

# ANNUAL CANCER REGISTRY REPORT-2009

## CANCER STATISTICS

### Distribution of neoplasms

Of a total of 3,836 new neoplasms diagnosed or treated at the Hospital from January 01, 2009 to December 31, 2009, 1,885 were seen in male (49.14%) and 1,951 (50.86%) in female patients. Three thousand, four hundred and thirty one (3,431 ((89.44%)) neoplasms were found in adults, whereas, 405 (10.56%) were seen in children. Children were classified as those 18 years or less in age and adults as more than 18 years of age. Table 1 shows the stratification of cases by behavior and age-groups.

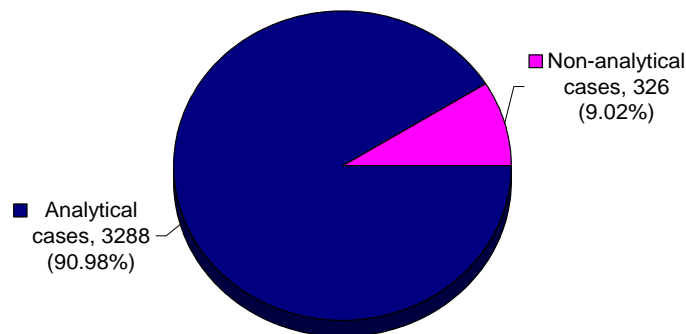
**Table 1. Distribution of neoplasms by behavior and age-groups.**

Behavior	Age Group	Registered patients (3,808)	Reported neoplasm* (3,836)
<b>Malignant</b> ♦	Adults	3193	3219
	Pediatics	395	395
	Total	3,588	3,614
<b>Benign</b> € & <b>Uncertain Behavior</b>	Adults	210	212
	Pediatics	10	10
	Total	220	222

### Class of Case

Of a total 3,614 malignant cases registered at the from January 2009 to December 2009, 3,288 (90.98%) were analytical cases and 326 (9.02%) were found to be non-analytical. Figure 1 shows the stratification of analytical and non-analytical cases<sup>¥</sup>.

**Fig. 1. Stratification of analytical and non-analytical cases**



Data Source: Cancer Registry & Clinical Data Management, SKMCH & RC

\* The difference in the number of registered patients and reported neoplasms is attributed to multiple malignancies and benign neoplasms diagnosed in 26 and 2 patients respectively. Also 36 patients have both malignant and benign neoplasm simultaneously.

♦ Cases with behavior code /3 and /2 are considered as malignant cases.

€ Cases with behavior code /0 and /1 are considered as benign and uncertain, respectively.

¥ Class of case 0 to 2 and 3 to 9 are considered analytical cases and non-analytical cases respectively according to the Facility Oncology Revised Data Standards (FORDS) Revised for 2004.

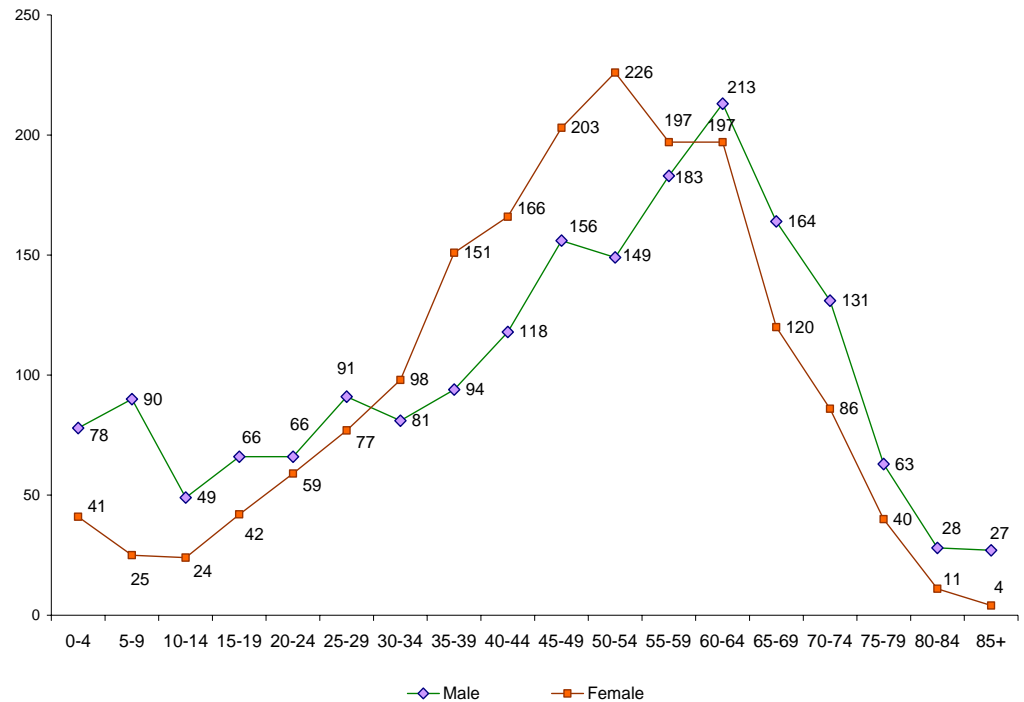
## Distribution of malignancies

In the year 2009, 3,614 malignant cases were diagnosed at the Hospital with 1,847 seen amongst males and 1,767 amongst females. Table 2 displays the distributions of male and female patients according to age-groups and gender.

**Table 2. Distribution of cancer cases by sex and age-group**

Age range	Male	Female	Total
0-4	78	41	119
5-9	90	25	115
10-14	49	24	73
15-19	66	42	108
20-24	66	59	125
25-29	91	77	168
30-34	81	98	179
35-39	94	151	245
40-44	118	166	284
45-49	156	203	359
50-54	149	226	375
55-59	183	197	380
60-64	213	197	410
65-69	164	120	284
70-74	131	86	217
75-79	63	40	103
80-84	28	11	39
85+	27	04	31
<b>Total</b>	<b>1847</b>	<b>1767</b>	<b>3614</b>

**Fig. 2. Distribution of malignancies by age-groups and sex**



Data Source: Cancer Registry & Clinical Data Management, SKMCH & RC

## Demographics

Of the 3,614 patients diagnosed with malignant cancers, nearly 72.25% (2,611) belonged to the province of Punjab and approximately 18.90% (683) to the NWFP\* (Table 3). The fact that the geographic area of residence of a vast majority of patients was Punjab can be explained in light of the information that the Hospital is situated in the provincial capital of Punjab and that, this province accounts for almost 60% of the total population of the country.

**Table 3. Province-wise distribution of patients**

Province/Region	Patients	Percentage
Punjab	2,611	72.25
NWFP*	683	18.90
Sindh	47	1.30
Federal Capital	62	1.72
Balochistan	45	1.05
F.A.T.A	27	1.63
Other countries	63	3.15
<b>Total</b>	<b>3,614</b>	<b>100.00</b>

\* NWFP renamed as Khyber Pakhtoonkhwa on April 01, 2010.

