

# Chapter 8

## MOUTH (ICD-10: C03-C06)

The total number, relative proportion and rank of the cancer of mouth in males and females for the years 1999 and 2000 is given in Table 8.1(a). Cancer of the mouth ranked as the leading site in Mumbai in males and was within the first five leading sites in all registries in both males and females.

Table 8.1(b) gives the sub-site distribution of cancers of the oral cavity. Table 8.1(c) gives the sub-site distribution of cancer of gum in all registries in both sexes. A higher proportion of cancers were seen in the lower gum. Table 8.1(d) gives the sub-site distribution of cancer of palate. The distribution of the relative proportion of hard palate and soft palate cancers show interesting variation among the registries and between the sexes. While males in Mumbai and Thiruvananthapuram registry showed almost equal proportion of hard and soft palate cancers, Bangalore, Chennai and Dibrugarh registries showed a higher proportion of cancers of the soft palate in males. In females, cancer of the hard palate was predominant in Mumbai and Thiruvananthapuram.

Table 8.1(e) shows the relative proportion of the sub-sites of cancer of other and unspecified parts of the mouth. Cheek mucosa accounted for the vast majority of cancers of this site in either sex.

Figure 8.1 gives the trends in actual number of mouth cancers from 1984 to 2000. An increasing trend in actual number was observed in Mumbai (in males & females) and in Thiruvananthapuram (in males).

Table 8.2 and Figure 8.2 give the distribution of mouth cancers by five year age group. The relatively higher distribution of mouth cancers was seen in the younger ages in Bangalore in both males and females.

The predominant form of diagnosis in all registries for mouth cancer was through microscopic examination (Table 8.3) though this proportion was slightly lower in Chennai. Table 8.4 gives the distribution of cancers according to the clinical extent of disease. Over 60% of cases have "Regional spread", at diagnosis.

Table 8.5 gives the number and relative proportion according to the broad groups of treatment and Tables 8.6, 8.7 & 8.8 give an idea of the type of treatment instituted by these registries.

**Table 8.1(a) : Number(#), Relative Proportion(%) and Rank(R) of cancers of the mouth (1999-2000)**

Registry	Males				Females			
	Total	#	%	R	Total	#	%	R
<b>Mumbai</b>	17637	1986	11.3	1	13679	656	4.8	4
<b>Bangalore</b>	6106	368	6.0	5	7543	833	11.0	3
<b>Chennai</b>	6195	544	8.8	2	7139	441	6.2	3
<b>Thi'puram</b>	7859	734	9.3	2	7247	384	5.3	5
<b>Dibrugarh</b>	997	86	8.6	3	536	37	6.9	5

**Table 8.1(b) : Cancers of oral cavity - Number(#) and Relative Proportion(%) according to sub-site (1999-2000)**

	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Gums	487	24.5	40	10.9	125	23.0	156	21.3	12	14.0
Floor of mouth	108	5.4	50	13.6	60	11.0	93	12.7	7	8.1
Palate	180	9.1	68	18.5	78	14.3	83	11.3	15	17.4
Other & Uns.	1211	61.0	210	57.1	281	51.7	402	54.8	52	60.5
<b>Total</b>	<b>1986</b>	<b>100.0</b>	<b>368</b>	<b>100.0</b>	<b>544</b>	<b>100.0</b>	<b>734</b>	<b>100.0</b>	<b>86</b>	<b>100.0</b>
<b>FEMALES</b>										
Gums	206	31.4	118	14.2	114	25.9	99	25.8	8	21.6
Floor of mouth	13	2.0	5	0.6	5	1.1	8	2.1	2	5.4
Palate	39	5.9	33	4.0	28	6.3	25	6.5	4	10.8
Other & Uns.	398	60.7	677	81.3	294	66.7	252	65.6	23	62.2
<b>Total</b>	<b>656</b>	<b>100.0</b>	<b>833</b>	<b>100.0</b>	<b>441</b>	<b>100.0</b>	<b>384</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>

**Table 8.1(c) : Cancer of Gum - Number(#) and Relative Proportion(%) according to sub-site (1999-2000)**

	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Males</b>										
Upper gum	65	13.3	7	17.5	26	20.8	24	15.4	2	16.7
Lower gum	387	79.5	14	35.0	98	78.4	128	82.1	7	58.3
Other & UNS	35	7.2	19	47.5	1	0.8	4	2.6	3	25.0
<b>Total</b>	<b>487</b>	<b>100.0</b>	<b>40</b>	<b>100.0</b>	<b>125</b>	<b>100.0</b>	<b>156</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>
<b>Females</b>										
Upper gum	30	14.6	12	10.2	19	16.7	16	16.2	0	0.0
Lower gum	166	80.6	61	51.7	95	83.3	80	80.8	7	87.5
Other & UNS	10	4.9	45	38.1	0	0.0	3	3.0	1	12.5
<b>Total</b>	<b>206</b>	<b>100.0</b>	<b>118</b>	<b>100.0</b>	<b>114</b>	<b>100.0</b>	<b>99</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>

**Table 8.1(d) : Cancer of Palate - Number(#) and Relative Proportion(%) according to sub-site (1999-2000)**

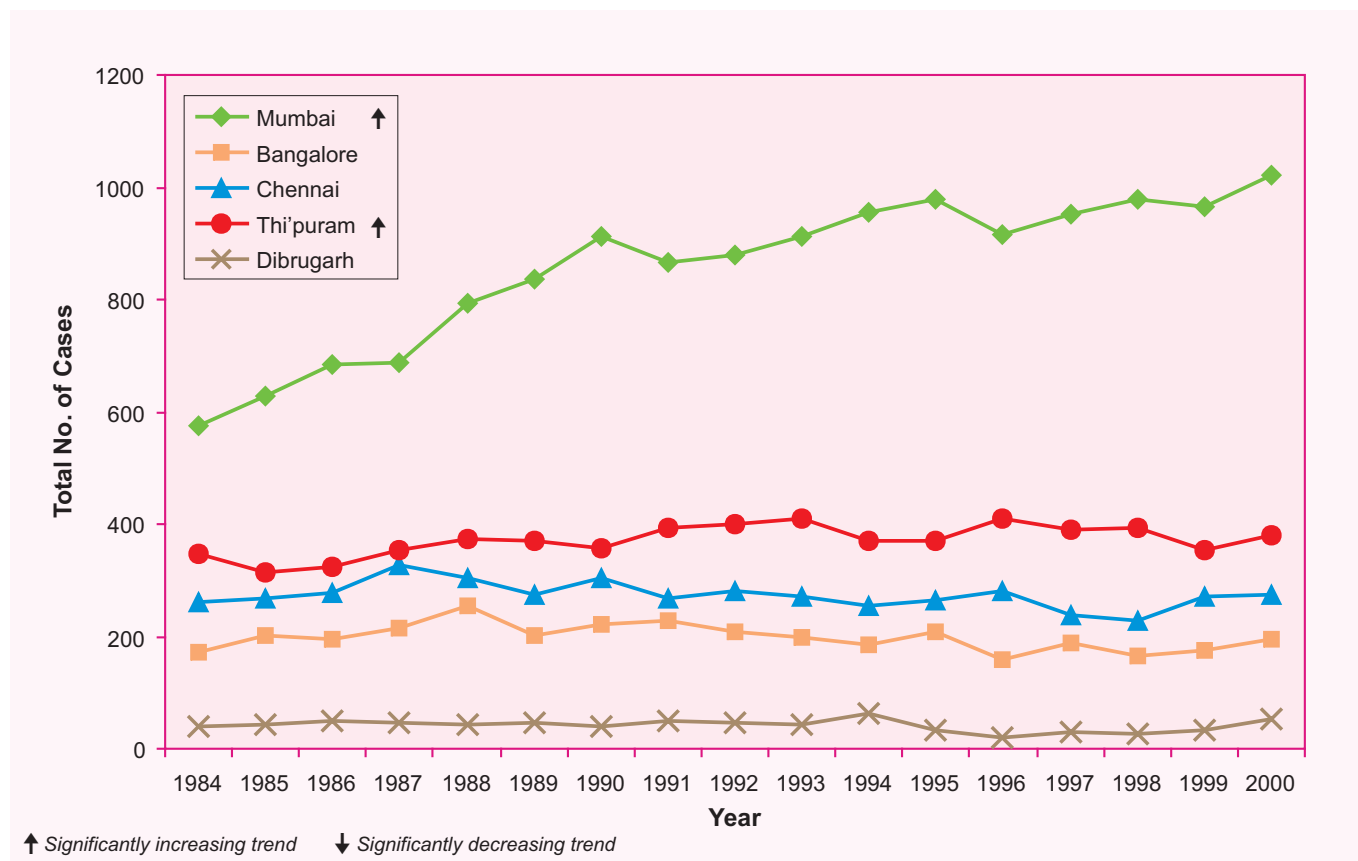
	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Males</b>										
Hard palate	80	44.4	13	19.1	13	16.7	38	45.8	2	13.3
Soft palate	88	48.9	46	67.6	36	46.2	31	37.3	8	53.3
Other & UNS	12	6.7	9	13.2	29	37.2	14	16.9	5	33.3
<b>Total</b>	<b>180</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>	<b>78</b>	<b>100.0</b>	<b>83</b>	<b>100.0</b>	<b>15</b>	<b>100.0</b>
<b>Females</b>										
Hard palate	29	74.4	18	54.5	14	50.0	18	72.0	1	25.0
Soft palate	6	15.4	8	24.2	9	32.1	2	8.0	2	50.0
Other & UNS	4	10.3	7	21.2	5	17.9	5	20.0	1	25.0
<b>Total</b>	<b>39</b>	<b>100.0</b>	<b>33</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>	<b>25</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>

**Table 8.1(e) : Cancer of Other and Unspecified parts of mouth - Number(#) and Relative Proportion(%) according to sub-site (1999-2000)**

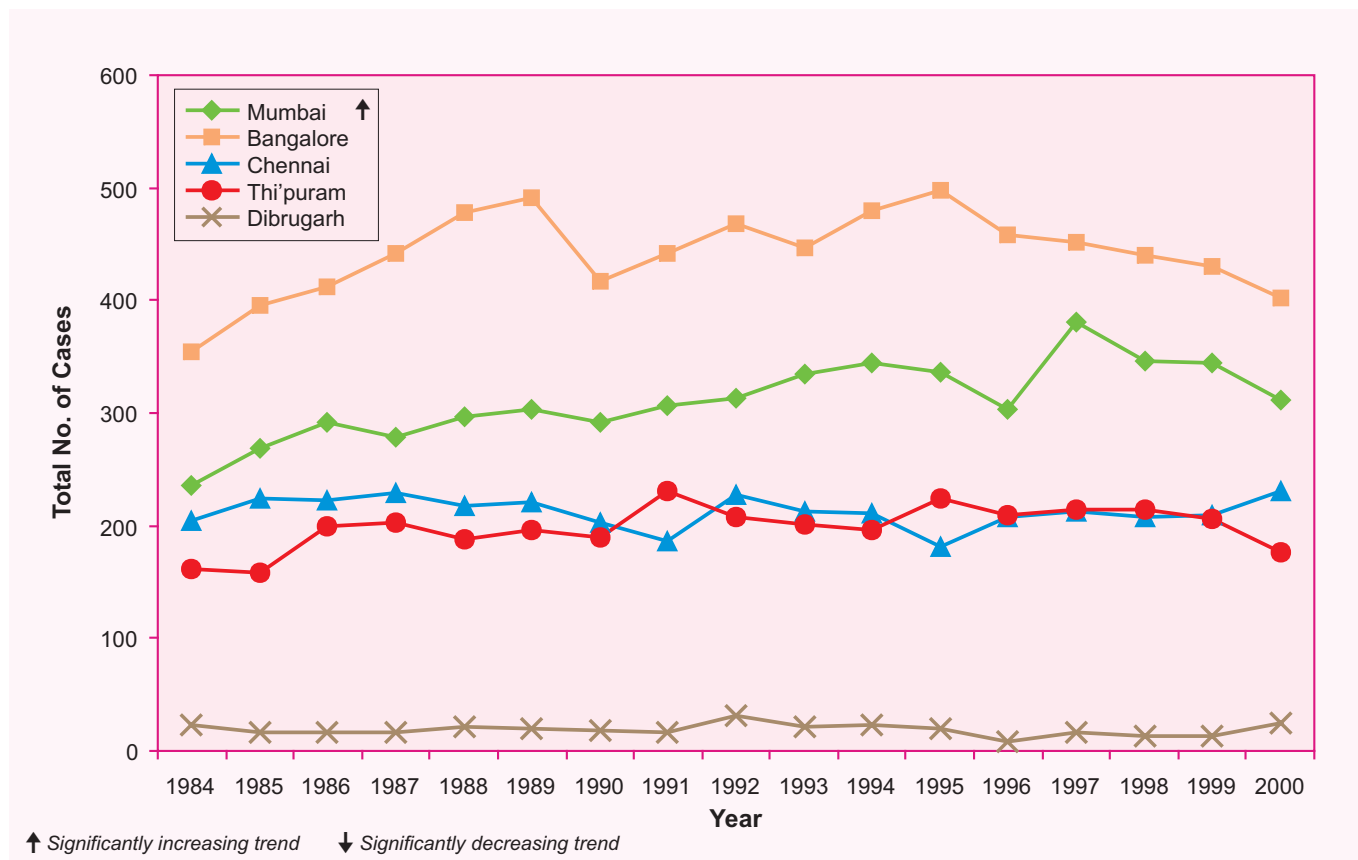
	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Cheek mucosa	975	80.5	128	61.0	234	83.3	358	89.1	40	76.9
Vestibule of mouth	98	8.1	22	10.5	3	1.1	2	0.5	1	1.9
Retromolar area	135	11.1	50	23.8	38	13.5	32	8.0	7	13.5
Other & UNS	3	0.2	10	4.8	6	2.1	10	2.5	4	7.7
<b>Total</b>	<b>1211</b>	<b>100.0</b>	<b>210</b>	<b>100.0</b>	<b>281</b>	<b>100.0</b>	<b>402</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>
<b>FEMALES</b>										
Cheek mucosa	338	84.9	476	70.3	280	95.2	239	94.8	16	69.6
Vestibule of mouth	19	4.8	76	11.2	2	0.7	3	1.2	0	0.0
Retromolar area	38	9.5	79	11.7	7	2.4	5	2.0	2	8.7
Other & UNS	3	0.8	46	6.8	5	1.7	5	2.0	5	21.7
<b>Total</b>	<b>398</b>	<b>100.0</b>	<b>677</b>	<b>100.0</b>	<b>294</b>	<b>100.0</b>	<b>252</b>	<b>100.0</b>	<b>23</b>	<b>100.0</b>

**Fig. 8.1: Trends in Actual Numbers - Mouth Cancers**

**Males**



**Females**



**Table 8.2: Number(#) and Relative Proportion(%) of Mouth cancers according to five year age group (1999-2000)****Males**

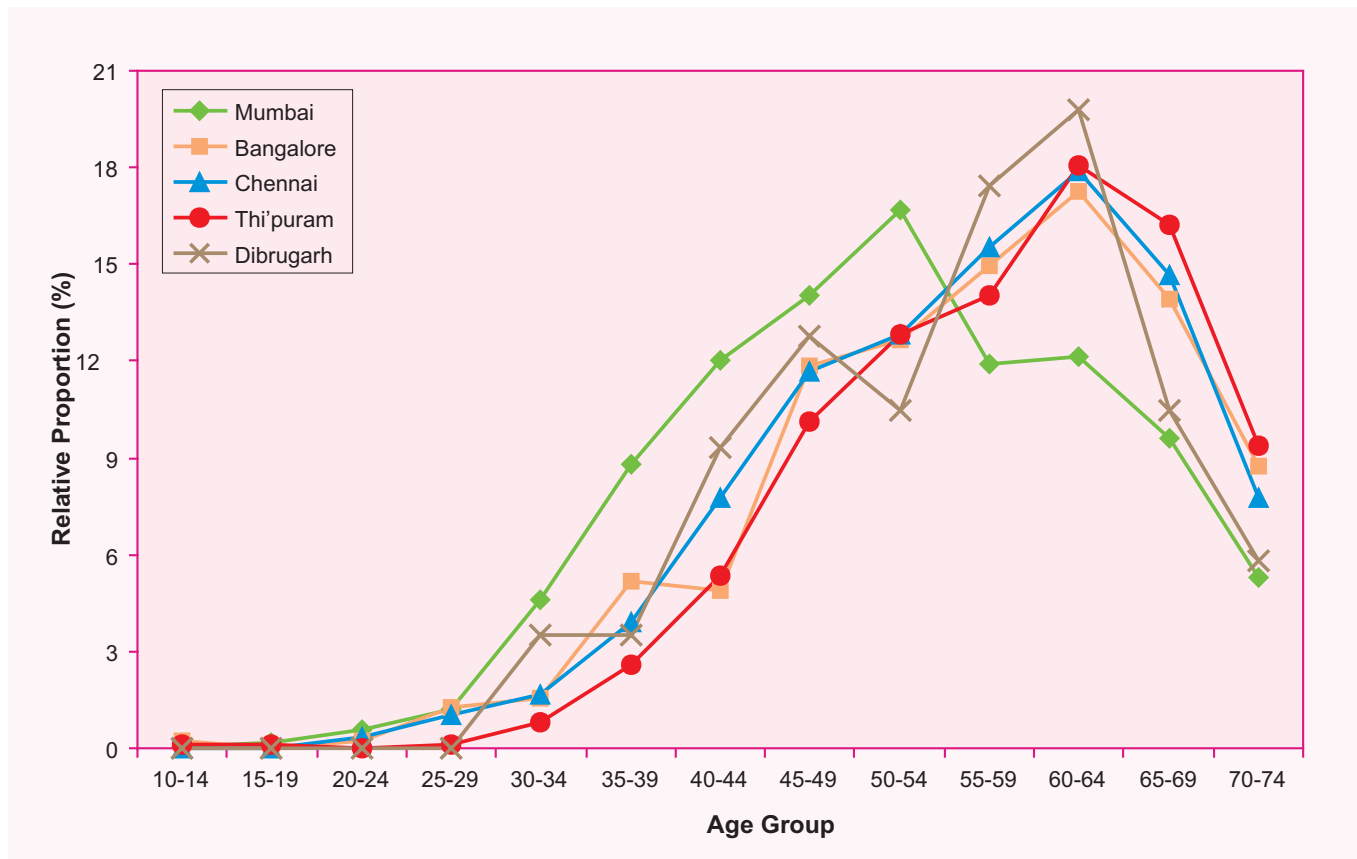
Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	1	0.3	0	0.0	0	0.0	0	0.0
10-14	1	0.1	0	0.0	0	0.0	1	0.1	0	0.0
15-19	3	0.2	0	0.0	0	0.0	1	0.1	0	0.0
20-24	11	0.6	1	0.3	1	0.2	0	0.0	0	0.0
25-29	24	1.2	5	1.4	6	1.1	1	0.1	0	0.0
30-34	91	4.6	5	1.4	9	1.7	6	0.8	3	3.5
35-39	175	8.8	20	5.4	20	3.7	19	2.6	3	3.5
40-44	239	12.0	19	5.2	41	7.5	37	5.0	8	9.3
45-49	279	14.0	45	12.2	63	11.6	75	10.2	11	12.8
50-54	331	16.7	47	12.8	68	12.5	92	12.5	9	10.5
55-59	236	11.9	55	14.9	83	15.3	104	14.2	15	17.4
60-64	241	12.1	65	17.7	97	17.8	135	18.4	17	19.8
65-69	191	9.6	50	13.6	83	15.3	121	16.5	9	10.5
70-74	105	5.3	29	7.9	44	8.1	66	9.0	5	5.8
75+	59	3.0	26	7.1	29	5.3	76	10.4	6	7.0
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>All Ages</b>	<b>1986</b>	<b>100.0</b>	<b>368</b>	<b>100.0</b>	<b>544</b>	<b>100.0</b>	<b>734</b>	<b>100.0</b>	<b>86</b>	<b>100.0</b>
<b>Mean</b>	51.7		56.1		56.6		59.5		55.5	
<b>SD</b>	12.05		12.41		11.62		11.48		11.93	

