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# Descriptive Analysis of Cancer Cases in Nepal - 2016

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**ABSTRACT:** Cancer is a large group of diseases that can start in almost any organ or tissue of the body when abnormal cells grow uncontrollably, go beyond their usual boundaries to invade adjoining parts of the body and/or spread to other organs. The latter process is called metastasizing and is a major cause of death from cancer. A neoplasm and malignant tumor are other common names for cancer. It is an emerging public health problem in Nepal. The trend of cancer incidence is useful for effective planning and police formation to control and prevent the disease. This study aims to determine hospital based cancer incidence in Nepal for 2016 by using the data from twelve major hospitals in the nation.

This was a descriptive study with primary and secondary data collection from different co-action hospital of national cancer registry programme, since 1<sup>st</sup> January to 31<sup>th</sup> December 2016.

In the year of 2016, net 10117 new cancers were analyzed. Whereas, 4697 (46.4%) male and 5420 (53.6%) were female. According to available data, large no of cases 4580 (45.2%) reported from BP Koirala Memorial Cancer Hospital, Bharatpur followed by Bhaktapur Cancer Hospital, Bhaktapur 1636 (16.17%) and TU Teaching Hospital Kathmandu 944 (9.33%). As per diagnostic methods, Biopsy/histology 3968 (39.2%) was most valid basis of diagnosis followed by cytology/haematology 3121 (30.8%) and Radiology 1510 (14.9%).

The most frequent form of cancer for both sexes was bronchus & lung 1342 (13.2%), followed by cervix uteri 912 (9.01%), and breast 904 (8.93%). Among the female cases cervix uteri 912 (16.8%) was the leading topography, followed by breast 874 (16.2 %) and bronchus & lung cancer 544(10.3%). Similarly, bronchus & lung cancer 798 (16.9%) was the most common cancer among males followed by stomach 284 (6.04%) and larynx 223 (4.7%) cancer The trend of cancer was seen to be increasing day by day. Well organized awareness activities, HPV vaccination and screening programme was recommended to control and prevent the cancer burden in Nepal.

KEY WORDS: Cancer, Hospital based, Incidence, Trend

#### I. INTRODUCTION

Cancer is the second leading cause of death globally, accounting for an estimated 9.6 million deaths, or one in six deaths, in 2018. Lung, prostate, colorectal, stomach and liver cancer are the most common types of cancer in men, while breast, colorectal, lung, cervical and thyroid cancer are the most common among women (GLOBO CAN 2018). Globally, about 1 in 6 deaths is due to cancer. Approximately 70% of deaths from cancer occur in low- and middle-income countries.

Asia accounts for 60% of the world population and half the global burden of cancer. The incidence of cancer cases is estimated to increase from 6.1 million in 2008 to 10.6 million in 2030. According to WHO, India has a cancer mortality rate of 79 per 100,000 deaths and accounts for over 6 percent of total deaths. These numbers are very close to those of high-income countries.

In Nepal total 9718 new cancer cases were reported by hospital based cancer registration this programme was supported by WHO Nepal. Cancer incidence in Nepal was increasing every year Exact cancer death in Nepal is unknown but the report showed only hospital death of cancer patient in 2015 was 242. The cancer burden continues to grow globally, exerting tremendous physical, emotional and financial strain on individuals, families, communities and health systems. Many health systems in low- and middle-income countries are least prepared to manage this burden, and large numbers of cancer patients globally do not have access to timely quality diagnosis and treatment.

Various studies showed that cancer disease is increasing day by day and there are different yearly reports about the prevalence of cancer disease. Therefore the aim of this study is to hit up on the current scenario of cancer and relevant details in Nepal for 2016.

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## II. MATERIALS AND METHODS

This was a descriptive study with primary and secondary data of new cancer that are recorded and collected in different data source institution since 1st January to 31th December 2016. The data were entry, edit, and coded based on ICD-O3 and ICD -10, published by IARC/WHO. Whereas, analysis was carried out by using SPSS 19.0.