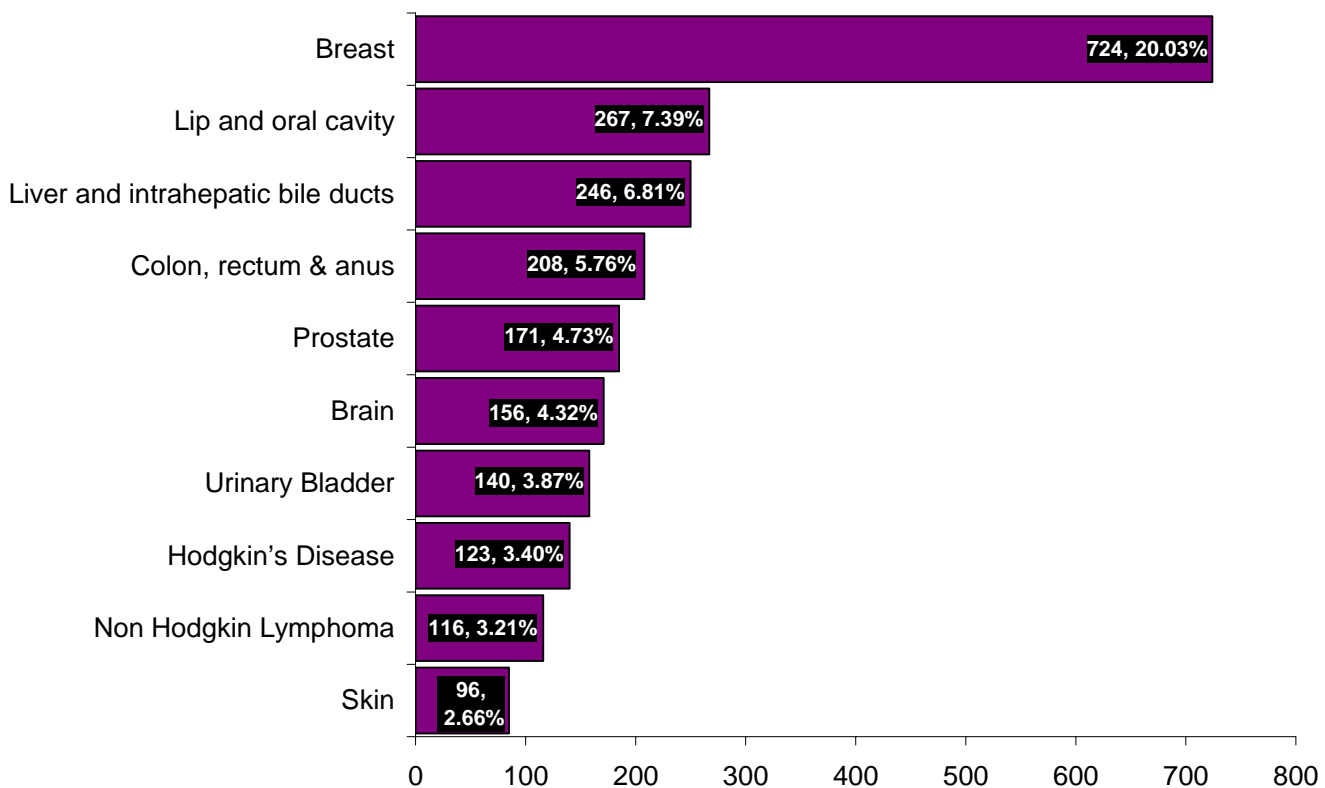
## Top Ten Cancers

Table 4 shows the list of the ten commonest malignancies seen at SKMCH & RC during the year 2009. Breast cancer was the leading malignancy with 724 cases accessioned into the Registry. Lip & oral cavity cancer and liver & intra-hepatic bile ducts cancer were the second and third most frequently seen cancers, respectively.

**Table 4. Top 10 malignancies seen at SKMCH & RC in all age-groups and both sexes combined (Jan. 2009-Dec. 2009).**

Sr. No.	ICD-O-3 Category	Count	Percentage	ICD-O-3 Code
1	Breast	724	20.03	C50.0 - C50.9
2	Lip and oral cavity	267	7.39	C00.0 - C08.9
3	Liver and intrahepatic bile ducts	246	6.81	C22.0 - C22.1
4	Colon, rectum, and anus	208	5.76	C18.0 - C21.8
5	Prostate	171	4.73	C61.9
6	Brain	156	4.32	C71.0 - C71.9
7	Urinary Bladder	140	3.87	C67.0 - C67.9
8	Hodgkin's Disease	123	3.40	M9650 - M9667
9	Non Hodgkin Lymphoma	116	3.21	M9590, 91- M967-972
10	Skin	96	2.66	C44

**Fig. 3. Top 10 malignancies seen at SKMCH & RC in all age-groups and both sexes combined (Jan. 2009-Dec. 2009).**



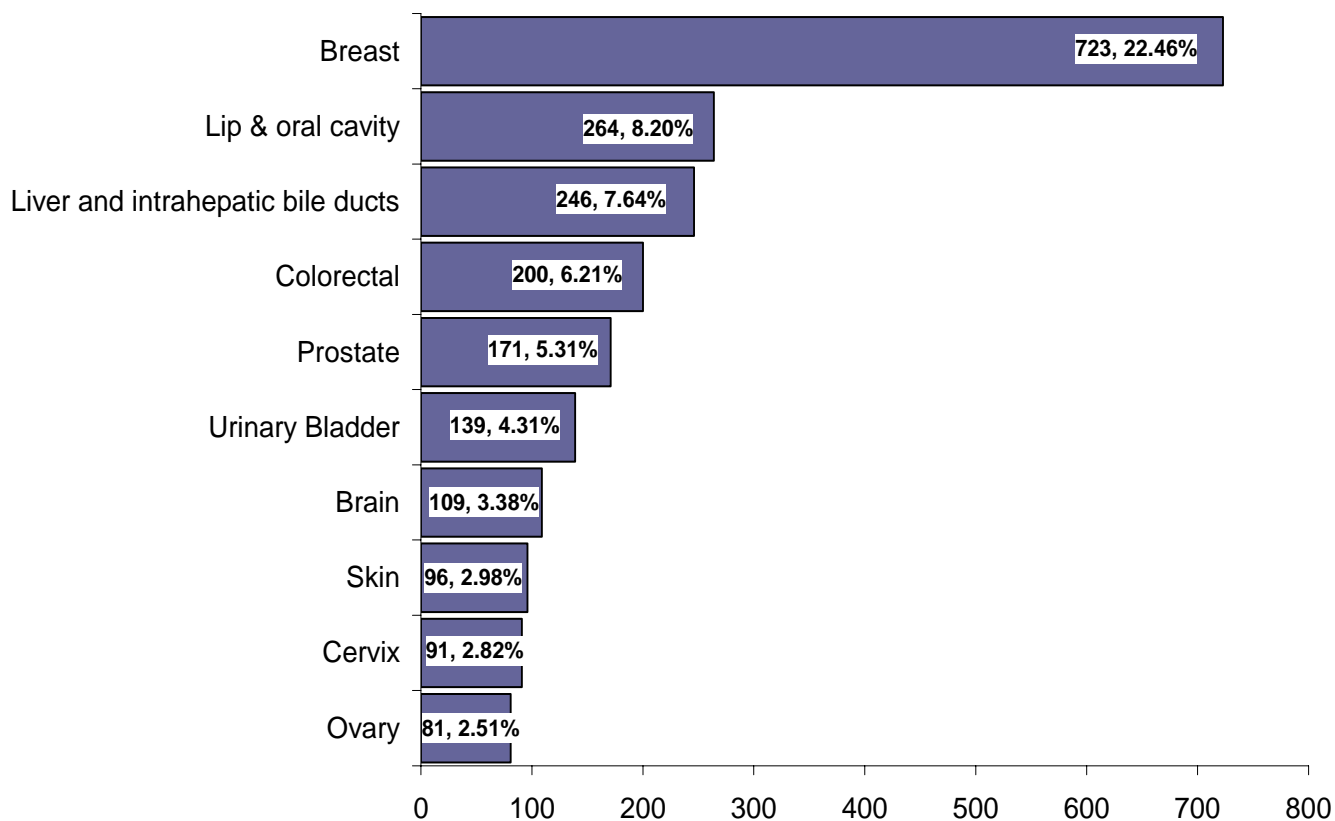
Data Source: Cancer Registry & Clinical Data Management, SKMCH &

Amongst adults, during the year 2009, a total of 3,219 malignancies were diagnosed or treated at the Hospital. Breast cancer, lip & oral cavity and, liver & intra-hepatic bile ducts were registered as the most frequently seen cancers.

**Table 5. Top 10 malignancies seen amongst adults (> 18 years) at SKMCH & RC ((Jan. 2009-Dec. 2009).**

Sr. No.	ICD-O-3 Category	Count	Percentage	ICD-O-3 Code
1	Breast	723	22.46	C50 - C50.9
2	Lip and oral cavity	264	8.20	C00.0 - C08.9
3	Liver and intrahepatic bile ducts	246	7.64	C22.0 - C22.1
4	Colorectal	200	6.21	C18 - C21.8
5	Prostate	171	5.31	C61.9
6	Urinary Bladder	139	4.31	C67.0 - C67.9
7	Brain	109	3.38	C71.0 - C71.9
8	Skin	96	2.98	C44
9	Cervix	91	2.82	C53.0 - C53.9
10	Ovary	81	2.51	C56.9