**Females**

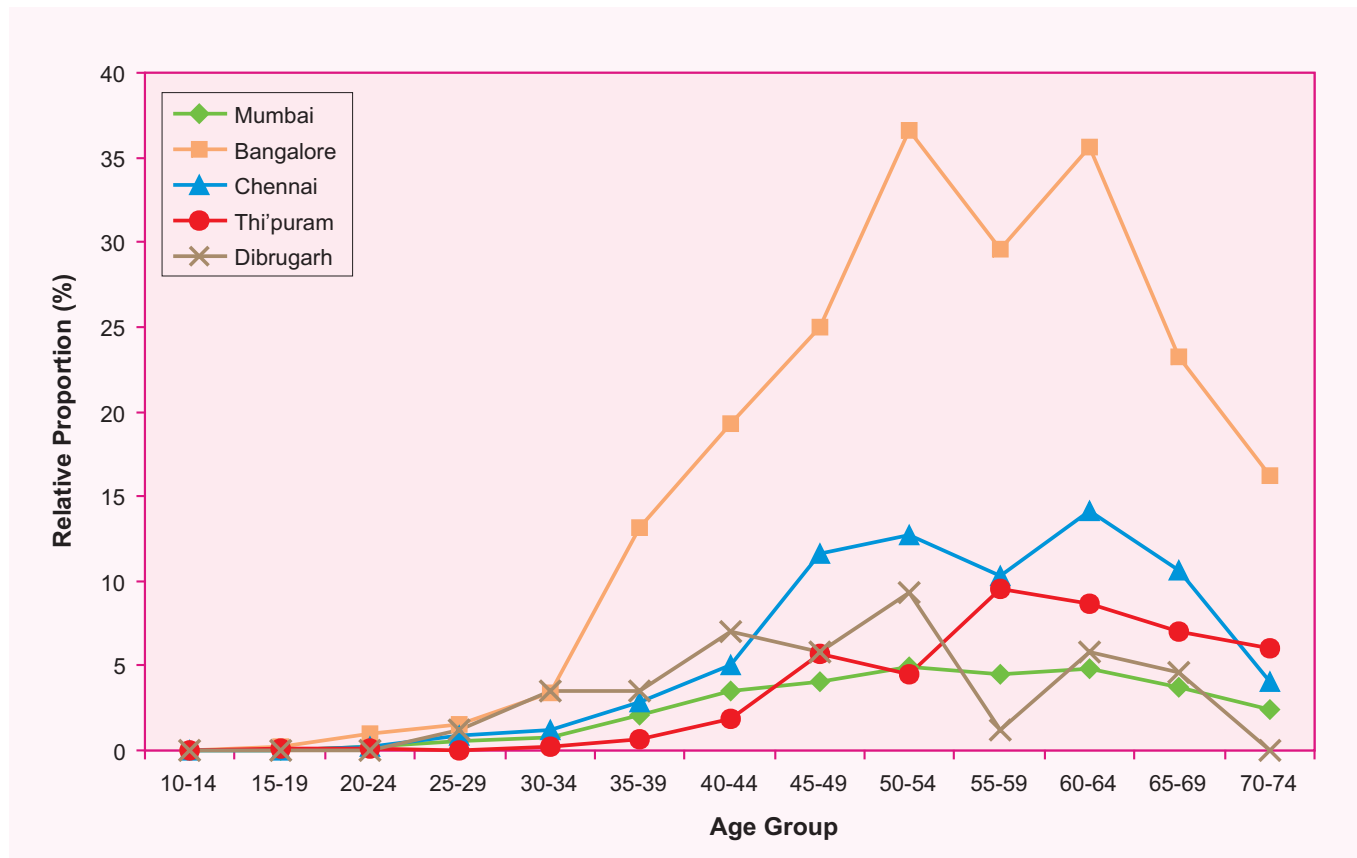
Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	1	0.1	0	0.0	0	0.0	0	0.0
10-14	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0
15-19	1	0.2	1	0.1	0	0.0	1	0.3	0	0.0
20-24	4	0.6	4	0.5	1	0.2	1	0.3	0	0.0
25-29	10	1.5	6	0.7	5	1.1	0	0.0	1	1.2
30-34	16	2.4	13	1.6	6	1.4	2	0.5	3	3.5
35-39	42	6.4	49	5.9	17	3.9	5	1.3	3	3.5
40-44	70	10.7	74	8.9	29	6.6	14	3.6	6	7.0
45-49	81	12.3	94	11.3	63	14.3	43	11.2	5	5.8
50-54	99	15.1	142	17.0	74	16.8	33	8.6	8	9.3
55-59	90	13.7	112	13.4	57	12.9	71	18.5	1	1.2
60-64	95	14.5	136	16.3	80	18.1	64	16.7	5	5.8
65-69	73	11.1	88	10.6	60	13.6	53	13.8	4	4.7
70-74	47	7.2	61	7.3	24	5.4	46	12.0	0	0.0
75+	27	4.1	52	6.2	25	5.7	51	13.3	1	1.2
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>All Ages</b>	<b>656</b>	<b>100.0</b>	<b>833</b>	<b>100.0</b>	<b>441</b>	<b>100.0</b>	<b>384</b>	<b>100.0</b>	<b>37</b>	<b>43.0</b>
<b>Mean</b>	53.5		54.4		55.2		60.7		48.7	
<b>SD</b>	12.28		12.22		11.42		11.53		12.61	

**Fig. 8.2: Five year age group distribution - Mouth Cancers (1999-2000)**

**Males**



**Females**



**Table 8.3: Number(#) and Relative Proportion(%) of Mouth cancers based on different methods of diagnosis (1999-2000)**

Registry	Microscopic		Clinical		X-ray		Others		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Males</b>										
Mumbai	1877	94.5	2	0.1	0	0.0	107	5.4	1986	100.0
Bangalore	351	95.4	11	3.0	0	0.0	6	1.6	368	100.0
Chennai	316	58.1	227	41.7	0	0.0	1	0.2	544	100.0
Thi'puram	683	93.1	47	6.4	0	0.0	4	0.5	734	100.0
Dibrugarh	86	100.0	0	0.0	0	0.0	0	0.0	86	100.0
<b>Females</b>										
Mumbai	634	96.6	1	0.2	0	0.0	21	3.2	656	100.0
Bangalore	809	97.1	19	2.3	1	0.1	4	0.5	833	100.0
Chennai	269	61.0	172	39.0	0	0.0	0	0.0	441	100.0
Thi'puram	353	91.9	30	7.8	0	0.0	1	0.3	384	100.0
Dibrugarh	37	100.0	0	0.0	0	0.0	0	0.0	37	100.0

**Table 8.4: Number(#) and Relative Proportion(%) of Mouth cancer patients according to the clinical extent of disease (Excludes Patients Previously Treated) (1999-2000)**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Males</b>												
Mumbai	512	30.8	1038	62.4	1550	93.1	114	6.9	0	0.0	1664	100.0
Bangalore	28	8.1	295	85.0	323	93.1	20	5.8	4	1.2	347	100.0
Chennai	52	11.3	408	88.3	460	99.6	2	0.4	0	0.0	462	100.0
Thi'puram	90	13.5	566	85.0	656	98.5	10	1.5	0	0.0	666	100.0
Dibrugarh	14	17.5	62	77.5	76	95.0	3	3.8	1	1.3	80	100.0
<b>Females</b>												
Mumbai	191	31.7	373	62.0	564	93.7	38	6.3	0	0.0	602	100.0
Bangalore	46	5.7	692	85.2	738	90.9	60	7.4	14	1.7	812	100.0
Chennai	32	8.2	359	91.6	391	99.7	1	0.3	0	0.0	392	100.0
Thi'puram	49	13.8	299	84.0	348	97.8	8	2.2	0	0.0	356	100.0
Dibrugarh	10	27.0	26	70.3	36	97.3	1	2.7	0	0.0	37	100.0

**Table 8.5: Number(#) and Relative Proportion(%) of Mouth cancer patients according to Broad Groups of Treatment(Tmt) (1999-2000)**

Treatment Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Prior Tmt. Only	214	10.8	18	4.9	76	14.0	22	3.0	0	0.0
Prior & Tmt. at RI	108	5.4	3	0.8	6	1.1	46	6.3	6	7.0
Tmt. Only at RI	820	41.3	175	47.6	219	40.3	555	75.6	73	84.9
No Treatment	844	42.5	172	46.7	243	44.7	111	15.1	7	8.1
<b>Total Patients</b>	<b>1986</b>	<b>100.0</b>	<b>368</b>	<b>100.0</b>	<b>544</b>	<b>100.0</b>	<b>734</b>	<b>100.0</b>	<b>86</b>	<b>100.0</b>
<b>FEMALES</b>										
Prior Tmt. Only	33	5.0	16	1.9	45	10.2	9	2.3	0	0.0
Prior & Tmt. at RI	21	3.2	5	0.6	4	0.9	19	4.9	0	0.0
Tmt. Only at RI	328	50.0	410	49.2	201	45.6	304	79.2	35	94.6
No Treatment	274	41.8	402	48.3	191	43.3	52	13.5	2	5.4
<b>Total Patients</b>	<b>656</b>	<b>100.0</b>	<b>833</b>	<b>100.0</b>	<b>441</b>	<b>100.0</b>	<b>384</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>



**Table 8.6: Number(#) and Relative Proportion(%) of Mouth cancer patients according to Type of Treatment given (Patients treated only at Reporting Institution) (1999-2000)****Males**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>820</b>	<b>100.0</b>	<b>175</b>	<b>100.0</b>	<b>219</b>	<b>100.0</b>	<b>555</b>	<b>100.0</b>	<b>73</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	327	39.9	19	10.9	3	1.4	19	3.4	5	6.8
Radiotherapy(R)	63	7.7	76	43.4	171	78.1	336	60.5	59	80.8
Chemotherapy(C)	45	5.5	29	16.6	0	0.0	11	2.0	1	1.4
S + R	335	40.9	32	18.3	34	15.5	82	14.8	6	8.2
S + C	9	1.1	1	0.6	0	0.0	3	0.5	0	0.0
R + C	23	2.8	11	6.3	11	5.0	79	14.2	2	2.7
S + R + C	18	2.2	6	3.4	0	0.0	12	2.2	0	0.0
Others	0.0	0	1.0	0.6	0.0	0	13.0	2.3	0.0	0.0
<b>Modality of therapy</b>										
Single	435	53.0	124	70.9	174	79.5	366	65.9	65	89.0
Combination	385	47.0	50	28.6	45	20.5	176	31.7	8	11.0
<b>Type of Any Treatment</b>										
Any Surgery	689	84.0	58	33.1	37	16.9	116	20.9	11	15.1
Any R	439	53.5	125	71.4	216	98.6	509	91.7	67	91.8
Any C	95	11.6	47	26.9	11	5.0	105	18.9	3	4.1

**Females**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>328</b>	<b>100.0</b>	<b>410</b>	<b>100.0</b>	<b>201</b>	<b>100.0</b>	<b>304</b>	<b>100.0</b>	<b>35</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	178	54.3	44	10.7	4	2.0	17	5.6	2	5.7
Radiotherapy(R)	7	2.1	108	26.3	170	84.6	193	63.5	27	77.1
Chemotherapy(C)	17	5.2	108	26.3	0	0.0	5	1.6	0	0.0
S + R	118	36.0	108	26.3	24	11.9	46	15.1	6	17.1
S + C	3	0.9	5	1.2	0	0.0	2	0.7	0	0.0
R + C	3	0.9	23	5.6	3	1.5	26	8.6	0	0.0
S + R + C	2	0.6	13	3.2	0	0.0	5	1.6	0	0.0
Others	0	0.0	1	0.2	0	0.0	10	3.3	0	0.0
<b>Modality of therapy</b>										
Single	202	61.6	260	63.4	174	86.6	215	70.7	29	82.9
Combination	126	38.4	149	36.3	27	13.4	79	26.0	6	17.1
<b>Type of Any Treatment</b>										
Any Surgery	301	91.8	170	41.5	28	13.9	70	23.0	8	22.9
Any R	130	39.6	252	61.5	197	98.0	270	88.8	33	94.3
Any C	25	7.6	149	36.3	3	1.5	38	12.5	0	0.0

**Table 8.7(a): Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Mouth - Males (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	145	64.4	8	40.0	3	6.7	5	7.0	1	7.7
Radiotherapy(R)	21	9.3	5	25.0	34	75.6	53	74.6	11	84.6
Chemotherapy(C)	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0
S + R	52	23.1	4	20.0	8	17.8	7	9.9	1	7.7
S + C	2	0.9	0	0.0	0	0.0	0	0.0	0	0.0
R + C	2	0.9	2	10.0	0	0.0	5	7.0	0	0.0
S + R + C	2	0.9	1	5.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	1	1.4	0	0.0
ALL TREATMENTS	225	100.0	20	100.0	45	100.0	71	100.0	13	100.0
<b>Regional</b>										
Surgery(S)	180	31.3	10	6.7	0	0.0	14	2.9	3	5.4
Radiotherapy(R)	40	7.0	69	46.3	136	78.6	281	58.9	47	83.9
Chemotherapy(C)	35	6.1	26	17.4	0	0.0	10	2.1	0	0.0
S + R	281	48.9	28	18.8	26	15.0	75	15.7	4	7.1
S + C	6	1.0	1	0.7	0	0.0	2	0.4	0	0.0
R + C	17	3.0	9	6.0	11	6.4	73	15.3	2	3.6
S + R + C	16	2.8	5	3.4	0	0.0	11	2.3	0	0.0
Others	0	0.0	1	0.7	0	0.0	11	2.3	0	0.0
ALL TREATMENTS	575	100.0	149	100.0	173	100.0	477	100.0	56	100.0
<b>Distant</b>										
Surgery(S)	2	10.0	1	16.7	0	0.0	0	0.0	1	33.3
Radiotherapy(R)	2	10.0	2	33.3	1	100.0	2	28.6	1	33.3
Chemotherapy(C)	9	45.0	3	50.0	0	0.0	1	14.3	0	0.0
S + R	2	10.0	0	0.0	0	0.0	0	0.0	1	33.3
S + C	1	5.0	0	0.0	0	0.0	1	14.3	0	0.0
R + C	4	20.0	0	0.0	0	0.0	1	14.3	0	0.0
S + R + C	0	0.0	0	0.0	0	0.0	1	14.3	0	0.0
Others	0	0.0	0	0.0	0	0.0	1	14.3	0	0.0
ALL TREATMENTS	20	100.0	6	100.0	1	100.0	7	100.0	3	100.0

**Table 8.7(b): Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Mouth - Females (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	77	76.2	8	21.1	1	4.0	5	10.9	1	10.0
Radiotherapy(R)	2	2.0	13	34.2	18	72.0	34	73.9	8	80.0
Chemotherapy(C)	1	1.0	2	5.3	0	0.0	1	2.2	0	0.0
S + R	20	19.8	15	39.5	6	24.0	4	8.7	1	10.0
S + C	1	1.0	0	0.0	0	0.0	0	0.0	0	0.0
R + C	0	0.0	0	0.0	0	0.0	2	4.3	0	0.0
S + R + C	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ALL TREATMENTS	101	100.0	38	100.0	25	100.0	46	100.0	10	100.0
<b>Regional</b>										
Surgery(S)	99	45.4	34	9.7	3	1.7	12	4.8	1	4.2
Radiotherapy(R)	3	1.4	91	26.1	152	86.4	156	62.2	18	75.0
Chemotherapy(C)	13	6.0	95	27.2	0	0.0	3	1.2	0	0.0
S + R	97	44.5	91	26.1	18	10.2	42	16.7	5	20.8
S + C	2	0.9	4	1.1	0	0.0	2	0.8	0	0.0
R + C	3	1.4	22	6.3	3	1.7	24	9.6	0	0.0
S + R + C	1	0.5	12	3.4	0	0.0	5	2.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	7	2.8	0	0.0
ALL TREATMENTS	218	100.0	349	100.0	176	100.0	251	100.0	24	100.0
<b>Distant</b>										
Surgery(S)	2	22.2	2	9.5	0	0.0	0	0.0	0	0.0
Radiotherapy(R)	2	22.2	4	19.0	0	0.0	3	42.9	1	100.0
Chemotherapy(C)	3	33.3	11	52.4	0	0.0	1	14.3	0	0.0
S + R	1	11.1	1	4.8	0	0.0	0	0.0	0	0.0
S + C	0	0.0	1	4.8	0	0.0	0	0.0	0	0.0
R + C	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
S + R + C	1	11.1	1	4.8	0	0.0	0	0.0	0	0.0
Others	0	0.0	1	4.8	0	0.0	3	42.9	0	0.0
ALL TREATMENTS	9	100.0	21	100.0	0.001	0.0	7	100.0	1	100.0

**Table 8.8a): Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Mouth - Males (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	201	89.3	77	34.2	7	3.1	0	0.0	225
<b>Bangalore</b>	13	65.0	12	60.0	3	15.0	0	0.0	20
<b>Chennai</b>	11	24.4	42	93.3	0	0.0	0	0.0	45
<b>Thi'puram</b>	12	16.9	65	91.5	5	7.0	1	1.4	71
<b>Dibrugarh</b>	2	15.4	12	92.3	0	0.0	0	0.0	13
REGIONAL									
<b>Mumbai</b>	483	84.0	354	61.6	74	12.9	0	0.0	575
<b>Bangalore</b>	44	29.5	111	74.5	41	27.5	1	0.7	149
<b>Chennai</b>	26	15.0	173	100.0	11	6.4	0	0.0	173
<b>Thi'puram</b>	102	21.4	440	92.2	96	20.1	11	2.3	477
<b>Dibrugarh</b>	7	12.5	53	94.6	2	3.6	0	0.0	56
DISTANT									
<b>Mumbai</b>	5	25.0	8	40.0	14	70.0	0	0.0	20
<b>Bangalore</b>	1	16.7	2	33.3	3	50.0	0	0.0	6
<b>Chennai</b>	0	0.0	1	100.0	0	0.0	0	0.0	1
<b>Thi'puram</b>	2	28.6	4	57.1	4	57.1	1	14.3	7
<b>Dibrugarh</b>	2	66.7	2	66.7	0	0.0	0	0.0	3

**Table 8.8(b): Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Mouth - Females (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	98	97.0	22	21.8	2	2.0	0	0.0	101
<b>Bangalore</b>	23	60.5	28	73.7	2	5.3	0	0.0	38
<b>Chennai</b>	7	28.0	24	96.0	0	0.0	0	0.0	25
<b>Thi'puram</b>	9	19.6	40	87.0	3	6.5	0	0.0	46
<b>Dibrugarh</b>	2	20.0	9	90.0	0	0.0	0	0.0	10
REGIONAL									
<b>Mumbai</b>	199	91.3	104	47.7	19	8.7	0	0.0	218
<b>Bangalore</b>	141	40.4	216	61.9	133	38.1	0	0.0	349
<b>Chennai</b>	21	11.9	173	98.3	3	1.7	0	0.0	176
<b>Thi'puram</b>	61	24.3	227	90.4	34	13.5	7	2.8	251
<b>Dibrugarh</b>	6	25.0	23	95.8	0	0.0	0	0.0	24
DISTANT									
<b>Mumbai</b>	4	44.4	4	44.4	4	44.4	0	0.0	9
<b>Bangalore</b>	5	23.8	6	28.6	13	61.9	1	4.8	21
<b>Chennai</b>	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>Thi'puram</b>	0	0.0	3	42.9	1	14.3	3	42.9	7
<b>Dibrugarh</b>	0	0.0	1	100.0	0	0.0	0	0.0	1

# Chapter 9

## TONGUE (ICD-10: C01-C02)

The total number, relative proportion and rank of cancer of tongue in males and females for the years 1999 and 2000 is given in Table 9.1(a). Cancer of the tongue was among the five leading sites in all registries except Bangalore where it was the sixth leading site.