## III. RESULTS

Table 1. Trend of Cancer Cases (2003 - 2016)

S.N.	To	Total cases		
5.14.	Years	Male	Female	1 otal cases
1	2003	1488 (46%)	1763 (54%)	3251
2	2004	2030 (48%)	2171 (52%)	4201
3	2005	2057 (47%)	2340 (53%)	4397
4	2006	2325 (47%)	2583 (53%)	4908
5	2007	2758 (46%)	3277 (54%)	6035
6	2008	2702 (45%)	3247 (56%)	5949
7	2009	2970 (48%)	3229 (52%)	6199
8	2010	3192 (47.1%)	3581 (52.9%)	6773
9	2011	3295 (46.5%)	3793 (53.5%)	7088
10	2012	3291 (45.6%)	3921 (54.4%)	7212
11	2013	4011 (46.0%)	4718 (54.0%)	8729
12	2014	4014 (44.4%)	5022 (55.6%)	9036
13	2015	4483 (46.1%)	5235 (53.9%)	9718
14	1016	4697 (46.4%)	5420 (53.6%)	10117

Table 2: Number of registered cancer cases by sex – 2016

S.N.	Sex	Number	Percent
1	Male	4697	46.43
2	Female	5420	53.57
	Total	10117	100.00



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Table 3: Number of cases by reporting institute

S.N.	Reporting institute	Number	Percent
1	BPKMCH	4580	45.27
2	BPKIHS	614	6.06
3	ВСН	1636	16.17
4	ВН	876	8.65
5	TUTH	944	9.33
6	КСН	187	1.84
7	MTH	219	2.16
8	SBH	271	2.67
9	CSH	473	4.67
10	PAHS	199	1.96
11	PMWH	40	0.39
12	NMC	78	0.77
	Total	10117	100.00

**Acronyms:** 

BPKMCH: BP Koirala Memorial Cancer Hospital, Bharatpur, Chitwan BPKIHS: BP Koirala Institute of Health Sciences, Dharan, Sunsari

BCH: Bhaktapur Cancer Hospital, Bhaktapur

BH: Bir Hospital, Kathmandu

TUTH: TU Teaching Hospital, Kathmandu KCH: Kanti Children's Hospital, Kathmandu MTH: Manipal Teaching Hospital, Pokhara, Kaski SBH: Shree Birendra Hospital, Kathmandu

CSH: Civil Service Hospital, Kathmandu

PAHS: Patan Academic of Health Science, Lalitpur

PMWH: Paropakar Maternity & Women Hospital, Kathmandu

NMCTH: Nepalgunj Medical College, Teaching Hospital, Kohalpur, Banke

Table 4: Number of cases by basis of diagnosis

S.N.	Basis of diagnosis	#	%
1	Clinical Examination	3	0.02
2	Endoscopy	38	0.37
3	Biopsy/Histology	3968	39.25
4	Cytology/Haematology	3121	30.86
5	Biochemical/Immunological test	2	0.01
6	Radiology	1510	14.92
7	Death Certificate	3	0.02
8	Not Available	1472	14.55
9	Total	10117	100.00