**Fig. 4. Top 10 malignancies seen amongst adults (> 18 years) at SKMCH & RC (Jan. 2009-Dec. 2009)**



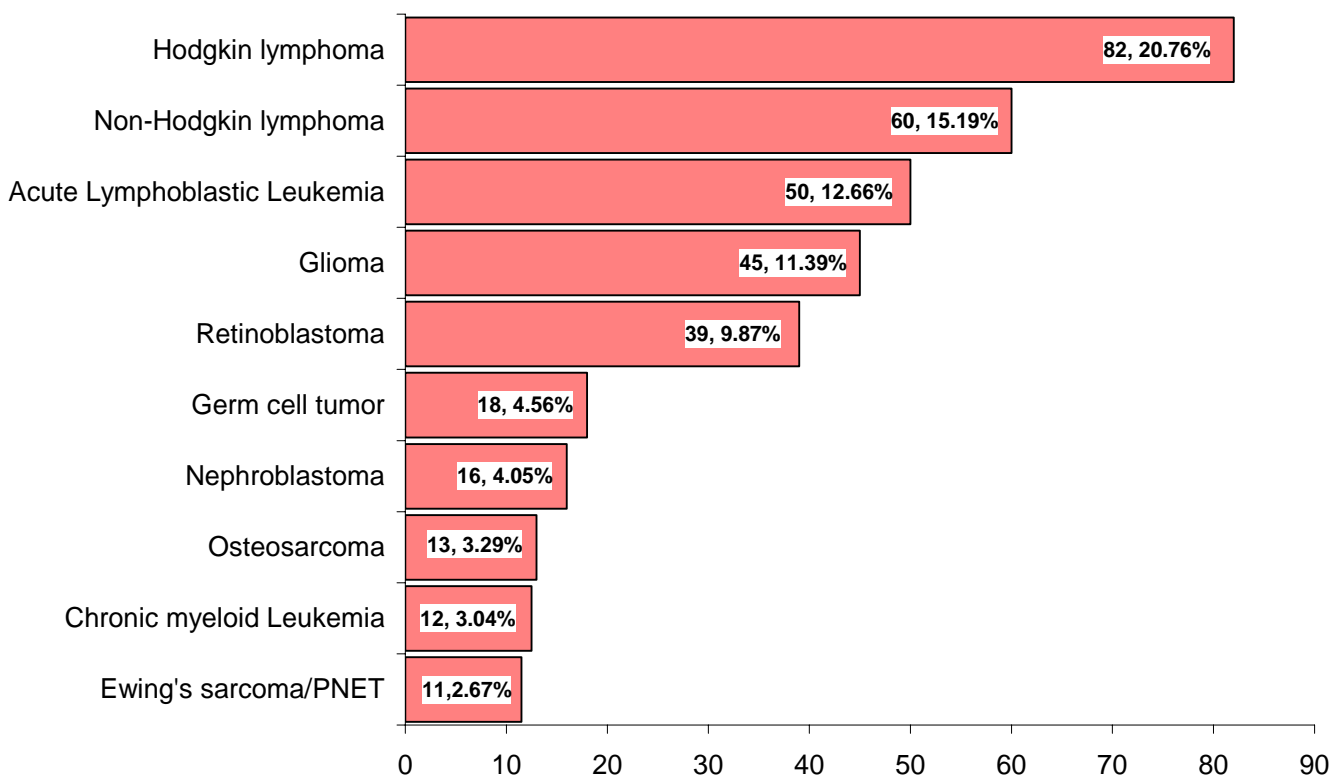
Data Source: Cancer Registry & Clinical Data Management, SKMCH &

In children, using the classification based on tumor morphology, Hodgkin lymphoma, Acute lymphoblastic leukemia, and Glioma were identified as the three most common malignancies diagnosed or treated at SKMCH & RC. Table 6 shows the distributions of the top ten malignancies seen in children at SKMCH & RC.

**Table 6. Top 10 malignancies seen in children (<= 18 years) at SKMCH & RC (Jan. 2009-Dec. 2009).**

Sr. No.	ICD-O-3 Category	Count	Percentage	ICD-O-3 Morphology Code
1	Hodgkin Lymphoma	82	20.76	M9650 - M9667
2	Non Hodgkin Lymphoma	60	15.19	M9590, 91- M967-972
3	Acute lymphoblastic leukemia	50	12.66	M982 - M983
4	Glioma	45	11.39	M938 - M948
5	Retinoblastoma	39	9.87	M9510 - M9514
6	Germ cell tumor	18	4.56	M906 - M909
7	Nephroblastoma	16	4.05	M8960
8	Osteosarcoma	13	3.29	M9180 - M9195
9	Chronic myeloid leukemia	12	3.04	M9863
10	Ewing's sarcoma/PNET	11	2.78	M9260 - M9364

**Fig. 5. Top 10 malignancies seen in children (<= 18 years) at SKMCH & RC (Jan. 2009-Dec. 2009).**



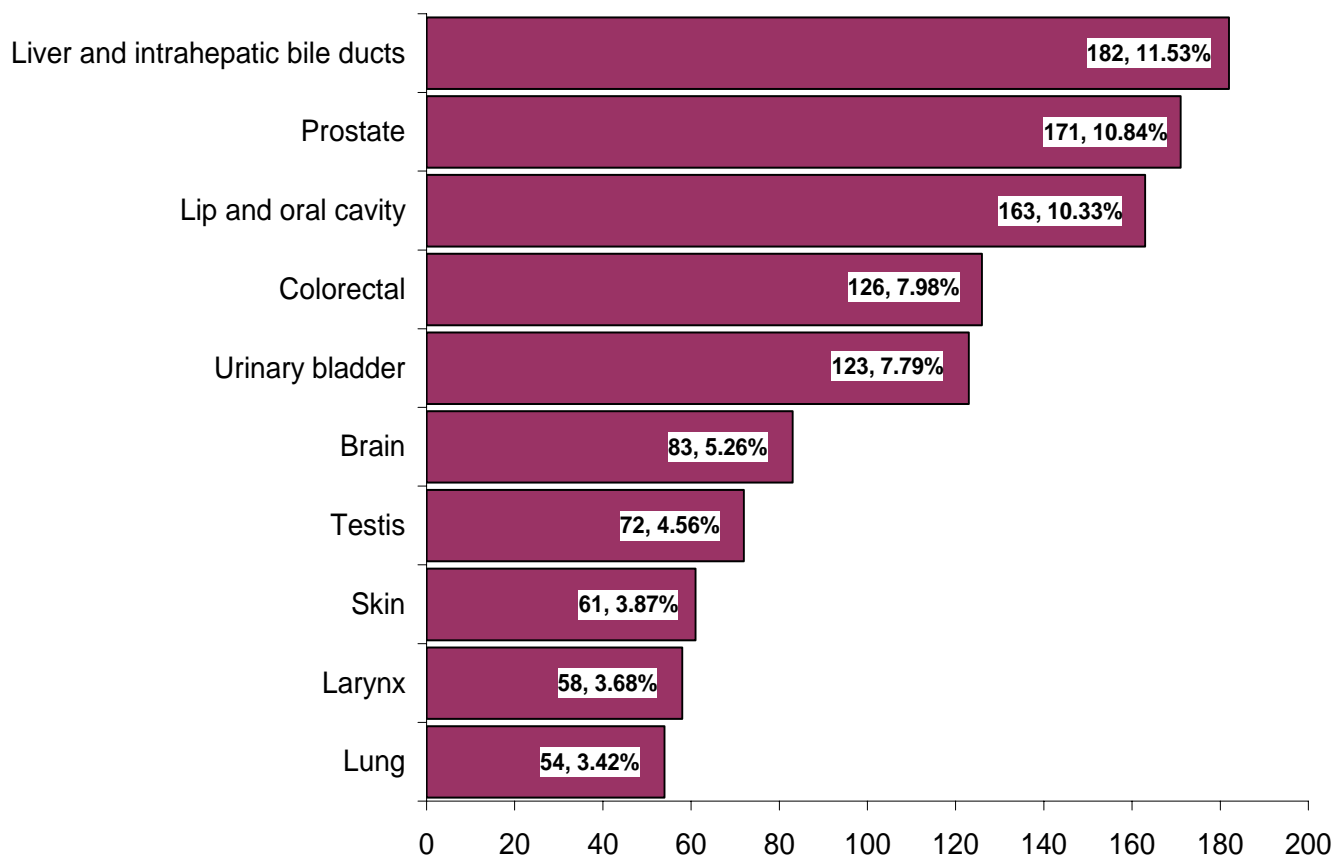
Data Source: Cancer Registry & Clinical Data Management, SKMCH & RC

In adult males, the commonest malignancies were liver cancer, lip & oral cavity and Prostate (Table 7).

**Table 7. Top 10 malignancies in adult males seen at SKMCH & RC (Jan. 2009-Dec. 2009).**

Sr.No.	ICD Category	Count	Percentage	ICD-O-3 Code
1	Liver and intrahepatic bile ducts	182	11.53	C22.0 - C22.1
2	Prostate	171	10.84	C61.9
3	Lip and oral cavity	163	10.33	C00.0 - C08.9
4	Colorectal	126	7.98	C18 - C21.8
5	Urinary bladder	123	7.79	C67.0 – C67.9
6	Brain	83	5.26	C71 – C71.9
7	Testis	72	4.56	C62.0 – C62.9
8	Skin	61	3.87	C44
9	Larynx	58	3.68	C32.0 – C32.9
10	Lung	54	3.42	C33-C34.9