Table 9.1(b) gives the number and relative proportion of tongue cancer according to sub-site. Mumbai and Chennai show almost equal distribution of base tongue and rest of tongue cancers. Bangalore and Dibrugarh had a higher proportion of base tongue cancer, whereas Thiruvananthapuram had relatively lower proportion of base tongue cancer.

Figure 9.1 gives the trends in actual number of tongue cancers from 1984 to 2000. A significant increase in the numbers was seen in Chennai and Thiruvananthapuram and a decrease was seen in Dibrugarh.

Figure 9.2 and Table 9.2 show the distribution of tongue cancers by five year age group. The predominant form of diagnosis of tongue cancer was through microscopic examination (Table 9.3).

Table 9.4 gives the distribution of tongue cancer according to the clinical extent of disease. The regional spread of the disease varied from 59.6% in Mumbai to 87.2% in Chennai.

Table 9.5 gives the relative proportion of tongue cancer according to the broad groups of treatment.

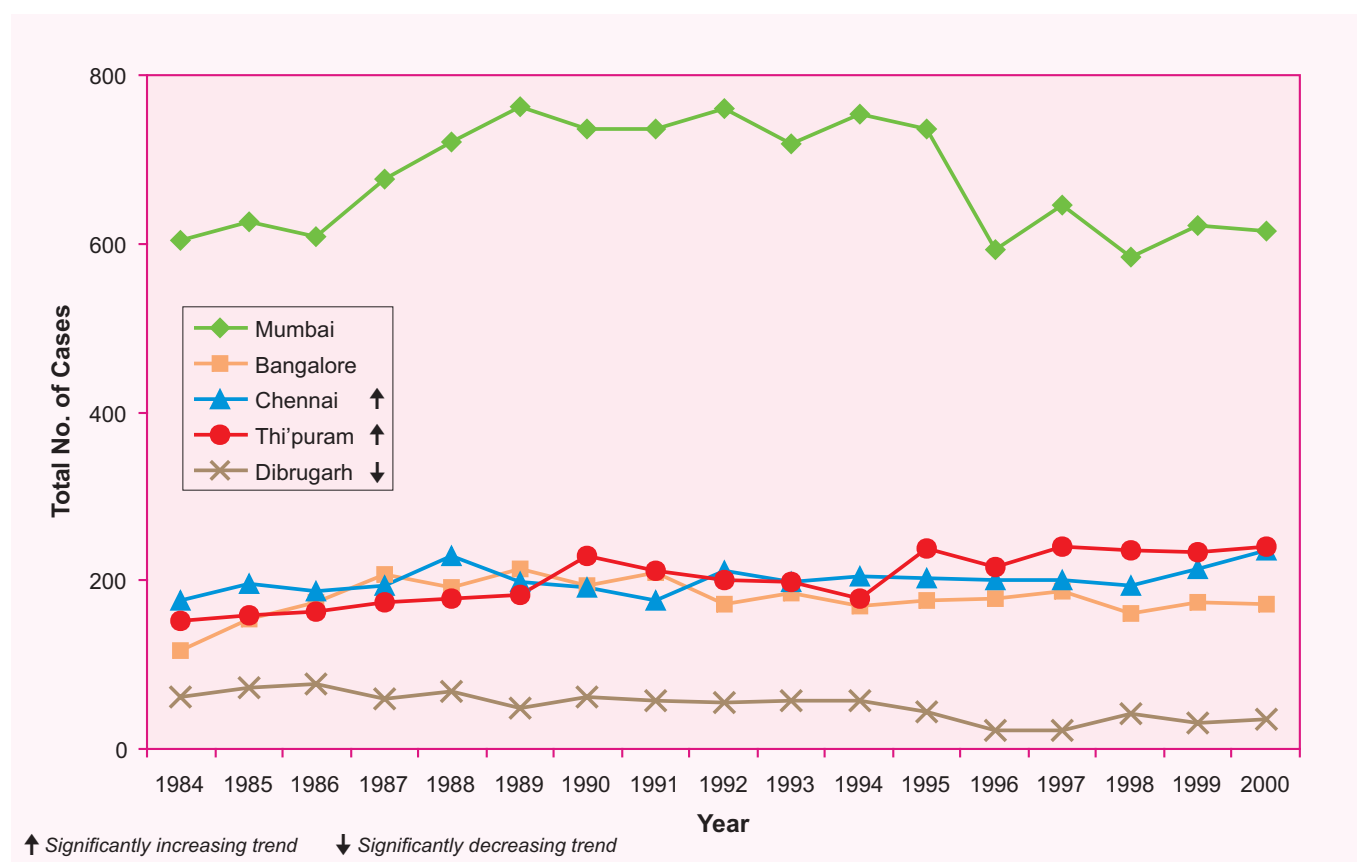
Tables 9.6, 9.7 and 9.8 give the picture of the different types of treatment given to these patients.

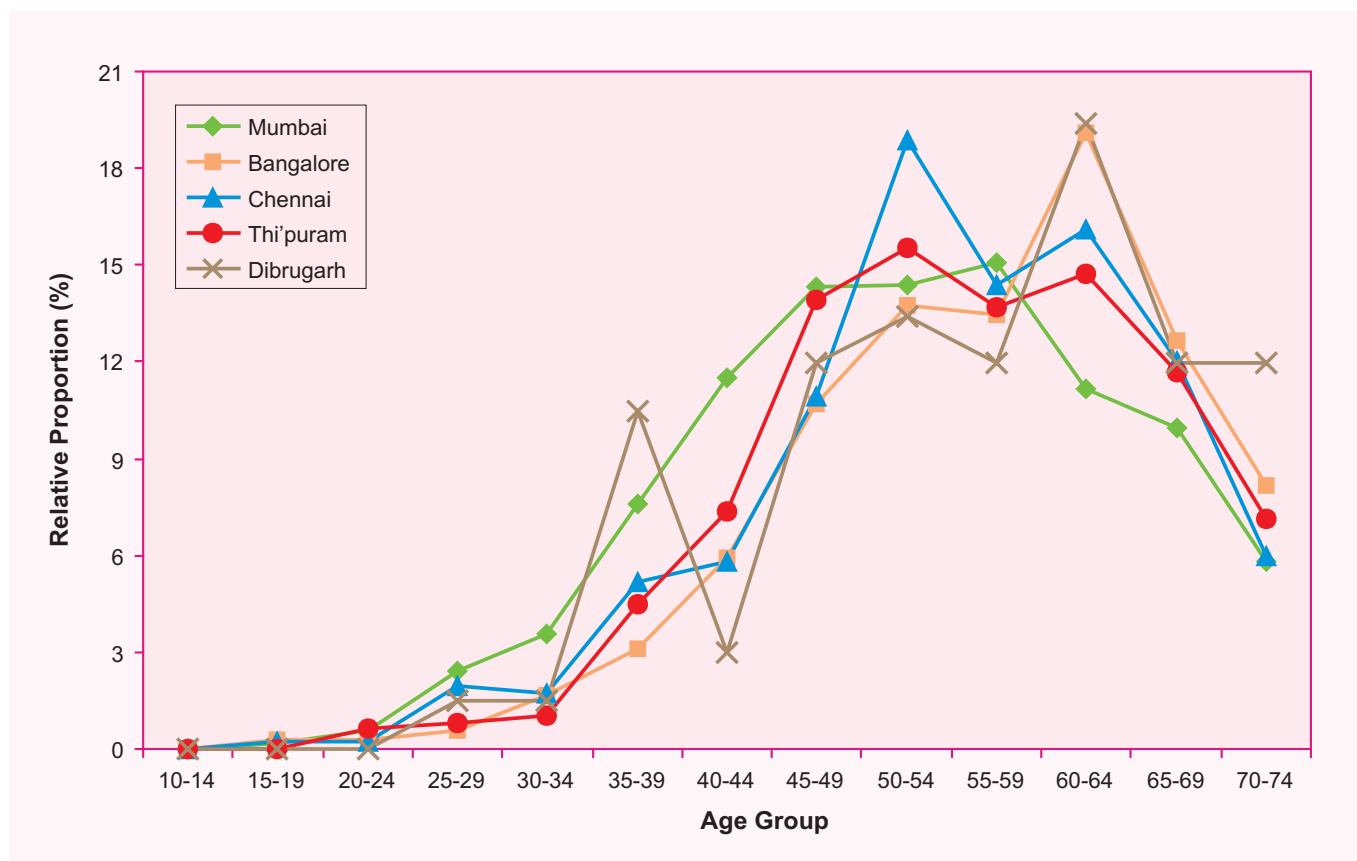
**Table 9.1(a): Number(#), Relative Proportion(%) and Rank(R) of cancers of the Tongue - Males (1999-2000)**

Registry	Total	#	%	R
Mumbai	17637	1236	7.0	3
Bangalore	6106	346	5.7	6
Chennai	6195	450	7.3	4
Thi'puram	7859	473	6.0	3
Dibrugarh	997	67	6.7	4

**Table 9.1(b) : Number(#) and Relative Proportion(%) of Tongue Cancer patients according to sub-site - Males (1999-2000)**

	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Base of tongue	509	41.2	238	68.8	201	44.7	89	18.8	53	79.1
Rest of tongue	604	48.9	31	9.0	227	50.4	233	49.3	8	11.9
NOS	123	10.0	77	22.3	22	4.9	151	31.9	6	9.0
<b>Total tongue</b>	<b>1236</b>	<b>100.0</b>	<b>346</b>	<b>100.0</b>	<b>450</b>	<b>100.0</b>	<b>473</b>	<b>100.0</b>	<b>67</b>	<b>100.0</b>

**Fig. 9.1: Trends in Actual Numbers - Tongue Cancer - Males**

**Fig. 9.2: Five year age group distribution - Tongue Cancer - Males (1999-2000)****Table 9.2: Number(#) and Relative Proportion(%) of Tongue cancer according to five year age group - Males (1999-2000)**

Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	0	0.0	0	0.0	0	0.0	0	0.0	1.0	1.5
5-9	0	0.0	0	0.0	1	0.2	0	0.0	0.0	0.0
10-14	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
15-19	2	0.2	1	0.3	1	0.2	0	0.0	0.0	0.0
20-24	7	0.6	1	0.3	1	0.2	3	0.6	0.0	0.0
25-29	30	2.4	1	0.3	8	1.8	4	0.8	1.0	1.5
30-34	44	3.6	6	1.7	7	1.6	4	0.8	1.0	1.5
35-39	94	7.6	11	3.2	24	5.3	19	4.0	7.0	10.4
40-44	142	11.5	20	5.8	27	6.0	34	7.2	2.0	3.0
45-49	177	14.3	38	11.0	47	10.4	67	14.2	8.0	11.9
50-54	178	14.4	47	13.6	86	19.1	73	15.4	9.0	13.4
55-59	186	15.0	47	13.6	67	14.9	65	13.7	8.0	11.9
60-64	138	11.2	68	19.7	72	16.0	69	14.6	13.0	19.4
65-69	123	10.0	44	12.7	53	11.8	56	11.8	8.0	11.9
70-74	72	5.8	27	7.8	27	6.0	35	7.4	8.0	11.9
75+	43	3.5	35	10.1	29	6.4	44	9.3	1.0	1.5
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
<b>All Ages</b>	<b>1236</b>	<b>100.0</b>	<b>346</b>	<b>100.0</b>	<b>450</b>	<b>100.0</b>	<b>473</b>	<b>100.0</b>	<b>67</b>	<b>100.0</b>
<b>Mean</b>	52.3		57.4		55.3		57.0		54.1	
<b>SD</b>	12.27		11.88		12.05		12.14		13.44	



**Table 9.3: Number(#) and Relative Proportion(%) of Tongue cancers based on different methods of diagnosis - Males (1999-2000)**

Registry	Microscopic		Clinical		X-ray		Others		Total	
	#	%	#	%	#	%	#	%	#	%
Mumbai	1155	93.4	1	0.1	0	0.0	80	6.5	1236	100.0
Bangalore	327	94.5	10	2.9	0	0.0	9	2.6	346	100.0
Chennai	290	64.4	160	35.6	0	0.0	0	0.0	450	100.0
Thi'puram	455	96.2	17	3.6	0	0.0	1	0.2	473	100.0
Dibrugarh	66	98.5	0	0.0	0	0.0	1	1.5	67	100.0

**Table 9.4: Number(#) and Relative Proportion(%) of Tongue cancer patients according to the clinical extent of disease (Excludes Patients Previously Treated) (1999-2000)**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
Mumbai	365	35.0	621	59.6	986	94.6	56	5.4	0	0.0	1042	100.0
Bangalore	29	8.8	268	81.5	297	90.3	29	8.8	3	0.9	329	100.0
Chennai	47	12.3	334	87.2	381	99.5	2	0.5	0	0.0	383	100.0
Thi'puram	74	17.4	332	78.1	406	95.5	19	4.5	0	0.0	425	100.0
Dibrugarh	8	12.1	57	86.4	65	98.5	0	0.0	1	1.5	66	100.0

**Table 9.5: Number(#) and Relative Proportion(%) of Tongue cancer patients according to Broad Groups of Treatment(Tmt) - Males (1999-2000)**

Treatment Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Prior Tmt. Only	133	10.8	14	4.0	62	13.8	15	3.2	0	0.0
Prior & Tmt. at RI	61	4.9	3	0.9	5	1.1	33	7.0	1	1.5
Tmt. Only at RI	491	39.7	155	44.8	179	39.8	345	72.9	63	94.0
No Treatment	551	44.6	174	50.3	204	45.3	80	16.9	3	4.5
<b>Total Patients</b>	<b>1236</b>	<b>100.0</b>	<b>346</b>	<b>100.0</b>	<b>450</b>	<b>100.0</b>	<b>473</b>	<b>100.0</b>	<b>67</b>	<b>100.0</b>

**Table 9.6: Number(#) and Relative Proportion(%) of Tongue cancer patients according to Type of Treatment given (Patients treated only at Reporting Institution) - Males (1999-2000)**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>491</b>	<b>100.0</b>	<b>155</b>	<b>100.0</b>	<b>179</b>	<b>100.0</b>	<b>345</b>	<b>100.0</b>	<b>63</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	176	35.8	14	9.0	0	0.0	36	10.4	0	0.0
Radiotherapy(R)	136	27.7	102	65.8	142	79.3	115	33.3	58	92.1
Chemotherapy(C)	19	3.9	5	3.2	0	0.0	38	11.0	1	1.6
S + R	110	22.4	18	11.6	32	17.9	58	16.8	1	1.6
S + C	1	0.2	1	0.6	0	0.0	4	1.2	0	0.0
R + C	40	8.1	13	8.4	4	2.2	71	20.6	3	4.8
S + R + C	9	1.8	1	0.6	1	0.6	18	5.2	0	0.0
Others	0	0.0	1	0.6	0	0.0	5	1.4	0	0.0
<b>Modality of therapy</b>										
Single	331	67.4	121	78.1	142	79.3	189	54.8	59	93.7
Combination	160	32.6	33	21.3	37	20.7	151	43.8	4	6.3
<b>Type of Any Treatment</b>										
Any Surgery	296	60.3	34	21.9	33	18.4	116	33.6	1	1.6
Any R	295	60.1	134	86.5	179	100.0	262	75.9	62	98.4
Any C	69	14.1	20	12.9	5	2.8	131	38.0	4	6.3

**Table 9.7: Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Tongue - Males (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	116	64.1	7	50.0	0	0.0	18	25.7	0	0.0
Radiotherapy(R)	29	16.0	5	35.7	26	66.7	27	38.6	5	71.4
Chemotherapy(C)	0	0.0	0	0.0	0	0.0	2	2.9	0	0.0
S + R	29	16.0	2	14.3	13	33.3	12	17.1	1	14.3
S + C	1	0.6	0	0.0	0	0.0	1	1.4	0	0.0
R + C	4	2.2	0	0.0	0	0.0	10	14.3	1	14.3
S + R + C	2	1.1	0	0.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ALL TREATMENTS	181	100.0	14	100.0	39	100.0	70	100.0	7	100.0
<b>Regional</b>										
Surgery(S)	60	20.1	6	4.5	0	0.0	18	6.8	0	0.0
Radiotherapy(R)	102	34.2	93	69.4	116	82.9	86	32.6	53	96.4
Chemotherapy(C)	15	5.0	4	3.0	0	0.0	32	12.1	0	0.0
S + R	81	27.2	16	11.9	19	13.6	46	17.4	0	0.0
S + C	0	0.0	1	0.7	0	0.0	3	1.1	0	0.0
R + C	33	11.1	12	9.0	4	2.9	58	22.0	2	3.6
S + R + C	7	2.3	1	0.7	1	0.7	18	6.8	0	0.0
Others	0	0.0	1	0.7	0	0.0	3	1.1	0	0.0
ALL TREATMENTS	298	100.0	134	100.0	140	100.0	264	100.0	55	100.0
<b>Distant</b>										
Surgery(S)	0	0.0	1	16.7	0	0.0	0	0.0	0	0.0
Radiotherapy(R)	5	41.7	3	50.0	0	0.0	2	18.2	0	0.0
Chemotherapy(C)	4	33.3	1	16.7	0	0.0	4	36.4	0	0.0
S + R	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
S + C	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
R + C	3	25.0	1	16.7	0	0.0	3	27.3	0	0.0
S + R + C	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	2	18.2	0	0.0
ALL TREATMENTS	12	100.0	6	100.0	0.001	0.0	11	100.0	0.001	0.0

**Table 9.8: Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Tongue - Males (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	148	81.8	64	35.4	7	3.9	0	0.0	181
<b>Bangalore</b>	9	64.3	7	50.0	0	0.0	0	0.0	14
<b>Chennai</b>	13	33.3	39	100.0	0	0.0	0	0.0	39
<b>Thi'puram</b>	31	44.3	49	70.0	13	18.6	0	0.0	70
<b>Dibrugarh</b>	1	14.3	7	100.0	1	14.3	0	0.0	7
REGIONAL									
<b>Mumbai</b>	148	49.7	223	74.8	55	18.5	0	0.0	298
<b>Bangalore</b>	24	17.9	122	91.0	18	13.4	1	0.7	134
<b>Chennai</b>	20	14.3	140	100.0	5	3.6	0	0.0	140
<b>Thi'puram</b>	85	32.2	209	79.2	111	42.0	3	1.1	264
<b>Dibrugarh</b>	0	0.0	55	100.0	2	3.6	0	0.0	55
DISTANT									
<b>Mumbai</b>	0	0.0	8	66.7	7	58.3	0	0.0	12
<b>Bangalore</b>	1	16.7	4	66.7	2	33.3	0	0.0	6
<b>Chennai</b>	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>Thi'puram</b>	0	0.0	5	45.5	7	63.6	2	18.2	11
<b>Dibrugarh</b>	0	0.0	0	0.0	0	0.0	0	0.0	0

# Chapter 10

## OESOPHAGUS (ICD-10: C15)

The total number, relative proportion and rank of cancer of oesophagus in males and females for the years 1999 and 2000 is given in Table 10.1(a). Cancer of the oesophagus ranked as the leading site in Bangalore and was among the first five leading sites in all registries in both sexes, except in females in Thiruvananthapuram.

The sub-site distribution of oesophageal cancer is depicted in Table 10.1(b). All registries in both sexes had a lower proportion of cancers of the oesophagus in the upper third. In females the highest relative proportion was the middle third of the oesophagus, in all registries.

