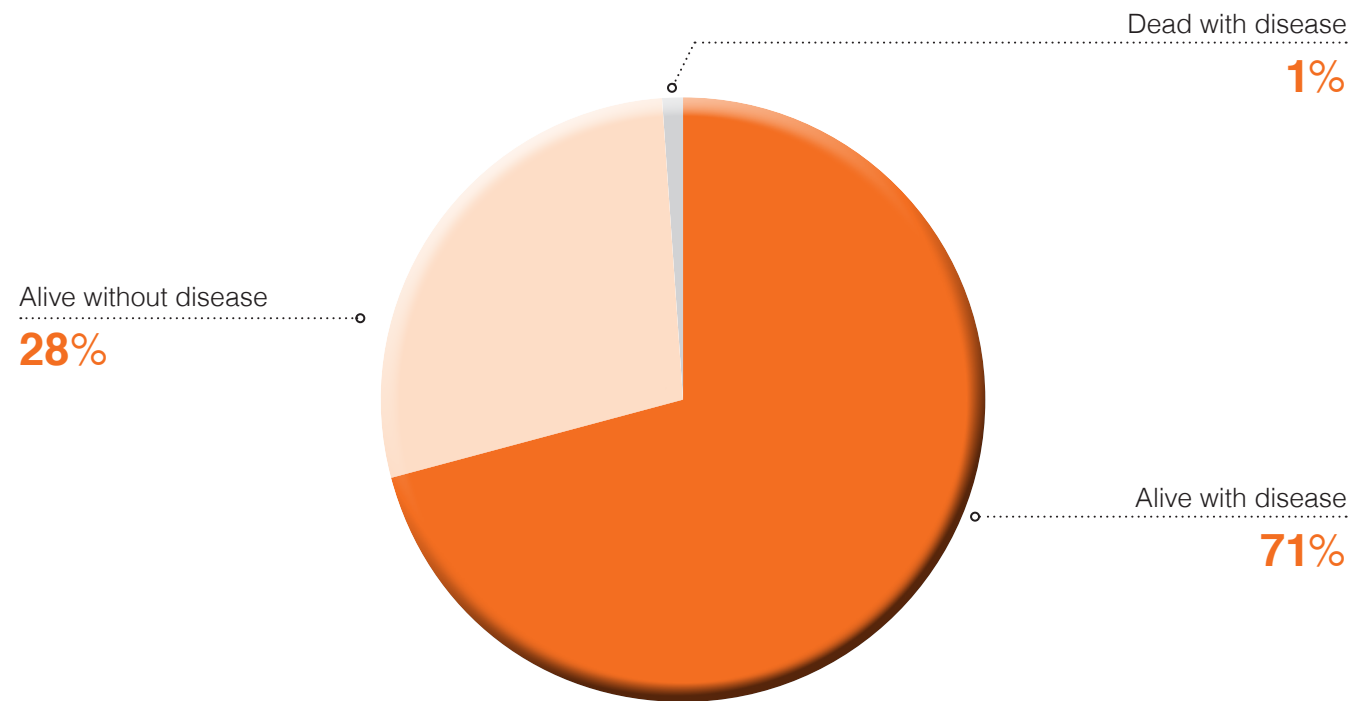
Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.only	24	38.71	14	37.84	38	38.38
RT only	12	19.35	3	8.11	15	15.15
CT only	2	3.23	2	5.41	4	4.04
Concurrent CT+RT	7	11.29	1	2.70	8	8.08
SUR.+CT	11	17.74	11	29.73	22	22.22
SUR.+I	1	1.61	0	0.00	1	1.01
SUR.+Concurrent CT-RT	0	0.00	1	2.70	1	1.01
RT+CT	1	1.61	0	0.00	1	1.01
CT+T	0	0.00	1	2.70	1	1.01
CT+Concurrent CT+RT	1	1.61	0	0.00	1	1.01
SUR.+RT+CT	1	1.61	1	2.70	2	2.02
SUR.+CT+T	1	1.61	1	2.70	2	2.02
SUR.+CT+I	0	0.00	1	2.70	1	1.01
SUR.+CT+Concurrent CT+RT	1	1.61	1	2.70	2	2.02
<b>Total</b>	<b>62</b>	<b>100.00</b>	<b>37</b>	<b>100.00</b>	<b>99</b>	<b>100.00</b>



SUR. = Surgery  
RT = External radiation therapy  
CT = Chemotherapy  
T = Targeted therapy

## FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

## LUNG CANCER : PATHOLOGY



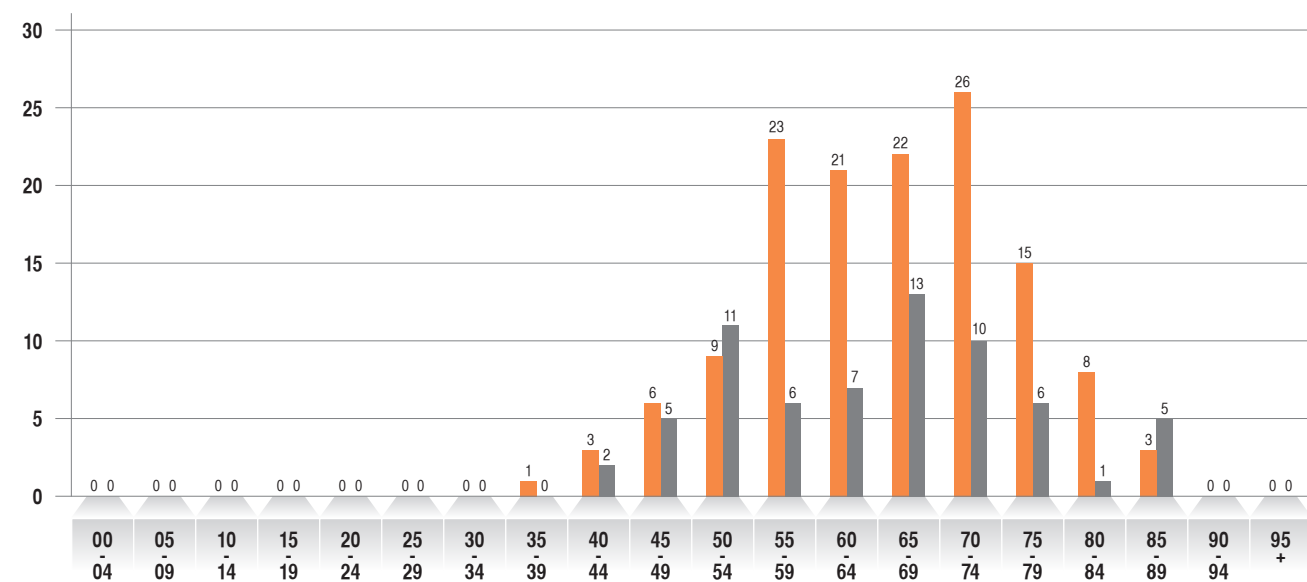
Tumor site		Number
C33.9	Trachea	1
C34.1	Upper lobe, lung	43
C34.2	Middle lobe, lung	4
C34.3	Lower lobe, lung	34
C34.9	Lung, NOS	121
<b>Total</b>		<b>203</b>

Pathology Report		Number
M8000/3	Malignant neoplasm	28
M8010/3	Carcinoma, NOS	1
M8012/3	Large cell carcinoma, NOS	2
M8020/3	Carcinoma, undifferentiated, NOS	2
M8021/3	Carcinoma anaplastic, NOS	1
M8041/3	Small cell carcinoma, NOS	20
M8045/3	Combined small cell carcinoma	1
M8046/3	Non small cell carcinoma	29
M8070/3	Squamous cell carcinoma, NOS	17
M8140/3	Adenocarcinoma, NOS	83
M8200/3	Adenoid cystic carcinoma	2
M8240/3	Carcinoid tumor, NOS	1
M8246/3	Neuroendocrine carcinoma, NOS	1
M8250/3	Bronchiolo-aveolar adenocarcinoma, NOS	8
M8260/3	Papillary adenocarcinoma, NOS	1
M8480/3	Mucinous adenocarcinoma	3
M8490/3	Signet ring cell adenocarcinoma	1
M8550/3	Acinar cell adenocarcinoma	1
M9050/3	Mesothelioma, malignant	1
<b>Total</b>		<b>203</b>

## AGE AND GENDER

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	0	0.00	0	0.00	0	0.00
10 - 14	0	0.00	0	0.00	0	0.00
15 - 19	0	0.00	0	0.00	0	0.00
20 - 24	0	0.00	0	0.00	0	0.00
25 - 29	0	0.00	0	0.00	0	0.00
30 - 34	0	0.00	0	0.00	0	0.00
35 - 39	1	0.73	0	0.00	1	0.49
40 - 44	3	2.19	2	3.03	5	2.46
45 - 49	6	4.38	5	7.58	11	5.42
50 - 54	9	6.57	11	16.67	20	9.85
55 - 59	23	16.79	6	9.09	29	14.29
60 - 64	21	15.33	7	10.61	28	13.79
65 - 69	22	16.06	13	19.70	35	17.24
70 - 74	26	18.98	10	15.15	36	17.73
75 - 79	15	10.95	6	9.09	21	10.34
80 - 84	8	5.84	1	1.52	9	4.43
85 - 89	3	2.19	5	7.58	8	3.94
90 - 94	0	0.00	0	0.00	0	0.00
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>137</b>	<b>100.00</b>	<b>66</b>	<b>100.00</b>	<b>203</b>	<b>100.00</b>

■ Male ■ Female

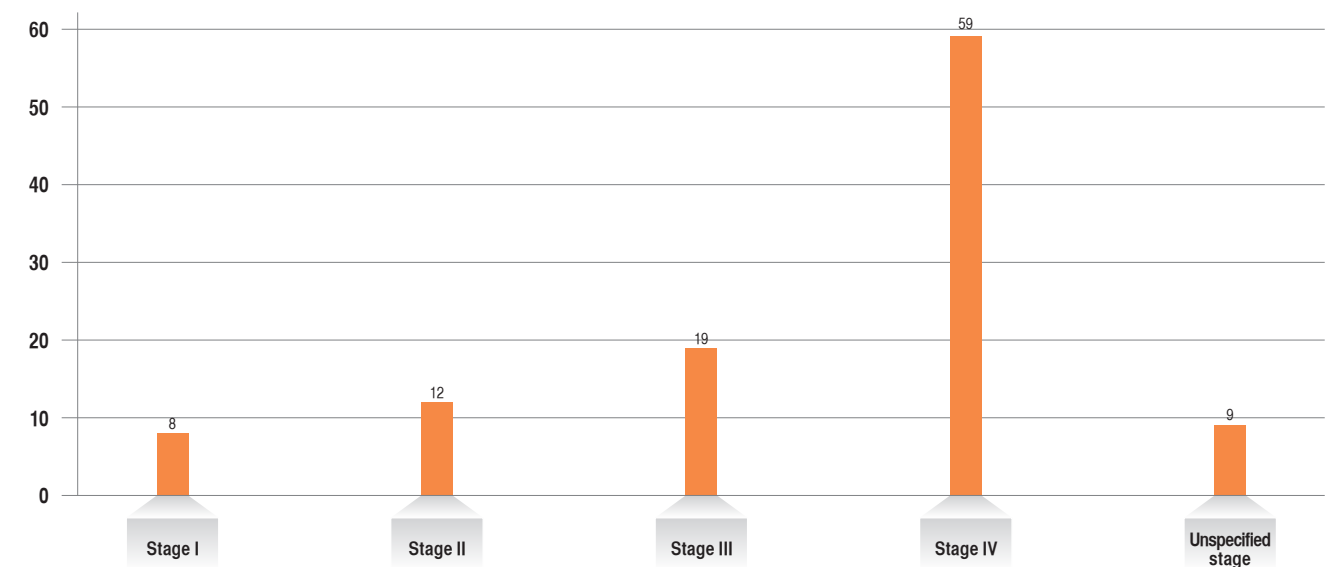


## METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Biochemical	0	0.00	0	0.00	0	0.00
Other	6	8.22	1	2.94	7	6.54
Cytology	0	0.00	0	0.00	0	0.00
Histology	67	91.78	33	97.06	100	93.46
Imaging	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>73</b>	<b>100.00</b>	<b>34</b>	<b>100.00</b>	<b>107</b>	<b>100.00</b>

Other = Previously diagnosed as Lung cancer from other Hospital but no documentation of diagnosis

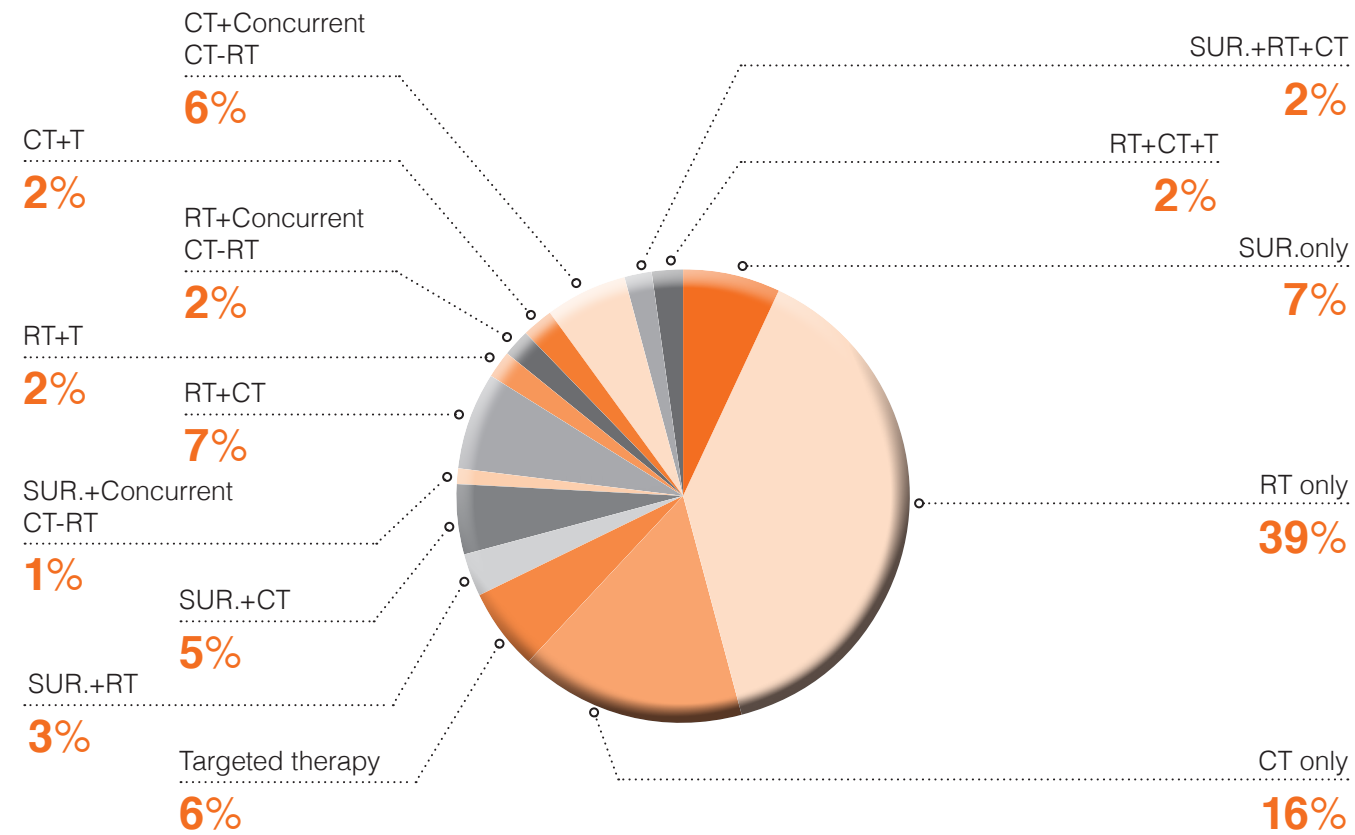
## STAGING (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



Unspecified stage = Incomplete staging due to insufficient patient information

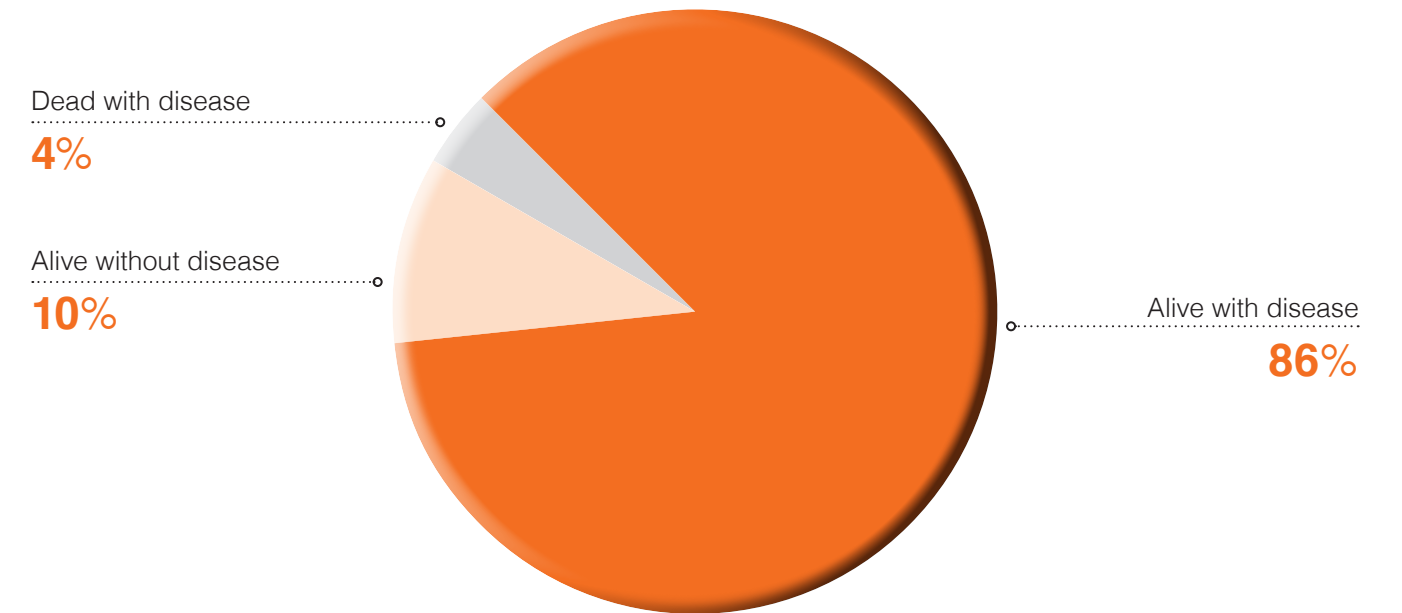
## TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.only	5	6.85	3	8.82	8	7.48
RT only	27	36.99	15	44.12	42	39.25
CT only	14	19.18	3	8.82	17	15.89
Targeted therapy	2	2.74	4	11.76	6	5.61
SUR.+RT	3	4.11	0	0.00	3	2.80
SUR.+CT	2	2.74	3	8.82	5	4.67
SUR.+Concurrent CT-RT	1	1.37	0	0.00	1	0.93
RT+CT	6	8.22	2	5.88	8	7.48
RT+T	2	2.74	0	0.00	2	1.87
RT+Concurrent CT-RT	1	1.37	1	2.94	2	1.87
CT+T	1	1.37	1	2.94	2	1.87
CT+Concurrent CT-RT	7	9.59	0	0.00	7	6.54
SUR.+RT+CT	2	2.74	0	0.00	2	1.87
RT+CT+T	0	0.00	2	5.88	2	1.87
<b>Total</b>	<b>73</b>	<b>100.00</b>	<b>34</b>	<b>100.00</b>	<b>107</b>	<b>100.00</b>



SUR. = Surgery  
 RT = External radiation therapy  
 CT = Chemotherapy  
 T = Targeted therapy

## FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



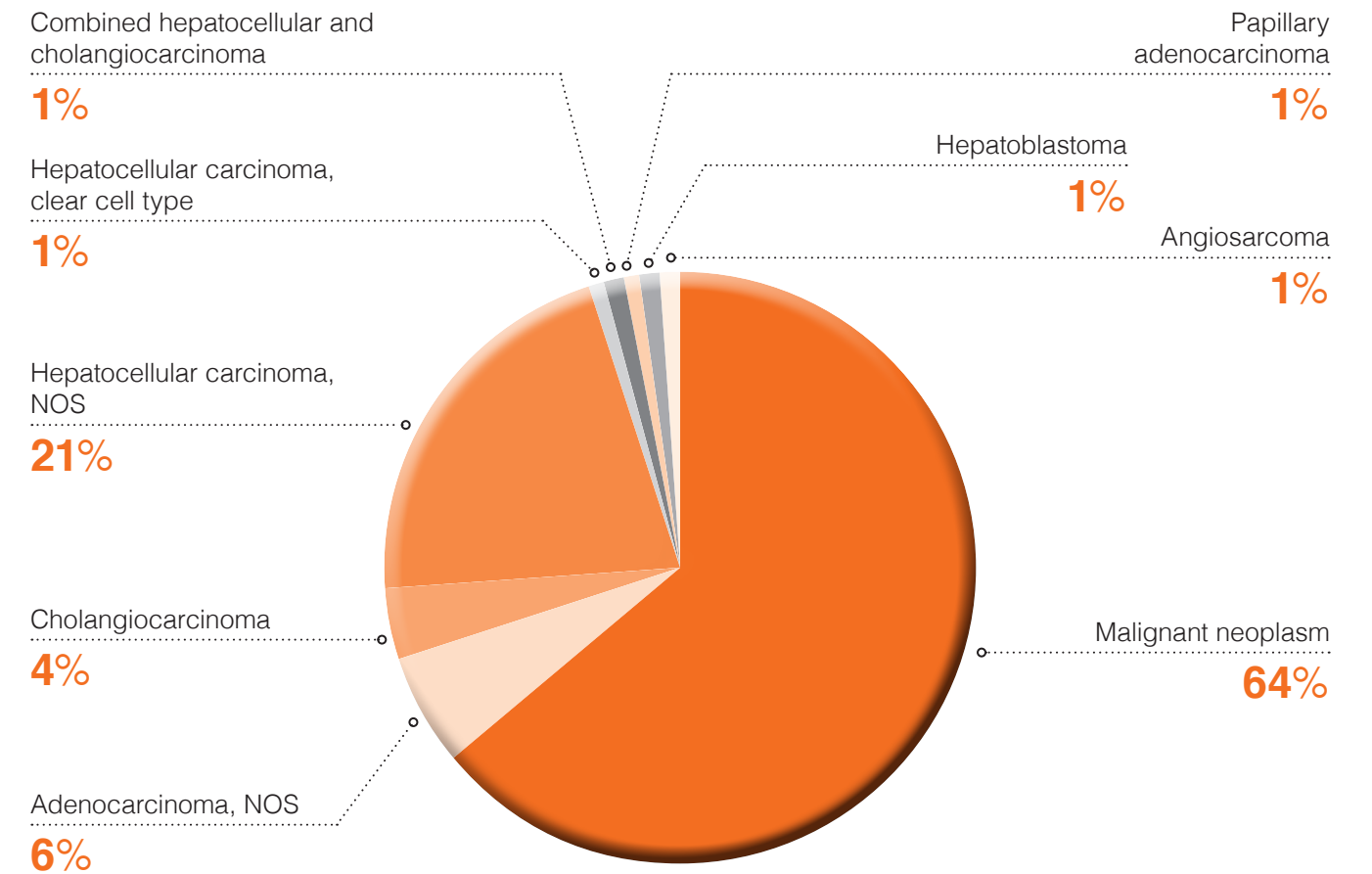


## LIVER & HEPATOBILIARY CANCER : PATHOLOGY

Tumor site		Number
C22.0	Liver	126
C22.1	Liver (Pathology is M8160/3)	16
C23.9	Gall bladder	5
C24.0	Common bile duct	1
C24.1	Ampullar of vater	5
<b>Total</b>		<b>153</b>

Pathology Report		Number
M8000/3	Malignant neoplasm	98
M8140/3	Adenocarcinoma, NOS	10
M8160/3	Cholangiocarcinoma	7
M8170/3	Hepatocellular carcinoma, NOS	33
M8174/3	Hepatocellular carcinoma, clear cell type	1
M8180/3	Combined hepatocellular carcinoma and cholangiocarcinoma	1
M8260/3	Papillary adenocarcinoma	1
M8970/3	Hepatoblastoma	1
M9120/3	Angiosarcoma	1
<b>Total</b>		<b>153</b>

## PATHOLOGY REPORT OF LIVER & HEPATOBILIARY CANCER

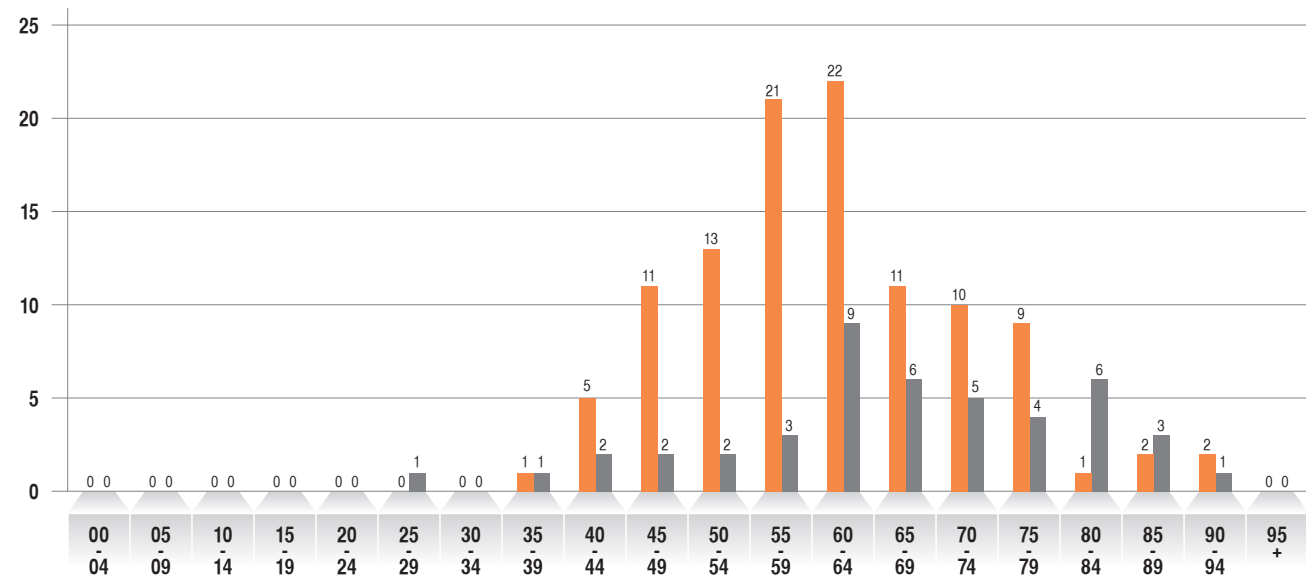


Malignant neoplasm = Dx For Cancer but unknow special type

# AGE AND GENDER

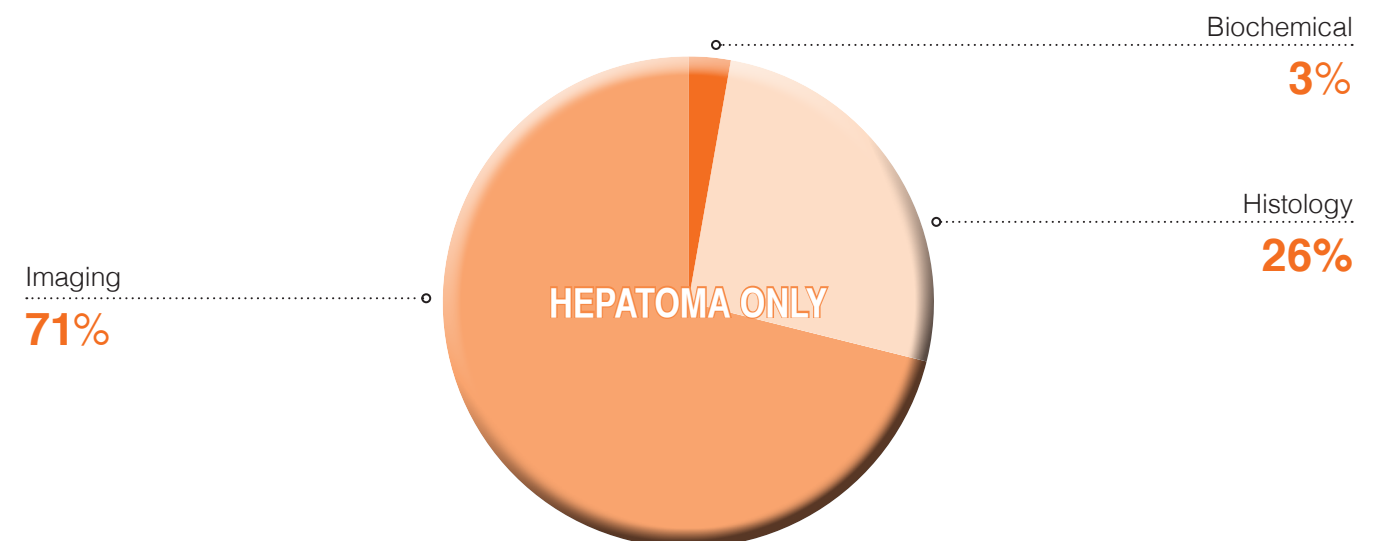
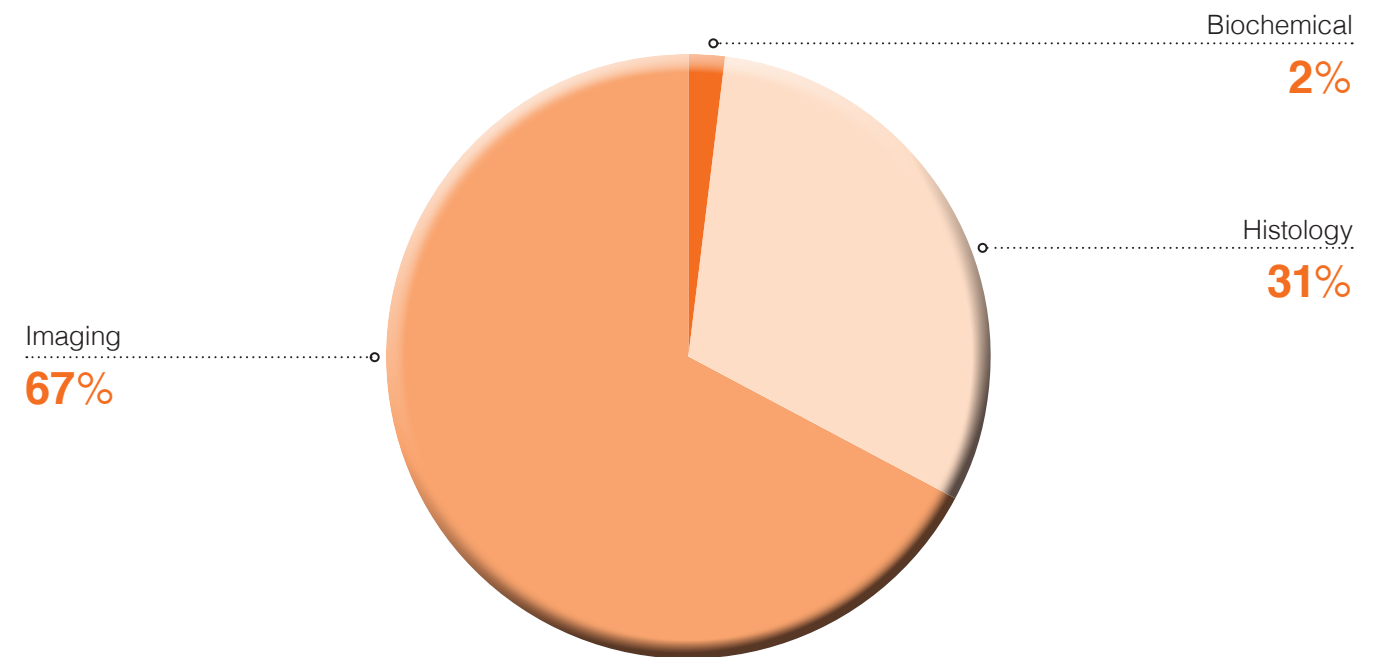
Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	0	0.00	0	0.00	0	0.00
10 - 14	0	0.00	0	0.00	0	0.00
15 - 19	0	0.00	0	0.00	0	0.00
20 - 24	0	0.00	0	0.00	0	0.00
25 - 29	0	0.00	1	2.22	1	0.65
30 - 34	0	0.00	0	0.00	0	0.00
35 - 39	1	0.93	1	2.22	2	1.31
40 - 44	5	4.63	2	4.44	7	4.58
45 - 49	11	10.19	2	4.44	13	8.50
50 - 54	13	12.04	2	4.44	15	9.80
55 - 59	21	19.44	3	6.67	24	15.69
60 - 64	22	20.37	9	20.00	31	20.26
65 - 69	11	10.19	6	13.33	17	11.11
70 - 74	10	9.26	5	11.11	15	9.80
75 - 79	9	8.33	4	8.89	13	8.50
80 - 84	1	0.93	6	13.33	7	4.58
85 - 89	2	1.85	3	6.67	5	3.27
90 - 94	2	1.85	1	2.22	3	1.96
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>108</b>	<b>100.00</b>	<b>45</b>	<b>100.00</b>	<b>153</b>	<b>100.00</b>

■ Male ■ Female



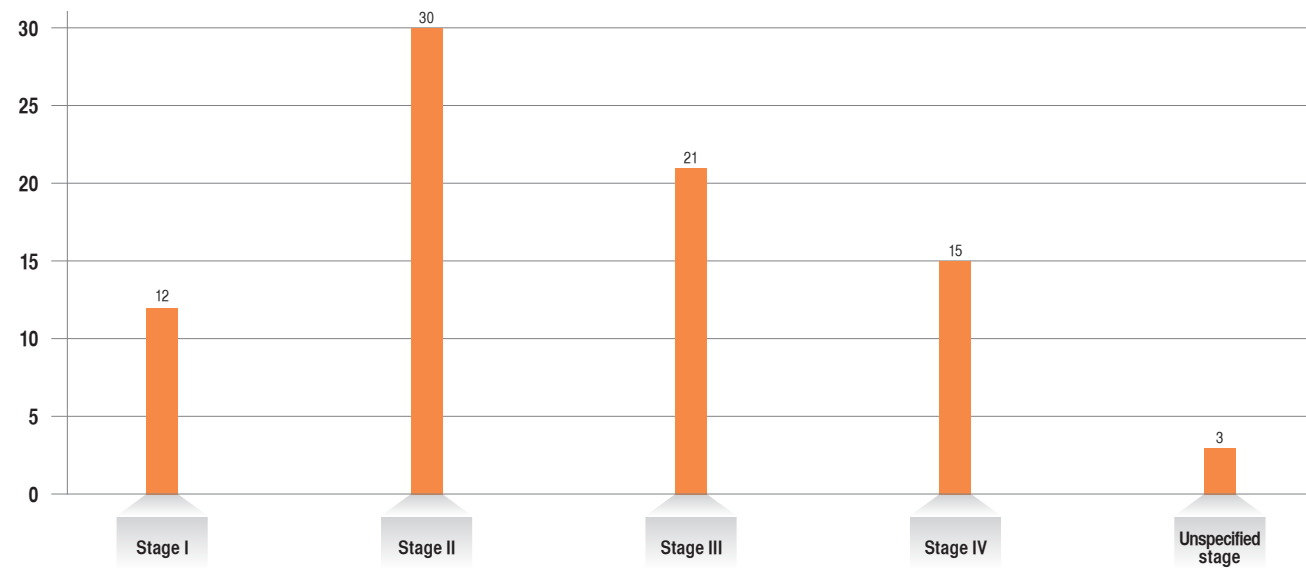
# METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Biochemical	1	1.89	1	3.57	2	2.47
Other	0	0.00	0	0.00	0	0.00
Cytology	0	0.00	0	0.00	0	0.00
Histology	15	28.30	10	35.71	25	30.86
Imaging	37	69.81	17	60.71	54	66.67
<b>Total</b>	<b>53</b>	<b>100.00</b>	<b>28</b>	<b>100.00</b>	<b>81</b>	<b>100.00</b>