Table 5: Number of cases by site and sex for all institution – 2016

Male	# 32 4 209 60 20 23 172 40 32 29 31 86 78 9	% 0.31 0.03 2.06 0.59 0.19 0.22 1.7 0.39 0.31 0.28 0.3 10.85 0.77 0.08
1         C00         Lip         23         0.48         9         0.16           2         C01         Base of tongue         4         0.08         0         0           3         C02         Other and unspecified parts of tongue         139         2.95         70         1.29           4         C03         Gum         42         0.89         18         0.33           5         C04         Floor of mouth         14         0.29         6         0.11           6         C05         Palate         17         0.36         6         0.11           7         C06         Other and unspecified parts of mouth         129         2.74         43         0.79           8         C07         Parotid gland         21         0.44         19         0.35           9         C08         Other and unspecified major salivary glands         17         0.36         15         0.27           10         C09         Tonsil         20         0.42         9         0.16           11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58	32 4 209 60 20 23 172 40 32 29 31 86 78	0.31 0.03 2.06 0.59 0.19 0.22 1.7 0.39 0.31 0.28 0.3 10.85 0.77
CO2	4 209 60 20 23 172 40 32 29 31 86 78	0.03  2.06  0.59  0.19  0.22  1.7  0.39  0.31  0.28  0.3  10.85  0.77
CO2	209 60 20 23 172 40 32 29 31 86 78	2.06 0.59 0.19 0.22 1.7 0.39 0.31 0.28 0.3 10.85 0.77
Parts of tongue   139   2.95   70   1.29	60 20 23 172 40 32 29 31 86 78	0.59 0.19 0.22 1.7 0.39 0.31 0.28 0.3 10.85 0.77
4         C03         Gum         42         0.89         18         0.33           5         C04         Floor of mouth         14         0.29         6         0.11           6         C05         Palate         17         0.36         6         0.11           7         C06         Other and unspecified parts of mouth         129         2.74         43         0.79           8         C07         Parotid gland         21         0.44         19         0.35           9         C08         Other and unspecified major salivary glands         17         0.36         15         0.27           10         C09         Tonsil         20         0.42         9         0.16           11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cav	60 20 23 172 40 32 29 31 86 78	0.59 0.19 0.22 1.7 0.39 0.31 0.28 0.3 10.85 0.77
5         C04         Floor of mouth         14         0.29         6         0.11           6         C05         Palate         17         0.36         6         0.11           7         C06         Other and unspecified parts of mouth         129         2.74         43         0.79           8         C07         Parotid gland         21         0.44         19         0.35           9         C08         Other and unspecified major salivary glands         17         0.36         15         0.27           10         C09         Tonsil         20         0.42         9         0.16           11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15	20 23 172 40 32 29 31 86 78	0.19 0.22 1.7 0.39 0.31 0.28 0.3 10.85 0.77
6         C05         Palate         17         0.36         6         0.11           7         C06         Other and unspecified parts of mouth         129         2.74         43         0.79           8         C07         Parotid gland         21         0.44         19         0.35           9         C08         Other and unspecified major salivary glands         17         0.36         15         0.27           10         C09         Tonsil         20         0.42         9         0.16           11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16	23 172 40 32 29 31 86 78	0.22 1.7 0.39 0.31 0.28 0.3 10.85 0.77
7         C06         Other and unspecified parts of mouth         129         2.74         43         0.79           8         C07         Parotid gland         21         0.44         19         0.35           9         C08         Other and unspecified major salivary glands         17         0.36         15         0.27           10         C09         Tonsil         20         0.42         9         0.16           11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17	172 40 32 29 31 86 78	1.7 0.39 0.31 0.28 0.3 10.85 0.77
parts of mouth   129   2.74   43   0.79	32 29 31 86 78	0.39 0.31 0.28 0.3 10.85 0.77
8         C07         Parotid gland         21         0.44         19         0.35           9         C08         Other and unspecified major salivary glands         17         0.36         15         0.27           10         C09         Tonsil         20         0.42         9         0.16           11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23	32 29 31 86 78	0.39 0.31 0.28 0.3 10.85 0.77
9         C08         Other and unspecified major salivary glands         17         0.36         15         0.27           10         C09         Tonsil         20         0.42         9         0.16           11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23	32 29 31 86 78	0.31 0.28 0.3 10.85 0.77
major salivary glands	29 31 86 78	0.28 0.3 10.85 0.77
11         C10         Oropharynx         21         0.44         10         0.18           12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23	31 86 78	0.3 10.85 0.77
12         C11         Nasopharynx         58         1.23         28         0.51           13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23	86 78	10.85 0.77
13         C12         Pyriform sinus         63         1.34         15         0.27           14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23	78	0.77
14         C13         Hypopharynx         5         0.1         4         0.07           15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23		
15 C14 Other and ill-defined sites in lip, oral cavity and pharynx 6 0.12 2 0.03  16 C15 Esophagus 89 1.89 51 0.94  17 C16 Stomach 284 6.04 215 3.96  18 C17 Small intestine 10 0.21 13 0.23	9	0.08
15         C14         Other and ill-defined sites in lip, oral cavity and pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23		
pharynx         6         0.12         2         0.03           16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23		
16         C15         Esophagus         89         1.89         51         0.94           17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23	0	0.07
17         C16         Stomach         284         6.04         215         3.96           18         C17         Small intestine         10         0.21         13         0.23	8	0.07
18 C17 Small intestine 10 0.21 13 0.23	140	1.38
10 0.21 13 0.23	499	4.93
19   Cl8   Colon   100   0.61   100   10	23	0.22
123 2.01 103 1.7	226	2.23
20         C19         Rectosigmoid junction         8         0.17         5         0.09	13	0.12
21 C20 Rectum 150 3.19 109 2.01	259	2.56
22         C21         Anus and anal canal         21         0.44         9         0.16	30	0.29
23 C22 Liver and intrahepatic bile duct 136 2.89 118 2.17	254	2.51
24 C23 Gall bladder 118 2.51 269 4.96	387	3.82
25 C24 Other and unspecified 2.31 2.09 4.90	367	3.02
parts of biliary tract 26 1.66 52 0.95	78	0.77
26 C25 Pancreas 51 1.08 45 0.83	96	0.94
27 C26 Other and ill-defined	26	0.07
digestive organs 18 0.38 20 0.36  28 C30 Nasal cavity and middle	38	0.37
ear 47 1 36 0.66	83	0.82
29 C31 Accessory sinus 18 0.38 17 0.31	35	0.34
30 C32 Larynx 223 4.74 66 1.21	289	2.85
31 C33 Trachea 1 0.02 0 0	1	0.009
32 C34 Bronchus and lung 798 16.9 544 10.03		13.26
33 C37 Thymus 7 0.14 4 0.07	1342	1.7.40