Figure 10.1 gives the trends in the actual number of oesophageal cancers in both males and females from 1984 to 2000. A significant increase in the numbers was observed in males and females in Thiruvananthapuram and in females in Chennai. A decline was seen in males and females in Dibrugarh.

Table 10.2 and Figure 10.2 give the distribution of cancer of oesophagus according to five year age group. In both males & females the mean age was higher in Thiruvananthapuram.

The predominant form of diagnosis was through microscopic examination (Table 10.3) though the category "others" which represents endoscopic diagnosis also showed a suggestive proportion.

Table 10.4 gives the distribution of cancers according to the clinical extent of disease.

Table 10.5 gives the number and relative proportion according to the broad groups of treatment. Tables 10.6 to 10.8 give the number and relative proportion according to the different types of treatment.

**Table 10.1(a) : Number(#), Relative Proportion(%) and Rank (R) of cancer of the Oesophagus (1999-2000)**

Registry	Males				Females			
	Total	#	%	R	Total	#	%	R
Mumbai	17637	998	5.7	4	13679	505	3.7	5
Bangalore	6106	587	9.6	1	7543	467	6.2	4
Chennai	6195	478	7.7	3	7139	263	3.7	4
Thi'puram	7859	412	5.2	5	7247	109	1.5	>10
Dibrugarh	997	147	14.7	2	536	68	12.7	2

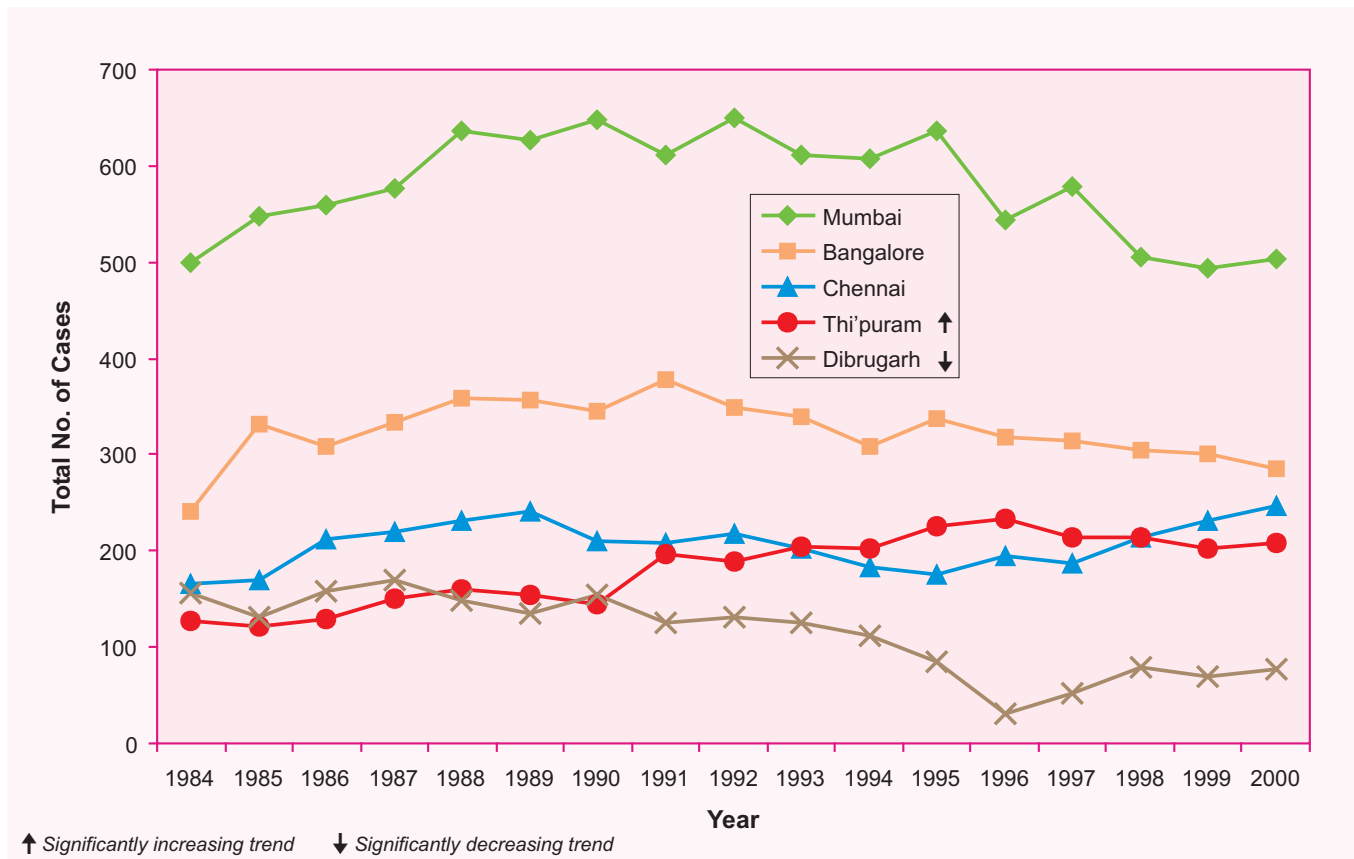
**Table 10.1(b) : Cancer of Oesophagus - Number(#) and Relative Proportion(%) according to sub-site (1999-2000)**

	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Cervical-upper 3rd	134	13.4	48	8.2	67	14.0	50	12.2	14	9.5
Thoracic-middle 3rd	388	38.9	224	38.4	155	32.4	143	34.8	61	41.5
Abdominal-lower 3rd	303	30.4	129	22.1	158	33.1	134	32.6	42	28.6
Overlap of subsite	0	0.0	15	2.6	38	7.9	4	1.0	2	1.4
NOS	173	17.3	167	28.6	60	12.6	80	19.5	28	19.0
<b>Total Oesophagus</b>	<b>998</b>	<b>100.0</b>	<b>583</b>	<b>100.0</b>	<b>478</b>	<b>100.0</b>	<b>411</b>	<b>100.0</b>	<b>147</b>	<b>100.0</b>
<b>FEMALES</b>										
Cervical-upper 3rd	67	13.3	46	9.9	26	9.9	11	10.1	7	10.3
Thoracic-middle 3rd	206	40.8	209	44.8	98	37.3	44	40.4	38	55.9
Abdominal-lower 3rd	144	28.5	75	16.1	91	34.6	26	23.9	20	29.4
Overlap of subsite	0	0.0	15	3.2	26	9.9	5	4.6	0	0.0
NOS*	88	17.4	122	26.1	22	8.4	23	21.1	3	4.4
<b>Total Oesophagus</b>	<b>505</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>263</b>	<b>100.0</b>	<b>109</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>

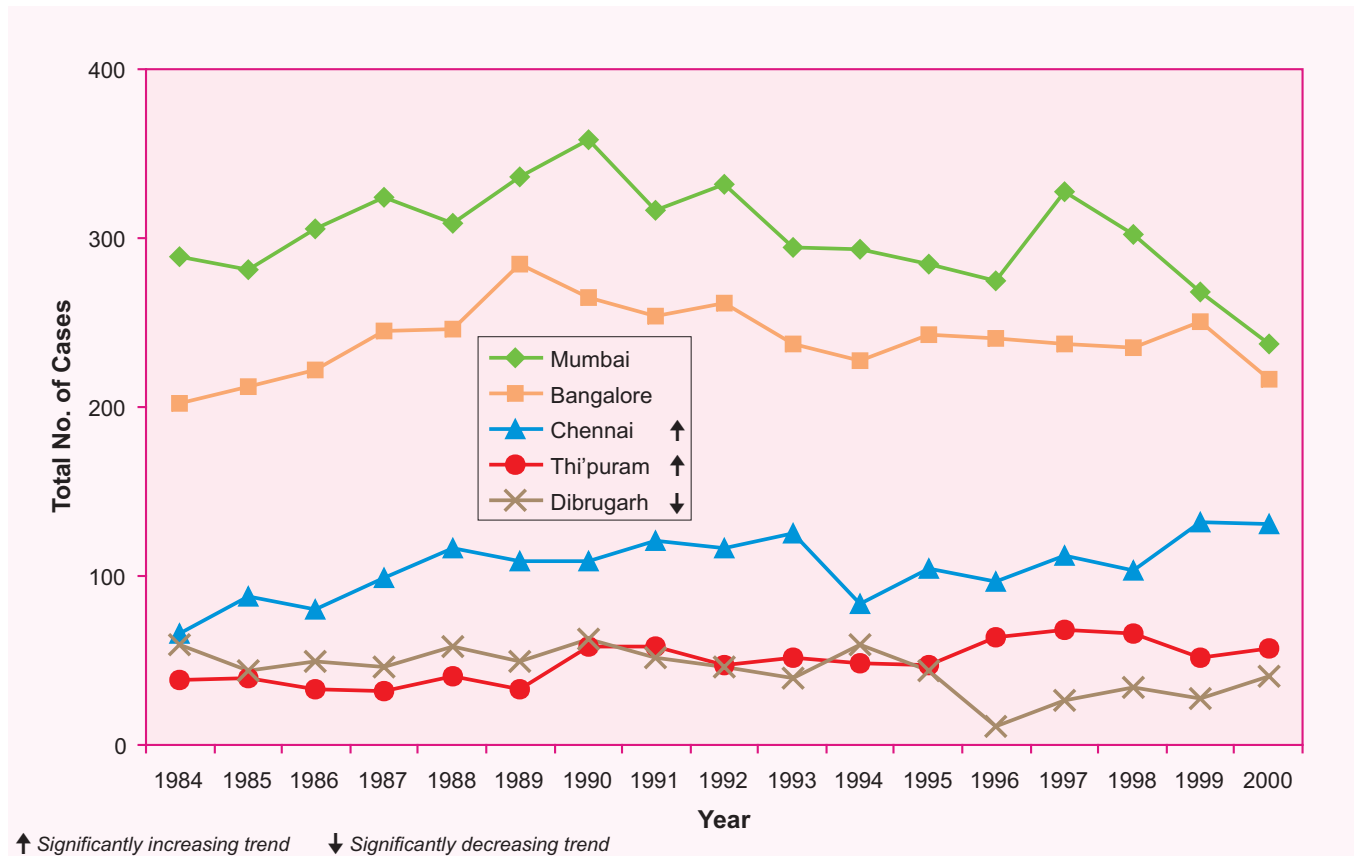
\* NOS - Not otherwise specified

**Fig. 10.1: Trends in Actual Numbers - Oesophageal Cancer**

**Males**



**Females**



**Table 10.2: Number(#) and Relative Proportion(%) of oesophageal cancers according to five year age group (1999-2000)****Males**

Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-19	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0
20-24	1	0.1	1	0.2	2	0.4	0	0.0	0	0.0
25-29	6	0.6	1	0.2	2	0.4	1	0.2	0	0.0
30-34	18	1.8	9	1.5	11	2.3	2	0.5	5	3.4
35-39	36	3.6	15	2.6	18	3.8	9	2.2	7	4.8
40-44	63	6.3	32	5.5	36	7.5	16	3.9	12	8.2
45-49	97	9.7	63	10.7	44	9.2	35	8.5	20	13.6
50-54	156	15.6	84	14.3	80	16.7	54	13.1	19	12.9
55-59	153	15.3	93	15.8	88	18.4	68	16.5	19	12.9
60-64	151	15.1	105	17.9	66	13.8	68	16.5	31	21.1
65-69	154	15.4	79	13.5	66	13.8	81	19.7	13	8.8
70-74	87	8.7	64	10.9	35	7.3	48	11.7	13	8.8
75+	76	7.6	40	6.8	30	6.3	30	7.3	8	5.4
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>All Ages</b>	<b>998</b>	<b>100.0</b>	<b>587</b>	<b>100.0</b>	<b>478</b>	<b>100.0</b>	<b>412</b>	<b>100.0</b>	<b>147</b>	<b>100.0</b>
<b>Mean</b>	57.6		57.6		56.5		60.0		55.3	
<b>SD</b>	11.45		11.06		11.48		10.34		11.94	

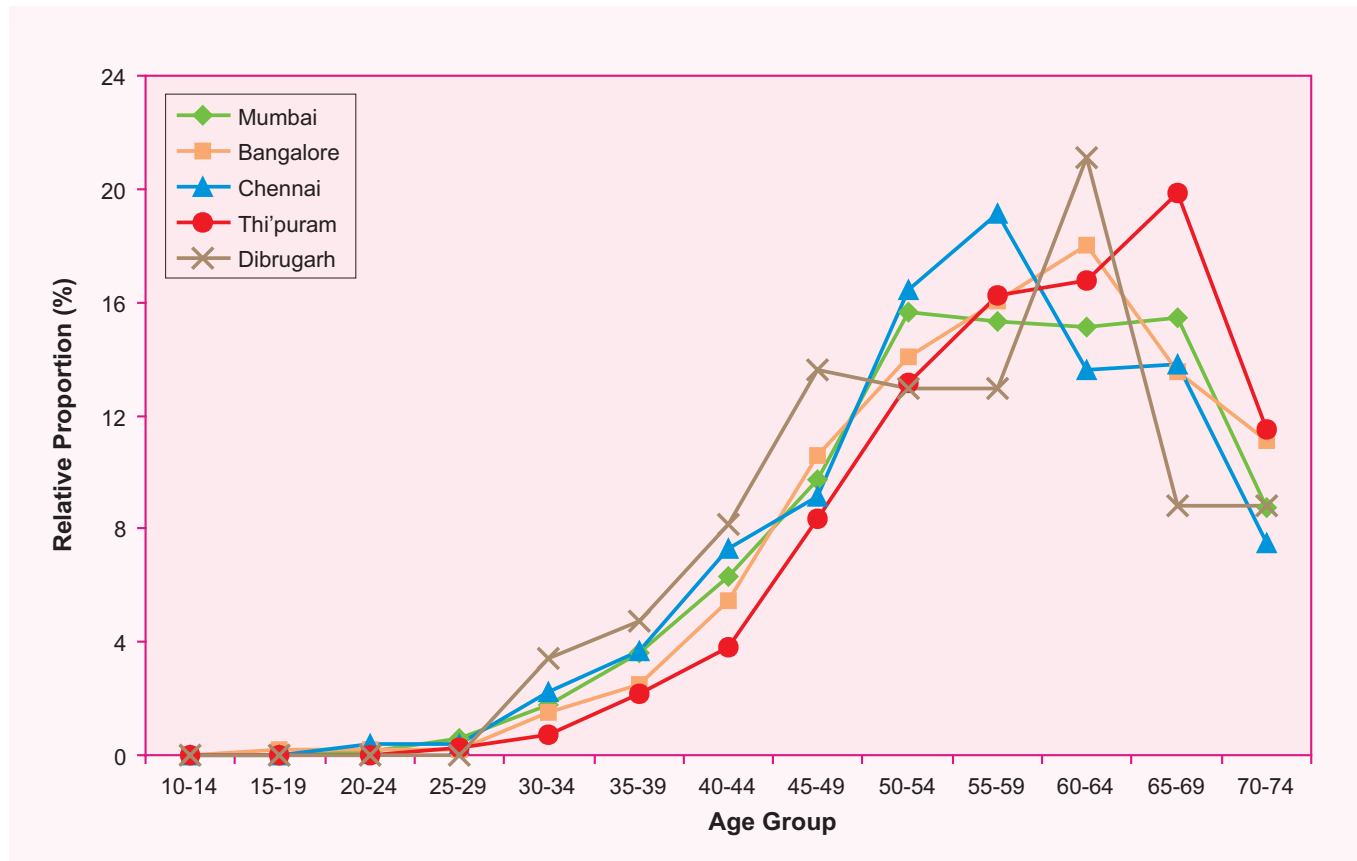
**Females**

Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
10-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-19	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
20-24	3	0.6	1	0.2	2	0.8	0	0.0	0	0.0
25-29	0	0.0	2	0.4	2	0.8	1	0.9	1	1.5
30-34	8	1.6	2	0.4	5	1.9	2	1.8	1	1.5
35-39	25	5.0	23	4.9	12	4.6	2	1.8	8	11.8
40-44	31	6.1	31	6.6	15	5.7	5	4.6	5	7.4
45-49	73	14.5	63	13.5	44	16.7	9	8.3	9	13.2
50-54	78	15.4	77	16.5	36	13.7	10	9.2	10	14.7
55-59	70	13.9	50	10.7	38	14.4	19	17.4	18	26.5
60-64	93	18.4	80	17.1	42	16.0	16	14.7	5	7.4
65-69	64	12.7	63	13.5	30	11.4	28	25.7	4	5.9
70-74	31	6.1	48	10.3	21	8.0	6	5.5	4	5.9
75+	29	5.7	27	5.8	16	6.1	11	10.1	3	4.4
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>All Ages</b>	<b>505</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>263</b>	<b>100.0</b>	<b>109</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>
<b>Mean</b>	55.7		56.1		55.4		59.3		52.4	
<b>SD</b>	11.27		11.40		11.86		11.33		11.45	

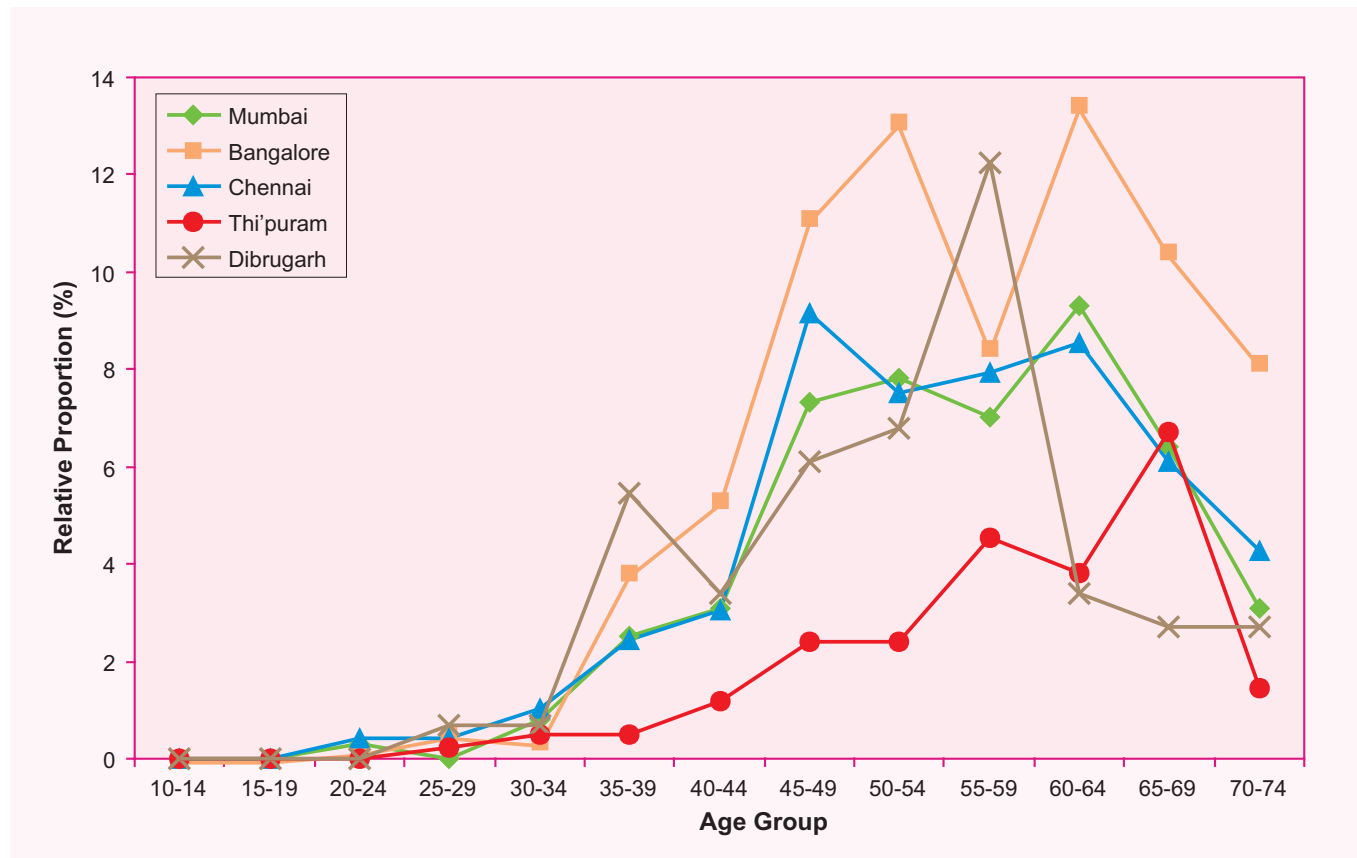


**Fig. 10.2: Five year age group distribution - Oesophageal Cancer (1999-2000)**

**Males**



**Females**



**Table 10.3: Number(#) and Relative Proportion(%) of Oesophageal cancers based on different methods of diagnosis (1999-2000)**