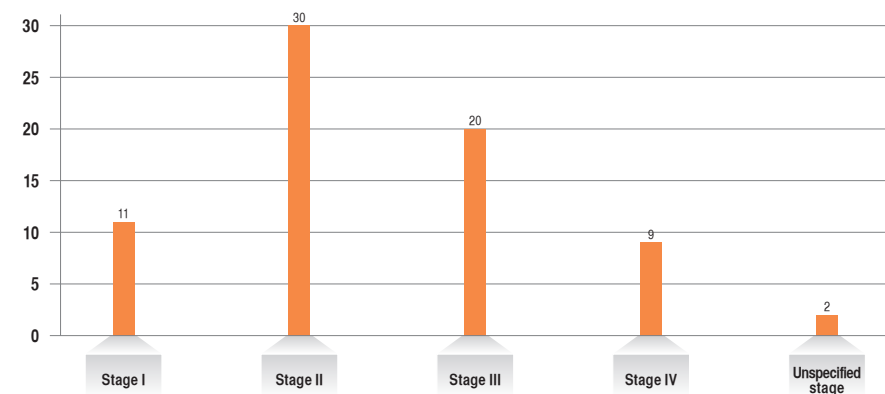


LIVER & HEPATOBILIARY CANCER

# STAGING (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



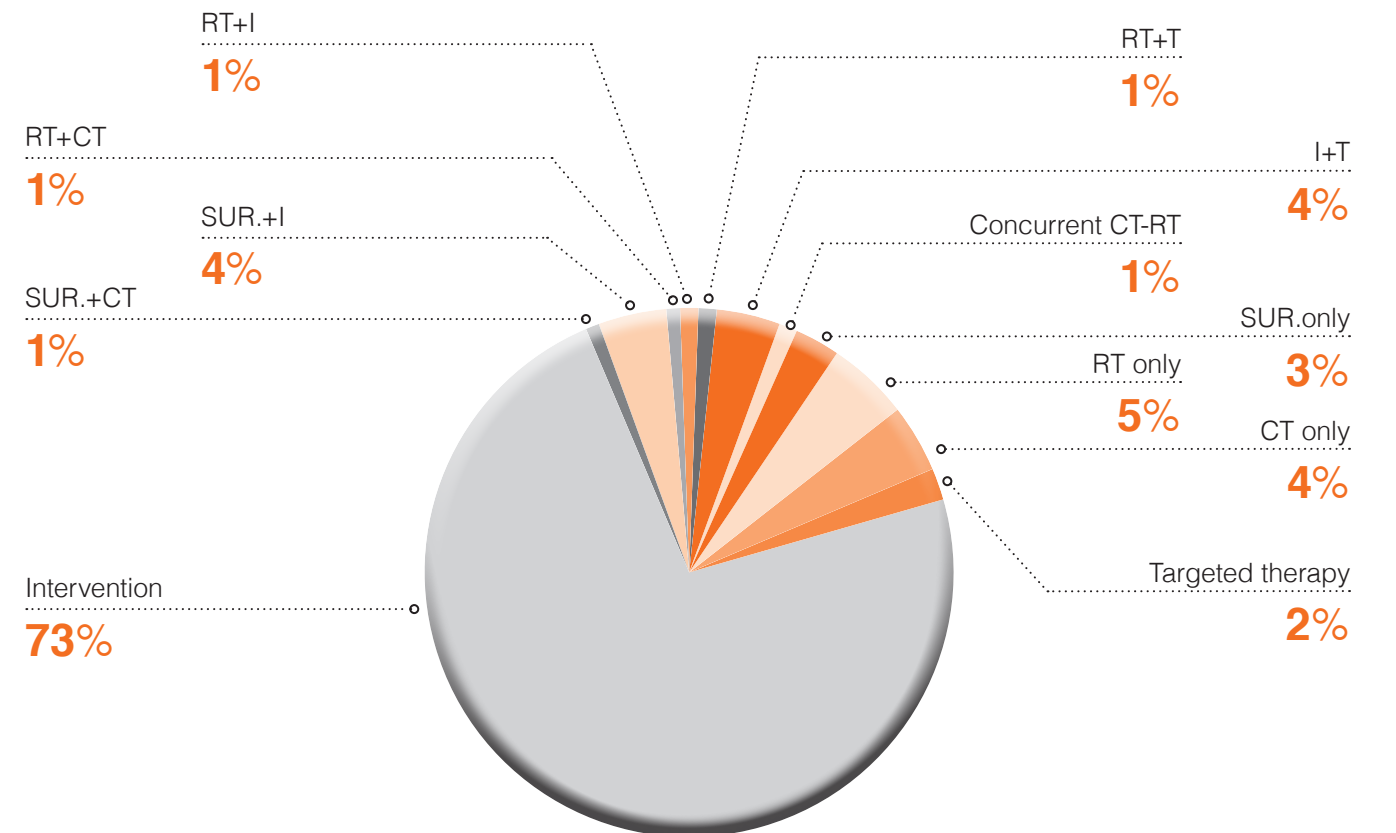
## Hepatoma only



Unspecified stage = Incomplete staging due to insufficient patient information

# TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

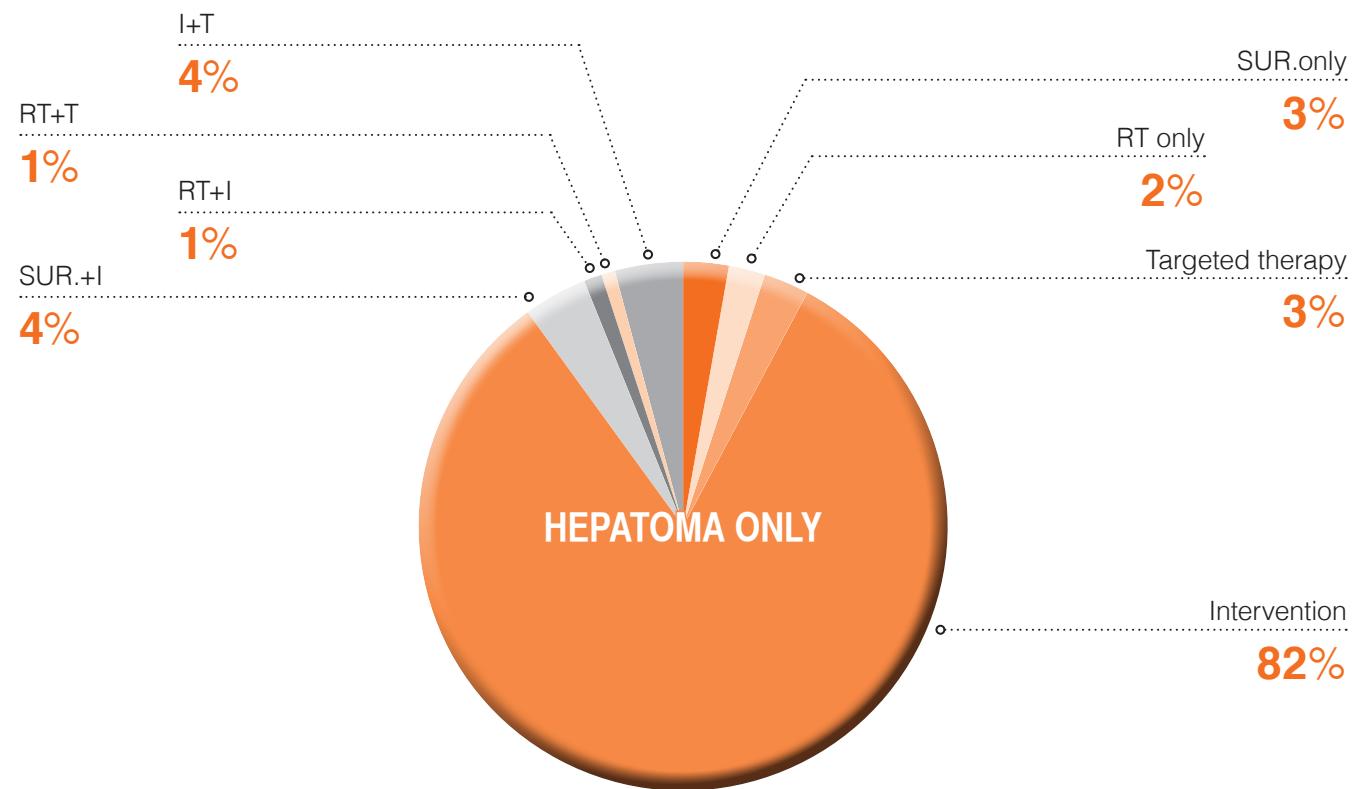
Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.only	0	0.00	2	7.14	2	2.47
RT only	3	5.66	1	3.57	4	4.94
CT only	1	1.89	2	7.14	3	3.70
Targeted therapy	2	3.77	0	0.00	2	2.47
Intervention	39	73.58	20	71.43	59	72.84
SUR.+CT	1	1.89	0	0.00	1	1.23
SUR.+I	2	3.77	1	3.57	3	3.70
RT+CT	1	1.89	0	0.00	1	1.23
RT+I	0	0.00	1	3.57	1	1.23
RT+T	1	1.89	0	0.00	1	1.23
I+T	2	3.77	1	3.57	3	3.70
Concurrent CT-RT	1	1.89	0	0.00	1	1.23
<b>Total</b>	<b>53</b>	<b>100.00</b>	<b>28</b>	<b>100.00</b>	<b>81</b>	<b>100.00</b>



SUR. = Surgery  
 RT = External radiation therapy  
 CT = Chemotherapy  
 T = Targeted therapy  
 I = Intervention

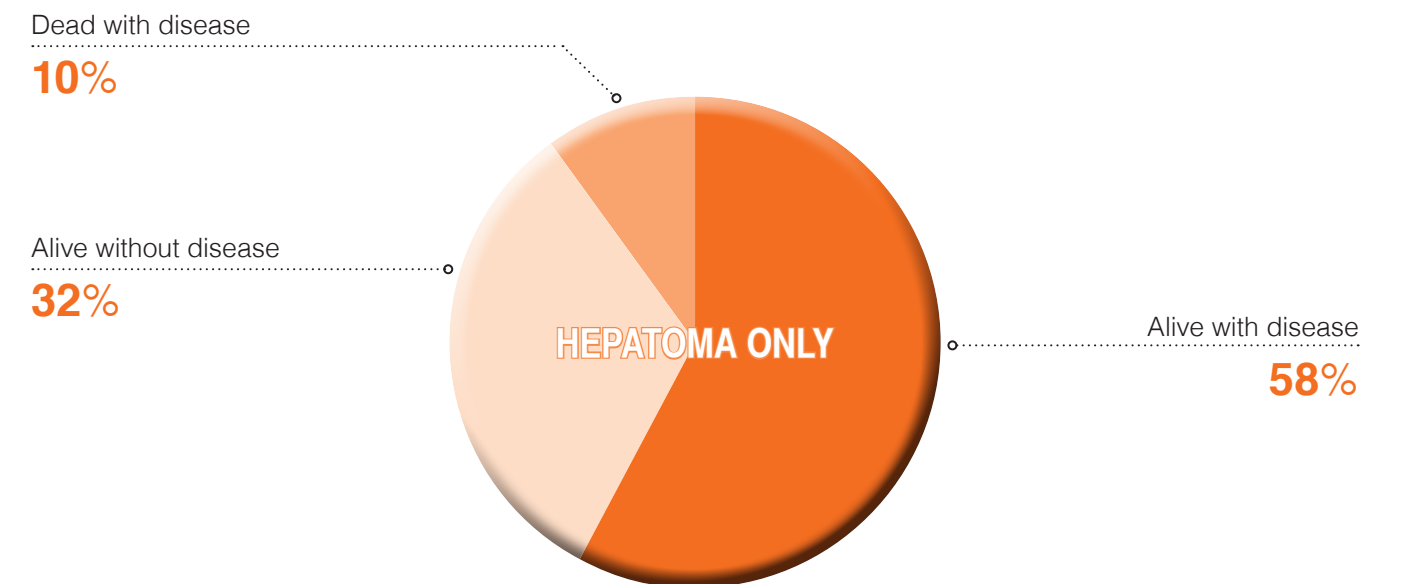
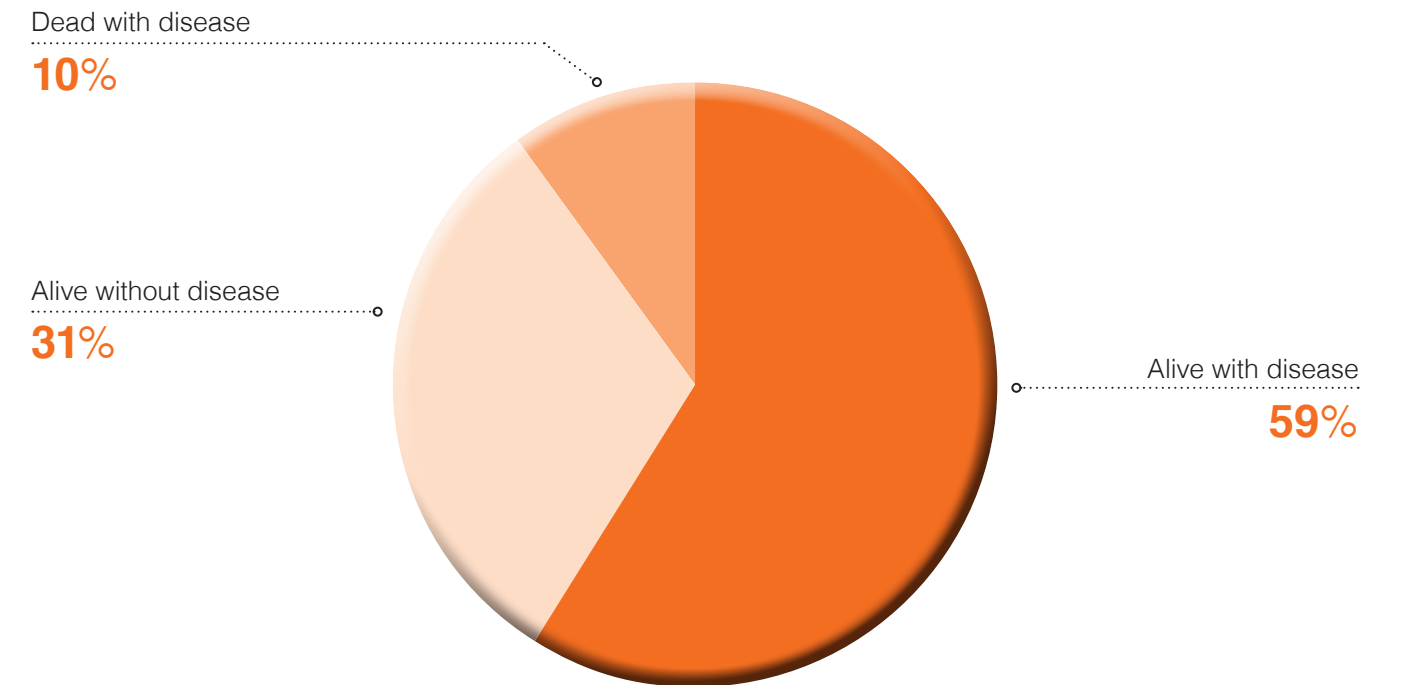
## TYPE OF TREATMENT IN HEPATOMA CANCER (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.only	0	0.00	2	8.00	2	2.78
RT only	1	2.13	0	0.00	1	1.39
Targeted therapy	2	4.26	0	0.00	2	2.78
Intervention	39	82.98	20	80.00	59	81.94
SUR.+I	2	4.26	1	4.00	3	4.17
RT+I	0	0.00	1	4.00	1	1.39
RT+T	1	2.13	0	0.00	1	1.39
I+T	2	4.26	1	4.00	3	4.17
<b>Total</b>	<b>47</b>	<b>100.00</b>	<b>25</b>	<b>100.00</b>	<b>72</b>	<b>100.00</b>



SUR. = Surgery  
 RT = External radiation therapy  
 I = Intervention  
 T = Targeted therapy

## FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



## HEAD & NECK CANCER : PATHOLOGY

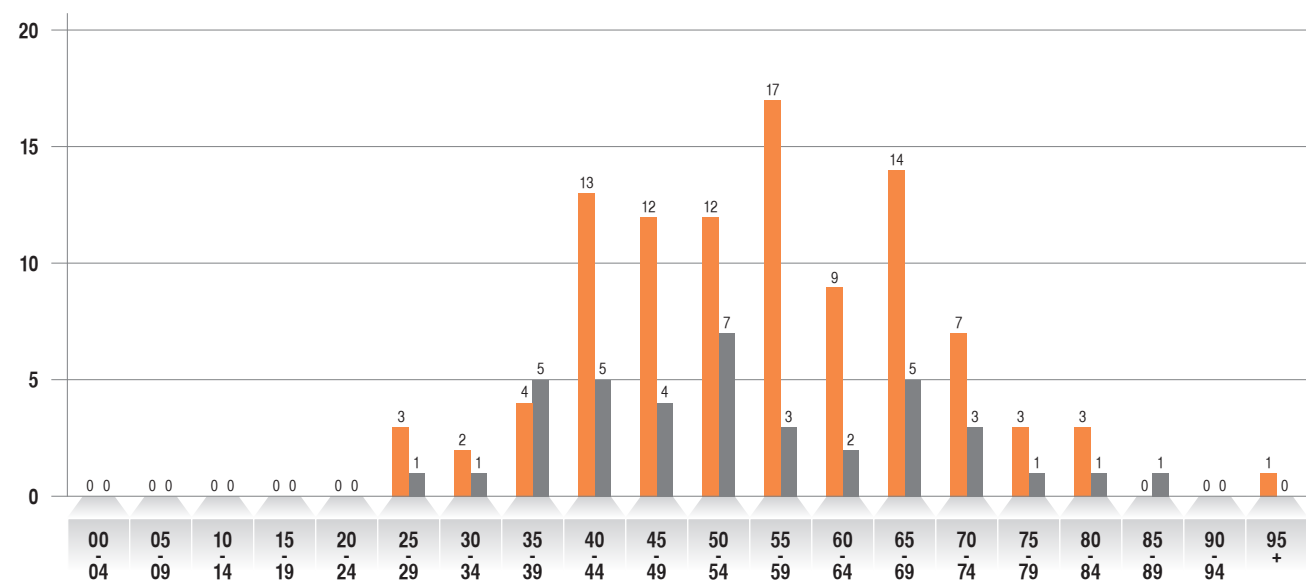
Tumor site		Number
C00.1	Lower lip	1
C01.9	Base of tongue, NOS	5
C02.9	Tongue	21
C03.1	Lower gum	1
C03.9	Gum, NOS	2
C04.9	Floor of mouth	2
C05.0	Hard palate	4
C05.1	Soft palate, NOS	2
C05.8	Overlapping lesion of palate	1
C05.9	Palate	1
C06.0	Cheek mucosa	5
C06.2	Retromolar area	1
C06.9	Mouth, NOS	3
C07.9	Parotid gland	14
C08.0	Submandibular gland	2
C08.1	Sublingual gland	1
C08.9	Major salivary gland	1
C09.9	Tonsil, NOS	16
C10.9	Oropharynx, NOS	1
C11.9	Nasopharynx, NOS	45
C12.9	Pyiform sinus	6
C13.9	Hypopharynx, NOS	4
<b>Total</b>		<b>139</b>

Pathology Report		Number
M8000/3	Malignant neoplasm	24
M8010/3	Carcinoma, NOS	2
M8020/3	Carcinoma, undifferentiated, NOS	17
M8051/3	Verrucous carconoma, NOS	1
M8052/3	Papillary squamous cell carcinoma	1
M8070/3	Squamous cell carcinoma, NOS	63
M8071/3	Squamous cell carcinoma, keratinizing, NOS	1
M8072/3	Squamous cell carcinoma, large cell, nonkeratinizing, NOS	12
M8082/3	Lymphoepithelial carcinoma	2
M8090/3	Basal cell carcinoma, NOS	1
M8140/3	Adenocarcinoma, NOS	1
M8200/3	Adenoid cystic carcinoma	5
M8430/3	Mucoepidermoid carcinoma	7
M8480/3	Mucinous adenocarcinoma	1
M8550/3	Acinic cell adenocarcinoma	1
<b>Total</b>		<b>139</b>

## AGE AND GENDER

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	0	0.00	0	0.00	0	0.00
10 - 14	0	0.00	0	0.00	0	0.00
15 - 19	0	0.00	0	0.00	0	0.00
20 - 24	0	0.00	0	0.00	0	0.00
25 - 29	3	3.00	1	2.56	4	2.88
30 - 34	2	2.00	1	2.56	3	2.16
35 - 39	4	4.00	5	12.82	9	6.47
40 - 44	13	13.00	5	12.82	18	12.95
45 - 49	12	12.00	4	10.26	16	11.51
50 - 54	12	12.00	7	17.95	19	13.67
55 - 59	17	17.00	3	7.69	20	14.39
60 - 64	9	9.00	2	5.13	11	7.91
65 - 69	14	14.00	5	12.82	19	13.67
70 - 74	7	7.00	3	7.69	10	7.19
75 - 79	3	3.00	1	2.56	4	2.88
80 - 84	3	3.00	1	2.56	4	2.88
85 - 89	0	0.00	1	2.56	1	0.72
90 - 94	0	0.00	0	0.00	0	0.00
95 +	1	1.00	0	0.00	1	0.72
<b>Total</b>	<b>100</b>	<b>100.00</b>	<b>39</b>	<b>100.00</b>	<b>139</b>	<b>100.00</b>

■ Male ■ Female

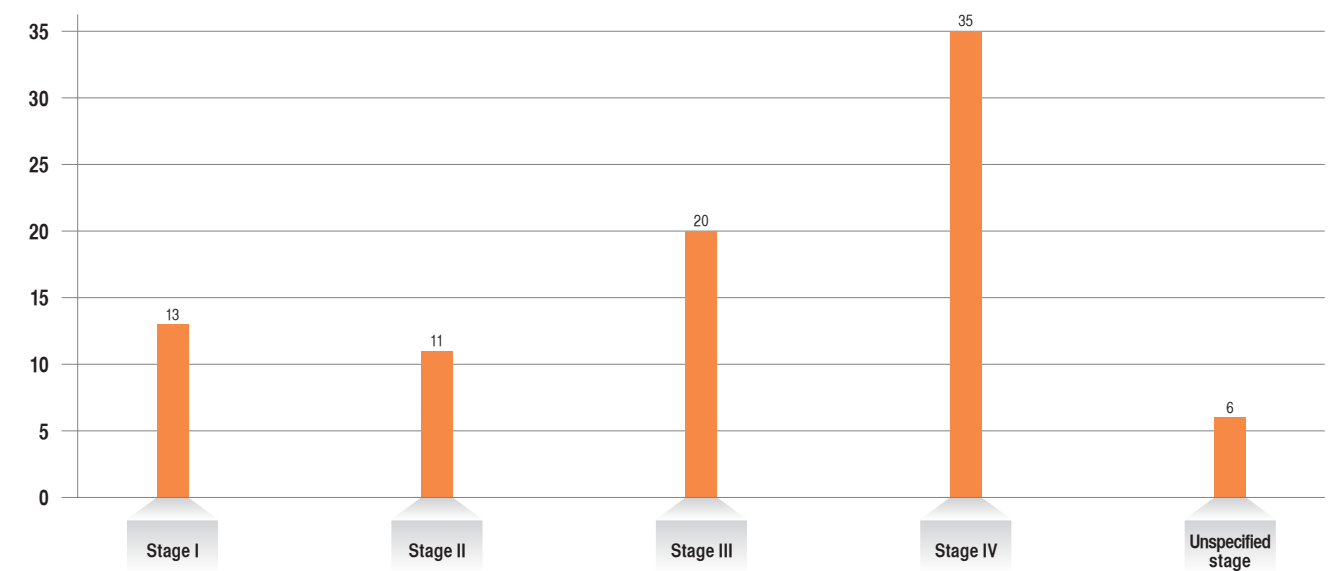


## METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Biochemical	0	0.00	0	0.00	0	0.00
Other	6	9.84	1	4.17	7	8.24
Cytology	0	0.00	0	0.00	0	0.00
Histology	55	90.16	23	95.83	78	91.76
Imaging	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>61</b>	<b>100.00</b>	<b>24</b>	<b>100.00</b>	<b>85</b>	<b>100.00</b>

Other = Previously diagnosed as Head and Neck cancer from other Hospital but no document of Pathology