34	C38	Heart, mediastinum, and						
34	C36	pleura	9	0.19	10	0.18	19	0.18
35	C40	Bones, joints and articular		0.17	10	0.10	17	0.10
		cartilage	53	1.12	40	0.73	93	0.39
36	C41	Bones, joints and articular						
		cartilage of other and	0.4	1.70	(2)	1 14	146	1 44
37	C42.2	unspecified sites Spleen	84	1.78	62	1.14	146	1.44
38	C42.2	Skin melanoma	4	0.08	1	0.01	5	0.04
			7	0.14	7	0.12	14	0.13
39	C44	Skin other	48	1.02	35	0.64	83	0.82
40	C47	Peripheral nerves and	4	0.00	0	0	4	0.02
41	C48	autonomic nervous system  Retroperitoneum and	4	0.08	0	0	4	0.03
71	C+0	peritoneum	6	0.12	11	0.2	17	0.16
42	C49	Connective, subcutaneous						
		and other soft tissues	71	1.51	54	0.99	125	1.23
43	C50	Breast	30	0.63	874	16.12	904	8.93
44	C51	Vulva	0	0	29	0.53	29	0.28
45	C52	Vagina	0	0	21	0.03	21	0.2
46	C53	Cervix uteri	0	0	912	16.02	912	9.01
47	C54	Endometrium	0	0	55	1.01	55	0.05
48	C55	Uterus	0	0	22	0.4	22	0.21
49	C56	Ovary	0	0	392	7.23	392	3.87
50	C57	Other and unspecified	U	U	392	1.23	392	3.67
30	C31	female genital organs	0	0	13	0.23	13	0.12
51	C58	Placenta	0	0	1	0.01	1	0.12
52	C60	Penis	54	1.14	0	0	54	0.53
53	C61	Prostate gland	94	2	0	0	94	0.92
54	C62	Testes	43	0.91	0	0	43	0.42
55	C63	Other and unspecified	73	0.71	U	U	73	0.42
		male genital organs	3	0.06	0	0	3	0.02
56	C64	Kidney	76	1.61	34	0.62	110	0.08
57	C66	Ureter	1	0.02	1	0.18	2	0.01
58	C67	Bladder	198	4.21	61	1.12	259	2.56
59	C68	other and unspecified	170	1.21	01	1.12	237	2.30
		urinary organs	1	0.02	2	0.03	3	0.029
60	C69	Eye and adnexa	42	0.89	17	0.31	59	0.58
61	C70	Meninges	8	0.17	12	0.22	20	0.19
62	C71	Brain	174	3.7	105	1.93	279	2.75
63	C72	Spinal cord, cranial,						
		nerves, and other parts of						
		CNS	13	0.27	3	0.05	16	0.01
64	C73	Thyroid gland	62	1.31	174	3.21	236	2.33
65	C74	Adrenal gland	5	0.1	6	0.11	11	0.1
66	C75	Other endocrine glands	_	0.02		0.05		0.02
67	C76	and related structures Other and ill-defined sites	1	0.02	3	0.05	4	0.03
			53	1.12	40	0.73	93	0.91
68	C77	Lymph nodes (different site)	37	0.78	22	0.4	59	0.58
		site)	31	0.70	22	0.4	JF	0.56