**Fig. 6. Top 10 malignancies in adult males seen at SKMCH & RC (Jan. 2009-Dec. 2009).**



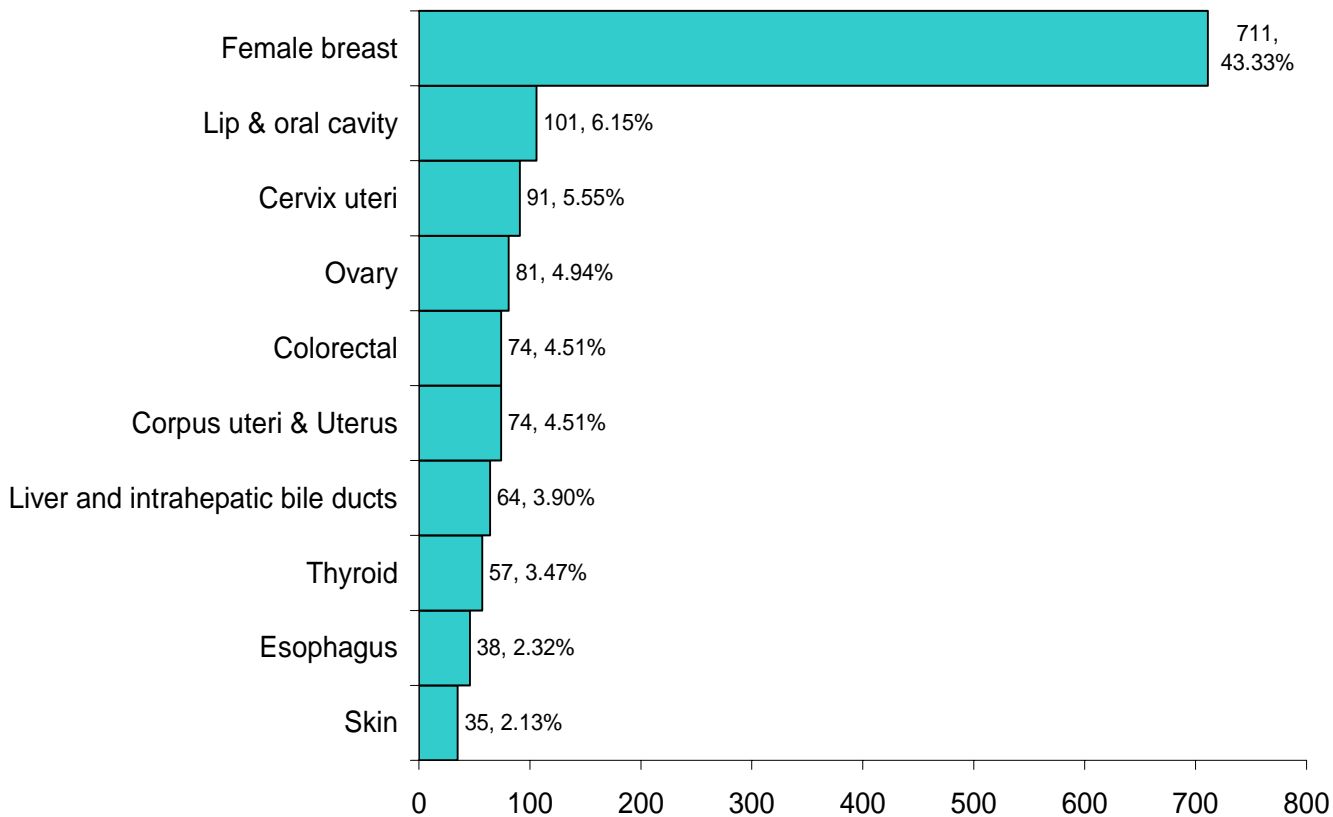
Data Source: Cancer Registry & Clinical Data Management, SKMCH & RC

The most frequent diagnosis in adult women was breast cancer accounting for 53.61% of the total cancers in females. Lip and oral cavity was ranked as the second highest cancer accounting for 7.61% and, Cervix uteri the third most common malignancy with 6.86% of the total malignancies in females.

**Table 8. Top 10 malignancies seen at SKMCH & RC amongst adult females (Jan. 2009-Dec. 2009).**

Sr. No.	ICD Category	Count	Percentage	ICD-O 3 Code
1	Female breast	711	43.33	C50.0 - C50.9
2	Lip and oral cavity	101	6.15	C00.0 - C08.9
3	Cervix Uteri	91	5.55	C53.0 - C53.9
4	Ovary	81	4.94	C56.9
5	Colorectal	74	4.51	C18 - C21.8
6	Corpus uteri & Uterus	74	4.51	C54.0 - C55.9
7	Liver and intrahepatic bile ducts	64	3.90	C22.0 - C22.1
8	Thyroid	57	3.47	C73.9
9	Esophagus	38	2.32	C15.0-C15.9
10	Skin	35	2.13	C44

**Fig. 7. Top 10 malignancies seen at SKMCH & RC amongst adult females (Jan. 2009-Dec. 2009).**



Data Source: Cancer Registry & Clinical Data Management, SKMCH & RC

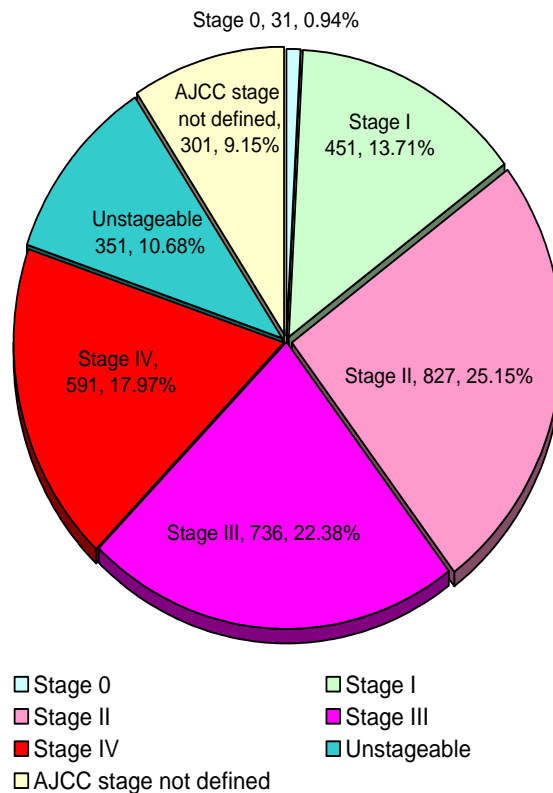
**Staging**

The Registry uses the American Joint Commission on Cancer TNM staging system for all analytical cancer cases. TNM categorizes cancers in stages 0, 1, 2, 3, 4, unstageable, and not applicable on all analytical cases (Class of case 0, 1, 2). Cancers are classified as being unstageable as the patients may choose not to receive any treatment or undergo further tests at the Hospital needed to establish an appropriate stage. “Not applicable” means non-availability of AJCC staging for that site. During the year 2009, cancer staging for 3,288 analytical cases (class of case 0, 1, 2) showed that 31 (0.94%) cases fell into 0 or in situ category, 451 (13.72%) in stage I, 827 (25.15%) in stage II, 736 (22.38%) cases in stage III, and 591 (17.97%) in stage IV, (table 9); 351 (10.68%) cases were unstageable and 301 (9.15%) had no AJCC stage defined for that site.

**Table 9. Cancer stage of patients at SKMCH & RC during year 2009.**

<b>AJCC Stage</b>	<b>No. of Patients</b>	<b>Percentage</b>
Stage 0	31	0.94
Stage I	451	13.72
Stage II	827	25.15
Stage III	736	22.38
Stage IV	591	17.97
Unstageable	351	10.68
AJCC stage not defined	301	9.15
<b>Total</b>	<b>3288</b>	<b>100.00</b>

**Fig. 8. Cancer stage of patients at SKMCH & RC during year 2009.**



Data Source: Cancer Registry & Clinical Data Management, SKMCH & RC



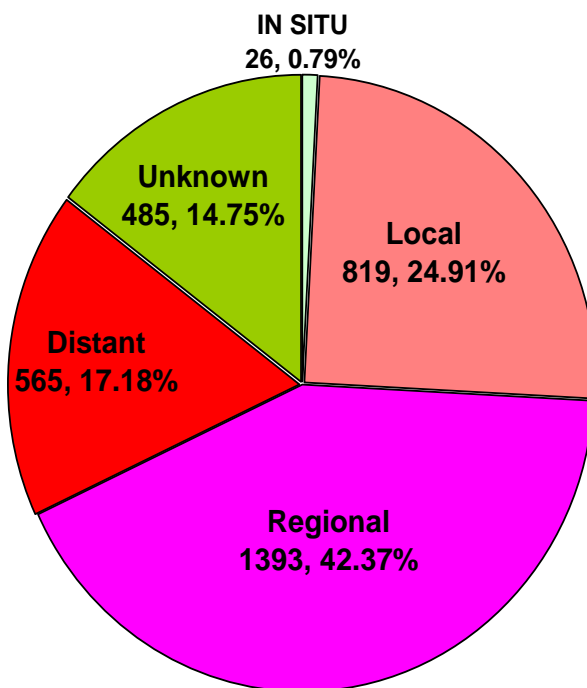
## Summary Stage

The SEER Summary Staging Manual-2000 Codes and Coding Instructions were used to describe how far the tumor had spread from the organ or the site of origin. This manual consists of a one digit hierarchical code for each and every site. All analytical cases (Class of case 0, 1, 2) were included to generate results. The cancer data for the year 2009 reflects that there were 0.79% in situ cases, 24.91% localized cancers, 42.37% regional cases, 17.18% distant, and there were 14.75% cases in which the summary stage was unknown.