Registry	Microscopic		Clinical		X-ray		Others		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Males</b>										
Mumbai	911	91.3	2	0.2	1	0.1	84	8.4	998	100.0
Bangalore	565	96.3	6	1.0	0	0.0	16	2.7	587	100.0
Chennai	387	81.0	30	6.3	2	0.4	59	12.3	478	100.0
Thi'puram	389	94.4	4	1.0	6	1.5	13	3.2	412	100.0
Dibrugarh	133	90.5	2	1.4	10	6.8	2	1.4	147	100.0
<b>Females</b>										
Mumbai	469	92.9	0	0.0	0	0.0	36	7.1	505	100.0
Bangalore	454	97.2	3	0.6	1	0.2	9	1.9	467	100.0
Chennai	223	84.8	13	4.9	1	0.4	26	9.9	263	100.0
Thi'puram	103	94.5	0	0.0	1	0.9	5	4.6	109	100.0
Dibrugarh	59	86.8	0	0.0	7	10.3	2	2.9	68	100.0

**Table 10.4: Number(#) and Relative Proportion(%) of oesophageal cancer patients according to the clinical extent of disease (Excludes Patients Previously Treated) (1999-2000)**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
<b>Males</b>												
Mumbai	630	67.7	114	12.2	744	79.9	187	20.1	0	0.0	931	100.0
Bangalore	54	9.4	433	75.6	487	85.0	66	11.5	20	3.5	573	100.0
Chennai	0	0.0	319	72.0	319	72.0	124	28.0	0	0.0	443	100.0
Thi'puram	104	26.7	242	62.2	346	88.9	43	11.1	0	0.0	389	100.0
Dibrugarh	20	14.1	95	66.9	115	81.0	7	4.9	20	14.1	142	100.0
<b>Females</b>												
Mumbai	349	74.3	51	10.9	400	85.1	70	14.9	0	0.0	470	100.0
Bangalore	61	13.4	333	73.2	394	86.6	42	9.2	19	4.2	455	100.0
Chennai	1	0.4	181	77.0	182	77.4	53	22.6	0	0.0	235	100.0
Thi'puram	30	29.1	63	61.2	93	90.3	10	9.7	0	0.0	103	100.0
Dibrugarh	11	16.2	41	60.3	52	76.5	6	8.8	10	14.7	68	100.0

**Table 10.5: Number(#) and Relative Proportion(%) of oesophageal cancer patients according to Broad Groups of Treatment(Tmt) (1999-2000)**

Treatment Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Prior Tmt. Only	47	4.7	12	2.0	35	7.3	11	2.7	0	0.0
Prior & Tmt. at RI	20	2.0	2	0.3	0	0.0	12	2.9	5	3.4
Tmt. Only at RI	384	38.5	217	37.0	93	19.5	292	70.9	126	85.7
No Treatment	547	54.8	356	60.6	350	73.2	97	23.5	16	10.9
<b>Total Patients</b>	<b>998</b>	<b>100.0</b>	<b>587</b>	<b>100.0</b>	<b>478</b>	<b>100.0</b>	<b>412</b>	<b>100.0</b>	<b>147</b>	<b>100.0</b>
<b>FEMALES</b>										
Prior Tmt. Only	21	4.2	10	2.1	27	10.3	2	1.8	0	0.0
Prior & Tmt. at RI	14	2.8	2	0.4	1	0.4	4	3.7	0	0.0
Tmt. Only at RI	192	38.0	227	48.6	60	22.8	86	78.9	57	83.8
No Treatment	278	55.0	228	48.8	175	66.5	17	15.6	11	16.2
<b>Total Patients</b>	<b>505</b>	<b>100.0</b>	<b>467</b>	<b>100.0</b>	<b>263</b>	<b>100.0</b>	<b>109</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>

**Table 10.6: Number(#) and Relative Proportion(%) of Oesophageal Cancer patients according to Type of Treatment given(Patients treated only at Reporting Institution) (1999-2000)****Males**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>384</b>	<b>100.0</b>	<b>217</b>	<b>100.0</b>	<b>93</b>	<b>100.0</b>	<b>292</b>	<b>100.0</b>	<b>126</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	149	38.8	47	21.7	25	26.9	2	0.7	1	0.8
Radiotherapy(R)	68	17.7	123	56.7	55	59.1	205	70.2	121	96.0
Chemotherapy(C)	56	14.6	5	2.3	0	0.0	19	6.5	4	3.2
S + R	3	0.8	17	7.8	1	1.1	1	0.3	0	0.0
S + C	35	9.1	7	3.2	0	0.0	3	1.0	0	0.0
R + C	66	17.2	15	6.9	12	12.9	50	17.1	0	0.0
S + R + C	7	1.8	3	1.4	0	0.0	1	0.3	0	0.0
Others	0.0	0	0.0	0.0	0.0	0	11.0	3.8	0.0	0.0
<b>Modality of therapy</b>										
Single	273	71.1	175	80.6	80	86.0	226	77.4	126	100.0
Combination	111	28.9	42	19.4	13	14.0	55	18.8	0	0.0
<b>Type of Any Treatment</b>										
Any Surgery	194	50.5	74	34.1	26	28.0	7	2.4	1	0.8
Any R	144	37.5	158	72.8	68	73.1	257	88.0	121	96.0
Any C	164	42.7	30	13.8	12	12.9	73	25.0	4	3.2

**Females**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>192</b>	<b>100.0</b>	<b>227</b>	<b>100.0</b>	<b>60</b>	<b>100.0</b>	<b>86</b>	<b>100.0</b>	<b>57</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	85	44.3	28	12.3	11	18.3	0	0.0	0	0.0
Radiotherapy(R)	31	16.1	156	68.7	42	70.0	60	69.8	55	96.5
Chemotherapy(C)	29	15.1	3	1.3	0	0.0	5	5.8	2	3.5
S + R	3	1.6	9	4.0	0	0.0	0	0.0	0	0.0
S + C	9	4.7	8	3.5	0	0.0	0	0.0	0	0.0
R + C	31	16.1	20	8.8	7	11.7	19	22.1	0	0.0
S + R + C	4	2.1	2	0.9	0	0.0	1	1.2	0	0.0
Others	0	0.0	1	0.4	0	0.0	1	1.2	0	0.0
<b>Modality of therapy</b>										
Single	145	75.5	187	82.4	53	88.3	65	75.6	57	100.0
Combination	47	24.5	39	17.2	7	11.7	20	23.3	0	0.0
<b>Type of Any Treatment</b>										
Any Surgery	101	52.6	47	20.7	11	18.3	1	1.2	0	0.0
Any R	69	35.9	187	82.4	49	81.7	80	93.0	55	96.5
Any C	73	38.0	33	14.5	7	11.7	25	29.1	2	3.5

**Table 10.7(a): Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Oesophagus - Males (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	127	46.2	4	18.2	0	0.0	1	1.3	0	0.0
Radiotherapy(R)	49	17.8	14	63.6	0	0.0	54	69.2	20	100.0
Chemotherapy(C)	25	9.1	0	0.0	0	0.0	1	1.3	0	0.0
S + R	3	1.1	1	4.5	0	0.0	0	0.0	0	0.0
S + C	23	8.4	0	0.0	0	0.0	2	2.6	0	0.0
R + C	45	16.4	3	13.6	0	0.0	19	24.4	0	0.0
S + R + C	3	1.1	0	0.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	1	1.3	0	0.0
ALL TREATMENTS	275	100.0	22	100.0	0.001	0.0	78	100.0	20	100.0
<b>Regional</b>										
Surgery(S)	15	27.3	39	21.5	25	27.8	1	0.5	0	0.0
Radiotherapy(R)	6	10.9	99	54.7	52	57.8	135	73.4	84	100.0
Chemotherapy(C)	10	18.2	5	2.8	0	0.0	16	8.7	0	0.0
S + R	0	0.0	16	8.8	1	1.1	1	0.5	0	0.0
S + C	9	16.4	7	3.9	0	0.0	1	0.5	0	0.0
R + C	12	21.8	12	6.6	12	13.3	24	13.0	0	0.0
S + R + C	3	5.5	3	1.7	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	6	3.3	0	0.0
ALL TREATMENTS	55	100.0	181	100.0	90	100.0	184	100.0	84	100.0
<b>Distant</b>										
Surgery(S)	149	38.8	47	21.8	25	26.9	2	0.7	1	0.9
Radiotherapy(R)	68	17.7	122	56.5	55	59.1	205	70.2	106	96.4
Chemotherapy(C)	56	14.6	5	2.3	0	0.0	19	6.5	3	2.7
S + R	3	0.8	17	7.9	1	1.1	1	0.3	0	0.0
S + C	35	9.1	7	3.2	0	0.0	3	1.0	0	0.0
R + C	66	17.2	15	6.9	12	12.9	50	17.1	0	0.0
S + R + C	7	1.8	3	1.4	0	0.0	1	0.3	0	0.0
Others	0	0.0	0	0.0	0	0.0	11	3.8	0	0.0
ALL TREATMENTS	384	100.0	216	100.0	93	100.0	292	100.0	110	100.0

**Table 10.7(b): Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Oesophagus - Females (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	71	46.1	2	7.1	0	0.0	0	0.0	0	0.0
Radiotherapy(R)	26	16.9	23	82.1	0	0.0	17	65.4	10	100.0
Chemotherapy(C)	20	13.0	0	0.0	0	0.0	0	0.0	0	0.0
S + R	2	1.3	1	3.6	0	0.0	0	0.0	0	0.0
S + C	8	5.2	1	3.6	0	0.0	0	0.0	0	0.0
R + C	23	14.9	1	3.6	0	0.0	8	30.8	0	0.0
S + R + C	4	2.6	0	0.0	0	0.0	1	3.8	0	0.0
Others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ALL TREATMENTS	154	100.0	28	100.0	0.001	0.0	26	100.0	10	100.0
<b>Regional</b>										
Surgery(S)	13	59.1	24	13.3	11	19.3	0	0.0	0	0.0
Radiotherapy(R)	2	9.1	122	67.8	39	68.4	38	73.1	40	100.0
Chemotherapy(C)	2	9.1	2	1.1	0	0.0	4	7.7	0	0.0
S + R	0	0.0	7	3.9	0	0.0	0	0.0	0	0.0
S + C	1	4.5	6	3.3	0	0.0	0	0.0	0	0.0
R + C	4	18.2	16	8.9	7	12.3	9	17.3	0	0.0
S + R + C	0	0.0	2	1.1	0	0.0	0	0.0	0	0.0
Others	0	0.0	1	0.6	0	0.0	1	1.9	0	0.0
ALL TREATMENTS	22	100.0	180	100.0	57	100.0	52	100.0	40	100.0
<b>Distant</b>										
Surgery(S)	1	6.3	2	11.8	0	0.0	0	0.0	0	0.0
Radiotherapy(R)	3	18.8	11	64.7	3	100.0	5	62.5	1	50.0
Chemotherapy(C)	7	43.8	1	5.9	0	0.0	1	12.5	1	50.0
S + R	1	6.3	1	5.9	0	0.0	0	0.0	0	0.0
S + C	0	0.0	1	5.9	0	0.0	0	0.0	0	0.0
R + C	4	25.0	1	5.9	0	0.0	2	25.0	0	0.0
S + R + C	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ALL TREATMENTS	16	100.0	17	100.0	3	100.0	8	100.0	2	100.0

**Table 10.8(a): Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Oesophagus - Males (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	156	56.7	100	36.4	96	34.9	0	0.0	275
<b>Bangalore</b>	5	22.7	18	81.8	3	13.6	0	0.0	22
<b>Chennai</b>	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>Thi'puram</b>	3	3.8	73	93.6	22	28.2	1	1.3	78
<b>Dibrugarh</b>	0	0.0	20	100.0	0	0.0	0	0.0	20
REGIONAL									
<b>Mumbai</b>	27	49.1	21	38.2	34	61.8	0	0.0	55
<b>Bangalore</b>	65	35.9	130	71.8	27	14.9	0	0.0	181
<b>Chennai</b>	26	28.9	65	72.2	12	13.3	0	0.0	90
<b>Thi'puram</b>	3	1.6	160	87.0	41	22.3	6	3.3	184
<b>Dibrugarh</b>	0	0.0	84	100.0	0	0.0	0	0.0	84
DISTANT									
<b>Mumbai</b>	11	20.4	23	42.6	34	63.0	0	0.0	54
<b>Bangalore</b>	4	30.8	9	69.2	0	0.0	0	0.0	13
<b>Chennai</b>	0	0.0	3	100.0	0	0.0	0	0.0	3
<b>Thi'puram</b>	1	3.3	24	80.0	10	33.3	4	13.3	30
<b>Dibrugarh</b>	1	16.7	2	33.3	3	50.0	0	0.0	6

**Table 10.8(b): Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Oesophagus - Females (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	85	55.2	55	35.7	55	35.7	0	0.0	154
<b>Bangalore</b>	4	14.3	25	89.3	2	7.1	0	0.0	28
<b>Chennai</b>	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>Thi'puram</b>	1	3.8	26	100.0	9	34.6	0	0.0	26
<b>Dibrugarh</b>	0	0.0	10	100.0	0	0.0	0	0.0	10
REGIONAL									
<b>Mumbai</b>	14	63.6	6	27.3	7	31.8	0	0.0	22
<b>Bangalore</b>	39	21.7	147	81.7	27	15.0	1	0.6	180
<b>Chennai</b>	11	19.3	46	80.7	7	12.3	0	0.0	57
<b>Thi'puram</b>	0	0.0	47	90.4	13	25.0	1	1.9	52
<b>Dibrugarh</b>	0	0.0	40	100.0	0	0.0	0	0.0	40
DISTANT									
<b>Mumbai</b>	2	12.5	8	50.0	11	68.8	0	0.0	16
<b>Bangalore</b>	4	23.5	13	76.5	3	17.6	0	0.0	17
<b>Chennai</b>	0	0.0	3	100.0	0	0.0	0	0.0	3
<b>Thi'puram</b>	0	0.0	7	87.5	3	37.5	0	0.0	8
<b>Dibrugarh</b>	0	0.0	1	50.0	1	50.0	0	0.0	2



# Chapter 11

## LUNG (ICD-10: C33-C34)

Cancer of the lung in males was the leading site of cancer in Thiruvananthapuram accounting for 13.2% of all cancers in males (Table 11.1).

Figure 11.1 gives the trends in actual numbers of lung cancers from 1984 to 2000. A significant increase was seen in Mumbai, Chennai and Thiruvananthapuram, whereas a decline was seen in Bangalore and Dibrugarh.

Table 11.2 and Figure 11.2 give the five year age distribution of lung cancers. The mean age varied from 56.6 in Chennai to 59.7 in Thiruvananthapuram.

Table 11.3 gives the number and relative proportion according to the different methods of diagnosis.

The number and relative proportion of lung cancers according to the clinical extent of disease is given in Table 11.4.

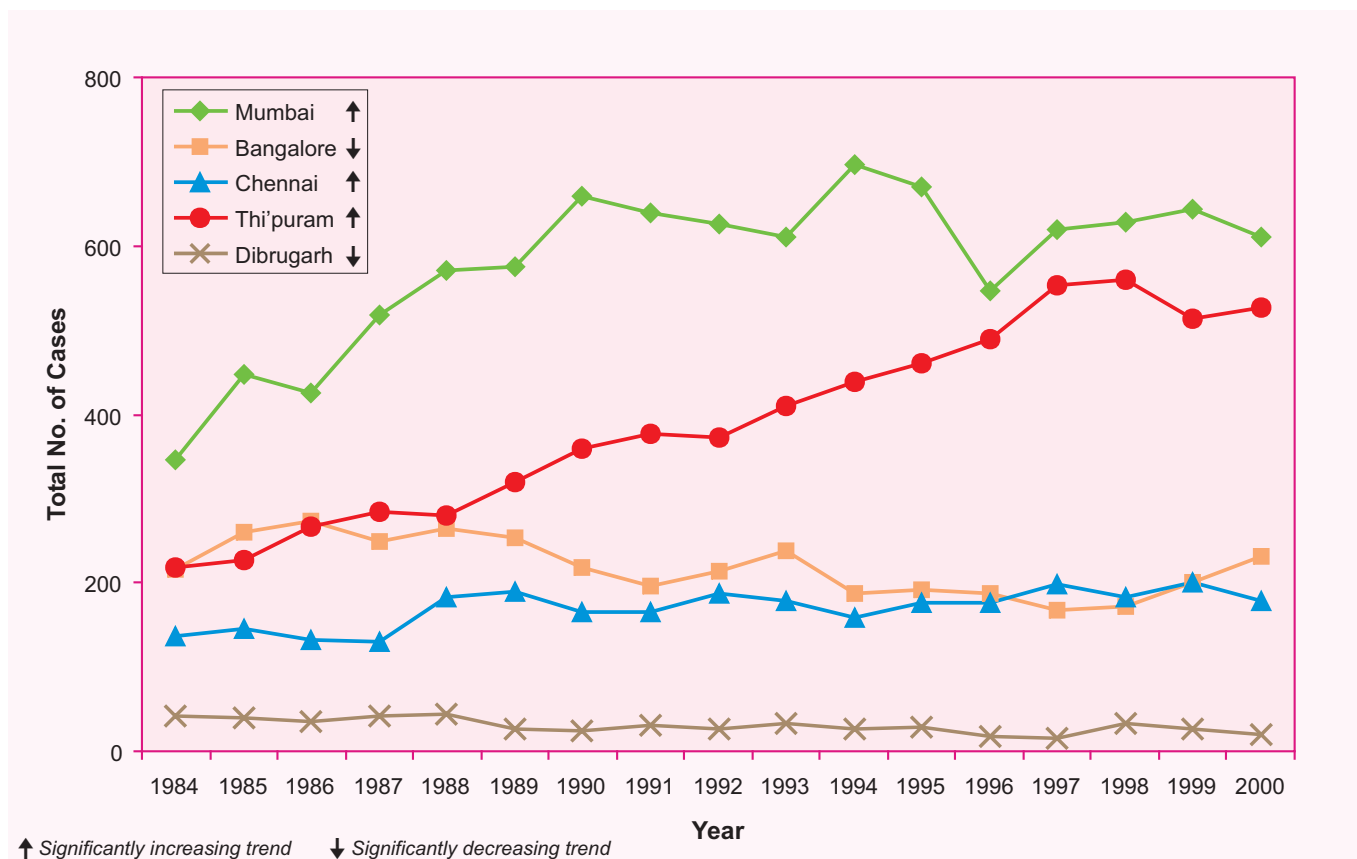
Table 11.5 gives the number and relative proportion according to the broad groups of treatment.