69	C80	Unknown primary site	78	1.66	39	0.71	117	0.15
70	C81	Hodgkin's disease	94	2.0	57	1.05	151	1.49
71	C85	NHL	141	3.0	98	1.8	239	2.36
72	C90	Multiple myeloma	52	1.10	33	0.6	85	0.84
73	C91	Leukemia/lymphoid	213	4.5	100	1.84	313	3.09
74	C92	Leukemia/myeloid	114	2.42	78	1.43	192	1.89
75	C95	Leukemia unspecified	97	2.06	49	0.9	146	1.44
Total			4697	100.00	5420	100.00	10117	100.00

Table 6: Number of cases by site for both sexes in descending order

S.N.	ICD-10	Topography	#	%
1	C34	Bronchus and lung	1342	13.26
2	C53	Cervix uteri	912	9.01
3	C50	Breast	904	8.93
4	C16	Stomach	499	4.93
5	C56	Ovary	392	3.87
6	C23	Gall bladder	387	3.82
7	C91	Leukemia/lymphoid	313	3.09
8	C32	Larynx	289	2.85
9	C71	Brain	279	2.75
10	C20	Rectum	259	2.56
11	C67	Bladder	259	2.56
12	C22	Liver and intrahepatic bile duct	254	2.51
13	C85	NHL	239	2.36
14	C73	Thyroid gland	236	2.33
15	C18	Colon	226	2.23
16	C02	Other and unspecified parts of tongue	209	2.06
17	C92	Leukemia/myeloid	192	1.89
18	C06	Other and unspecified parts of mouth	172	1.7
19	C81	Hodgkin's disease	151	1.49
20	C41	Bones, joints and articular cartilage of other and unspecified sites	146	1.44
21	C95	Leukemia unspecified	146	1.44
22	C15	Esophagus	140	1.38
23	C49	Connective, subcutaneous and other soft tissues	125	1.23
24	C80	Unknown primary site	117	0.15
25	C64	Kidney	110	0.08
26	C25	Pancreas	96	0.94
27	C61	Prostate gland	94	0.92
28	C40	Bones, joints and articular cartilage	93	0.39
29	C76	Other and ill-defined sites	93	0.91
30	C11	Nasopharynx	86	10.85
31	C90	Multiple myeloma	85	84



32	C30	Nasal cavity and middle ear	83	0.82
33	C44	Skin other	83	0.82
34	C24	Other and unspecified parts of biliary tract	78	0.77
35	C12	Pyriform sinus	78	0.77
36	C03	Gum	60	0.59
37	C77	Lymph nodes (different site)	59	0.58
38	C69	Eye and adnexa	59	0.58
39	C54	Endometrium	55	0.05
40	C60	Penis	54	0.53
41	C62	Testes	43	0.42
42	C07	Parotid gland	40	0.39
43	C26	Other and ill-defined digestive organs	38	0.37
44	C31	Accessory sinus	35	0.34
45	C08	Other and unspecified major salivary glands	32	0.31
46	C00	Lip	32	0.31
47	C10	Oropharynx	31	0.3
48	C21	Anus and anal canal	30	0.29
49	C51	Vulva	29	0.28
50	C09	Tonsil	29	0.28
51	C17	Small intestine	23	0.22
52	C05	Palate	23	0.22
53	C55	Uterus	22	0.21
54	C52	Vagina	21	0.2
55	C70	Meninges	20	0.19
56	C04	Floor of mouth	20	0.19
57	C38	Heart, mediastinum, and pleura	19	0.18
58	C48	Retroperitoneum and peritoneum	17	0.16
59	C72	Spinal cord, cranial, nerves, and other parts of CNS	16	0.01
60	C43	Skin melanoma	14	0.13
61	C57	Other and unspecified female genital organs	13	0.12
62	C19	Rectosigmoid junction	13	0.12
63	C74	Adrenal gland	11	0.1
64	C37	Thymus	11	0.1
65	C13	Hypopharynx	9	0.08
66	C14	Other and ill-defined sites in lip, oral cavity and	0	0.07
67	C42.2	pharynx Spleen	8	0.04
68	C75	Other endocrine glands and related structures	5 4	0.04
69				
71		<u>-</u>		
72				
73	C66	Ureter	2	0.02
70 71 72	C01 C47 C68 C63	Base of tongue  Peripheral nerves and autonomic nervous system  other and unspecified urinary organs  Other and unspecified male genital organs  Ureter	4 4 3 3	0.03 0.03 0.029 0.02