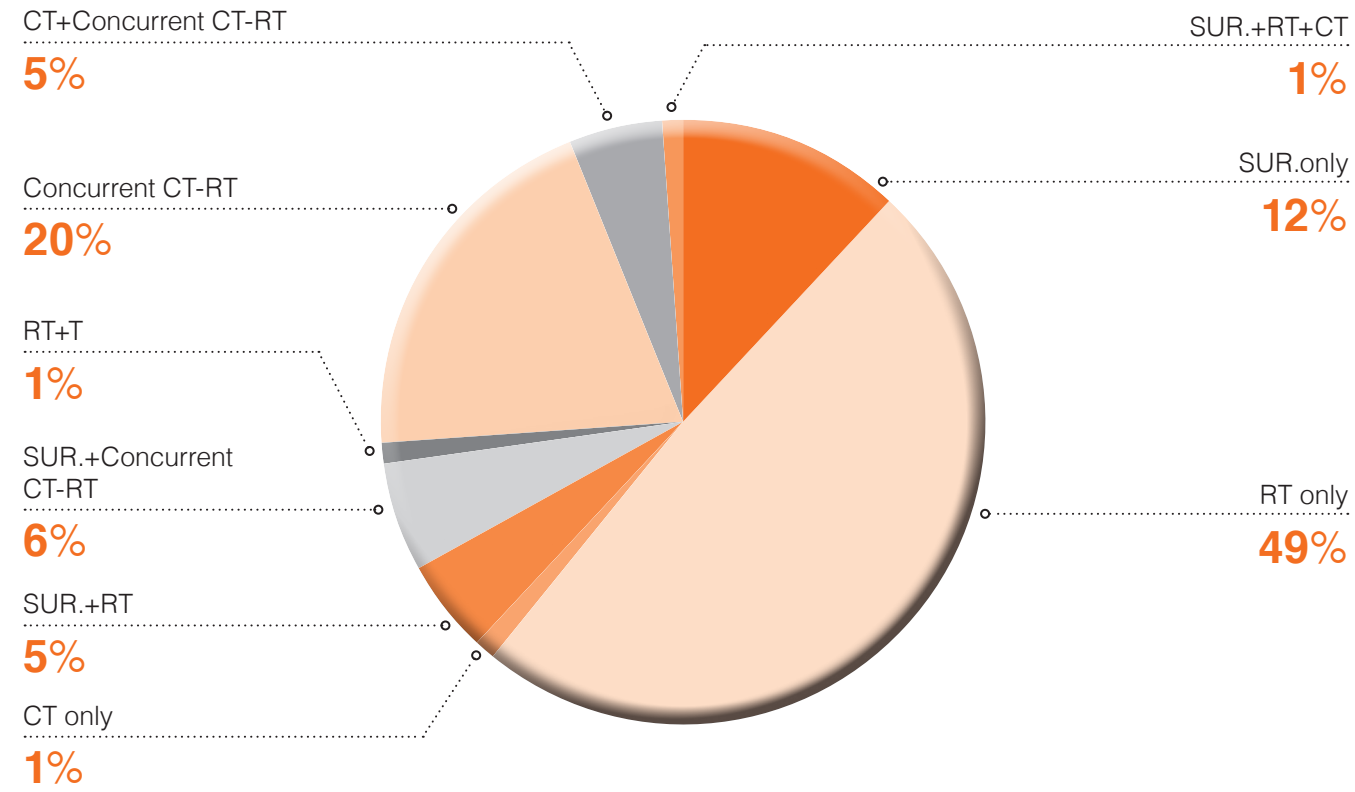
## STAGING (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



Unspecified stage = Incomplete staging due to insufficient patient information

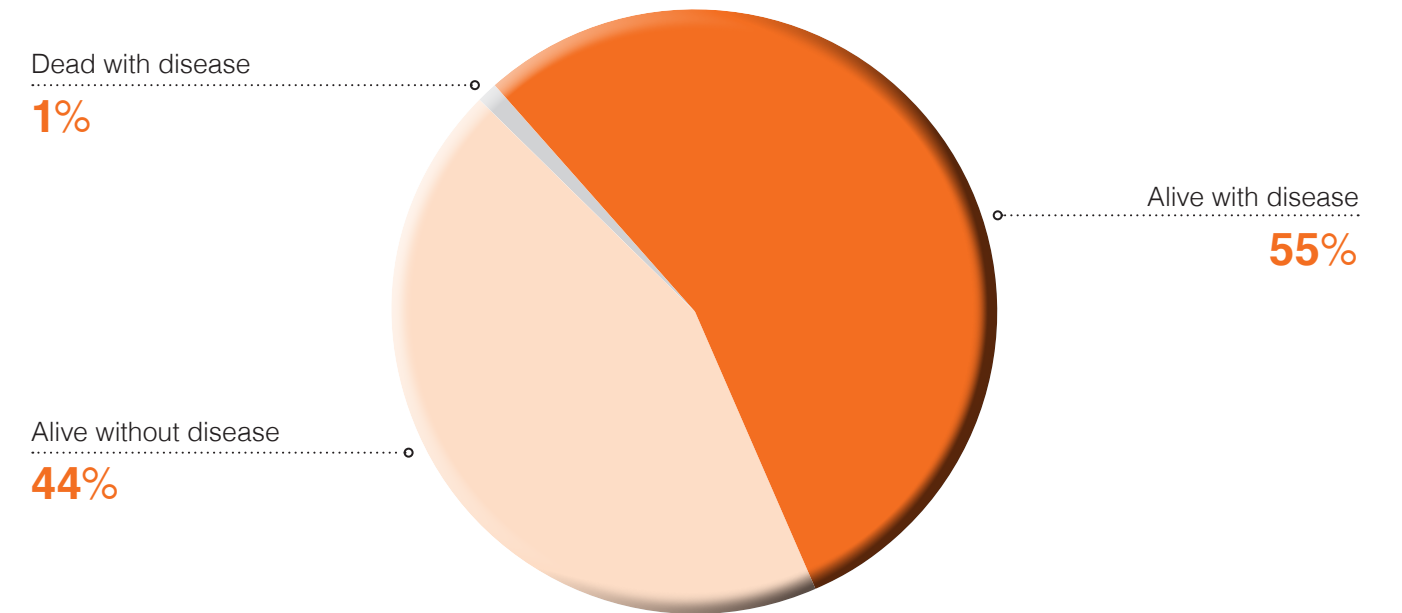
## TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
SUR.only	6	9.84	4	16.67	10	11.76
RT only	32	52.46	10	41.67	42	49.41
CT only	1	1.64	0	0.00	1	1.18
SUR.+RT	2	3.28	2	8.33	4	4.71
SUR.+Concurrent CT-RT	1	1.64	4	16.67	5	5.88
RT+T	1	1.64	0	0.00	1	1.18
Concurrent CT-RT	14	22.95	3	12.50	17	20.00
CT+Concurrent CT-RT	3	4.92	1	4.17	4	4.71
SUR.+RT+CT	1	1.64	0	0.00	1	1.18
<b>Total</b>	<b>61</b>	<b>100.00</b>	<b>24</b>	<b>100.00</b>	<b>85</b>	<b>100.00</b>



SUR. = Surgery  
 RT = External radiation therapy  
 CT = Chemotherapy  
 T = Targeted therapy

## FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

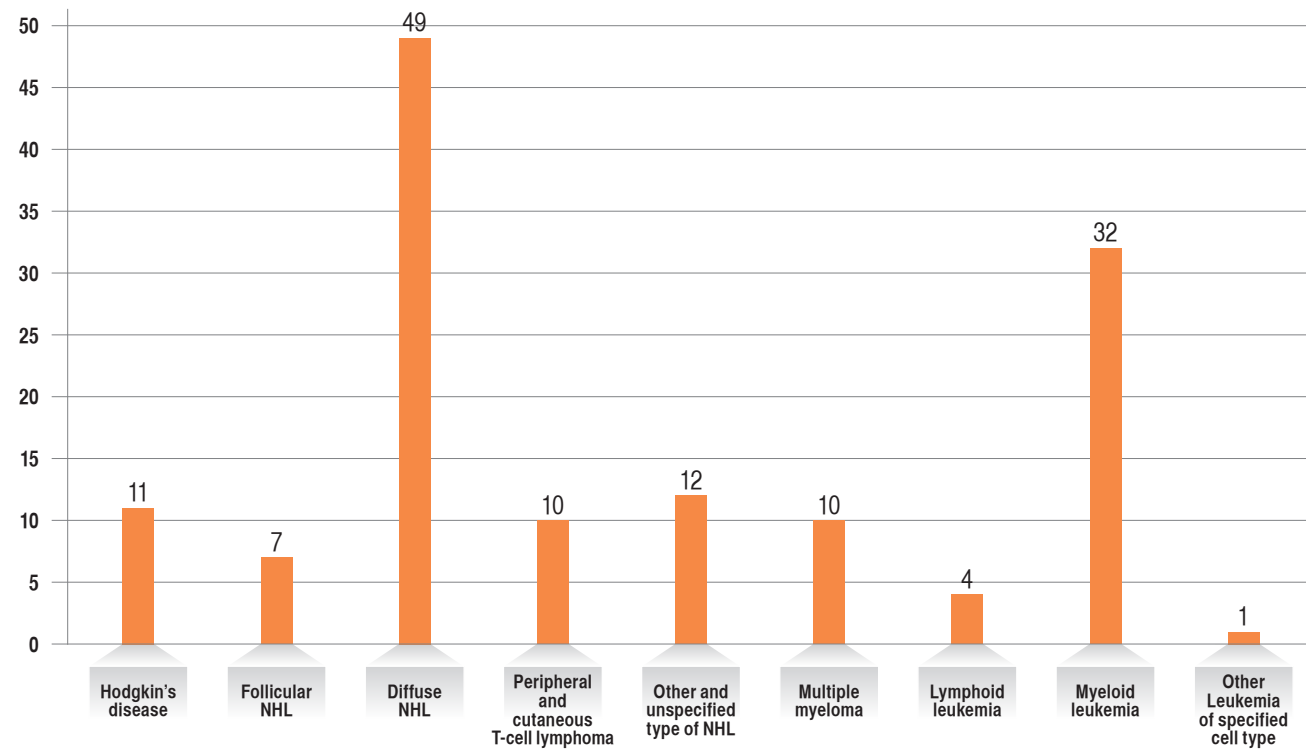


# HEMATOLOGIC MALIGNANCIES 2014

## DISTRIBUTION OF HEMATOLOGIC MALIGNANCIES

Code	Disease	Male		Female		Total	
		Number	Percent	Number	Percent	Number	Percent
C81	Hodgkin's disease	3	4.11	8	12.70	11	8.09
C82	Follicular NHL	2	2.74	5	7.94	7	5.15
C83	Diffuse NHL	26	35.62	23	36.51	49	36.03
C84	Peripheral and cutaneous T-cell lymphoma	8	10.96	2	3.17	10	7.35
C85	Other and unspecified type of NHL	8	10.96	4	6.35	12	8.82
C90	Multiple myeloma	4	5.48	6	9.52	10	7.35
C91	Lymphoid leukemia	3	4.11	1	1.59	4	2.94
C92	Myeloid leukemia	19	26.03	13	20.63	32	23.53
C94	Other Leukemia of specified cell type	0	0.00	1	1.59	1	0.74
<b>Total</b>		<b>73</b>	<b>100.00</b>	<b>63</b>	<b>100.00</b>	<b>136</b>	<b>100.00</b>

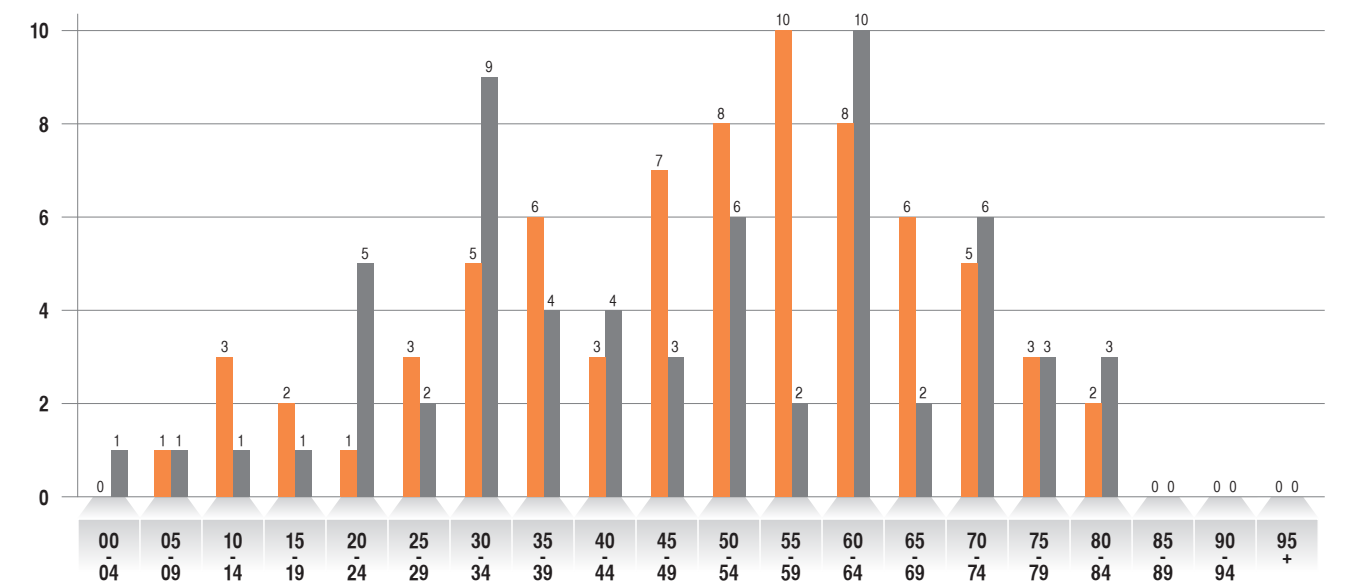
All patient



# DISTRIBUTION OF HEMATOLOGIC MALIGNANCIES BY AGE AND GENDER

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	1	1.59	1	0.74
05 - 09	1	1.37	1	1.59	2	1.47
10 - 14	3	4.11	1	1.59	4	2.94
15 - 19	2	2.74	1	1.59	3	2.21
20 - 24	1	1.37	5	7.94	6	4.41
25 - 29	3	4.11	2	3.17	5	3.68
30 - 34	5	6.85	9	14.29	14	10.29
35 - 39	6	8.22	4	6.35	10	7.35
40 - 44	3	4.11	4	6.35	7	5.15
45 - 49	7	9.59	3	4.76	10	7.35
50 - 54	8	10.96	6	9.52	14	10.29
55 - 59	10	13.70	2	3.17	12	8.82
60 - 64	8	10.96	10	15.87	18	13.24
65 - 69	6	8.22	2	3.17	8	5.88
70 - 74	5	6.85	6	9.52	11	8.09
75 - 79	3	4.11	3	4.76	6	4.41
80 - 84	2	2.74	3	4.76	5	3.68
85 - 89	0	0.00	0	0.00	0	0.00
90 - 94	0	0.00	0	0.00	0	0.00
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>73</b>	<b>100.00</b>	<b>63</b>	<b>100.00</b>	<b>136</b>	<b>100.00</b>

Male Female

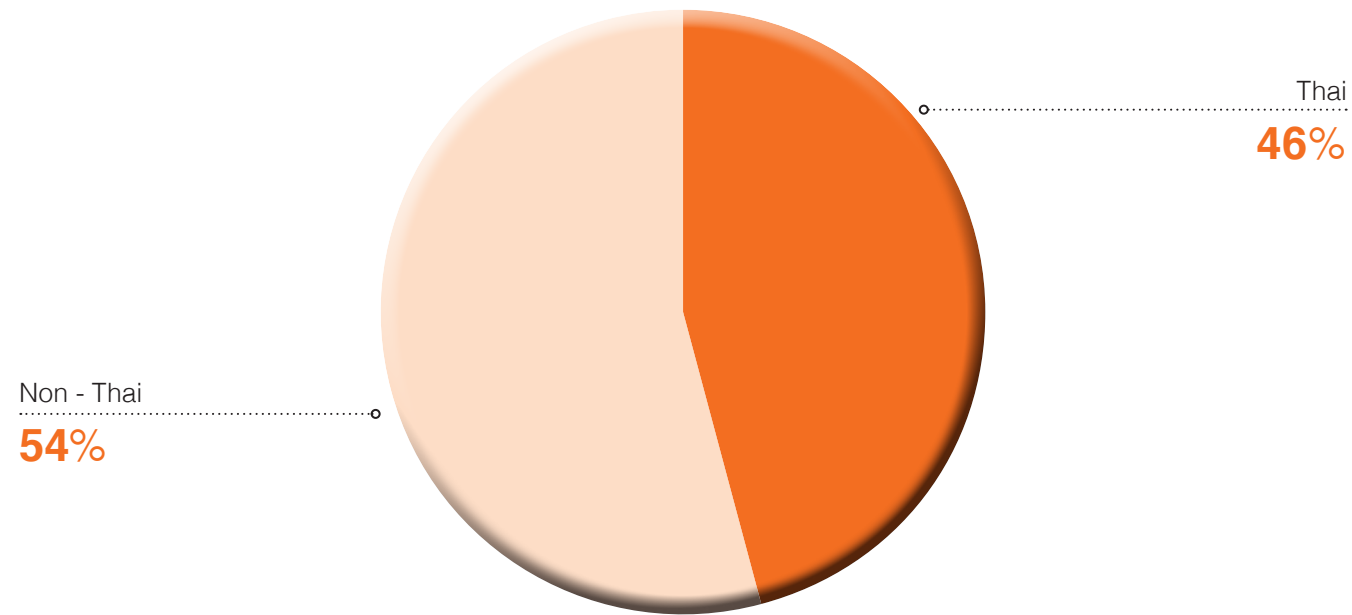


OVERALL HEMATOLOGIC MALIGNANCIES



## PATIENT NATIONALITY

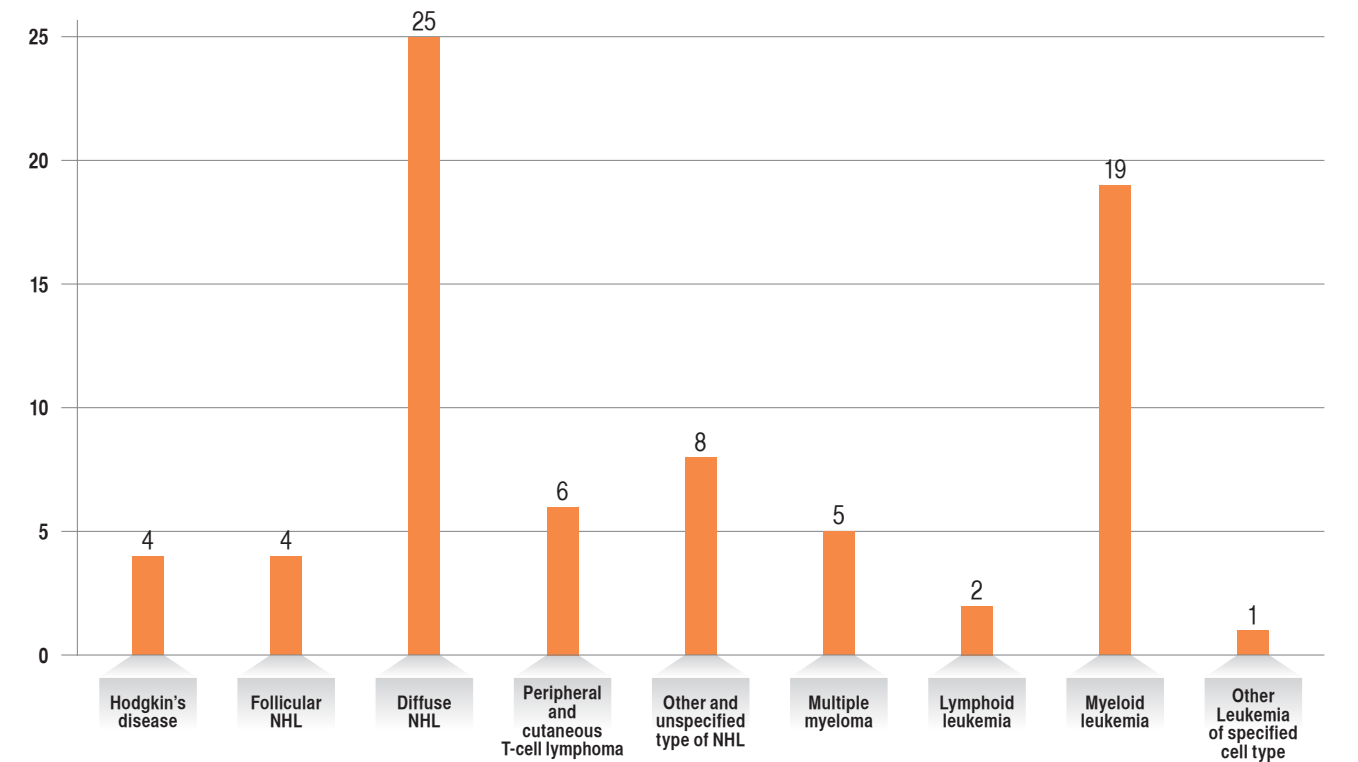
Patient nationality	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Thai	31	42.47	31	50.00	62	45.59
Non - Thai	42	57.53	31	50.00	74	54.41
<b>Total</b>	<b>73</b>	<b>100.00</b>	<b>62</b>	<b>100.00</b>	<b>136</b>	<b>100.00</b>