Tables 11.6 to 11.8 give the number and relative proportion according to different types of treatment.

**Table 11.1: Number(#), Relative Proportion(%) and Rank(R) of cancers of the Lung - Males (1999-2000)**

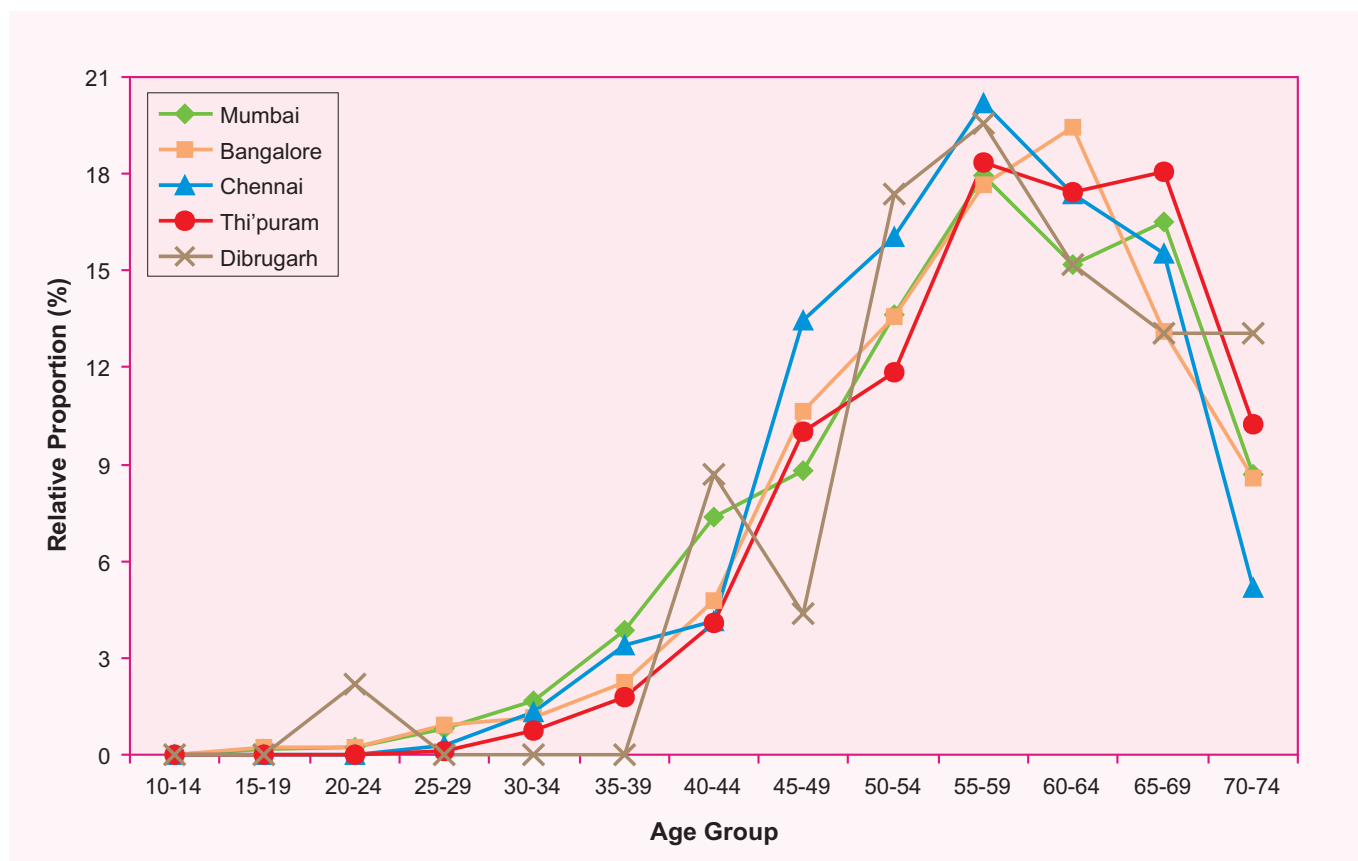
Registry	Total	#	%	R
Mumbai	17637	1253	7.1	2
Bangalore	6106	432	7.1	3
Chennai	6195	378	6.1	6
Thi'puram	7859	1041	13.2	1
Dibrugarh	997	46	4.6	6

**Fig. 11.1: Trends in Actual Numbers - Lung Cancer - Males**



**Table 11.2: Number(#) and Relative Proportion(%) of Lung cancers according to five year age group - Males (1999-2000)**

Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0
10-14	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
15-19	2	0.2	1	0.2	0	0.0	0	0.0	0	0.0
20-24	3	0.2	1	0.2	0	0.0	0	0.0	1	2.2
25-29	10	0.8	4	0.9	1	0.3	1	0.1	0	0.0
30-34	21	1.7	5	1.2	4	1.1	8	0.8	0	0.0
35-39	48	3.8	10	2.3	11	2.9	19	1.8	0	0.0
40-44	92	7.3	21	4.9	16	4.2	42	4.0	4	8.7
45-49	110	8.8	45	10.4	52	13.8	103	9.9	2	4.3
50-54	171	13.6	58	13.4	61	16.1	123	11.8	8	17.4
55-59	225	18.0	78	18.1	77	20.4	191	18.3	9	19.6
60-64	190	15.2	81	18.8	65	17.2	183	17.6	7	15.2
65-69	207	16.5	57	13.2	59	15.6	188	18.1	6	13.0
70-74	109	8.7	38	8.8	20	5.3	107	10.3	6	13.0
75+	64	5.1	32	7.4	12	3.2	76	7.3	3	6.5
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>All Ages</b>	<b>1253</b>	<b>100.0</b>	<b>432</b>	<b>100.0</b>	<b>378</b>	<b>100.0</b>	<b>1041</b>	<b>100.0</b>	<b>46</b>	<b>100.0</b>
<b>Mean</b>	57.1		57.4		56.6		59.7		57.5	
<b>SD</b>	11.46		11.39		9.61		10.25		11.21	

**Fig. 11.2: Five year age group distribution - Lung Cancer - Males (1999-2000)**

**Table 11.3: Number(#) and Relative Proportion(%) of Lung cancers based on different methods of diagnosis - Males (1999-2000)**

Registry	Microscopic		Clinical		X-ray		Others		Total	
	#	%	#	%	#	%	#	%	#	%
Mumbai	1141	91.1	4	0.3	3	0.2	105	8.4	1253	100.0
Bangalore	385	89.1	15	3.5	9	2.1	23	5.3	432	100.0
Chennai	253	66.9	16	4.2	75	19.8	34	9.0	378	100.0
Thi'puram	855	82.1	1	0.1	79	7.6	106	10.2	1041	100.0
Dibrugarh	41	89.1	0	0.0	3	6.5	2	4.3	46	100.0

**Table 11.4: Number(#) and Relative Proportion(%) of Lung cancer patients according to the clinical extent of disease (Excludes Patients Previously Treated) (1999-2000)**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
Mumbai	466	40.0	49	4.2	515	44.2	649	55.7	1	0.1	1165	100.0
Bangalore	17	4.3	214	53.9	231	58.2	154	38.8	12	3.0	397	100.0
Chennai	0	0.0	249	73.0	249	73.0	92	27.0	0	0.0	341	100.0
Thi'puram	120	12.3	361	36.9	481	49.1	498	50.9	0	0.0	979	100.0
Dibrugarh	0	0.0	3	6.7	3	6.7	12	26.7	30	66.7	45	100.0

**Table 11.5: Number(#) and Relative Proportion(%) of Lung cancer patients according to Broad Groups of Treatment(Tmt) - Males (1999-2000)**

Treatment Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Prior Tmt. Only	68	5.4	23	5.3	33	8.7	25	2.4	0	0.0
Prior & Tmt. at RI	20	1.6	12	2.8	4	1.1	37	3.6	1	2.2
Tmt. Only at RI	400	31.9	133	30.8	76	20.1	697	67.0	28	60.9
No Treatment	765	61.1	264	61.1	265	70.1	282	27.1	17	37.0
<b>Total Patients</b>	<b>1253</b>	<b>100.0</b>	<b>432</b>	<b>100.0</b>	<b>378</b>	<b>100.0</b>	<b>1041</b>	<b>100.0</b>	<b>46</b>	<b>100.0</b>

**Table 11.6: Number(#) and Relative Proportion(%) of Lung cancer patients according to Type of Treatment given (Patients treated only at Reporting Institution) - Males (1999-2000)**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>400</b>	<b>100.0</b>	<b>133</b>	<b>100.0</b>	<b>76</b>	<b>100.0</b>	<b>697</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	69	17.3	3	2.3	3	3.9	5	0.7	0	0.0
Radiotherapy(R)	120	30.0	75	56.4	10	13.2	375	53.8	10	35.7
Chemotherapy(C)	128	32.0	28	21.1	58	76.3	122	17.5	13	46.4
S + R	8	2.0	1	0.8	0	0.0	4	0.6	1	3.6
S + C	12	3.0	4	3.0	0	0.0	1	0.1	0	0.0
R + C	49	12.3	22	16.5	5	6.6	101	14.5	4	14.3
S + R + C	14	3.5	0	0.0	0	0.0	1	0.1	0	0.0
Others	0	0.0	0	0.0	0	0.0	88	12.6	0	0.0
<b>Modality of therapy</b>										
Single	317	79.3	106	79.7	71	93.4	502	72.0	23	82.1
Combination	83	20.8	27	20.3	5	6.6	107	15.4	5	17.9
<b>Type of Any Treatment</b>										
Any Surgery	103	25.8	8	6.0	3	3.9	11	1.6	1	3.6
Any R	191	47.8	98	73.7	15	19.7	481	69.0	15	53.6
Any C	203	50.8	54	40.6	63	82.9	225	32.3	17	60.7

**Table 11.7: Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Lung - Males (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	63	38.9	1	11.1	0	0.0	3	3.3	0	0.0
Radiotherapy(R)	36	22.2	2	22.2	0	0.0	55	61.1	0	0.0
Chemotherapy(C)	28	17.3	2	22.2	0	0.0	7	7.8	0	0.0
S + R	8	4.9	0	0.0	0	0.0	3	3.3	0	0.0
S + C	8	4.9	2	22.2	0	0.0	1	1.1	0	0.0
R + C	13	8.0	2	22.2	0	0.0	11	12.2	0	0.0
S + R + C	6	3.7	0	0.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	10	11.1	0	0.0
ALL TREATMENTS	162	100.0	9	100.0	0.001	0.0	90	100.0	0.001	0.0
<b>Regional</b>										
Surgery(S)	3	13.6	2	2.6	3	5.4	1	0.4	0	0.0
Radiotherapy(R)	5	22.7	43	55.1	8	14.3	128	49.8	1	33.3
Chemotherapy(C)	3	13.6	19	24.4	42	75.0	52	20.2	1	33.3
S + R	0	0.0	1	1.3	0	0.0	0	0.0	1	33.3
S + C	2	9.1	2	2.6	0	0.0	0	0.0	0	0.0
R + C	5	22.7	11	14.1	3	5.4	42	16.3	0	0.0
S + R + C	4	18.2	0	0.0	0	0.0	1	0.4	0	0.0
Others	0	0.0	0	0.0	0	0.0	33	12.8	0	0.0
ALL TREATMENTS	22	100.0	78	100.0	56	100.0	257	100.0	3	100.0
<b>Distant</b>										
Surgery(S)	3	1.4	0	0.0	0	0.0	1	0.3	0	0.0
Radiotherapy(R)	79	36.6	29	67.4	2	10.0	192	54.9	3	37.5
Chemotherapy(C)	97	44.9	6	14.0	16	80.0	63	18.0	3	37.5
S + R	0	0.0	0	0.0	0	0.0	1	0.3	0	0.0
S + C	2	0.9	0	0.0	0	0.0	0	0.0	0	0.0
R + C	31	14.4	8	18.6	2	10.0	48	13.7	2	25.0
S + R + C	4	1.9	0	0.0	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	45	12.9	0	0.0
ALL TREATMENTS	216	100.0	43	100.0	20	100.0	350	100.0	8	100.0

**Table 11.8: Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Lung - Males (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	85	52.5	63	38.9	55	34.0	0	0.0	162
<b>Bangalore</b>	3	33.3	4	44.4	6	66.7	0	0.0	9
<b>Chennai</b>	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>Thi'puram</b>	7	7.8	69	76.7	19	21.1	10	11.1	90
<b>Dibrugarh</b>	0	0.0	0	0.0	0	0.0	0	0.0	0
REGIONAL									
<b>Mumbai</b>	9	40.9	14	63.6	14	63.6	0	0.0	22
<b>Bangalore</b>	5	6.4	55	70.5	32	41.0	0	0.0	78
<b>Chennai</b>	3	5.4	11	19.6	45	80.4	0	0.0	56
<b>Thi'puram</b>	2	0.8	171	66.5	95	37.0	33	12.8	257
<b>Dibrugarh</b>	1	33.3	2	66.7	1	33.3	0	0.0	3
DISTANT									
<b>Mumbai</b>	9	4.2	114	52.8	134	62.0	0	0.0	216
<b>Bangalore</b>	0	0.0	37	86.0	14	32.6	0	0.0	43
<b>Chennai</b>	0	0.0	4	20.0	18	90.0	0	0.0	20
<b>Thi'puram</b>	2	0.6	241	68.9	111	31.7	45	12.9	350
<b>Dibrugarh</b>	0	0.0	5	62.5	5	62.5	0	0.0	8

# Chapter 12

## FEMALE BREAST (ICD-10: C50)

Cancer of the female breast was the leading site of cancer in Mumbai and Thiruvananthapuram, the second leading site in Bangalore and Chennai and the third leading site in Dibrugarh (Table 12.1).

Figure 12.1 gives the trends in actual numbers of breast cancer in females from 1984 to 2000. A significant increase in numbers was seen in all registries except Dibrugarh.

Table 12.2 and Figure 12.2 give the five year age distribution of breast cancer in females. The mean age was slightly lower in Dibrugarh at 42, compared to over 47 in other HBCRs.

Table 12.3 gives the number and relative proportion according to the different methods of diagnosis. The proportion of microscopic diagnosis varied from 87.8% in Mumbai to 98.9% in Thiruvananthapuram.

Table 12.4 gives the number and relative proportion according to the clinical extent of disease. The proportion with "Regional" spread varied from 37.5% in Mumbai to 79.3% in Dibrugarh.

Table 12.5 gives the number and relative proportion according to the broad groups of treatment.

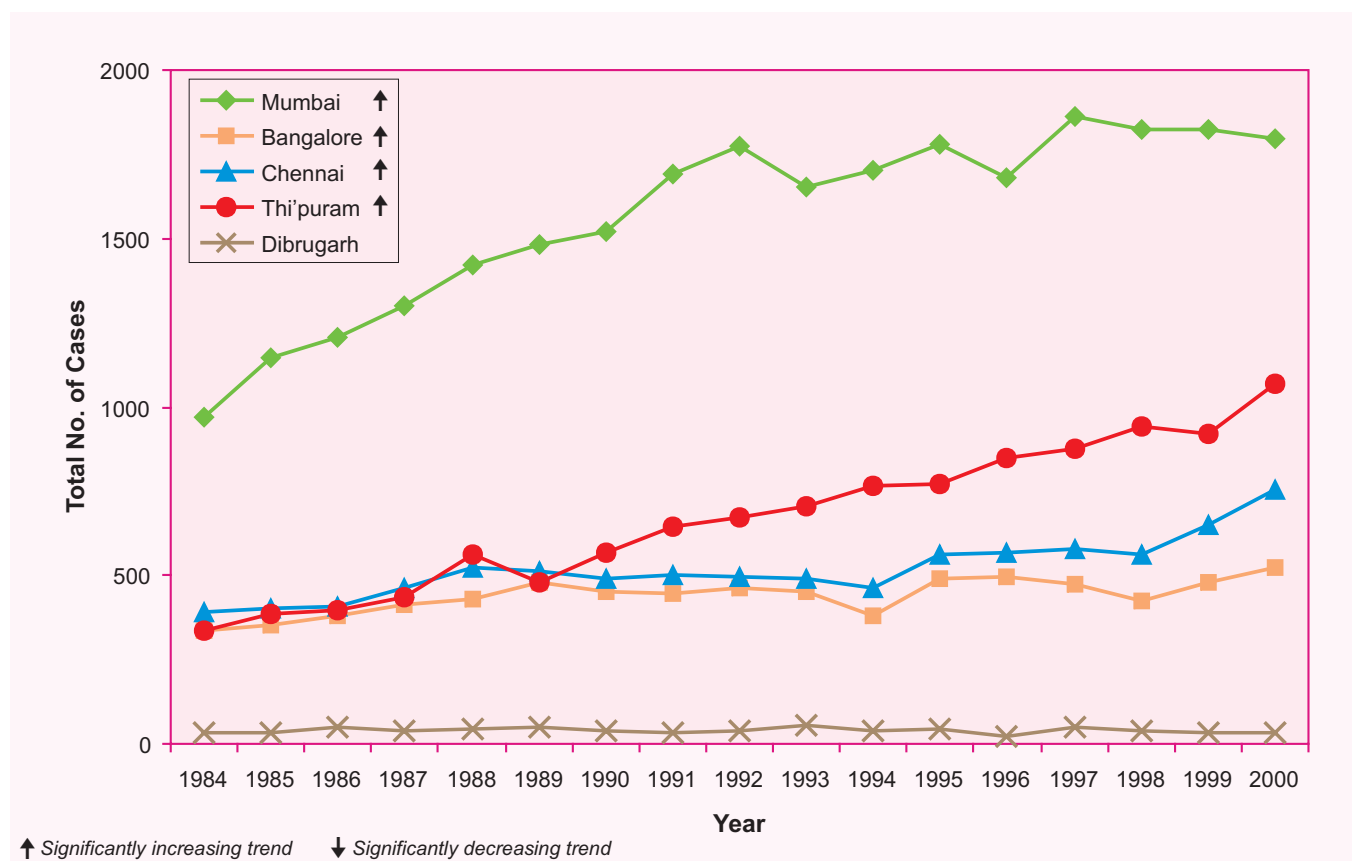
Tables 12.6 to 12.8 gives the number and relative proportion according to the different types of treatment.