74	C58	Placenta	1	0.12
75	C33	Trachea	1	0.009
	Total		10117	100.0

Table 7: Number of cases by site for male in descending order

S.N.	ICD-10	Topography	#	%
1	C34	Bronchus and lung	798	16.9
2	C16	Stomach	284	6.04
3	C32	Larynx	223	4.74
4	C91	Leukemia/lymphoid	213	4.5
5	C67	Bladder	198	4.21
6	C71	Brain	174	3.7
7	C20	Rectum	150	3.19
8	C85	NHL	141	3
9	C02	Other and unspecified parts of tongue	139	2.95
10	C22	Liver and intrahepatic bile duct	136	2.89
11	C06	Other and unspecified parts of mouth	129	2.74
12	C18	Colon	123	2.61
13	C23	Gall bladder	118	2.51
14	C92	Leukemia/myeloid	114	2.42
15	C95	Leukemia unspecified	97	2.06
16	C81	Hodgkin's disease	94	2
17	C61	Prostate gland	94	2
18	C15	Esophagus	89	1.89
19	C41	Bones, joints and articular cartilage of other and unspecified sites	84	1.78
20	C80	Unknown primary site	78	1.66
21	C64	Kidney	76	1.61
22	C49	Connective, subcutaneous and other soft tissues	71	1.51
23	C12	Pyriform sinus	63	1.34
24	C73	Thyroid gland	62	1.31
25	C11	Nasopharynx	58	1.23
26	C60	Penis	54	1.14
27	C40	Bones, joints and articular cartilage	53	1.12
28	C76	Other and ill-defined sites	53	1.12
29	C90	Multiple myeloma	52	1.1
30	C25	Pancreas	51	1.08
31	C44	Skin other	48	1.02
32	C30	Nasal cavity and middle ear	47	1
33	C62	Testes	43	0.91
34	C03	Gum	42	0.89
35	C69	Eye and adnexa	42	0.89
36	C77	Lymph nodes (different site)	37	0.78



27	050	D		1
37	C50	Breast	30	0.63
38	C24	Other and unspecified parts of biliary tract	26	1.66
39	C00	Lip	23	0.48
40	C07	Parotid gland	21	0.44
41	C10	Oropharynx	21	0.44
42	C21	Anus and anal canal	21	0.44
43	C09	Tonsil	20	0.42
44	C26	Other and ill-defined digestive organs	18	0.38
45	C31	Accessory sinus	18	0.38
46	C08	Other and unspecified major salivary glands	17	0.36
47	C05	Palate	17	0.36
48	C04	Floor of mouth	14	0.29
49	C72	Spinal cord, cranial, nerves, and other parts of CNS	13	0.27
50	C17	Small intestine	10	0.21
51	C38	Heart, mediastinum, and pleura	9	0.19
52	C70	Meninges	8	0.17
53	C19	Rectosigmoid junction	8	0.17
54	C43	Skin melanoma	7	0.14
55	C37	Thymus	7	0.14
56	C48	Retroperitoneum and peritoneum	6	0.12
57	C14	Other and ill-defined sites in lip, oral cavity and pharynx	6	0.12
58	C74	Adrenal gland	5	0.1
59	C13	Hypopharynx	5	0.1
60	C42.2	Spleen	4	0.08
61	C01	Base of tongue	4	0.08
62	C47	Peripheral nerves and autonomic nervous system	4	0.08
63	C63	Other and unspecified male genital organs	3	0.06
64	C75	Other endocrine glands and related structures	1	0.02
65	C68	other and unspecified urinary organs	1	0.02
66	C66	Ureter	1	0.02
67	C33	Trachea	1	0.02
	Total		4697	100.00

Table 8: Number of cases by site for female in descending order

S.N.	ICD-10	Topography	#	%
1	C53	Cervix uteri	912	16.02
2	C50	Breast	874	16.12
3	C34	Bronchus and lung	544	10.03
4	C56	Ovary	392	7.23
5	C23	Gall bladder	269	4.96
6	C16	Stomach	215	3.96
7	C73	Thyroid gland	174	3.21