**Table 10. Classification according to the SEER summary stage during the year 2009.**

<b>SEER Summary Stage</b>	<b>No. of Patients</b>	<b>Percentage</b>
In situ	26	0.79
Local	819	24.91
Regional	1393	42.37
Distant	565	17.18
Unknown	485	14.75
<b>Total</b>	<b>3288</b>	<b>100.00</b>

**Fig. 9: Classification according to the SEER summary stage during the year 2009.**



Data Source: Cancer Registry & Clinical Data Management, SKMCH & RC

## **Grading**

International Classification of Diseases for Oncology, Third Edition (ICDO-3) codes and guidelines being used to categorize grades for solid malignancies. All analytical cases (Class of case 0, 1, 2) were included to generate results.

**Table 11. Grade of patients during year 2009.**

<b>Grade / Differentiation</b>	<b>Count</b>	<b>Percentage</b>
Grade I	289	8.00
Grade II	889	24.60
Grade III	816	22.58
Grade IV	41	1.13
Grade not determined	1579	43.69
<b>Total</b>	<b>3614</b>	<b>100.00</b>

## **SUPPLEMENTAL INFORMATION**

Table 12 depicts the result stratified by primary sites, age-groups, and gender. According to this, cancers of the breast, liver, oral cavity and lymphoma are the commonest systems/site(s) for malignancies seen at the Hospital.

**Table 12. Distribution of Primary Malignant Sites, 2009****FEMALES**

ICD-O-3 Code*	Primary Site	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
C00	Lip												1			3				4
C01-C02	Tongue		1			2		2	3	2	3	4	9	5	3	2	2			38
C03	Gum				1					1	3		4	1	2	1		1		14
C04-C06	Floor & other part of mouth						1	1	1	2	5	5	5	6	4	2		2	1	35
C07-C08	Salivary gland				2		2	3	3	2	2									14
C9-C10	Tonsil & oropharynx												1	2	1					4
C11	Nasopharynx						1	1	1	2		2	2							9
C12-C13	Pyriform sinus & hypopharynx					1	2	2	4	1	2		1	1		2	1			17
C14	Other ill-defined sites oral & pharynx													1						
C15	Esophagus					1		2	1	2	3	5	8	6	3	4	2	1		38
C16	Stomach							2	2	3	1	3	2	2	3	1				19
C17	Small Intestine																			0
C18	Colon					4	3	2	4	2	1	5	6	3	1	2				33
C19-C21	Rectum, anal canal & anus			1	3	2	8	2		5	1	9	7	4	2	1			1	46
C22	Liver & intrahepatic bile duct									2	4	13	12	14	11	4	3	1		64
C23-C24	Gall Bladder & extrahep. bile duct								2	1	3	2	3	4	3	1				19
C25	Pancreas										3	3		6		1	1	1		15
C26	Other ill-defined digestive organs								1											
C30-C31	Nasal cavity, middle ear and acc. Sinuses					1	1	2		4	3	3	2	5		3		1		25
C32	Larynx										1	1	1	1		1				5
C33-C34	Trachea, bronchus & Lung						1	3			1	1		4	2	1	3			16
C37-C38	Thymus, heart, mediastinum & pleura																			0
C40-C41	Bone & articular cartilage			3	3	8	1													15
C44	Skin					1	1	1	2	5	5	2	3	4	5	2	3	1		35
C47	Peripheral nerves & auto immune nervous system																			0
C48	Peritoneum & Retroperitoneum	1																		1
C49	Connective & soft tissue	1	1	1	2	4	1	1	3	2	1		2	1	1		2			23
C50	Breast				1	5	25	46	81	96	108	115	71	76	39	34	11	3	1	712

## FEMALES

ICD-O-3 Code	Primary Site	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
C51-C52	Vulva & Vagina	1							2		3	2	3	3	2	3	1			20
C53	Cervix uteri						1	1	13	13	21	13	10	8	6	5				91
C54	Corpus uteri					1			4	2	6	12	13	11	12	3	4			68
C55	Uterus																			0
C56-C57	Ovary & Uterine adnexa			2	6	9	8	10	7	5	8	8	10	8	4	2				87
C58	Placenta					3			1	2										6
C64-C68	Kidney & other urinary organ	4	2		1	1		1	3	1	1	3	2	1	4	1	1			26
C67	Urinary bladder							1		1			5	3	1	2	2		1	16
C69	Eye	9	3																	12
C70-C71 ~	Brain	7	2	5	3	3	3	1	5	3	2	3	4	3	5	1	2			52
C72	Other parts of nervous system			1						1										2
C73	Thyroid gland				3	7	13	9	4	2	8	2	4	4	1	2				59
C74-C75	Endocrine gland and related structure	2		1	4	2	2	1	4	1			1							18
C76	Other and ill-defined sites	1	1																	2
C80	Unknown primary							1			1	4	1	4	3	1				15
M965-M966	Hodgkin's lymphoma	1	5	7	5	2	2	1		1	1	1		1						27
M9590-91, 967-972	Non Hodgkin's lymphoma	5	6	3	4	2	1	2		2	2	5	3	5	2	1	2			45
M9731-M9732	Multiple myeloma & immuno. neoplasms																			0
M982-M983	Lymphoid Leukemia	9	3										1							13
M984-M993	Myeloid Leukemia		1		4															5
C42.0, C42.2-4	Other lymphatic, histiocytic & hemato. tissue																			0
	<b>Total</b>	<b>41</b>	<b>25</b>	<b>24</b>	<b>42</b>	<b>59</b>	<b>77</b>	<b>98</b>	<b>151</b>	<b>166</b>	<b>203</b>	<b>226</b>	<b>197</b>	<b>197</b>	<b>120</b>	<b>86</b>	<b>40</b>	<b>11</b>	<b>4</b>	<b>1767</b>

# MALES

ICD-O-3 Code	Primary Site	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
C00	Lip									1		2		1	1	1				6
C01-C02	Tongue					1		1	3	5	5	7	7	10	7	7	1	2	2	58
C03	Gum						1	3		3	3	4	7	6	4	4	1			36
C04-C06	Floor of mouth					1	4	2	4	5	12	5	4	4	3	3	2		1	50
C07-C08	Salivary gland						3	1		1	2	2	1	1	1		1			13
C9-C10	Tonsil & oropharynx								2		1	1	2	1	1					8
C11	Nasopharynx		1		1	7	1	1	5	2	4	3	4	2	1	1	2			35
C12-C13	Pyriform sinus & hypopharynx						1	2	3	1	4	1	4	2	2	1		1	1	23
C15	Esophagus					1		1	2	2	6	4	5	6	2	4	1	1	1	36
C16	Stomach								2	5	4	2	6	5	3		2	2		31
C17	Small intestine								2					1		1				4
C18	Colon				2		3	2	1	6	7	3	2	7	4	2	2			41
C19-C21	Rectum & Anal canal				3	6	6	13	9	12	5	7	5	11	5	3	2	2		89
C22	Liver & intrahepatic bile duct						1	1	4	6	22	30	42	35	16	12	11	2		182
C23-C24	Gall Bladder & extrahepatic bile duct									1		2	4	2		1				10
C25	Pancreas							1		3	2	3	3	4	4	6	1		1	28
C30-C31	Nasal cavity, middle ear and acc. Sinuses				1	1	2	1	3	3	3	2	1	2	2	3				24
C32	Larynx							2	3	3	3	4	12	9	4	11	4	1	2	58
C33-C34	Bronchus & Lung						1		1	3	4	7	6	8	12	2	6	3	2	55
C37-C38	Thymus, heart, mediastinum			1	2	1			3						1					8
C40-C41	Bone & articular cartilage	1	2	6	10	5	4	2	3			2		1		1	1			38
C44	Skin					1	1	3	2	5	1	11	5	10	8	6	3	1	4	61
C47	Peripheral nerves & auto immune nervous system																			0
C48	Retroperitoneum & Peritoneum				1		1	1		1	1				1					6
C49	Connective & soft tissue	3	1		1	7	14	4	2	4	4	2	2	2	3	2				51