## HEMATOLOGIC MALIGNANCIES IN NON-THAI PATIENT

Code	Disease	Male		Female		Total	
		Number	Percent	Number	Percent	Number	Percent
C81	Hodgkin's disease	2	4.76	2	6.25	4	5.41
C82	Follicular NHL	2	4.76	2	6.25	4	5.41
C83	Diffuse NHL	15	35.71	10	31.25	25	33.78
C84	Peripheral and cutaneous T-cell lymphoma	5	11.90	1	3.13	6	8.11
C85	Other and unspecified type of NHL	5	11.90	3	9.38	8	10.81
C90	Multiple myeloma	2	4.76	3	9.38	5	6.76
C91	Lymphoid leukemia	1	2.38	1	3.13	2	2.70
C92	Myeloid leukemia	10	23.81	9	28.13	19	25.68
C94	Other Leukemia of specified cell type	0	0.00	1	3.13	1	1.35
<b>Total</b>		<b>42</b>	<b>100.00</b>	<b>32</b>	<b>100.00</b>	<b>74</b>	<b>100.00</b>

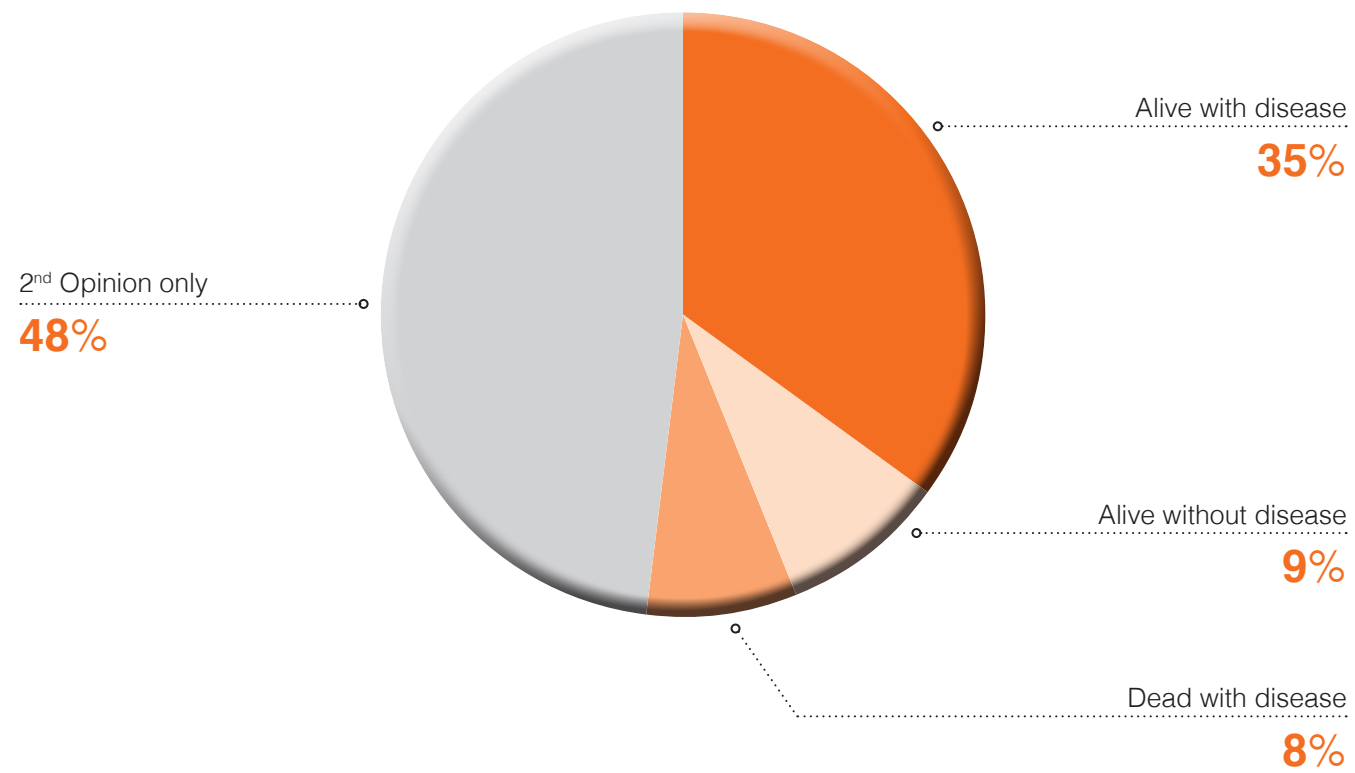
### Non - Thai patient



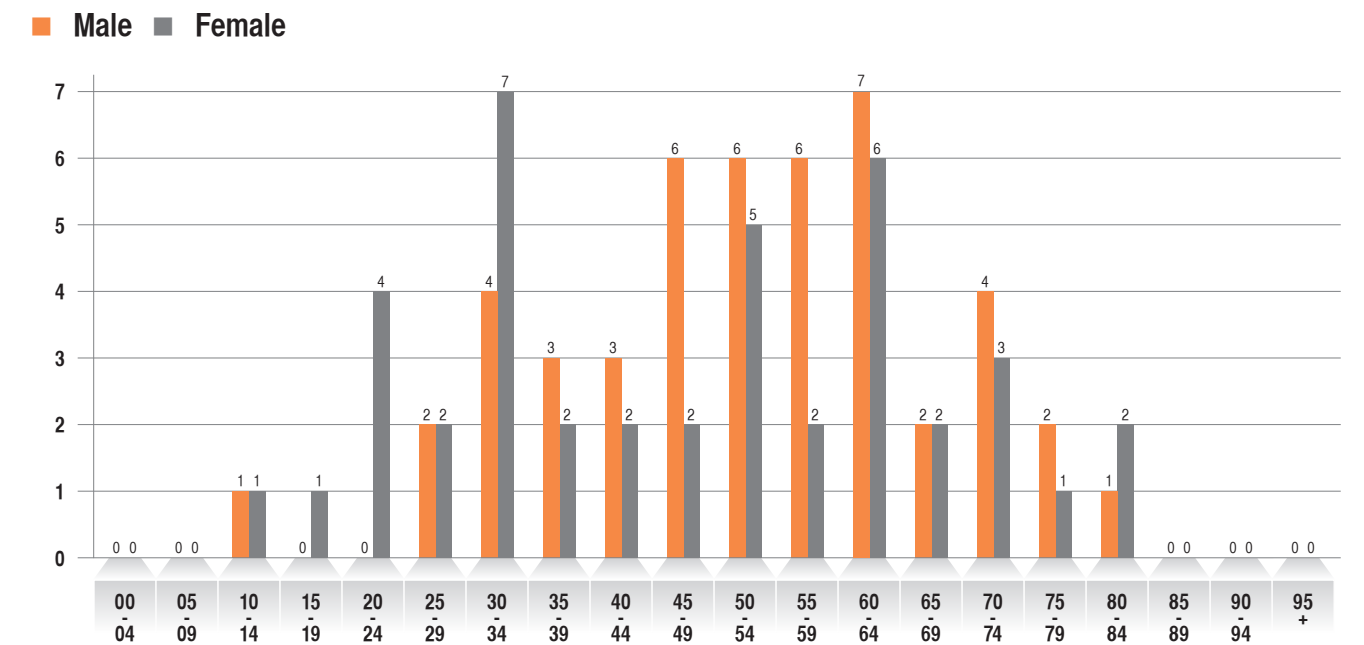
OVERALL HEMATOLOGIC MALIGNANCIES

# PATIENT FOLLOW UP STATUS

# LYMPHOMA AGE AND GENDER



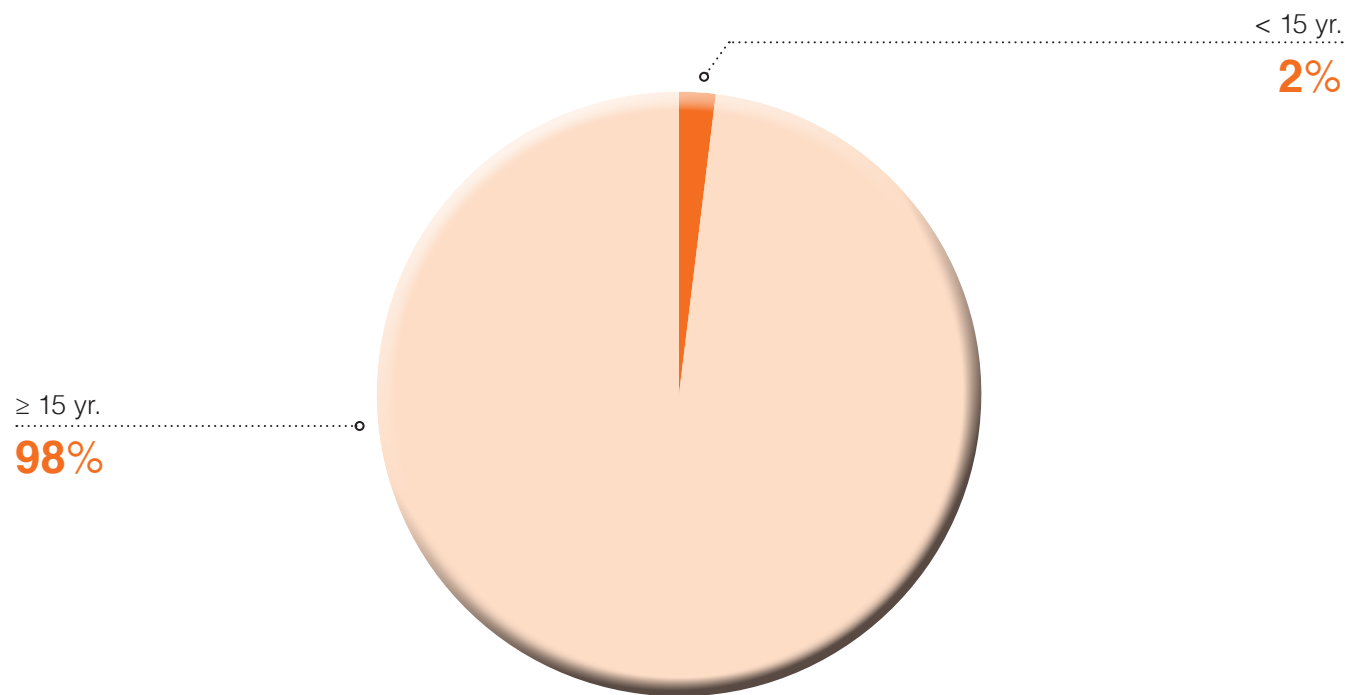
Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	0	0.00	0	0.00	0	0.00
10 - 14	1	2.13	1	2.38	2	2.25
15 - 19	0	0.00	1	2.38	1	1.12
20 - 24	0	0.00	4	9.52	4	4.49
25 - 29	2	4.26	2	4.76	4	4.49
30 - 34	4	8.51	7	16.67	11	12.36
35 - 39	3	6.38	2	4.76	5	5.62
40 - 44	3	6.38	2	4.76	5	5.62
45 - 49	6	12.77	2	4.76	8	8.99
50 - 54	6	12.77	5	11.90	11	12.36
55 - 59	6	12.77	2	4.76	8	8.99
60 - 64	7	14.89	6	14.29	13	14.61
65 - 69	2	4.26	2	4.76	4	4.49
70 - 74	4	8.51	3	7.14	7	7.87
75 - 79	2	4.26	1	2.38	3	3.37
80 - 84	1	2.13	2	4.76	3	3.37
85 - 89	0	0.00	0	0.00	0	0.00
90 - 94	0	0.00	0	0.00	0	0.00
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>47</b>	<b>100.00</b>	<b>42</b>	<b>100.00</b>	<b>89</b>	<b>100.00</b>



LYMPHOMA

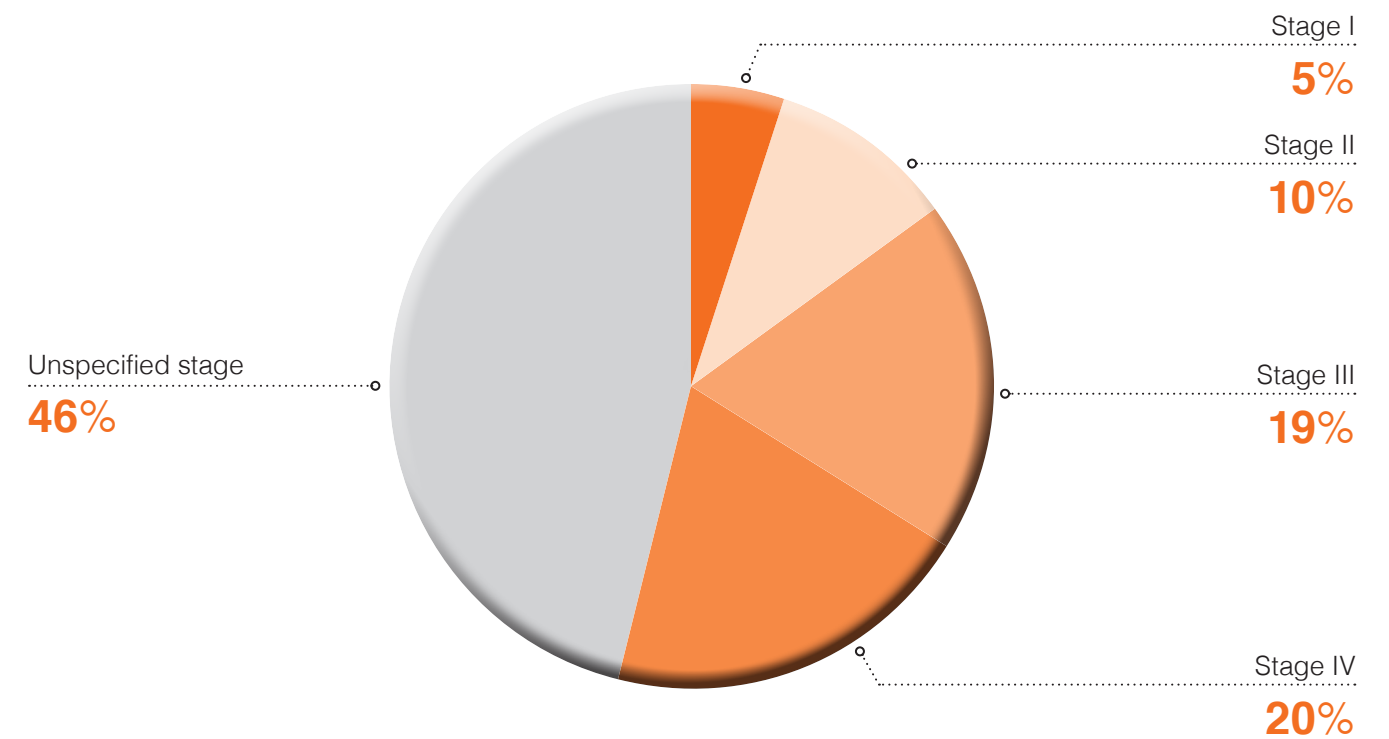
## METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Age group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
< 15 yr.	1	2.13	1	2.38	2	2.25
≥ 15 yr.	46	97.87	41	97.62	87	97.75
<b>Total</b>	<b>47</b>	<b>100.00</b>	<b>42</b>	<b>100.00</b>	<b>89</b>	<b>100.00</b>



Method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Histology	7	31.82	12	63.16	19	46.34
Histology + Flow cytometry	5	22.73	3	15.79	8	19.51
Histology + Immunohistochemistry	4	18.18	1	5.26	5	12.20
Histology + Chromosome + Flow cytometry	0	0.00	1	5.26	1	2.44
Histology + Flow cytometry + Immunohistochemistry	6	27.27	1	5.26	7	17.07
Histology + Flow cytometry + Cytology + Immunohistochemistry	0	0.00	1	5.26	1	2.44
<b>Total</b>	<b>22</b>	<b>100.00</b>	<b>19</b>	<b>100.00</b>	<b>41</b>	<b>100.00</b>

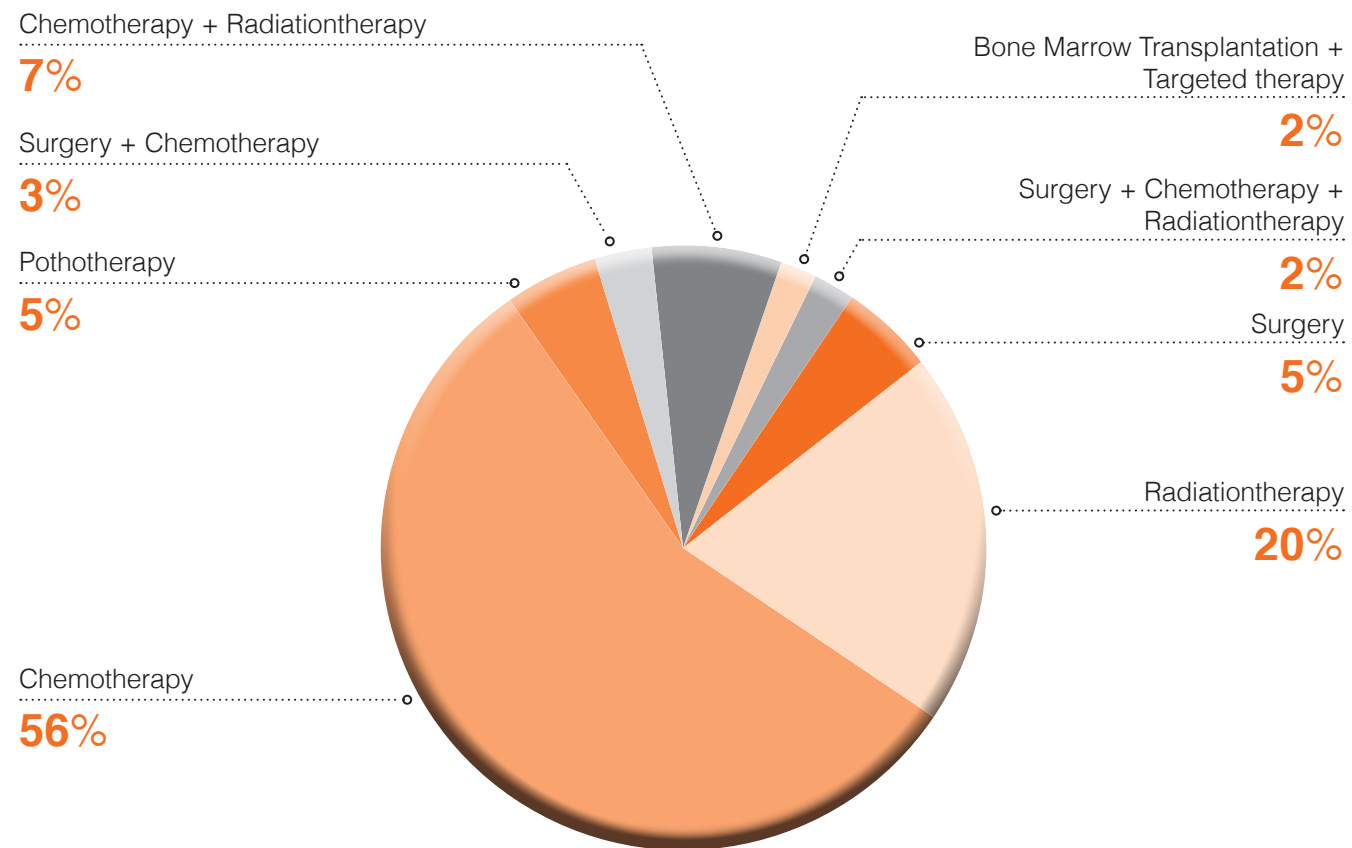
## STAGING (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)