8	C22	Liver and intrahepatic bile duct	118	2.17
9	C20	Rectum	109	2.01
10	C71	Brain	105	1.93
11	C18	Colon	103	1.9
12	C91	Leukemia/lymphoid	100	1.84
13	C85	NHL	98	1.8
14	C92	Leukemia/myeloid	78	1.43
15	C02	Other and unspecified parts of tongue	70	1.29
16	C32	Larynx	66	1.21
17	C41	Bones, joints and articular cartilage of other and		
10	007	unspecified sites	62	1.14
18	C67	Bladder	61	1.12
19	C81	Hodgkin's disease	57	1.05
20	C54	Endometrium	55	1.01
21	C49	Connective, subcutaneous and other soft tissues	54	0.99
22	C24	Other and unspecified parts of biliary tract	52	0.95
23	C15	Esophagus	51	0.94
24	C95	Leukemia unspecified	49	0.9
25	C25	Pancreas	45	0.83
26	C06	Other and unspecified parts of mouth	43	0.79
27	C40	Bones, joints and articular cartilage	40	0.73
28	C76	Other and ill-defined sites	40	0.73
29	C80	Unknown primary site	39	0.71
30	C30	Nasal cavity and middle ear	36	0.66
31	C44	Skin other	35	0.64
32	C64	Kidney	34	0.62
33	C90	Multiple myeloma	33	0.6
34	C51	Vulva	29	0.53
35	C11	Nasopharynx	28	0.51
36	C77	Lymph nodes (different site)	22	0.4
37	C55	Uterus	22	0.4
38	C52	Vagina	21	0.03
39	C26	Other and ill-defined digestive organs	20	0.36
40	C07	Parotid gland	19	0.35
41	C03	Gum	18	0.33
42	C69	Eye and adnexa	17	0.31
43	C31	Accessory sinus	17	0.31
44	C12	Pyriform sinus	15	0.27
45	C08	Other and unspecified major salivary glands	15	0.27
46	C17	Small intestine	13	0.23
47	C57	Other and unspecified female genital organs	13	0.23
48	C70	Meninges	12	0.22
49	C48	Retroperitoneum and peritoneum	11	0.2



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50	C10	Oropharynx	10	0.18
51	C38	Heart, mediastinum, and pleura	10	0.18
52	C00	Lip	9	0.16
53	C21	Anus and anal canal	9	0.16
54	C09	Tonsil	9	0.16
55	C43	Skin melanoma	7	0.12
56	C05	Palate	6	0.11
57	C04	Floor of mouth	6	0.11
58	C74	Adrenal gland	6	0.11
59	C19	Rectosigmoid junction	5	0.09
60	C37	Thymus	4	0.07
61	C13	Hypopharynx	4	0.07
62	C72	Spinal cord, cranial, nerves, and other parts of CNS	3	0.05
63	C75	Other endocrine glands and related structures	3	0.05
64	C14	Other and ill-defined sites in lip, oral cavity and pharynx	2	0.03
65	C68	other and unspecified urinary organs	2	0.03
66	C42.2	Spleen	1	0.01
67	C66	Ureter	1	0.18
68	C58	Placenta	1	0.01
69	C01	Base of tongue	0	0
70	C47	Peripheral nerves and autonomic nervous system	0	0
71	C33	Trachea	0	0
	Total		5420	100.00

#### IV. DISCUSSION

In 2016, 11153 cancer cases were reported from co-action hospitals to B. P. Koirala Memorial Cancer Hospital. The cases were verified by name, age, sex, address, topography and morphology. Repeated cancer cases (n = 857) were deleted. Indians cases, (n = 179) were excluded from database and the total of 10117 cases were coded based on ICD-O3 rd and ICD -10, published by IARC/WHO. At last data analysis was carried out by using SPSS 19.0. Among the cases male 46.4% and female were 53.6%. The most valid basis of diagnosis was biopsy followed by cytology and radiology. As per analyzed data, the most frequent form of cancer for both sexes was bronchus & lung 1342(13.2%), followed by cervix uteri 912 (9.01%), and breast 904 (8.9%). Among the female cases cervix uteri 912 (16.02%) was the most frequent, followed by breast 874 (16.1%) and bronchus & lung 544 (10.03%). Similarly, bronchus & lung cancer 798 (16.9%) was the most common cancer among males, followed by stomach 284 (6.04%) and larynx 223 (4.7%).

#### V. CONCLUSION

Among the cases, women were more than men. Biopsy was the first choice of diagnostic method. Bronchus & lung cancer was most cancer site for both sex followed by cervix uteri and breast. Whereas, bronchus & lung was leading site for men and cervix uteri for women.

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