**Table 12.1: Number(#), Relative Proportion(%) and Rank(R) of cancers of the breast - Females (1999-2000)**

Registry	Total	#	%	R
Mumbai	13679	3617	26.4	1
Bangalore	7543	1001	13.3	2
Chennai	7139	1412	19.8	2
Thi'puram	7247	1991	27.5	1
Dibrugarh	536	65	12.1	3

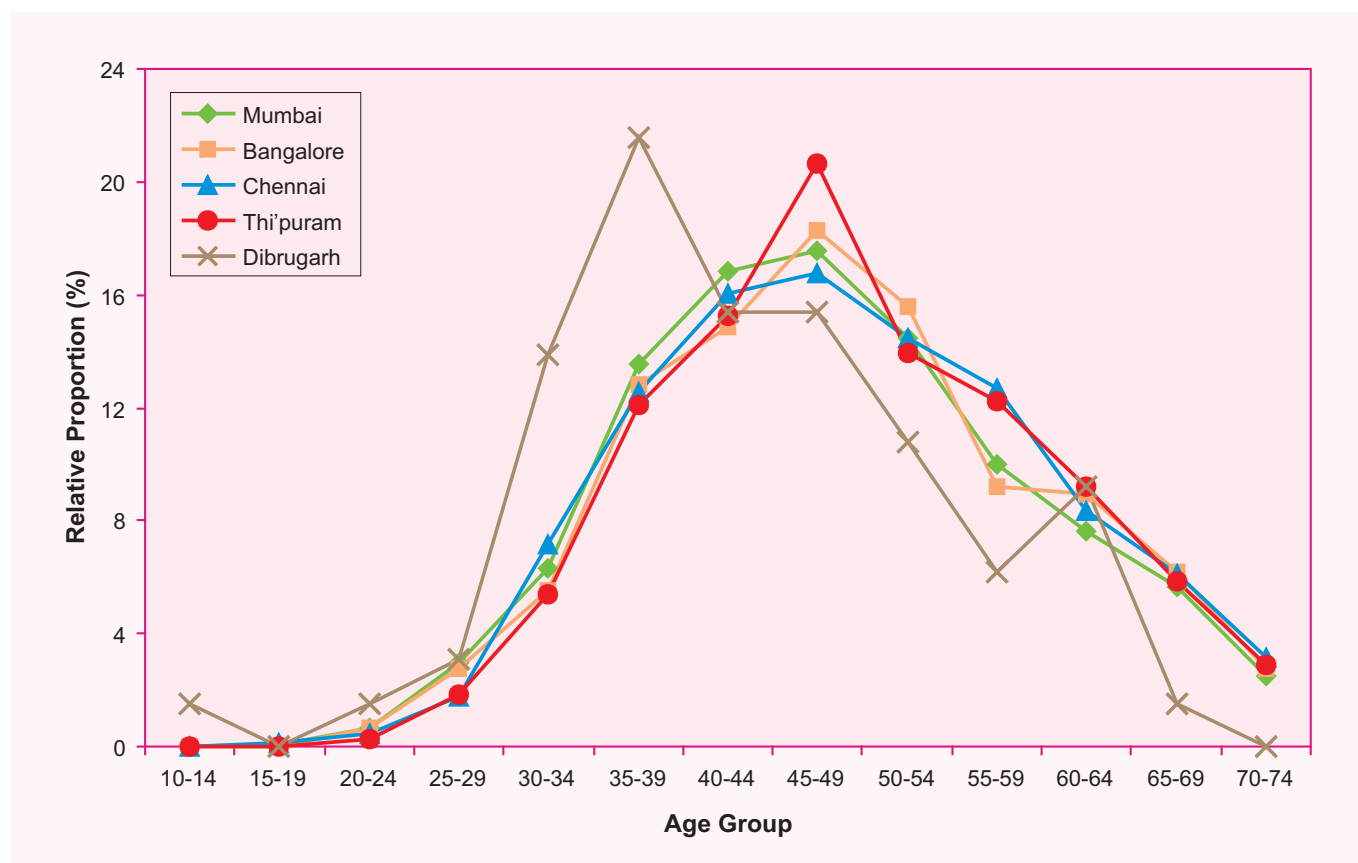
**Fig. 12.1: Trends in Actual Numbers - Female Breast Cancer**



**Table 12.2: Number(#) and Relative Proportion(%) of female breast cancers according to five year age group (1999-2000)**

Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0
5-9	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
10-14	0	0.0	0	0.0	0	0.0	0	0.0	1.0	1.5
15-19	2	0.1	0	0.0	2	0.1	0	0.0	0.0	0.0
20-24	24	0.7	6	0.6	7	0.5	6	0.3	1.0	1.5
25-29	106	2.9	32	3.2	25	1.8	39	2.0	2.0	3.1
30-34	229	6.3	57	5.7	101	7.2	111	5.6	9.0	13.8
35-39	489	13.5	130	13.0	151	10.7	224	11.3	14.0	21.5
40-44	608	16.8	146	14.6	216	15.3	298	15.0	10.0	15.4
45-49	636	17.6	189	18.9	241	17.1	410	20.6	10.0	15.4
50-54	524	14.5	158	15.8	206	14.6	275	13.8	7.0	10.8
55-59	362	10.0	88	8.8	164	11.6	224	11.3	4.0	6.2
60-64	276	7.6	84	8.4	120	8.5	183	9.2	6.0	9.2
65-69	205	5.7	59	5.9	93	6.6	119	6.0	1.0	1.5
70-74	91	2.5	29	2.9	50	3.5	56	2.8	0.0	0.0
75+	65	1.8	23	2.3	36	2.5	46	2.3	0.0	0.0
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
<b>All Ages</b>	<b>3617</b>	<b>100.0</b>	<b>1001</b>	<b>100.0</b>	<b>1412</b>	<b>100.0</b>	<b>1991</b>	<b>100.0</b>	<b>65</b>	<b>100.0</b>
<b>Mean</b>	47.8		47.9		49.1		49.4		42.1	
<b>SD</b>	11.44		11.78		11.90		11.31		10.78	

**Fig. 12.2: Five year age group distribution - Female Breast Cancer (1999-2000)**



**Table 12.3: Number(#) and Relative Proportion(%) of female breast cancers based on different methods of diagnosis (1999-2000)**

Registry	Microscopic		Clinical		X-ray		Others		Total	
	#	%	#	%	#	%	#	%	#	%
Mumbai	3175	87.8	5	0.1	0	0.0	437	12.1	3617	100.0
Bangalore	944	94.3	29	2.9	1	0.1	27	2.7	1001	100.0
Chennai	1293	91.6	113	8.0	0	0.0	6	0.4	1412	100.0
Thi'puram	1970	98.9	19	1.0	0	0.0	2	0.1	1991	100.0
Dibrugarh	64	98.5	0	0.0	0	0.0	1	1.5	65	100.0

**Table 12.4: Number(#) and Relative Proportion(%) of female breast cancer patients according to the clinical extent of disease (Excludes Patients Previously Treated) (1999-2000)**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
Mumbai	825	44.0	703	37.5	1528	81.4	348	18.6	0	0.0	1876	100.0
Bangalore	48	8.3	405	69.9	453	78.2	112	19.3	14	2.4	579	100.0
Chennai	61	6.9	642	72.1	703	79.0	187	21.0	0	0.0	890	100.0
Thi'puram	80	12.3	425	65.5	505	77.8	144	22.2	0	0.0	649	100.0
Dibrugarh	3	5.2	46	79.3	49	84.5	7	12.1	2	3.4	58	100.0

**Table 12.5: Number(#) and Relative Proportion(%) of female breast cancer patients according to Broad Groups of Treatment(Tmt) (1999-2000)**

Treatment Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Prior Tmt. Only	671	18.6	187	18.7	213	15.1	184	9.2	0	0.0
Prior & Tmt. at RI	1070	29.6	235	23.5	309	21.9	1158	58.2	7	10.8
Tmt. Only at RI	1267	35.0	318	31.8	650	46.0	533	26.8	51	78.5
No Treatment	609	16.8	261	26.1	240	17.0	116	5.8	7	10.8
<b>Total Patients</b>	<b>3617</b>	<b>100.0</b>	<b>1001</b>	<b>100.0</b>	<b>1412</b>	<b>100.0</b>	<b>1991</b>	<b>100.0</b>	<b>65</b>	<b>100.0</b>

**Table 12.6: Number(#) and Relative Proportion(%) of female breast cancer patients according to Type of Treatment given (Patients treated only at Reporting Institution) (1999-2000)**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>1267</b>	<b>100.0</b>	<b>318</b>	<b>100.0</b>	<b>650</b>	<b>100.0</b>	<b>533</b>	<b>100.0</b>	<b>51</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	247	19.5	27	8.5	1	0.2	18	3.4	13	25.5
Radiotherapy(R)	20	1.6	9	2.8	1	0.2	10	1.9	12	23.5
Chemotherapy(C)	51	4.0	24	7.5	23	3.5	46	8.6	1	2.0
S + R	51	4.0	26	8.2	2	0.3	19	3.6	20	39.2
S + C	108	8.5	29	9.1	0	0.0	53	9.9	4	7.8
R + C	14	1.1	9	2.8	52	8.0	27	5.1	1	2.0
S + R + C	189	14.9	82	25.8	4	0.6	106	19.9	0	0.0
Others	587	46.3	112	35.2	567	87.2	254	47.7	0	0.0
<b>Modality of therapy</b>										
Single	318	25.1	60	18.9	25	3.8	74	13.9	26	51.0
Combination	362	28.6	146	45.9	58	8.9	205	38.5	25	49.0
<b>Type of Any Treatment</b>										
Any Surgery	595	47.0	164	51.6	7	1.1	196	36.8	37	72.5
Any R	274	21.6	126	39.6	59	9.1	162	30.4	33	64.7
Any C	362	28.6	144	45.3	79	12.2	232	43.5	6	11.8

**Table 12.7: Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Female Breast (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	151	30.8	5	14.3	0	0.0	3	4.5	2	66.7
Radiotherapy(R)	11	2.2	0	0.0	0	0.0	0	0.0	0	0.0
Chemotherapy(C)	2	0.4	0	0.0	1	2.0	2	3.0	0	0.0
S + R	30	6.1	5	14.3	1	2.0	3	4.5	1	33.3
S + C	39	8.0	4	11.4	0	0.0	8	12.1	0	0.0
R + C	1	0.2	0	0.0	5	10.0	0	0.0	0	0.0
S + R + C	65	13.3	2	5.7	1	2.0	17	25.8	0	0.0
Others	191	39.0	19	54.3	42	84.0	33	50.0	0	0.0
ALL TREATMENTS	490	100.0	35	100.0	50	100.0	66	100.0	3	100.0
<b>Regional</b>										
Surgery(S)	93	16.4	19	7.7	1	0.2	15	4.3	11	26.2
Radiotherapy(R)	2	0.4	6	2.4	1	0.2	9	2.6	7	16.7
Chemotherapy(C)	14	2.5	12	4.8	5	1.0	19	5.5	1	2.4
S + R	21	3.7	19	7.7	1	0.2	16	4.6	19	45.2
S + C	52	9.2	21	8.5	0	0.0	39	11.3	4	9.5
R + C	1	0.2	9	3.6	41	8.5	9	2.6	0	0.0
S + R + C	106	18.7	79	31.9	3	0.6	82	23.7	0	0.0
Others	278	49.0	83	33.5	431	89.2	157	45.4	0	0.0
ALL TREATMENTS	567	100.0	248	100.0	483	100.0	346	100.0	42	100.0
<b>Distant</b>										
Surgery(S)	3	1.4	3	8.6	0	0.0	0	0.0	0	0.0
Radiotherapy(R)	7	3.3	3	8.6	0	0.0	1	0.8	4	80.0
Chemotherapy(C)	35	16.7	12	34.3	17	14.5	25	20.7	0	0.0
S + R	0	0.0	2	5.7	0	0.0	0	0.0	0	0.0
S + C	17	8.1	4	11.4	0	0.0	6	5.0	0	0.0
R + C	12	5.7	0	0.0	6	5.1	18	14.9	1	20.0
S + R + C	18	8.6	1	2.9	0	0.0	7	5.8	0	0.0
Others	118	56.2	10	28.6	94	80.3	64	52.9	0	0.0
ALL TREATMENTS	210	100.0	35	100.0	117	100.0	121	100.0	5	100.0

**Table 12.8: Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Female Breast (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	472	96.3	201	41.0	215	43.9	191	39.0	490
<b>Bangalore</b>	35	100.0	22	62.9	17	48.6	19	54.3	35
<b>Chennai</b>	44	88.0	44	88.0	43	86.0	42	84.0	50
<b>Thi'puram</b>	63	95.5	32	48.5	35	53.0	33	50.0	66
<b>Dibrugarh</b>	3	100.0	1	33.3	0	0.0	0	0.0	3
REGIONAL									
<b>Mumbai</b>	527	92.9	302	53.3	408	72.0	278	49.0	567
<b>Bangalore</b>	213	85.9	181	73.0	180	72.6	83	33.5	248
<b>Chennai</b>	354	73.3	459	95.0	447	92.5	431	89.2	483
<b>Thi'puram</b>	279	80.6	207	59.8	244	70.5	157	45.4	346
<b>Dibrugarh</b>	34	81.0	26	61.9	5	11.9	0	0.0	42
DISTANT									
<b>Mumbai</b>	123	58.6	109	51.9	183	87.1	118	56.2	210
<b>Bangalore</b>	13	37.1	12	34.3	23	65.7	10	28.6	35
<b>Chennai</b>	7	6.0	57	48.7	100	85.5	94	80.3	117
<b>Thi'puram</b>	27	22.3	60	49.6	96	79.3	64	52.9	121
<b>Dibrugarh</b>	0	0.0	5	100.0	1	20.0	0	0.0	5

# Chapter 13

## CERVIX (ICD-10: C53)

Cancer of the cervix continued to be the leading site in Bangalore, Chennai & Dibrugarh and was the second leading site in Mumbai & Thiruvananthapuram (Table 13.1).

Figure 13.1 gives the trends in actual numbers of cancer cervix. A statistically significant decline was seen in Mumbai and Dibrugarh.

Table 13.2 and Figure 13.2 give the five year age distribution of cancer cervix in different registries. The mean age varied from a low of 46.3 in Dibrugarh to 55.9 in Thiruvananthapuram.

The predominant form of diagnosis of cancer cervix was through microscopic examination (Table 13.3).

Table 13.4 gives the number and relative proportion according to the clinical extent of disease. Over 75% of patients had regional disease at the time of diagnosis.

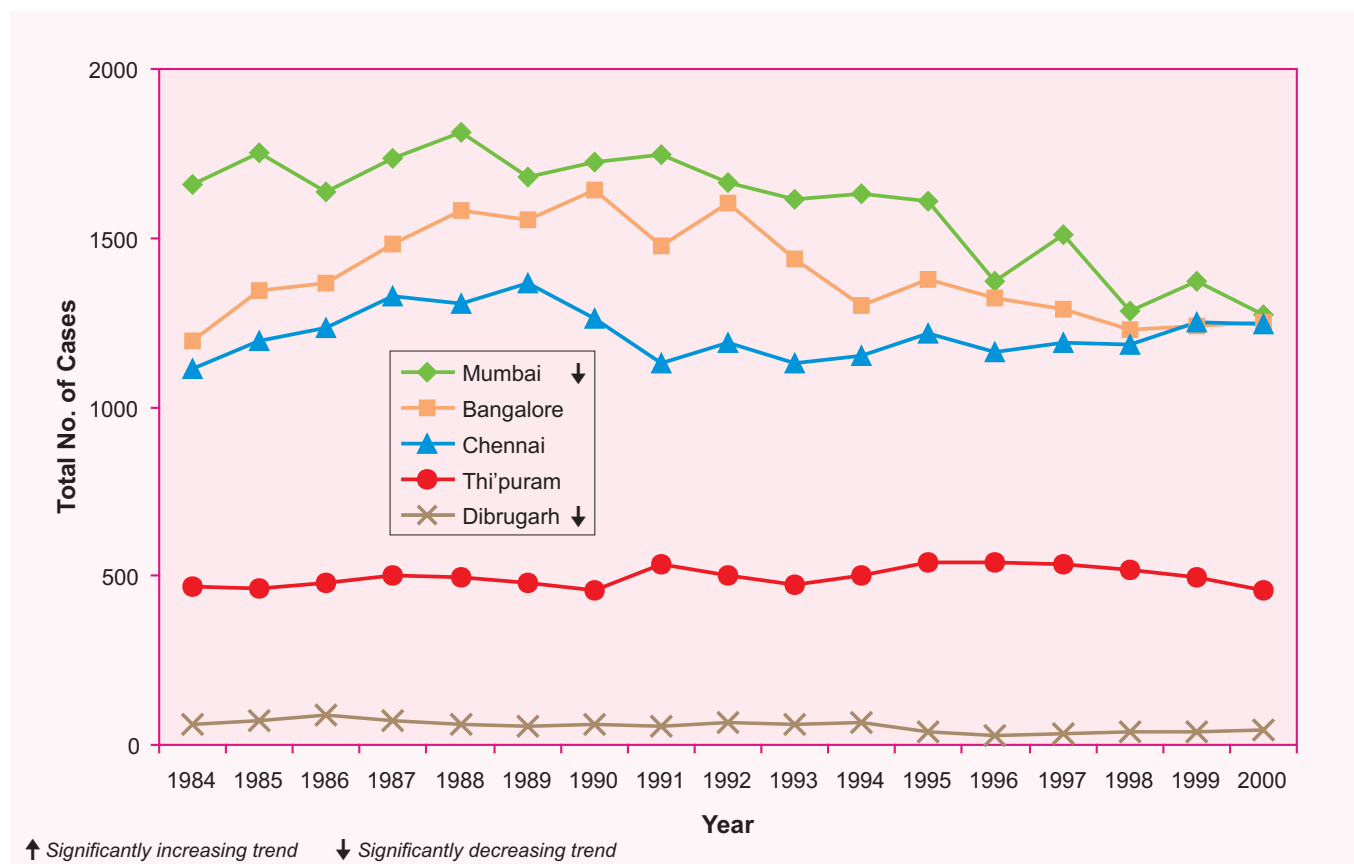
Table 13.5 gives the number and relative proportion according to the broad groups of treatment.

Tables 13.6 to 13.8 give the number and relative proportion according to the different types of treatment.

**Table 13.1: Number(#), Relative Proportion(%) and Rank(R) of cancers of the Cervix (1999-2000)**

Registry	Total	#	%	R
Mumbai	13679	2643	19.3	2
Bangalore	7543	2490	33.0	1
Chennai	7139	2499	35.0	1
Thi'puram	7247	951	13.1	2
Dibrugarh	536	82	15.3	1