Unspecified stage = Incomplete staging due to insufficient patient information

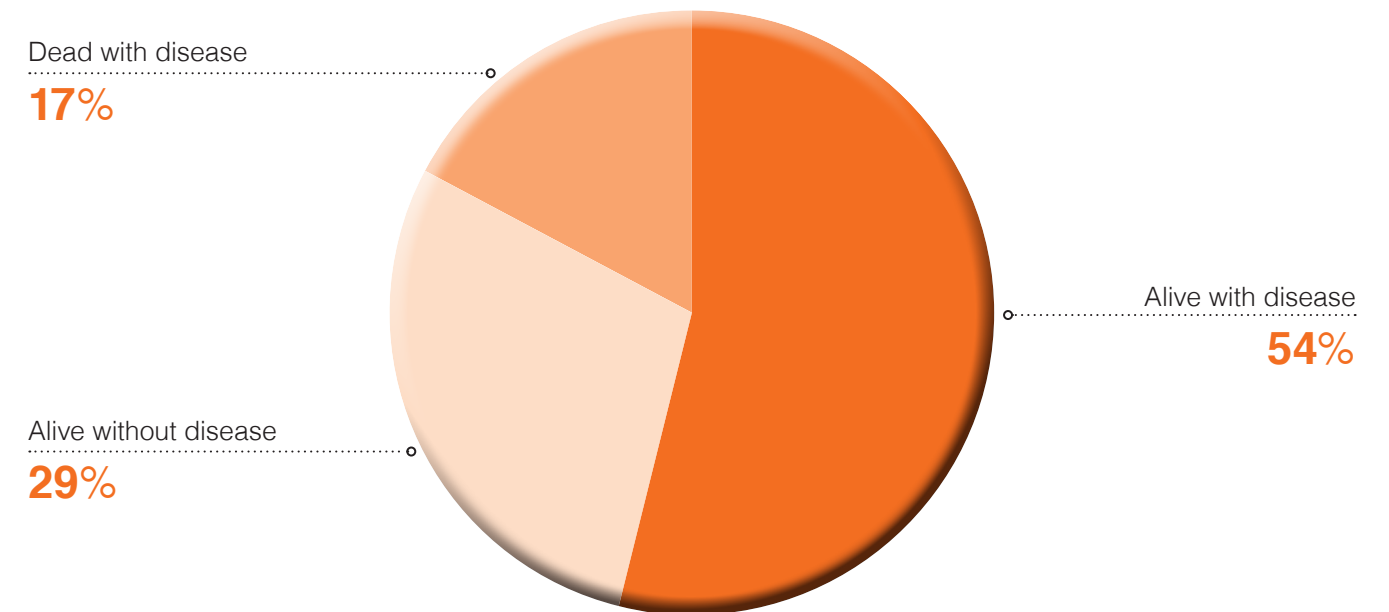
## TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Surgery	1	4.55	1	5.26	2	4.88
Radiationtherapy	4	18.18	4	21.05	8	19.51
Chemotherapy	10	45.45	13	68.42	23	56.10
Pothotherapy	2	9.09	0	0.00	2	4.88
Surgery + Chemotherapy	1	4.55	0	0.00	1	2.44
Chemotherapy + Radiationtherapy	2	9.09	1	5.26	3	7.32
Bone Marrow Transplantation + Targeted therapy	1	4.55	0	0.00	1	2.44
Surgery + Chemotherapy + Radiationtherapy	1	4.55	0	0.00	1	2.44
<b>Total</b>	<b>22</b>	<b>100.00</b>	<b>19</b>	<b>100.00</b>	<b>41</b>	<b>100.00</b>



## PATIENT FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Follow up status	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Alive with disease	10	45.45	12	63.16	22	53.66
Alive without disease	9	40.91	3	15.79	12	29.27
Dead with disease	3	13.64	4	21.05	7	17.07
<b>Total</b>	<b>22</b>	<b>100.00</b>	<b>19</b>	<b>100.00</b>	<b>41</b>	<b>100.00</b>

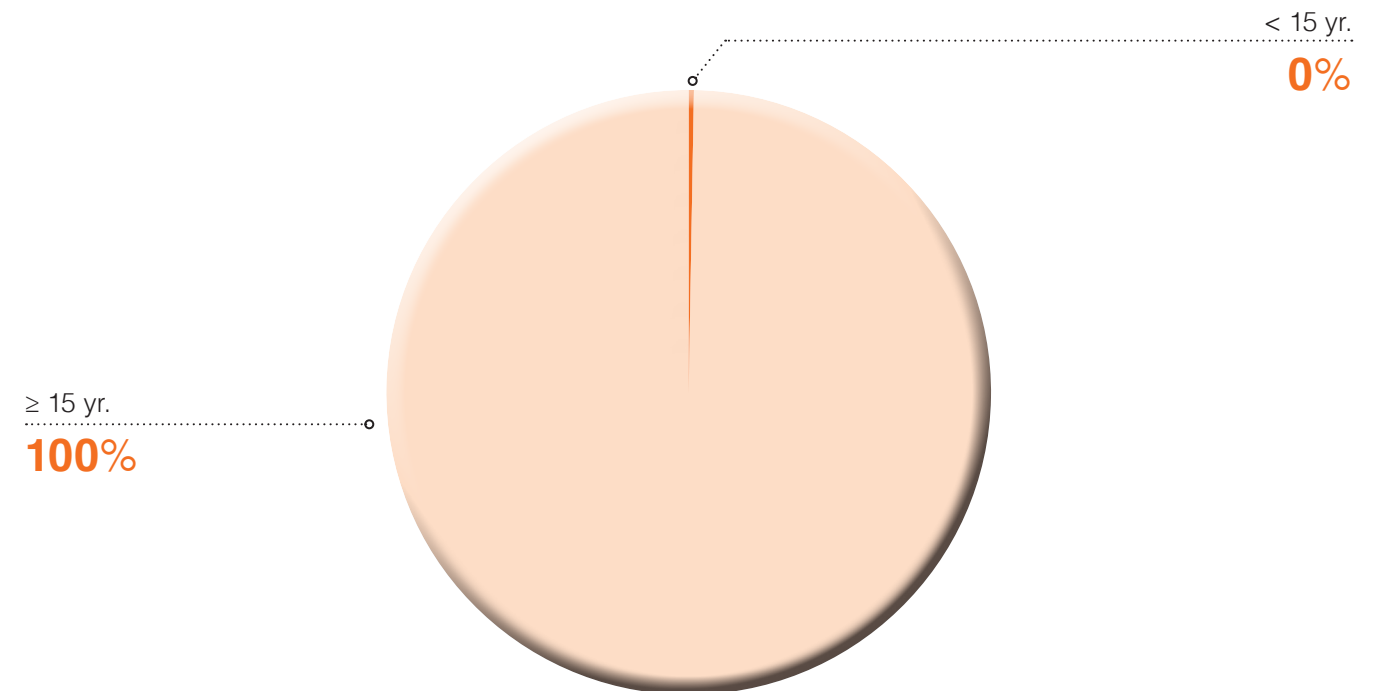


LYMPHOMA

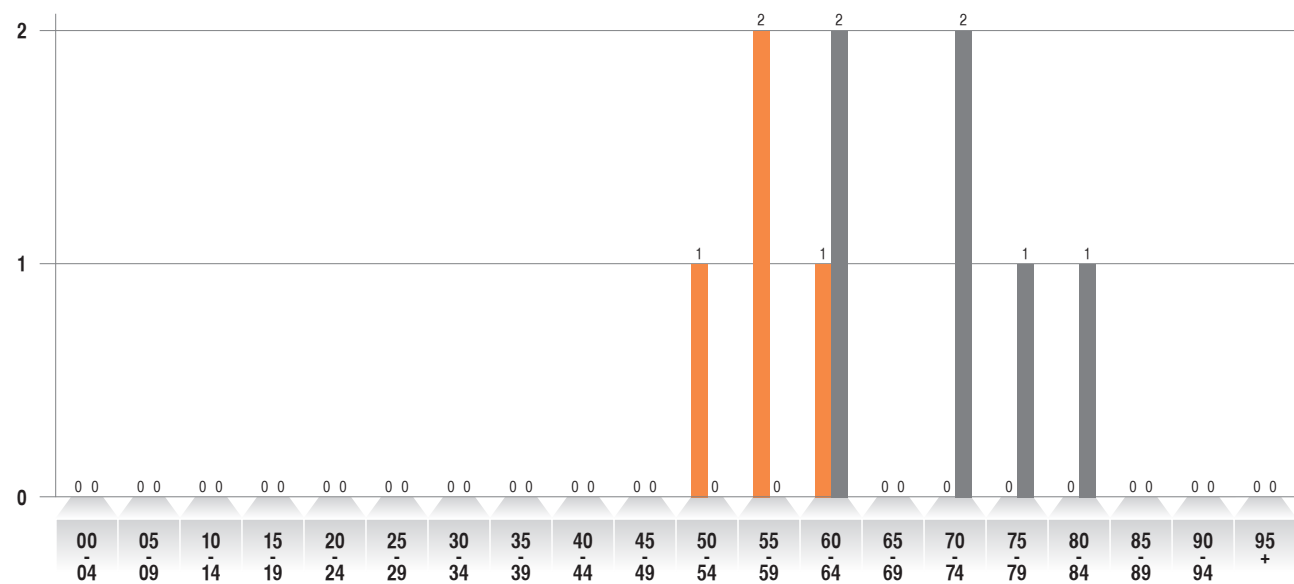
# MULTIPLE MYELOMA AGE AND GENDER

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	0	0.00	0	0.00
05 - 09	0	0.00	0	0.00	0	0.00
10 - 14	0	0.00	0	0.00	0	0.00
15 - 19	0	0.00	0	0.00	0	0.00
20 - 24	0	0.00	0	0.00	0	0.00
25 - 29	0	0.00	0	0.00	0	0.00
30 - 34	0	0.00	0	0.00	0	0.00
35 - 39	0	0.00	0	0.00	0	0.00
40 - 44	0	0.00	0	0.00	0	0.00
45 - 49	0	0.00	0	0.00	0	0.00
50 - 54	1	25.00	0	0.00	1	10.00
55 - 59	2	50.00	0	0.00	2	20.00
60 - 64	1	25.00	2	33.33	3	30.00
65 - 69	0	0.00	0	0.00	0	0.00
70 - 74	0	0.00	2	33.33	2	20.00
75 - 79	0	0.00	1	16.67	1	10.00
80 - 84	0	0.00	1	16.67	1	10.00
85 - 89	0	0.00	0	0.00	0	0.00
90 - 94	0	0.00	0	0.00	0	0.00
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>4</b>	<b>100.00</b>	<b>6</b>	<b>100.00</b>	<b>10</b>	<b>100.00</b>

Age group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
< 15 yr.	0	0.00	0	0.00	0	0.00
≥ 15 yr.	4	100.00	6	100.00	10	100.00
<b>Total</b>	<b>4</b>	<b>100.00</b>	<b>6</b>	<b>100.00</b>	<b>10</b>	<b>100.00</b>



■ Male ■ Female



MULTIPLE MYELOMA

## METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

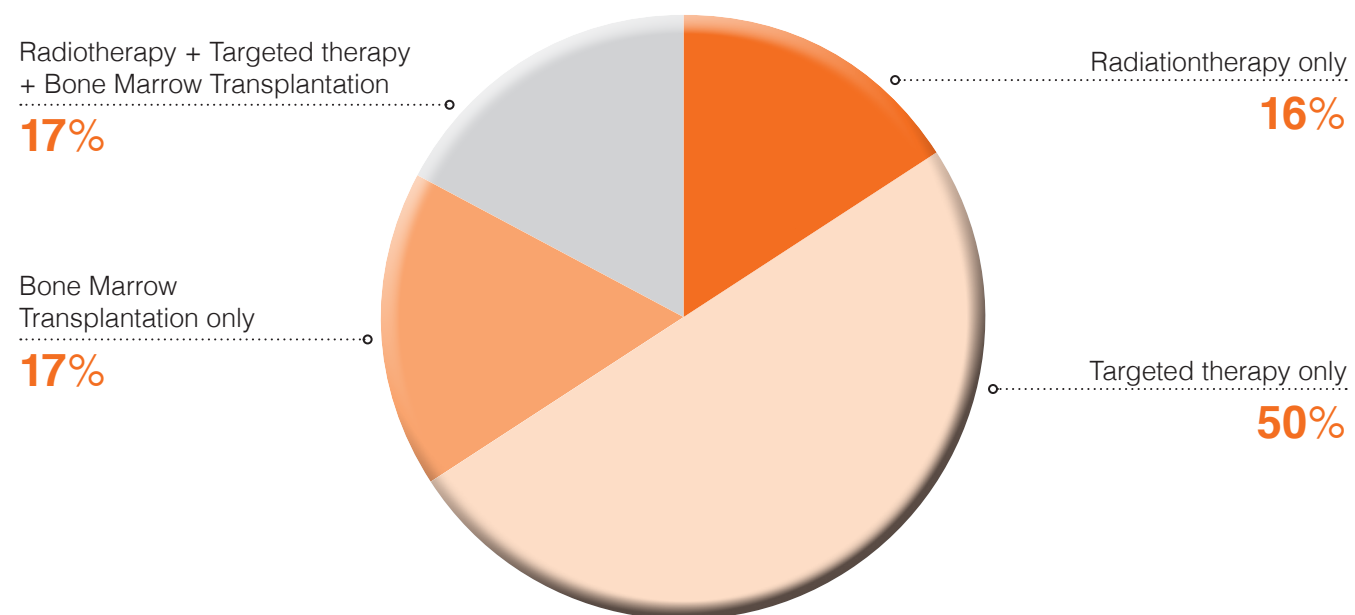
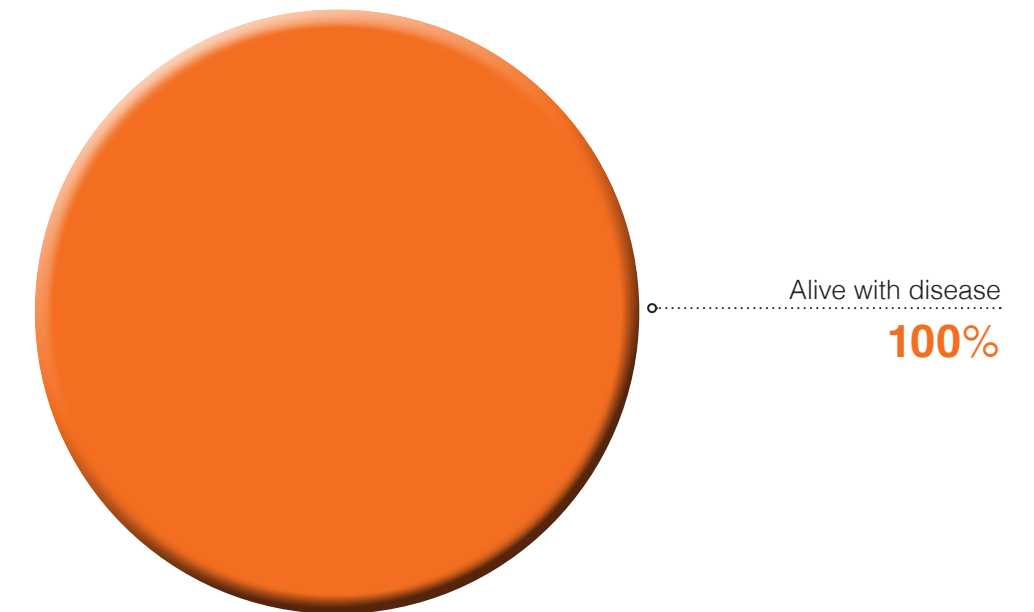
Conclude method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Histology	1	50.00	0	0.00	1	16.67
Histology + Flow cytometry	0	0.00	3	75.00	3	50.00
Histology + Chromosome + Flow cytometry	1	50.00	1	25.00	2	33.33
<b>Total</b>	<b>2</b>	<b>100.00</b>	<b>4</b>	<b>100.00</b>	<b>6</b>	<b>100.00</b>

## PATIENT FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Follow up status	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Alive with disease	2	100.00	4	100.00	6	100.00
<b>Total</b>	<b>2</b>	<b>100.00</b>	<b>4</b>	<b>100.00</b>	<b>6</b>	<b>100.00</b>

## TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

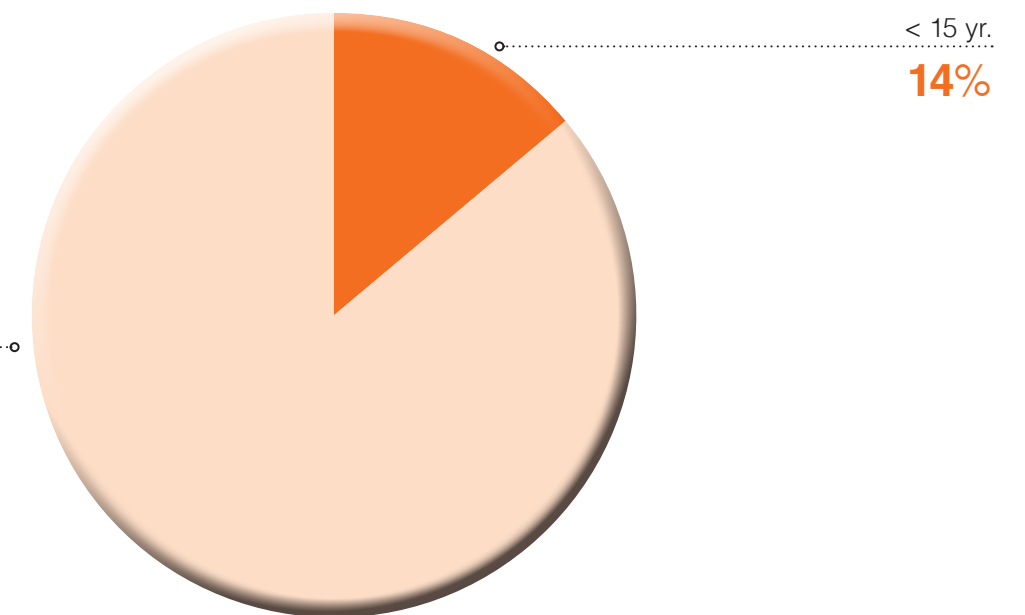
Management of treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Radiationtherapy only	0	0.00	1	25.00	1	16.67
Targeted therapy only	0	0.00	3	75.00	3	50.00
Bone Marrow Transplantation only	1	50.00	0	0.00	1	16.67
Radiotherapy + Targeted therapy + Bone Marrow Transplantation	1	50.00	0	0.00	1	16.67
<b>Total</b>	<b>2</b>	<b>100.00</b>	<b>4</b>	<b>100.00</b>	<b>6</b>	<b>100.00</b>



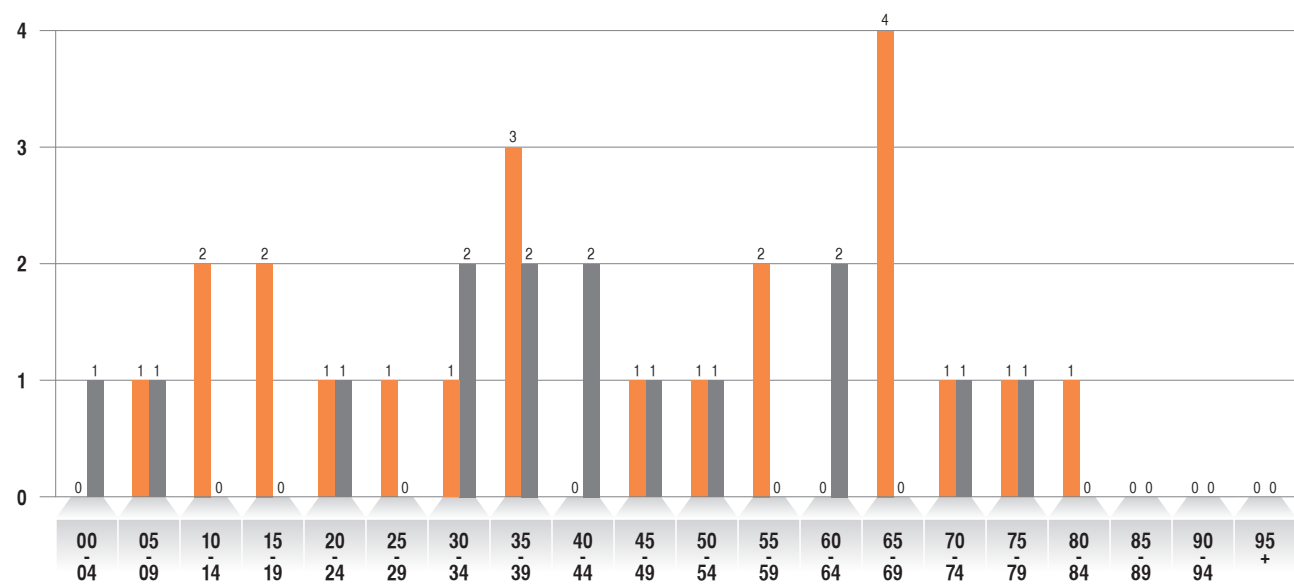
# LEUKEMIA AGE AND GENDER

Age	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
00 - 04	0	0.00	1	6.67	1	2.70
05 - 09	1	4.55	1	6.67	2	5.41
10 - 14	2	9.09	0	0.00	2	5.41
15 - 19	2	9.09	0	0.00	2	5.41
20 - 24	1	4.55	1	6.67	2	5.41
25 - 29	1	4.55	0	0.00	1	2.70
30 - 34	1	4.55	2	13.33	3	8.11
35 - 39	3	13.64	2	13.33	5	13.51
40 - 44	0	0.00	2	13.33	2	5.41
45 - 49	1	4.55	1	6.67	2	5.41
50 - 54	1	4.55	1	6.67	2	5.41
55 - 59	2	9.09	0	0.00	2	5.41
60 - 64	0	0.00	2	13.33	2	5.41
65 - 69	4	18.18	0	0.00	4	10.81
70 - 74	1	4.55	1	6.67	2	5.41
75 - 79	1	4.55	1	6.67	2	5.41
80 - 84	1	4.55	0	0.00	1	2.70
85 - 89	0	0.00	0	0.00	0	0.00
90 - 94	0	0.00	0	0.00	0	0.00
95 +	0	0.00	0	0.00	0	0.00
<b>Total</b>	<b>22</b>	<b>100.00</b>	<b>15</b>	<b>100.00</b>	<b>37</b>	<b>100.00</b>