## MALES

ICD-O-3 Code	Primary Site	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+	Total
C50	Breast									2	1		1	4	2			1	1	12
C61	Prostate										3	8	18	32	42	35	18	9	6	171
C62	Testis	3			3	11	22	10	15	8	3				1					76
C60,C63	Penis & Other male genital organs					1				1			1					1		4
C67	Urinary bladder	1				2	1	2	3	6	15	17	16	20	23	11	4		3	124
C64-C68	Kidney & other urinary organ	6	3		1		2		5	6	7	4	4	6	2	5		1	1	53
C69	Eye	21	6												1					28
C70-C71 ~	Brain	6	13	8	10	10	8	11	10	10	14	8	11	6	3	2			1	131
C72	Spinal cord & other parts of nervous system	1	1					1						1						4
C73	Thyroid gland				2	2	4	3	2	1	3		1	2	1	2			1	24
C74-C75	Endocrine gland and related structure			1	2		2	2	3	1	3		1							15
C76	Other and ill-defined sites	3						1				1								5
C80	Unknown primary				1			1		2	6	4	1	2	1	2		1		21
M965-M962	Hodgkin's lymphoma	5	31	20	9	8	3	3		4	4	1	3	3	1	1				96
M9590-91, 967-972	Non hodgkin's lymphoma	8	18	7	9	1	5	3	1	3	3	1	2	6	1	2	1			71
M9731-M9732	Multiple myeloma & immuno. neoplasms														1					1
M982-M983	Lymphoid Leukemia	20	12	2	3								2							39
M984-M993	Myeloid Leukemia		2	4	5		1	3	1	2	1	1		1						21
C42.0, C42.2-4	Other lymphatic, histiocytic & hemato. Tissue																			0
	<b>Total</b>	<b>78</b>	<b>90</b>	<b>49</b>	<b>66</b>	<b>66</b>	<b>91</b>	<b>81</b>	<b>94</b>	<b>118</b>	<b>156</b>	<b>149</b>	<b>183</b>	<b>213</b>	<b>164</b>	<b>131</b>	<b>63</b>	<b>28</b>	<b>27</b>	<b>1847</b>

\* Diseases are listed according the International Classification of Diseases for Oncology, Third edition (ICD-O-3) codes.

~ Benign neoplasm of CNS are also included in the count.

**Table 13 - Pathology, site and gender - Year 2009**

ICD-O-3 Site	Pathology	Female	Male	Total
C00 Lip	Squamous Cell Carcinoma, Nos	4	3	7
	Squamous Cell Carcinoma, Keratinizing, Nos		3	3
C01-C02 Tongue	Squamous Cell Carcinoma, Nos	33	50	83
	Squamous Cell Carcinoma, Keratinizing, Nos	1	5	6
	Carcinoma, Nos	1	1	2
	Verrucous Carcinoma, Nos	1		1
	Mucoepidermoid Carcinoma		1	1
	Squamous Cell Carcinoma In Situ, Nos	1		1
	Malignant Melanoma, Nos		1	1
C03-C06 Gum, FOM, palate, other & unspecified parts of mouth	Alveolar Soft Part Sarcoma	1		1
	Squamous Cell Carcinoma, Nos	42	68	110
	Squamous Cell Carcinoma, Keratinizing, Nos	3	11	14
	Mucoepidermoid Carcinoma	1	2	3
	Carcinoma, Nos	1	2	3
	Verrucous Carcinoma, Nos	1		1
	Malignant Melanoma, Nos		1	1
	Adenoid Cystic Carcinoma	1		1
C07 - C08 Parotid and other major Salivary glands	Squamous Cell Carcinoma, Large Cell, Nonkeratinizing, Nos		1	1
	Adenocarcinoma, Nos		1	1
	Mucoepidermoid Carcinoma	5	6	11
	Adenoid Cystic Carcinoma	6	2	8
	Acinar Cell Carcinoma	2	1	3
	Squamous Cell Carcinoma, Keratinizing, Nos	1	1	2
C09 Tonsil	Carcinoma, Nos		2	2
	Squamous Cell Carcinoma, Nos		1	1
	Squamous Cell Carcinoma, Nos	2	6	8
	Burkitt Lymphoma, Nos		1	1
C10 Oropharynx	Malignant Lymphoma, Large B-Cell Diffuse Nos	1		1
	Squamous Cell Carcinoma, Nos	1	2	3
	Burkitt Lymphoma, Nos	1		1
C11 Nasopharynx	Mucoepidermoid Carcinoma	1		1
	Carcinoma, Nos	7	29	36
	Squamous Cell Carcinoma, Nos	1	3	4
	Adenoid Cystic Carcinoma	1	1	2
	Carcinoma, Undifferentiated, Nos		1	1
	Malignant Lymphoma, Large B-Cell Diffuse Nos		1	1
C12 Pyriform sinus	Squamous Cell Carcinoma, Large Cell, Nonkeratinizing, Nos		1	1
	Squamous Cell Carcinoma, Nos	3	6	9
C13 Hypopharynx	Carcinoma, Nos		2	2
	Squamous Cell Carcinoma, Nos	13	15	28
C15 Oesophagus	Carcinoma, Nos	1		1
	Squamous Cell Carcinoma, Nos	34	23	57
	Adenocarcinoma, Nos	1	8	9
	Signet Ring Cell Carcinoma		3	3
	Neuroendocrine Carcinoma, Nos	1	1	2
	Squamous Cell Carcinoma, Large Cell, Nonkeratinizing, Nos	1	1	2
C16 Stomach	Squamous Cell Carcinoma, Keratinizing, Nos	1		1
	Adenocarcinoma, Nos	8	17	25
	Signet Ring Cell Carcinoma	9	9	18
	Carcinoma, Nos		2	2
	Mucinous Adenocarcinoma		2	2
	Adenocarcinoma, Intestinal Type	1		1
	Malignant Lymphoma, Large B-Cell Diffuse Nos	1		1
	Gastrinoma, Malignant		1	1
Squamous Cell Carcinoma, Nos	1		1	
C17 Small Intestine	Malignant Lymphoma, Large B-Cell Diffuse Nos	2		2
	Adenocarcinoma, Nos		2	2

ICD-O-3 Site	Pathology	Female	Male	Total
C18 Colon	Adenocarcinoma, Nos	20	28	48
	Mucinous Adenocarcinoma	9	8	17
	Signet Ring Cell Carcinoma	3	4	7
	Adenocarcinoma In Tubulovillous Adenoma		2	2
	Carcinoma, Nos	1		1
	Papillary Adenocarcinoma, Nos		1	1
C19 Rectosigmoid junction	Mucinous Adenocarcinoma		5	5
	Adenocarcinoma, Nos	2	3	5
	Signet Ring Cell Carcinoma	2		2
	Carcinoma, Nos	1		1
C20 Rectum	Adenocarcinoma, Nos	26	44	70
	Signet Ring Cell Carcinoma	5	10	15
	Mucinous Adenocarcinoma		10	10
	Carcinoma, Nos		4	4
	Adenocarcinoma In Tubulovillous Adenoma	1	1	2
	Carcinoid Tumor, Nos		1	1
	Malignant Lymphoma, Large B-Cell Diffuse Nos		1	1
	Malignant Melanoma, Nos	1		1
	Adenocarcinoma In Situ, Nos	1		1
C21 Anus & Anal canal	Adenocarcinoma, Nos	4	5	9
	Malignant Melanoma, Nos	2	2	4
	Squamous Cell Carcinoma, Nos	1	2	3
	Signet Ring Cell Carcinoma		1	1
	Squamous Cell Carcinoma, Keratinizing, Nos		1	1
C22 Liver & Intrahepatic bile ducts	Hepatocellular Carcinoma, Nos	63	177	240
	Cholangiocarcinoma	1	3	4
	Carcinoma, Nos		2	2
C23 Gall Bladder	Adenocarcinoma, Nos	7	1	8
	Carcinoma, Nos	2	2	4
	Neoplasm, Malignant	2		2
	Papillary Adenocarcinoma, Nos	1		1
C24 Other & unspecified parts of biliary tract	Adenocarcinoma, Nos	7	6	13
	Papillary Adenocarcinoma, Nos		1	1
	Carcinoma In Situ, Nos		1	1
C25 Pancreas	Adenocarcinoma, Nos	9	16	25
	Carcinoma, Nos	3	7	10
	Neoplasm, Malignant	1	3	4
	Neuroendocrine Carcinoma, Nos	1	1	2
	Cystadenocarcinoma, Nos	1		1
C30 Nasal Cavity & Middle Ear	Squamous Cell Carcinoma, Nos	1	2	3
	Squamous Cell Carcinoma, Keratinizing, Nos	2	1	3
	Olfactory Neuroblastoma		2	2
	Adenoid Cystic Carcinoma	1	1	2
	Neuroendocrine Carcinoma, Nos	2		2
	Basaloid Squamous Cell Carcinoma		1	1
	Malignant Lymphoma, Large B-Cell Diffuse Nos	1		1
	Squamous Cell Carcinoma In Situ, Nos	1		1
	Carcinoma, Nos	1		1
	Adenocarcinoma, Nos		1	1
C31 Accessory Sinuses	Squamous Cell Carcinoma, Nos	9	7	16
	Adenoid Cystic Carcinoma		4	4
	Adenocarcinoma, Nos	1	1	2
	Carcinoma, Nos	1	1	2
	Olfactory Neuroblastoma	1		1
	Mucoepidermoid Carcinoma	1		1
	Neuroendocrine Carcinoma, Nos	1		1
	Sarcoma, Nos		1	1
	Squamous Cell Carcinoma, Keratinizing, Nos	1		1
	Squamous Cell Carcinoma, Large Cell, Nonkeratinizing, Nos		1	1
	Malignant Myoepithelioma	1		1
	Teratocarcinoma		1	1
	Adenocarcinoma, Intestinal Type	1		1



ICD-O-3 Site	Pathology	Female	Male	Total
C32 Larynx	Squamous Cell Carcinoma, Nos	5	49	54
	Carcinoma, Nos		5	5
	Squamous Cell Carcinoma, Keratinizing, Nos		4	4
	Malignant Lymphoma, Large B-Cell Diffuse Nos		1	1
C34 Bronchus & Lung	Non-Small Cell Carcinoma	5	20	25
	Adenocarcinoma, Nos	5	8	13
	Squamous Cell Carcinoma, Nos	1	11	12
	Small Cell Carcinoma, Nos		10	10
	Carcinoid Tumor, Nos	4	1	5
	Neuroendocrine Carcinoma, Nos		2	2
	Malignant Lymphoma, Non-Hodgkin, Nos		1	1
	Signet Ring Cell Carcinoma	1		1
	Large Cell Neuroendocrine Carcinoma		1	1
	Squamous Cell Carcinoma, Keratinizing, Nos		1	1
Large Cell Carcinoma, Nos		1	1	
C38 Heart, Mediastinum & Pleura	Seminoma, Nos		2	2
	Neuroendocrine Carcinoma, Nos		2	2
	Thymoma, Type Ab, Malignant		1	1
	Mixed Germ Cell Tumor		1	1
	Mesothelioma, Malignant		1	1
	Thymoma, Malignant, Nos		1	1
C40 - C41 Bones, Joints & Articular Cartilage	Osteosarcoma, Nos	12	11	23
	Ewing Sarcoma		15	15
	Chondrosarcoma, Nos	1	4	5
	Ameloblastoma, Malignant		2	2
	Chondroblastic Osteosarcoma	1	1	2
	Periosteal Osteosarcoma		1	1
	Malignant Lymphoma, Large B-Cell Diffuse Nos		1	1
	Odontogenic Tumor, Malignant		1	1
	Malignant Fibrous Histiocytoma		1	1
	Chordoma, Nos		1	1
Fibroblastic Osteosarcoma	1		1	
Leiomyosarcoma Nos		1	1	
C42 Bone Marrow	Precursor B-Cell Lymphoblastic Leukemia	11	29	40
	Chronic Myeloid Leukemia, Nos	5	15	20
	Precursor T-Cell Lymphoblastic Leukemia		8	8
	Acute Myeloid Leukemia, Nos		3	3
	B-Cell Chronic Lymphocytic Leukemia/Small Lymphocytic Lymphoma	1	1	2
	Precursor Cell Lymphoblastic Leukemia, Nos	1	1	2
	Multiple Myeloma		1	1
	Acute Myeloid Leukemia, Minimal Differentiation Fab M0		1	1
Acute Promyelocytic Leukemia		1	1	
Hairy Cell Leukemia		1	1	
C44 Skin	Squamous Cell Carcinoma, Nos	14	25	39
	Basal Cell Carcinoma, Nos	11	17	28
	Basal Cell Carcinoma, Nodular	2	4	6
	Squamous Cell Carcinoma, Keratinizing, Nos		6	6
	Malignant Melanoma, Nos	3	2	5
	Dermatofibrosarcoma, Nos	3	1	4
	Sebaceous Adenocarcinoma	1	2	3
	Superficial Spreading Melanoma		1	1
	Carcinoma, Nos		1	1
	Basaloid Squamous Cell Carcinoma	1		1
	Mycosis Fungoides		1	1
	Nodular Melanoma		1	1
Mucoepidermoid Carcinoma		1	1	
C47 Peripheral Nerves & Auto	Malignant Peripheral Nerve Sheath Tumor		1	1
C48 Retroperitoneum & Peritoneum	Yolk Sac Tumor	1	1	2
	Neoplasm, Malignant	1	1	2
	Mesothelioma, Malignant		2	2
	Liposarcoma, Well Differentiated		1	1
	Teratoma, Malignant, Nos		1	1

ICD-O-3 Site	Pathology	Female	Male	Total
C49 Connective, Subcutaneous & Other Soft Tissues	Synovial Sarcoma, Nos	8	9	17
	Spindle Cell Sarcoma	2	9	11
	Ewing Sarcoma	3	6	9
	Sarcoma, Nos	2	4	6
	Malignant Peripheral Nerve Sheath Tumor	2	4	6
	Synovial Sarcoma, Spindle Cell	1	1	2
	Embryonal Rhabdomyosarcoma, Nos	1	1	2
	Fibromyxosarcoma	1	1	2
	Gastrointestinal Stromal Sarcoma	2		2
	Pleomorphic Liposarcoma		2	2
	Leiomyosarcoma Nos		2	2
	Liposarcoma, Nos		2	2
	Osteosarcoma, Nos		1	1
	Epithelioid Sarcoma		1	1
	Malignant Fibrous Histiocytoma	1		1
	Rhabdomyosarcoma, Nos		1	1
	Embryonal Sarcoma		1	1
	Clear Cell Sarcoma, Nos		1	1
	Synovial Sarcoma, Biphasic		1	1
	Alveolar Soft Part Sarcoma		1	1
Giant Cell Sarcoma		1	1	
Undifferentiated Sarcoma		1	1	
C50 Breast	Infiltrating Duct Carcinoma, Nos	608	9	617
	Lobular Carcinoma, Nos	33		33
	Carcinoma, Nos	24		24
	Intraductal Carcinoma, Noninfiltrating, Nos	9		9
	Paget Disease And Infiltrating Duct Carcinoma Of Breast	5	1	6
	Papillary Carcinoma, Nos	4	2	6
	Infiltrating Duct And Lobular Carcinoma	5		5
	Infiltrating Duct Mixed With Other Types Of Carcinoma	4		4
	Phyllodes Tumor, Malignant	3		3
	Adenocarcinoma, Nos	3		3
	Paget Disease And Intraductal Carcinoma Of Breast	2		2
	Comedocarcinoma, Noninfiltrating	2		2
	Mucinous Adenocarcinoma	2		2
	Metaplastic Carcinoma, Nos	2		2
	Neoplasm, Malignant	1		1
	Medullary Carcinoma, Nos	1		1
	Adenoid Cystic Carcinoma	1		1
	Malignant Lymphoma, Large B-Cell Diffuse Nos	1		1
Ductal Carcinoma In Situ, Solid Type	1		1	
Paget Disease, Mammary	2		2	
C51 Vulva	Squamous Cell Carcinoma, Nos	9		9
	Adenocarcinoma, Nos	1		1
	Squamous Cell Carcinoma, Keratinizing, Nos	1		1
	Squamous Cell Carcinoma, Large Cell, Nonkeratinizing, Nos	1		1
C52 Vagina	Malignant Melanoma, Nos	2		2
	Squamous Cell Carcinoma, Nos	1		1
	Embryonal Rhabdomyosarcoma, Nos	1		1
	Leiomyosarcoma Nos	1		1
	Adenocarcinoma, Nos	1		1
	Squamous Cell Carcinoma, Keratinizing, Nos	1		1