Age group	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
< 15 yr.	3	13.64	2	13.33	5	13.51
≥ 15 yr.	19	86.36	13	86.67	32	86.49
<b>Total</b>	<b>22</b>	<b>100.00</b>	<b>15</b>	<b>100.00</b>	<b>37</b>	<b>100.00</b>



■ Male ■ Female

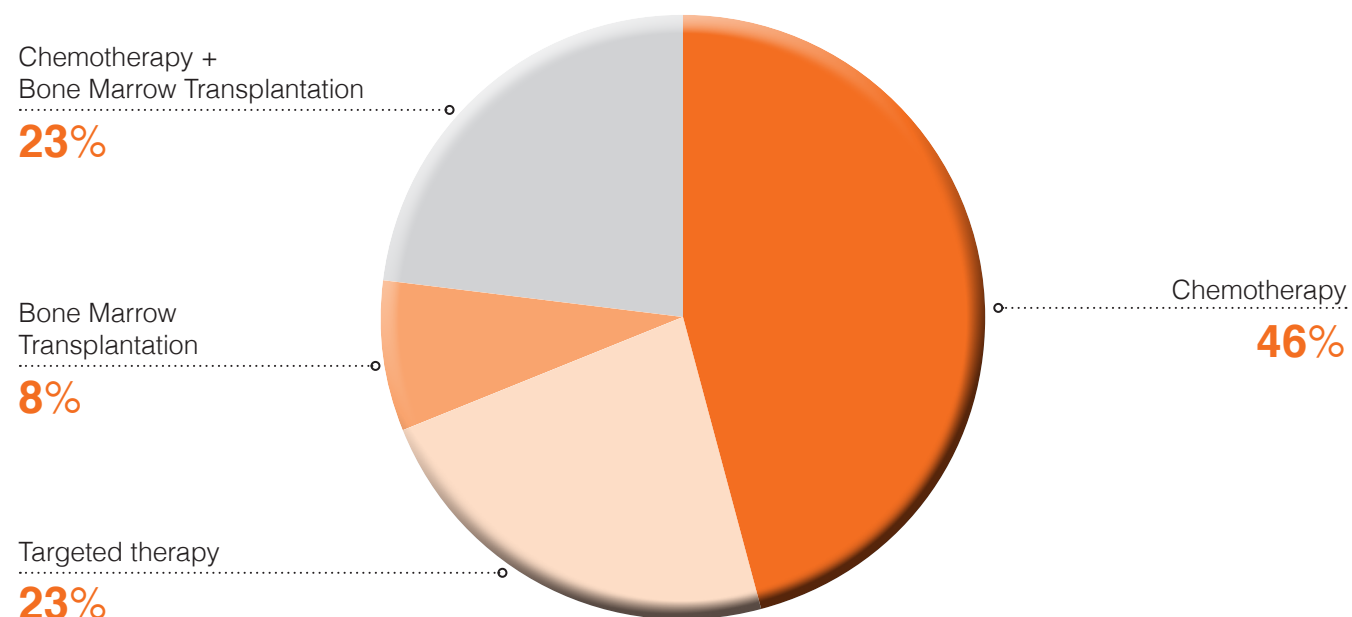


## METHOD OF DIAGNOSIS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Conclude method of diagnosis	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Histology	2	20.00	0	0.00	2	15.38
Histology + Chromosome	0	0.00	1	33.33	1	7.69
Histology + Flow cytometry	3	30.00	2	66.67	5	38.46
Histology + Chromosome + Flow cytometry	4	40.00	0	0.00	4	30.77
Histology + Flow cytometry + Immunohistochemistry	1	10.00	0	0.00	1	7.69
<b>Total</b>	<b>10</b>	<b>100.00</b>	<b>3</b>	<b>100.00</b>	<b>13</b>	<b>100.00</b>

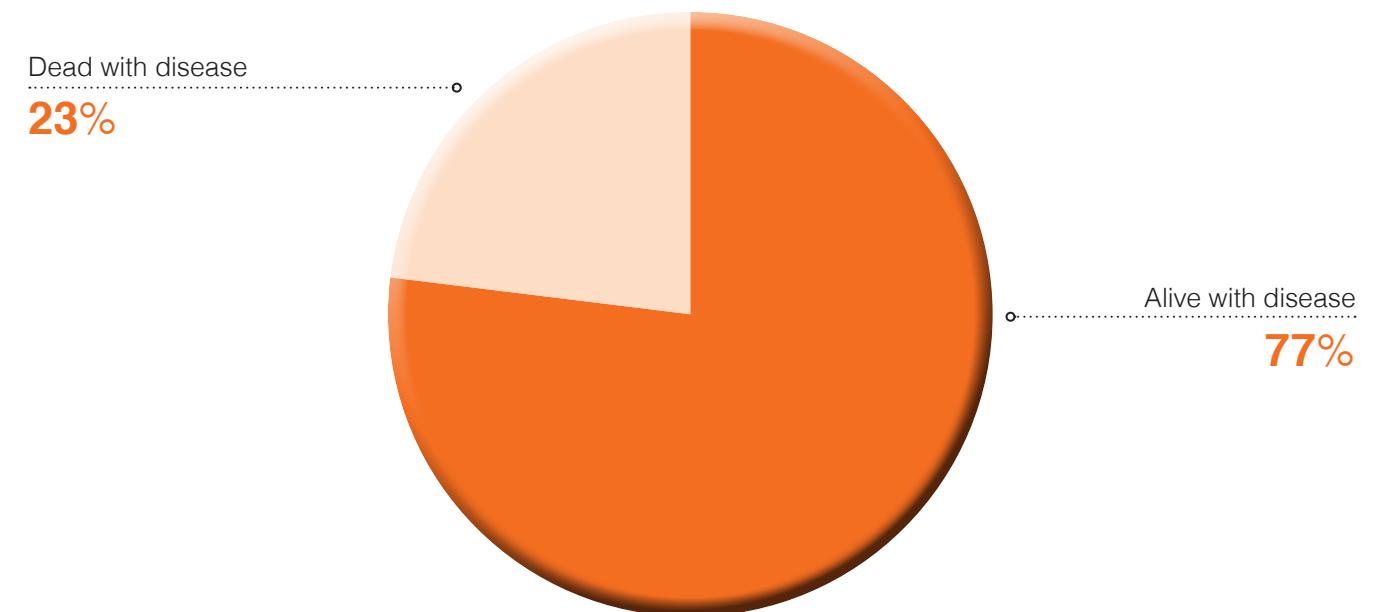
## TYPE OF TREATMENT (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Treatment	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Chemotherapy	5	50.00	1	33.33	6	46.15
Targeted therapy	3	30.00	0	0.00	3	23.08
Bone Marrow Transplantation	0	0.00	1	33.33	1	7.69
Chemotherapy + Bone Marrow Transplantation	2	20.00	1	33.33	3	23.08
<b>Total</b>	<b>10</b>	<b>100.00</b>	<b>3</b>	<b>100.00</b>	<b>13</b>	<b>100.00</b>



## PATIENT FOLLOW UP STATUS (TREATMENT IN BANGKOK HOSPITAL HEADQUARTER)

Follow up status	Male		Female		Total	
	Number	Percent	Number	Percent	Number	Percent
Alive with disease	7	70.00	3	100.00	10	76.92
Dead with disease	3	30.00	0	0.00	3	23.08
<b>Total</b>	<b>10</b>	<b>100.00</b>	<b>3</b>	<b>100.00</b>	<b>13</b>	<b>100.00</b>









This report on cancer survival is based on an analysis of data of top 3 common cancers (i.e., breast, colorectal and lung cancer) in Wattanosoth Cancer Hospital (WSH). The data has been collected by the hospital tumor registry. The cancer patients were diagnosed during a 12 month period from January 1 to December 31, 2009. All of them received treatment at WSH and were prospectively followed-up up to December 31, 2014 (5 year follow-up period).

Survival rates were estimated by Kaplan-Meier method. The survival rates of subgroups of cancer patients categorized by age (aged  $\leq 50$  and  $> 50$  years old), sex (male and female) and stage of cancer at diagnosis (stage 0 - 4) were analyzed for comparison.

As this report is hospital registry-based cancer survival analysis, the study may have limitations related to endpoint data and sample size. The observed survival rates are estimated by method which cumulative probability of survival is calculated at consecutive one-month intervals after diagnosis. The information used included death from the cancer and other causes; lost to follow-up before observation period ended; and follow-up ends due to observation period ended. Therefore survival estimated may be biased if the proportion of lost to follow-up or other causes of death is high. Survival rate estimated from small numbers of cases can provide misleading results and may have wide confidence intervals. In addition to compare survival rate between different groups, test for statistical significant may be misleading.

153 cases were diagnosed breast cancer during January 1 to December 31, 2009. At the time of diagnosis, 18 (11.7%) of them were at stage 0, 56 (36.6%) of them were at stage 1, 43 (28.1%) at stage 2, 16 (10.5%) at stage 3, and 18 (11.7%) at stage 4. Their average age was 59.3 years old (SD  $\pm 12.8$ ). 39 (25.5%) of them aged  $\leq 50$  years old and 114 (74.5%) aged  $> 50$  years old.

The median follow-up period of these breast cancer patients was 47 months (25<sup>th</sup> - 75<sup>th</sup> percentile: 8 - 60 months). During the 5 year follow-up period, 5 of them were dead and 31 were lost to follow-up.

The overall observed survival rate of the breast cancer patients at 5 year follow-up period was 94.8% (95% CI: 87.9 - 97.8) (Fig. 1). The survival seems to have no difference between the age group of  $> 50$  and  $\leq 50$  years old, of which the survival rate was 94.8% (95% CI: 86.7 - 98.0), and 94.7% (95% CI: 68.1 - 99.2) respectively (Fig. 2).

The observed survival of the early stage breast cancers, i.e., stage 0 stage 1 and 2 was 100% respectively, while the survival of the late stages, i.e., stage 3 and 4 was 82.5% (95% CI: 46.1 to 95.3) and 59.3% (95% CI: 18.6 to 85.0) respectively (Fig. 3). The survival rate tends to be lower in the late stage breast cancers.

### Kaplan-Meier survival estimate

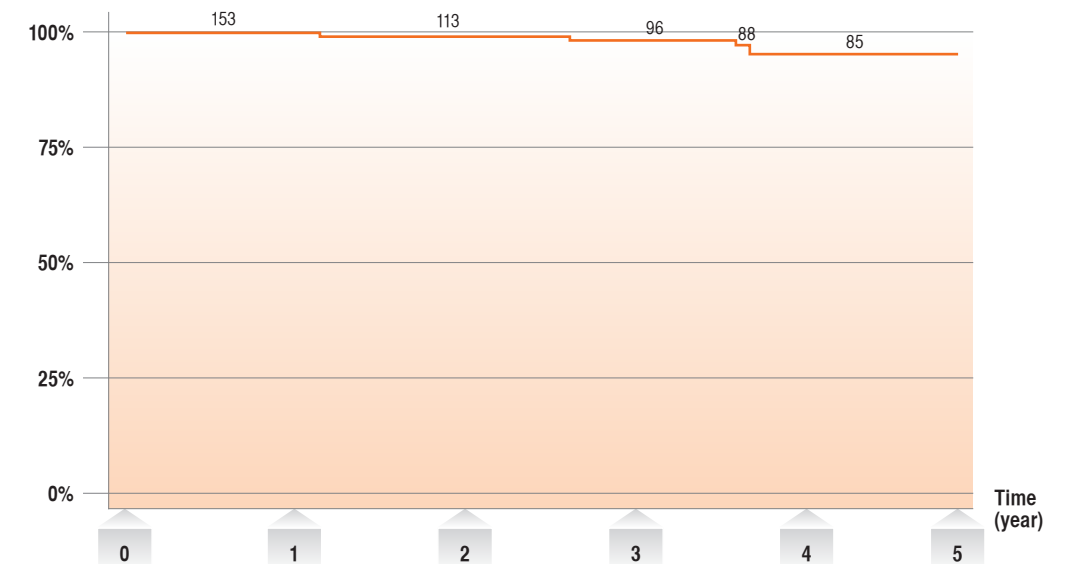


Figure 1. Overall observed survival rate of the breast cancer patients in WSH during 5 year follow-up period

Kaplan-Meier survival estimates by Age

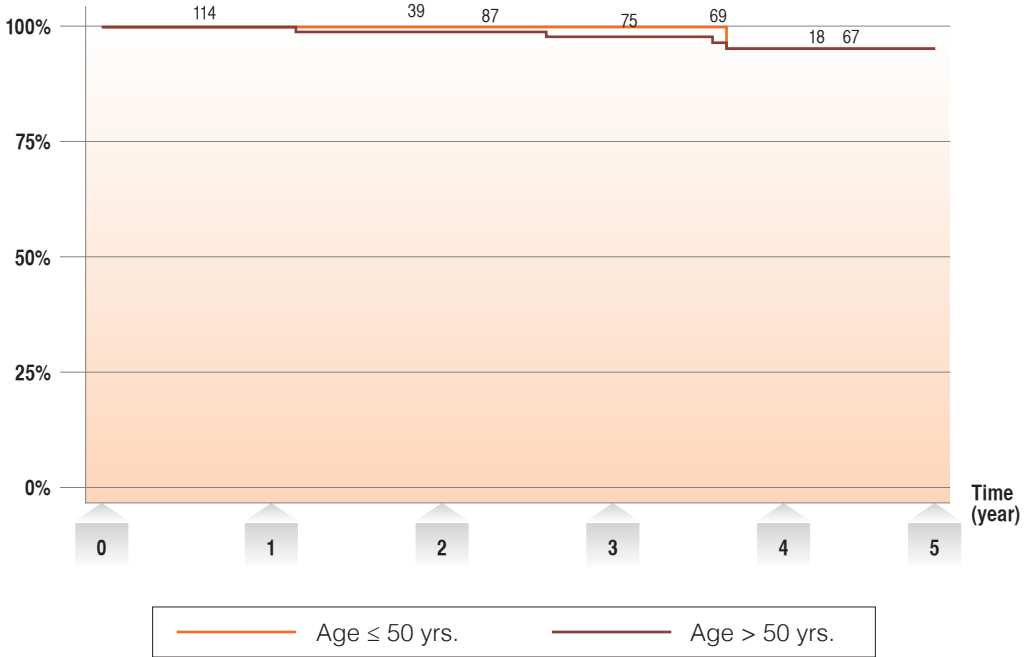


Figure 2. Observed survival rate of the breast cancer patients in WSH during 5 year follow-up period by age group of ≤ 50 and > 50 years old

Kaplan-Meier survival estimates by Stage

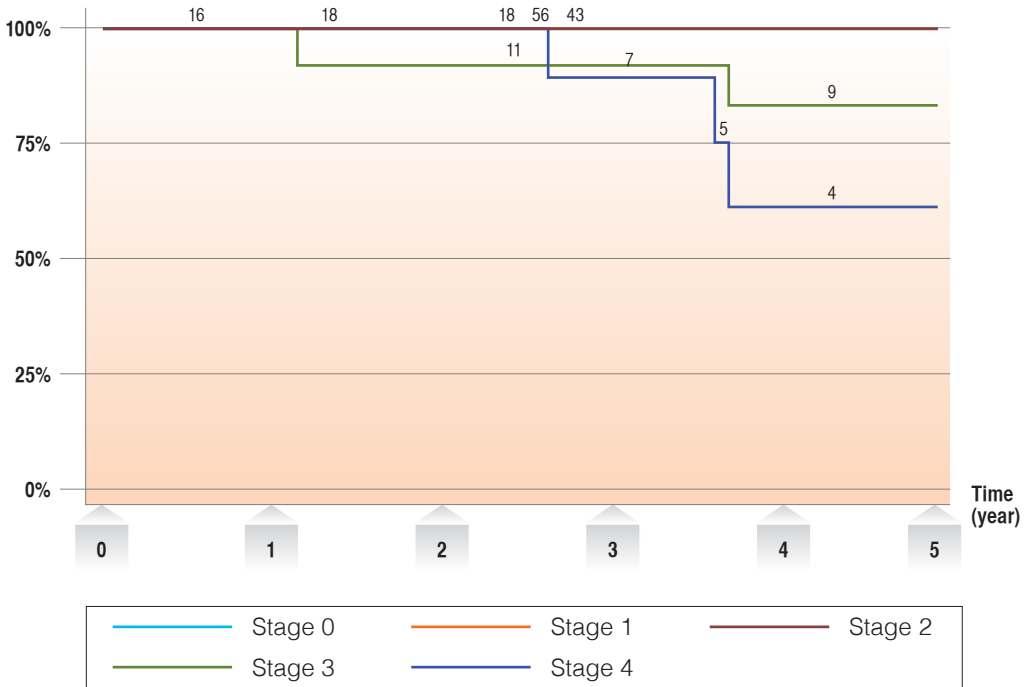


Figure 3. Observed survival rate of the breast cancer patients in WSH during 5 year follow-up period by stage of the cancer at diagnosis (stage 0 - 4)

60 cases were diagnosed colorectal cancer during January 1 to December 31, 2009. At the time of diagnosis, 5 (8.3%) of them were at stage 1, 10 (16.7%) at stage 2, 14 (38.3%) at stage 3, and 14 (36.7%) at stage 4. Their average age was 67.2 years old (SD ± 16.0). 9 (15.0%) of them aged ≤ 50 years old and 51 (85.0%) aged > 50 years old. Among of them, there were 33 (55.0%) males and 27 (45.0%) females.

The median follow-up period of these colorectal cancer patients was 17 months (25<sup>th</sup> - 75<sup>th</sup> percentile: 5 - 47.5 months). During the 5 year follow-up period, 8 of them were dead and 11 were lost to follow-up.

The overall observed survival rate of the colorectal cancer patients at 5 year follow-up period was 78.5% (95% CI: 60.2 - 89.1) (Fig. 1). The survival among the male patients was 84.5% (95% CI: 52.8 - 95.7) and female was 74.2% (95% CI: 48.1 - 88.5) (Fig 2). The female patients seem to have lower observed survival rate. The survival seems to have no difference between the age group of > 50 and ≤ 50 years old, of which the survival rate was 76.5% (95% CI: 54.9 - 88.7) and 85.7% (95% CI: 33.4 - 97.8) respectively (Fig. 3).

The observed survival of early stage colorectal cancers, i.e., stage 1 and 2 was 100.0% respectively, while the survival of the late stages, i.e., stage 3 and 4 was 62.0% (95% CI: 25.1 - 84.8) and 74.6% (95% CI: 43.1 - 90.3) respectively (Fig. 4). The observed survival tends to be decreased as the cancer stage advanced. Especially in the stage 4, the survival was substantially decreased.