ICD-O-3 Site	Pathology	Female	Male	Total
C53 Cervix Uteri	Squamous Cell Carcinoma, Large Cell, Nonkeratinizing, Nos	37		37
	Squamous Cell Carcinoma, Nos	19		19
	Squamous Cell Carcinoma, Keratinizing, Nos	15		15
	Adenocarcinoma, Nos	7		7
	Endometrioid Adenocarcinoma, Nos	4		4
	Adenocarcinoma, Endocervical Type	2		2
	Papillary Serous Cystadenocarcinoma	1		1
	Mucin-Producing Adenocarcinoma	1		1
	Papillary Adenocarcinoma, Nos	1		1
	Squamous Cell Carcinoma In Situ, Nos	1		1
	Adenosquamous Carcinoma	1		1
	Carcinoma, Nos	1		1
	Carcinoma In Situ, Nos	1		1
C54 Corpus Uteri	Endometrioid Adenocarcinoma, Nos	48		48
	Mullerian Mixed Tumor	4		4
	Adenocarcinoma, Nos	4		4
	Papillary Serous Cystadenocarcinoma	3		3
	Carcinoma, Nos	3		3
	Carcinosarcoma, Nos	2		2
	Serous Surface Papillary Carcinoma	1		1
	Endometrioid Adenocarcinoma, Secretory Variant	1		1
	Choriocarcinoma, Nos	1		1
	Serous Cystadenocarcinoma, Nos	1		1
C55 Uterus, Nos	Choriocarcinoma, Nos	2		2
C56 Ovary	Carcinoma, Nos	14		14
	Papillary Serous Cystadenocarcinoma	11		11
	Endometrioid Adenocarcinoma, Nos	9		9
	Dysgerminoma	8		8
	Clear Cell Adenocarcinoma, Nos	6		6
	Adenocarcinoma, Nos	5		5
	Granulosa Cell Tumor, Malignant	5		5
	Mixed Germ Cell Tumor	5		5
	Serous Cystadenocarcinoma, Nos	4		4
	Teratoma, Malignant, Nos	4		4
	Mucinous Adenocarcinoma	4		4
	Mucinous Cystadenocarcinoma, Nos	3		3
	Neoplasm, Malignant	2		2
	Yolk Sac Tumor	2		2
	Serous Surface Papillary Carcinoma	1		1
	Germinoma	1		1
	Germ Cell Tumor, Nonseminomatous	1		1
	Choriocarcinoma, Nos	1		1
Mixed Cell Adenocarcinoma	1		1	
C57 Other & Unspecified female genital organs	Carcinoma, Nos	1		1
C58 Placenta	Choriocarcinoma, Nos	4		4
C60 Penis	Squamous Cell Carcinoma, Nos		1	1
	Squamous Cell Carcinoma In Situ, Nos		1	1
C61 Prostate	Adenocarcinoma, Nos		152	152
	Carcinoma, Nos		14	14
	Transitional Cell Carcinoma, Nos		2	2
	Leiomyosarcoma Nos		1	1
	Neoplasm, Malignant		1	1
	Pseudosarcomatous Carcinoma		1	1
C62 Testis	Mixed Germ Cell Tumor		34	34
	Seminoma, Nos		24	24
	Yolk Sac Tumor		6	6
	Teratoma, Malignant, Nos		5	5
	Embryonal Carcinoma, Nos		3	3
	Choriocarcinoma, Nos		1	1
	Adenosarcoma		1	1
	Germinoma		1	1
	Malignant Lymphoma, Large B-Cell Diffuse Nos		1	1
Germ Cell Tumor, Nonseminomatous		1	1	

ICD-O-3 Site	Pathology	Female	Male	Total
C63 Other male genital organ	Rhabdomyosarcoma, Nos		1	1
	Carcinoma, Nos		1	1
C64 Kidney	Renal Cell Carcinoma, Nos	18	29	47
	Nephroblastoma, Nos	6	10	16
	Renal Cell Carcinoma, Sarcomatoid		4	4
	Transitional Cell Carcinoma, Nos		4	4
	Papillary Adenocarcinoma, Nos	1	1	2
	Clear Cell Adenocarcinoma, Nos	1	1	2
	Primitive Neuroectodermal Tumor, Nos		1	1
	Mucinous Adenocarcinoma		1	1
C65 Renal pelvis	Transitional Cell Carcinoma, Nos		1	1
C66 Ureter	Transitional Cell Carcinoma, Nos		1	1
C67 Bladder	Transitional Cell Carcinoma, Nos	12	79	91
	Papillary Transitional Cell Carcinoma	3	23	26
	Papillary Transitional Cell Carcinoma, Non-Invasive		10	10
	Small Cell Carcinoma, Nos		4	4
	Carcinoma, Nos		2	2
	Mucinous Adenocarcinoma		2	2
	Adenocarcinoma, Nos		2	2
	Embryonal Rhabdomyosarcoma, Nos		1	1
	Transitional Cell Carcinoma, Spindle Cell		1	1
	Transitional Cell Carcinoma In Situ	1		1
C69 Eye & Adnexa	Retinoblastoma, Nos	12	26	38
	Retinoblastoma, Undifferentiated		1	1
	Squamous Cell Carcinoma, Nos		1	1
	Mantle Cell Lymphoma		1	1
	Follicular Lymphoma, Grade 1		1	1
C71 Brain	Glioblastoma, Nos	17	52	69
	Astrocytoma, Nos	7	18	25
	Medulloblastoma, Nos	3	11	14
	Oligodendroglioma, Nos	3	4	7
	Mixed Glioma	2	2	4
	Gemistocytic Astrocytoma		4	4
	Neoplasm, Malignant	1	3	4
	Ependymoma, Anaplastic	2	2	4
	Astrocytoma, Anaplastic		4	4
	Gliosarcoma	1	2	3
	Ependymoma, Nos	2	1	3
	Pilocytic Astrocytoma		3	3
	Malignant Lymphoma, Large B-Cell Diffuse Nos	1	1	2
	Primitive Neuroectodermal Tumor, Nos		2	2
	Pleomorphic Xanthoastrocytoma		1	1
	Hemangiopericytoma, Malignant		1	1
	Fibrillary Astrocytoma	1		1
	Peripheral Neuroectodermal Tumor		1	1
	Germinoma	1		1
	Yolk Sac Tumor	1		1
	Desmoplastic Nodular Medulloblastoma		1	1
	Myxoid Chondrosarcoma		1	1
	Oligodendroglioma, Anaplastic		1	1
Meningioma, Malignant		1	1	
C72 Spinal Cord, Cranial Nerves & Other parts of CNS	Glioblastoma, Nos		2	2
	Malignant Lymphoma, Large B-Cell Diffuse Nos	2		2
	Meningioma, Nos	1		1
	Neuroblastoma, Nos		1	1
	Astrocytoma, Nos		1	1
	Ependymoma, Nos	1		1

ICD-O-3 Site	Pathology	Female	Male	Total
C73 Thyroid Gland	Papillary Carcinoma, Nos	30	13	43
	Papillary Carcinoma, Follicular Variant	12	5	17
	Follicular Carcinoma, Minimally Invasive	9	1	10
	Medullary Carcinoma, Nos	2	3	5
	Papillary Microcarcinoma	2		2
	Follicular Adenocarcinoma, Nos	2		2
	Papillary Carcinoma, Columnar Cell	1	1	2
	Papillary Adenocarcinoma, Nos	1	1	2
C75 Other Endocrine glands & related structures	Adrenal Cortical Carcinoma	1	1	2
	Pheochromocytoma, Malignant		1	1
	Astrocytoma, Nos	1		1
C76 Other and Ill-Defined sites	Yolk Sac Tumor	1	2	3
	Malignant Lymphoma, Large B-Cell Diffuse Nos	1	2	3
	Mixed Germ Cell Tumor	1	1	2
	Mucinous Adenocarcinoma		1	1
	Squamous Cell Carcinoma, Nos	1		1
	Teratoma, Malignant, Nos		1	1
C77 Lymph Nodes	Hodgkin Lymphoma, Mixed Cellularity, Nos	15	55	70
	Malignant Lymphoma, Large B-Cell Diffuse Nos	17	20	37
	Hodgkin Lymphoma, Nodular Sclerosis, Nos	7	25	32
	Burkitt Lymphoma, Nos	7	23	30
	Hodgkin Lymphoma, Nos	4	9	13
	Anaplastic Large Cell Lymphoma, T Cell And Null Cell Type	3	4	7
	Precursor Cell Lymphoblastic Lymphoma, Nos	2	4	6
	Hodgkin Lymphoma, Nodular Lymphocyte Predominance	1	5	6
	Precursor T-Cell Lymphoblastic Lymphoma	2	1	3
	Mature T-Cell Lymphoma, Nos	1	1	2
	Hodgkin Lymphoma, Lymphocyte-Rich		2	2
	Follicular Lymphoma, Grade 1		1	1
	Malignant Lymphoma, Small B Lymphocytic, Nos	1		1
	Mantle Cell Lymphoma		1	1
	Marginal Zone B-Cell Lymphoma, Nos		1	1
	Malignant Lymphoma, Non-Hodgkin, Nos	1		1
Precursor B-Cell Lymphoblastic Lymphoma		1	1	
Hodgkin Lymphoma, Nodular Sclerosis, Grade 2		1	1	
C80 Unknown Primary Site	Adenocarcinoma, Nos	7	7	14
	Carcinoma, Nos	2	7	9
	Neoplasm, Malignant	3	4	7
	Squamous Cell Carcinoma, Nos		2	2
	Adenocarcinoma, V461Nos	1		1
	Neuroendocrine Carcinoma, Nos		1	1
	Signet Ring Cell Carcinoma	1		1
	Mucinous Adenocarcinoma	1		1
**Other Reportable Benign Neoplasms	Pituitary Adenoma, Nos	10	8	18
	Meningioma, Nos	4	5	9
	Craniopharyngioma	4	4	8
	Neurilemoma, Nos	2	4	6
	Ganglioglioma, Nos		3	3
	Adenoma, Nos	1	1	2
	Hemangioblastoma	1	1	2
	Prolactinoma	1		1
	Meningothelial Meningioma	1		1
	Dysembryoplastic Neuroepithelial Tumor	1		1
	Psammomatous Meningioma	1		1
	Choroid Plexus Papilloma, Nos	1		1
	Clear Cell Meningioma		1	1
	Myxopapillary Ependymoma		1	1
Atypical Meningioma		1	1	
Total		1767	1847	3614