Kaplan-Meier survival estimate

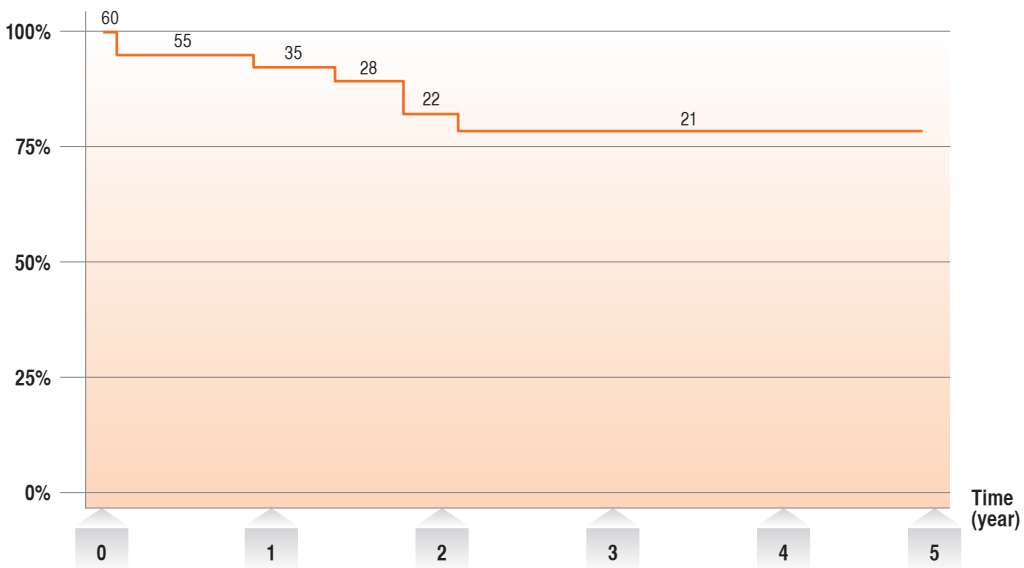
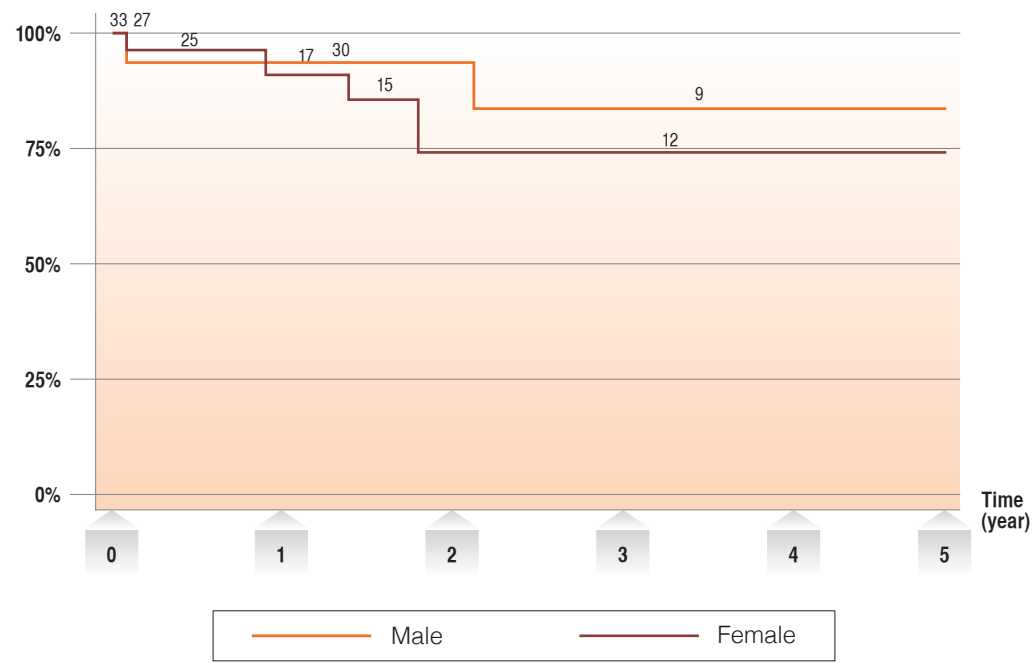


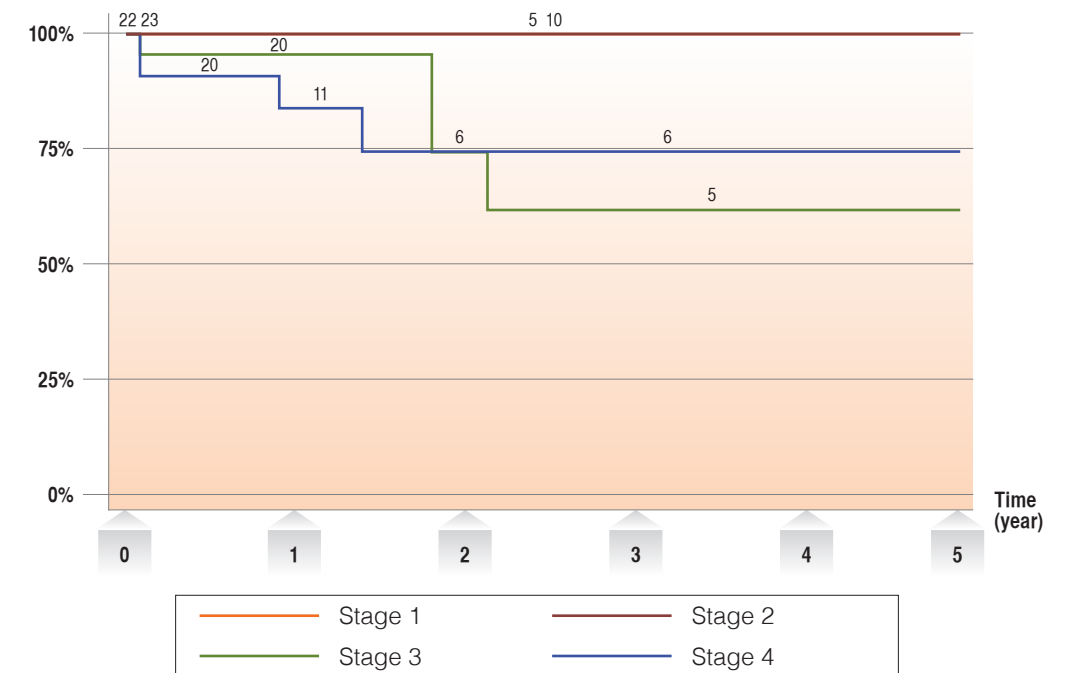
Figure 1. Overall observed survival rate of the colorectal cancer patients in WSH during 5 year follow-up period

**Kaplan-Meier survival estimates by Gender**



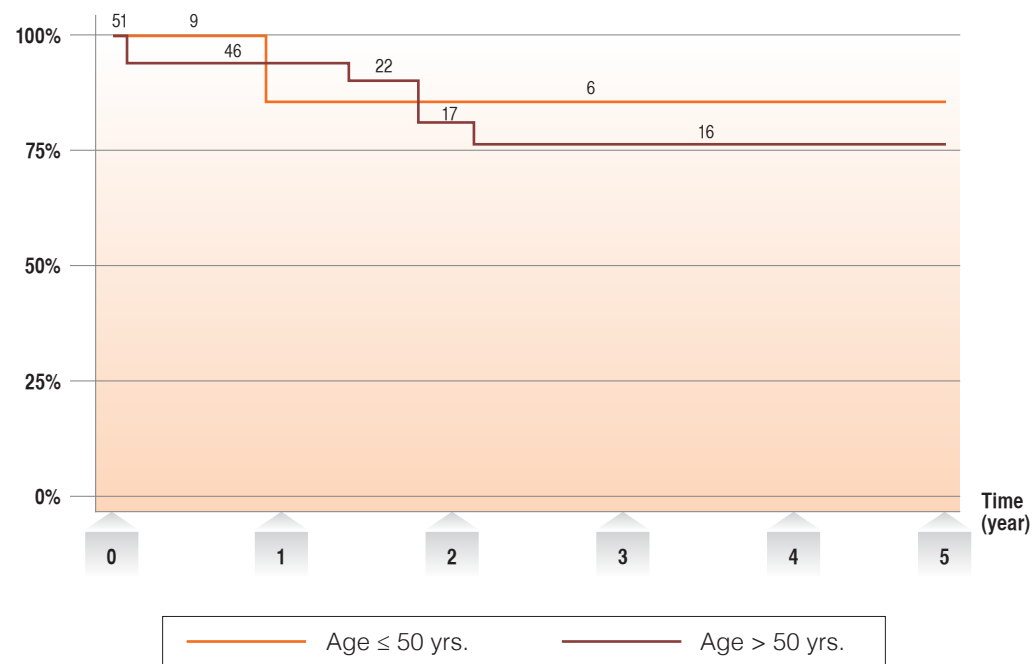
**Figure 2.** Observed survival rate of the colorectal cancer patients in WSH during 5 year follow-up period by gender (male and female)

**Kaplan-Meier survival estimates by Stage**



**Figure 4.** Observed survival rate of the colorectal cancer patients in WSH during 5 year follow-up period by stage of the cancer at diagnosis (stage 1 - 4)

**Kaplan-Meier survival estimates by Age**



**Figure 3.** Observed survival rate of the colorectal cancer patients in WSH during 5 year follow-up period by age group of ≤ 50 and > 50 years old

# LUNG CANCER SURVIVAL

69 cases were diagnosed lung cancer during January 1 to December 31, 2009. At the time of diagnosis, 13 (18.8%) of them were at stage 1, 6 (8.7%) at stage 2, 11 (15.9%) at stage 3, and 39 (56.5%) at stage 4. Their average age was 68.4 years old (SD ± 12.2). 5 (7.2%) of them aged ≤ 50 years old and 64 (92.8%) aged > 50 years old. Among of them, there were 52 (75.4%) males and 17 (24.6%) females.

The median follow-up period of these lung cancer patients was 7 months (25<sup>th</sup> - 75<sup>th</sup> percentile: 3 - 24). During the 5 year follow-up period, 21 of them were dead and 20 were lost to follow-up.

The observed survival rate of the lung cancer patients at 5 year follow-up period was 39.6% (95% CI: 20.1 - 58.6) (Fig. 1). The survival seems to have no difference between male and female patients, of which the survival rate was 30.4% (95% CI: 10.3 - 53.5) and 63.0% (95% CI: 17.2 - 88.6) respectively (Fig 2). The survival of patients aged > 50 and ≤ 50 years old was 42.1% (95% CI: 22.1 - 60.9) and 40.0% (95% CI: 1.1 - 82.9) respectively (Fig. 3). The patients aged ≤ 50 years old seem to have lower observed survival rate.

The observed survival rate of early stage lung cancers, i.e., stage 1 and 2 was 72.7% (95% CI: 24.4 - 93.1) and 75.0% (95% CI: 12.8 - 96.1) respectively while the survival of late stages, i.e., stage 3 and 4 was 46.3% (95% CI: 11.2 - 76.2) and 19.0% (95% CI: 1.1 - 54.0) respectively (Fig. 4). The observed survival tends to be decreased as the cancer stage advanced.

## Kaplan-Meier survival estimate

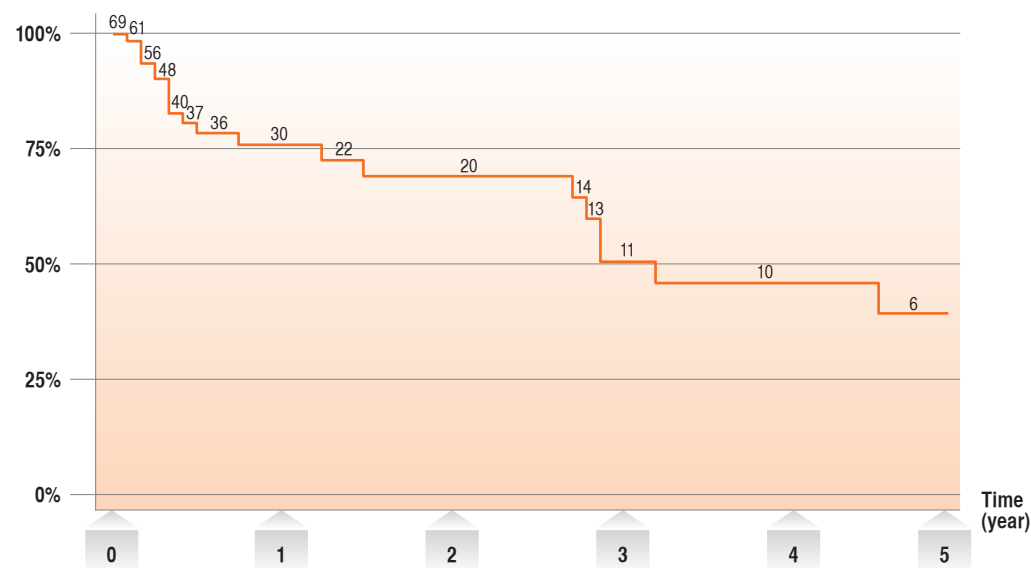


Figure 1. Overall observed survival rate of the lung cancer patients in WSH during 5 year follow-up period

## Kaplan-Meier survival estimates by Gender

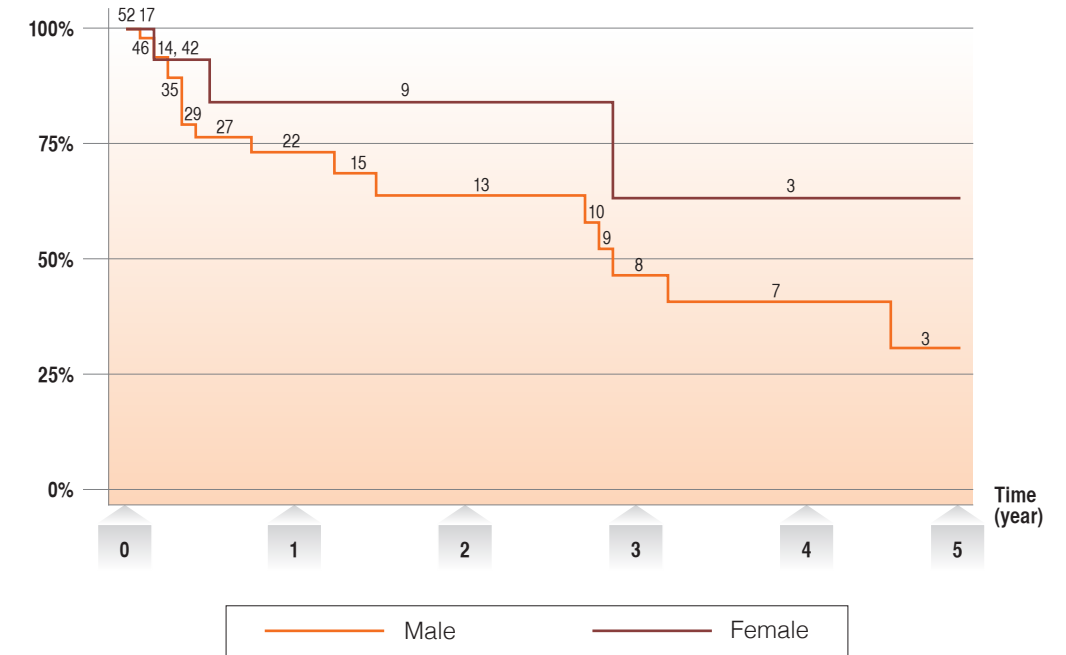


Figure 2. Observed survival rate of the lung cancer patients in WSH during 5 year follow-up period by gender (male and female)

## Kaplan-Meier survival estimates by Age

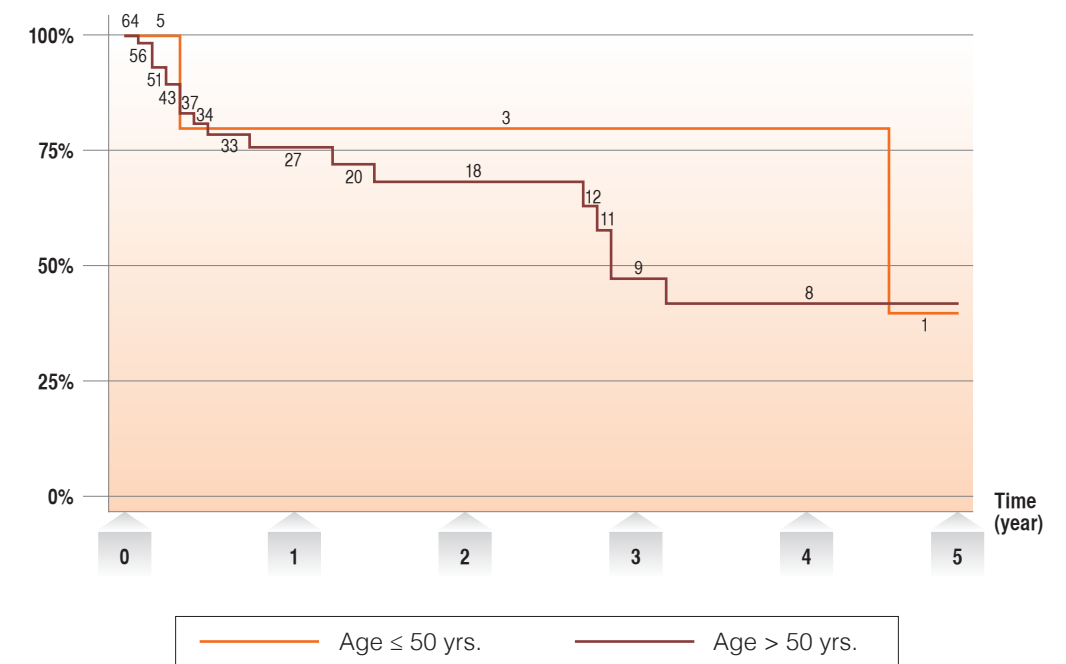


Figure 3. Observed survival rate of the lung cancer patients in WSH during 5 year follow-up period by age group of ≤ 50 and > 50 years old

### Kaplan-Meier survival estimates by Stage

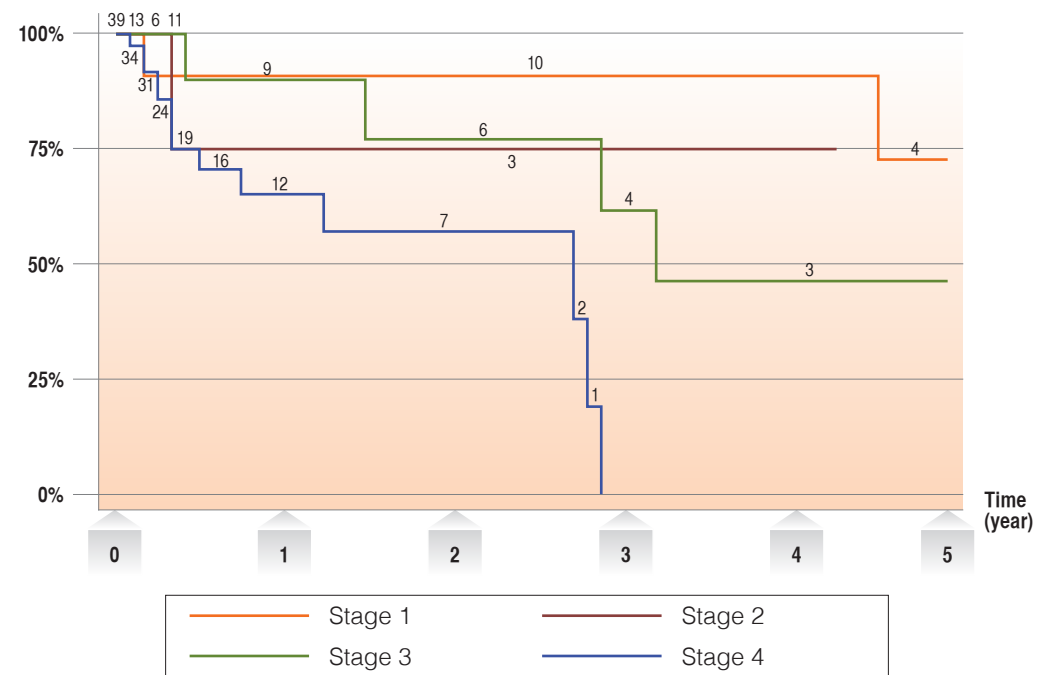


Figure 4. Observed survival rate of the lung cancer patients in WSH during 5 year follow-up period by stage of the cancer at diagnosis (stage 1- 4)



Komgrit Tanisaro  
M.D.



Natthaphum Khanchanaporn  
M.D.



Surachai Sitawarin  
M.D.



Saengduan Chindavijak  
M.D.



Waraphorn Chomphu  
Tumor Registered-Officer (WSH)



Pichet Pariyarungsi  
Senior Business Intelligence Manager