**Fig. 13.1: Trends in Actual Numbers - Cancer Cervix**

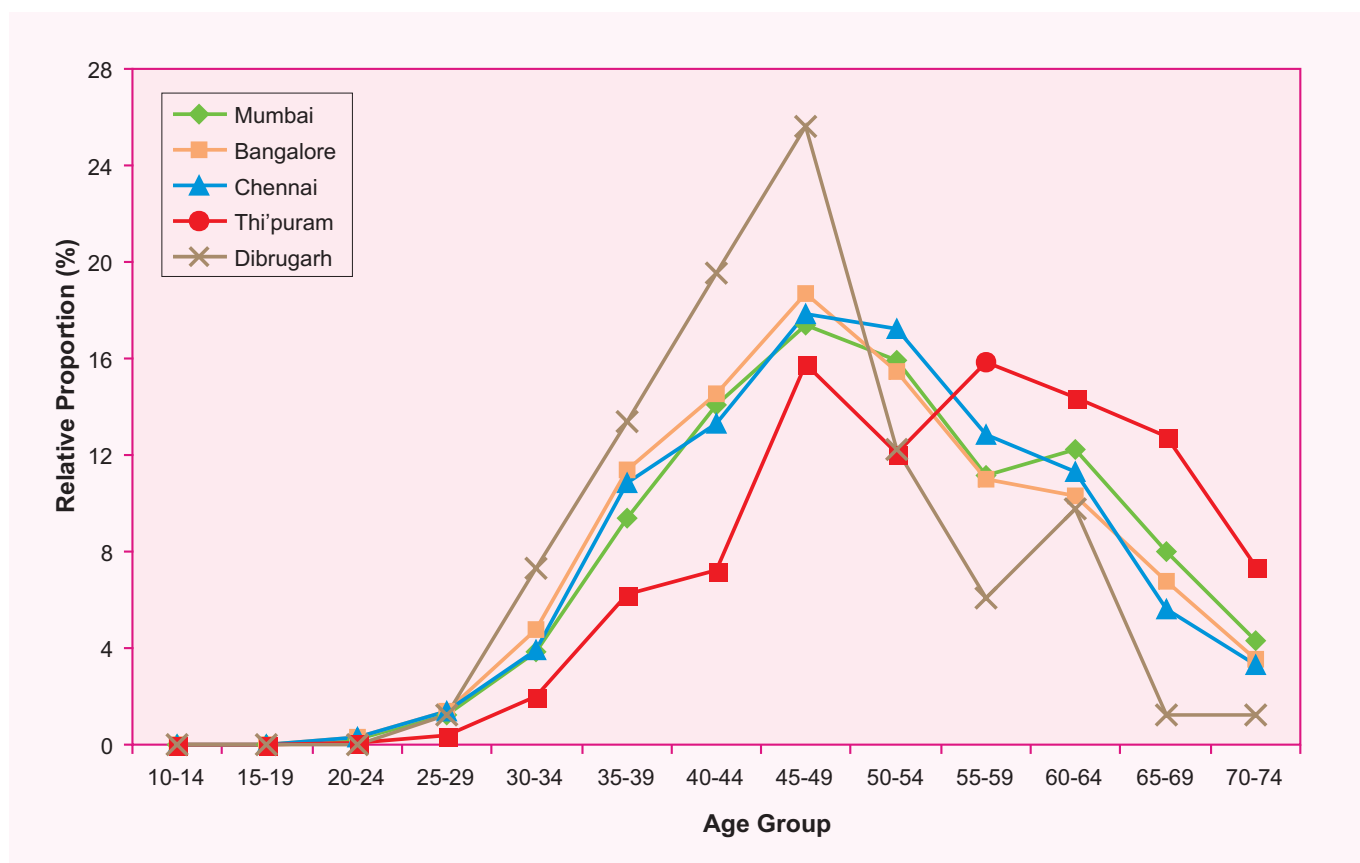




**Table 13.2: Number(#) and Relative Proportion(%) of cervical cancers according to five year age group (1999-2000)**

Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
0-4	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
5-9	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
10-14	1	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
15-19	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
20-24	6	0.2	8	0.3	8	0.3	1	0.1	0.0	0.0
25-29	33	1.2	35	1.4	36	1.4	4	0.4	1.0	1.2
30-34	101	3.8	121	4.9	88	3.5	19	2.0	6.0	7.3
35-39	248	9.4	282	11.3	268	10.7	58	6.1	11.0	13.4
40-44	372	14.1	358	14.4	328	13.1	69	7.3	16.0	19.5
45-49	460	17.4	466	18.7	441	17.6	149	15.7	21.0	25.6
50-54	421	15.9	381	15.3	439	17.6	115	12.1	10.0	12.2
55-59	295	11.2	273	11.0	322	12.9	150	15.8	5.0	6.1
60-64	324	12.3	257	10.3	288	11.5	137	14.4	8.0	9.8
65-69	211	8.0	171	6.9	143	5.7	123	12.9	1.0	1.2
70-74	113	4.3	90	3.6	84	3.4	70	7.4	1.0	1.2
75+	58	2.2	48	1.9	54	2.2	56	5.9	2.0	2.4
ANS	0	0.0	0	0.0	0	0.0	0	0.0	0.0	0.0
<b>All Ages</b>	<b>2643</b>	<b>100.0</b>	<b>2490</b>	<b>100.0</b>	<b>2499</b>	<b>100.0</b>	<b>951</b>	<b>100.0</b>	<b>82</b>	<b>100.</b>
<b>Mean</b>	50.4		49.0		49.8		55.9		46.3	
<b>SD</b>	11.32		11.31		10.94		11.62		10.15	

**Fig. 13.2: Five year age group distribution - Cancer Cervix (1999-2000)**



**Table 13.3: Number(#) and Relative Proportion(%) of cervical cancers based on different methods of diagnosis (1999-2000)**

Registry	Microscopic		Clinical		X-ray		Others		Total	
	#	%	#	%	#	%	#	%	#	%
Mumbai	2477	93.7	2	0.1	0	0.0	164	6.2	2643	100.0
Bangalore	2389	95.9	66	2.7	0	0.0	35	1.4	2490	100.0
Chennai	2169	86.8	328	13.1	0	0.0	2	0.1	2499	100.0
Thi'puram	886	93.2	60	6.3	0	0.0	5	0.5	951	100.0
Dibrugarh	80	97.6	0	0.0	0	0.0	2	2.4	82	100.0

**Table 13.4: Number(#) and Relative Proportion(%) of cervical cancer patients according to the clinical extent of disease (Excludes Patients Previously Treated) (1999-2000)**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
Mumbai	395	18.5	1596	74.9	1991	93.5	138	6.5	1	0.0	2130	100.0
Bangalore	60	2.6	2018	88.2	2078	90.9	185	8.1	24	1.0	2287	100.0
Chennai	214	9.5	1988	88.4	2202	97.9	48	2.1	0	0.0	2250	100.0
Thi'puram	57	6.6	772	89.0	829	95.6	38	4.4	0	0.0	867	100.0
Dibrugarh	5	6.1	64	78.0	69	84.1	12	14.6	1	1.2	82	100.0

**Table 13.5: Number(#) and Relative Proportion(%) of cervical cancer patients according to Broad Groups of Treatment(Tmt) (1999-2000)**

Treatment Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Prior Tmt. Only	318	12.0	96	3.9	226	9.0	19	2.0	0	0.0
Prior & Tmt. at RI	195	7.4	107	4.3	23	0.9	65	6.8	0	0.0
Tmt. Only at RI	948	35.9	1365	54.8	1000	40.0	757	79.6	70	85.4
No Treatment	1182	44.7	922	37.0	1250	50.0	110	11.6	12	14.6
<b>Total Patients</b>	<b>2643</b>	<b>100.0</b>	<b>2490</b>	<b>100.0</b>	<b>2499</b>	<b>100.0</b>	<b>951</b>	<b>100.0</b>	<b>82</b>	<b>100.0</b>

**Table 13.6: Number(#) and Relative Proportion(%) of cervical cancer patients according to Type of Treatment given (Patients treated only at Reporting Institution) (1999-2000)**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>948</b>	<b>100.0</b>	<b>1365</b>	<b>100.0</b>	<b>1000</b>	<b>100.0</b>	<b>757</b>	<b>100.0</b>	<b>70</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	62	6.5	16	1.2	7	0.7	4	0.5	2	2.9
Radiotherapy(R)	780	82.3	1036	75.9	901	90.1	615	81.2	62	88.6
Chemotherapy(C)	2	0.2	11	0.8	1	0.1	3	0.4	0	0.0
S + R	61	6.4	94	6.9	76	7.6	37	4.9	4	5.7
S + C	2	0.2	7	0.5	1	0.1	0	0.0	0	0.0
R + C	36	3.8	164	12.0	14	1.4	90	11.9	1	1.4
S + R + C	4	0.4	37	2.7	0	0.0	4	0.5	1	1.4
Others	1	0.1	0	0.0	0	0.0	4	0.5	0	0.0
<b>Modality of therapy</b>										
Single	844	89.0	1063	77.9	909	90.9	622	82.2	64	91.4
Combination	103	10.9	302	22.1	91	9.1	131	17.3	6	8.6
<b>Type of Any Treatment</b>										
Any Surgery	129	13.6	154	11.3	84	8.4	45	5.9	7	10.0
Any R	881	92.9	1331	97.5	991	99.1	746	98.5	68	97.1
Any C	44	4.6	219	16.0	16	1.6	97	12.8	2	2.9

**Table 13.7: Number (#) & Relative Proportion (%) of types of treatment according to Clinical Extent of Disease - Cervix (1999-2000)**

Clinical Extent	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Localised</b>										
Surgery(S)	52	33.8	3	7.9	6	4.1	1	1.9	1	20.0
Radiotherapy(R)	57	37.0	18	47.4	93	63.7	33	63.5	4	80.0
Chemotherapy(C)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
S + R	41	26.6	9	23.7	47	32.2	13	25.0	0	0.0
S + C	1	0.6	0	0.0	0	0.0	0	0.0	0	0.0
R + C	3	1.9	4	10.5	0	0.0	5	9.6	0	0.0
S + R + C	0	0.0	4	10.5	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ALL TREATMENTS	154	100.0	38	100.0	146	100.0	52	100.0	5	100.0
<b>Regional</b>										
Surgery(S)	10	1.4	13	1.0	1	0.1	3	0.4	1	1.7
Radiotherapy(R)	668	91.8	970	76.3	802	94.8	561	82.7	51	87.9
Chemotherapy(C)	1	0.1	10	0.8	0	0.0	2	0.3	0	0.0
S + R	14	1.9	85	6.7	29	3.4	24	3.5	4	6.9
S + C	0	0.0	6	0.5	1	0.1	0	0.0	0	0.0
R + C	30	4.1	156	12.3	13	1.5	82	12.1	1	1.7
S + R + C	4	0.5	32	2.5	0	0.0	4	0.6	1	1.7
Others	1	0.1	0	0.0	0	0.0	2	0.3	0	0.0
ALL TREATMENTS	728	100.0	1272	100.0	846	100.0	678	100.0	58	100.0
<b>Distant</b>										
Surgery(S)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Radiotherapy(R)	54	83.1	48	87.3	6	75.0	21	77.8	6	100.0
Chemotherapy(C)	1	1.5	1	1.8	1	12.5	1	3.7	0	0.0
S + R	6	9.2	0	0.0	0	0.0	0	0.0	0	0.0
S + C	1	1.5	1	1.8	0	0.0	0	0.0	0	0.0
R + C	3	4.6	4	7.3	1	12.5	3	11.1	0	0.0
S + R + C	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0
Others	0	0.0	0	0.0	0	0.0	2	7.4	0	0.0
ALL TREATMENTS	65	100.0	55	100.0	8	100.0	27	100.0	6	100.0

**Table 13.8: Number (#) and Proportion (%) of any specific treatment relative to all treated patients according to Clinical Extent of Disease - Cervix (1999-2000)**

	Any Surgery		Any Radiotherapy		Any Chemotherapy		Any Others		Total Patients
	#	%	#	%	#	%	#	%	
LOCALISED									
<b>Mumbai</b>	94	61.0	101	65.6	4	2.6	0	0.0	154
<b>Bangalore</b>	16	42.1	35	92.1	8	21.1	0	0.0	38
<b>Chennai</b>	53	36.3	140	95.9	0	0.0	0	0.0	146
<b>Thi'puram</b>	14	26.9	51	98.1	5	9.6	0	0.0	52
<b>Dibrugarh</b>	1	20.0	4	80.0	0	0.0	0	0.0	5
REGIONAL									
<b>Mumbai</b>	29	4.0	716	98.4	35	4.8	1	0.1	728
<b>Bangalore</b>	136	10.7	1243	97.7	204	16.0	0	0.0	1272
<b>Chennai</b>	31	3.7	844	99.8	14	1.7	0	0.0	846
<b>Thi'puram</b>	31	4.6	671	99.0	88	13.0	2	0.3	678
<b>Dibrugarh</b>	6	10.3	57	98.3	2	3.4	0	0.0	58
DISTANT									
<b>Mumbai</b>	7	10.8	63	96.9	5	7.7	0	0.0	65
<b>Bangalore</b>	2	3.6	53	96.4	7	12.7	0	0.0	55
<b>Chennai</b>	0	0.0	7	87.5	2	25.0	0	0.0	8
<b>Thi'puram</b>	0	0.0	24	88.9	4	14.8	2	7.4	27
<b>Dibrugarh</b>	0	0.0	6	100.0	0	0.0	0	0.0	6

# Chapter 14

## HEAD AND NECK CANCERS (ICD-10: C00-14, C30-31, C32, C33)

Chapter 14 gives a comprehensive picture of Head and Neck cancers. These include cancer of the Lip, Tongue, Mouth, Salivary glands, Oropharynx, Nasopharynx, Hypopharynx, Pharynx, Nose and Sinus, Larynx and Trachea.

Table 14.1 gives the number and relative proportion of Head and Neck cancers relative to all sites of cancers. Overall, Head and Neck cancers accounted for one-third of all cancers in males and one-eighth of all cancers in females.

Figure 14.2 and Table 14.2 depicts the relative proportion of specific sites that constitute Head & Neck cancer. Table 14.3 gives the number and relative proportion of specific sites of Head and Neck cancers relative to all sites of cancer.

Table 14.4 and Figure 14.3 give the five year age distribution of this group of cancers.

Table 14.5 gives the number and relative proportion based on different methods of diagnosis.

Table 14.6 gives the idea of the broad treatment groups. Over 60% of cancers in males had regional spread of the disease at the time of diagnosis.

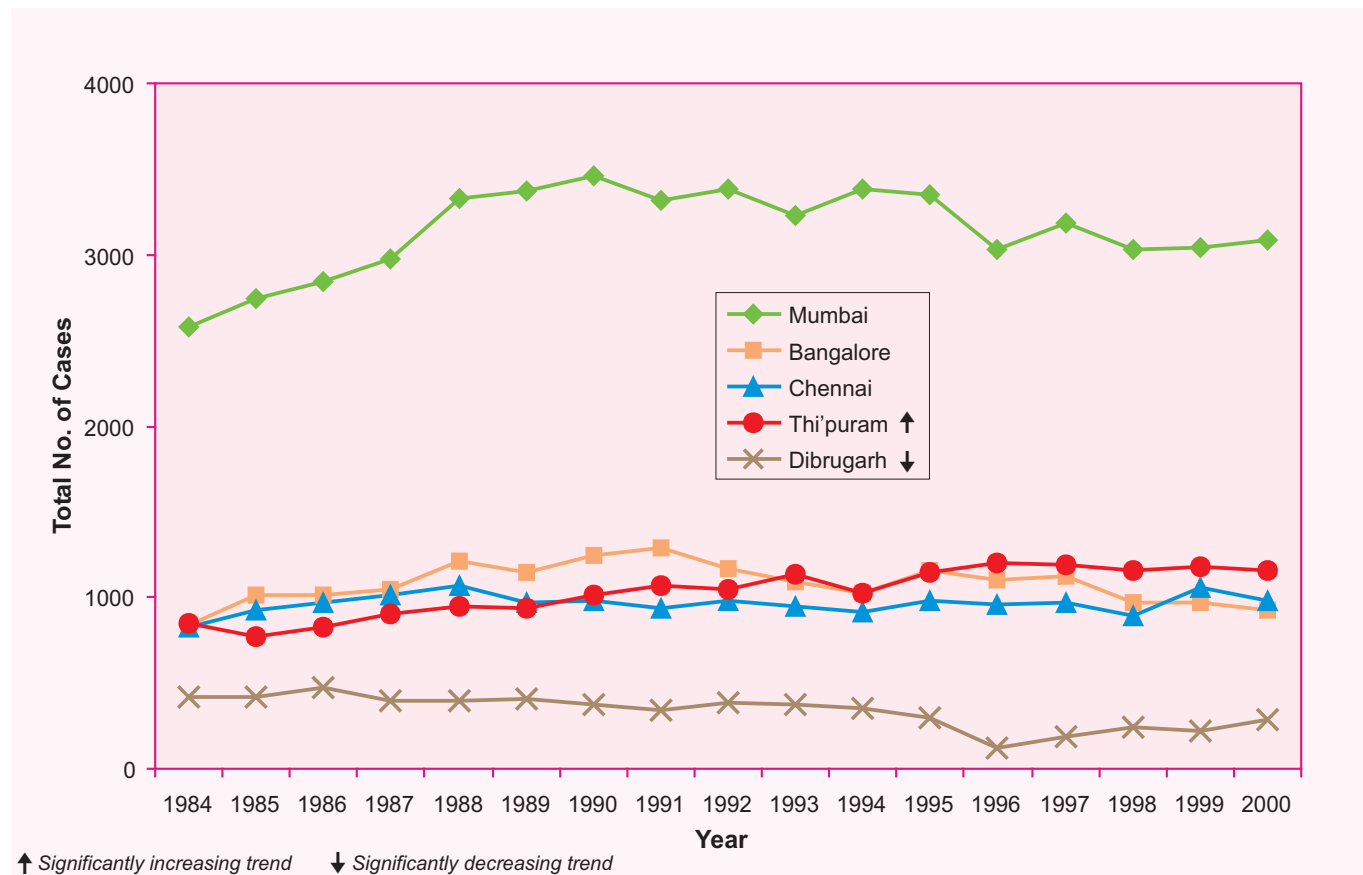
Table 14.8 gives the number and relative proportion according to the type of treatment.

**Table 14.1 : Number(#) & Proportion(%) of Head and Neck Cancers relative to all sites of cancer (1999-2000)**

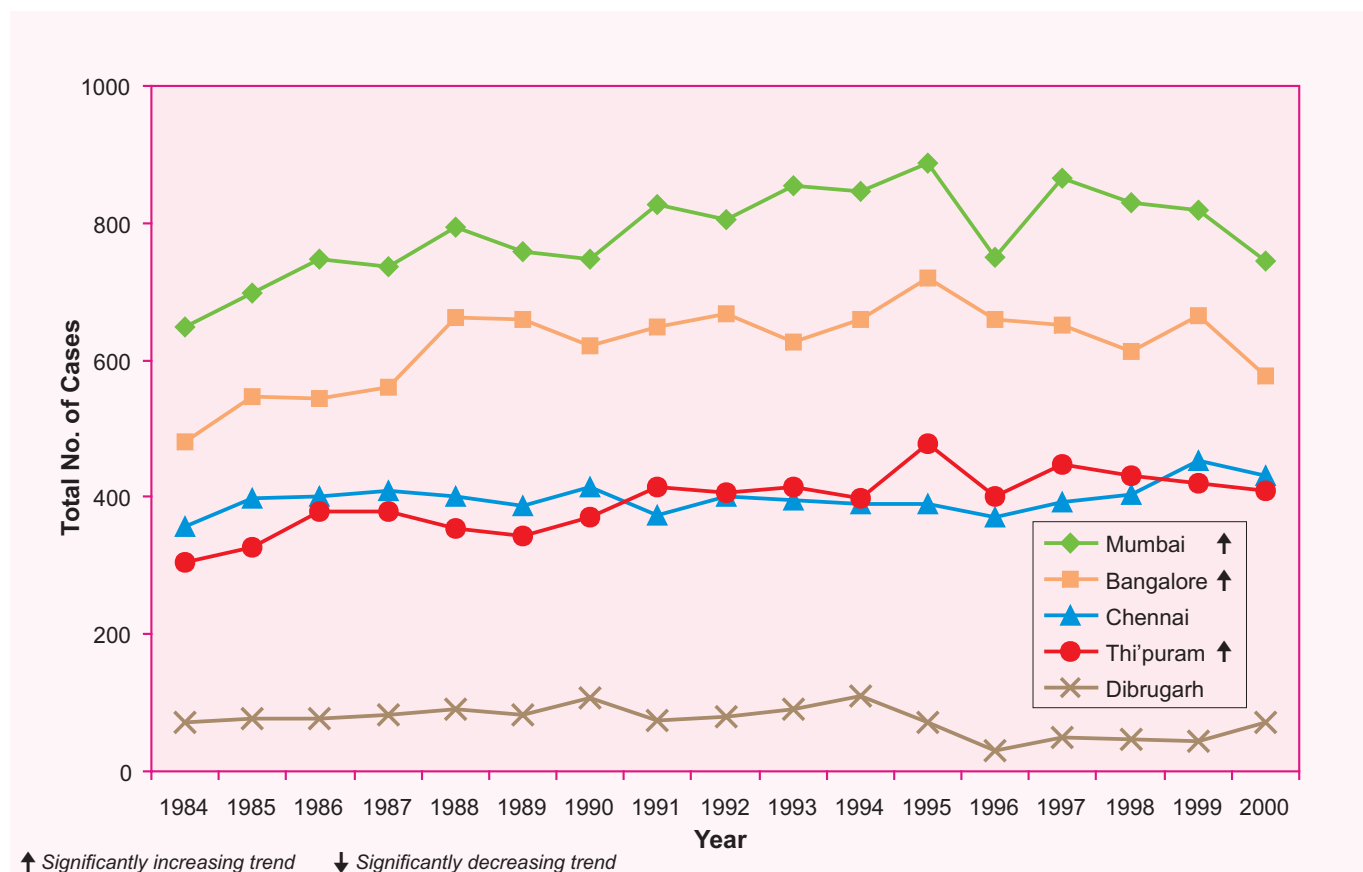
Registry	Males			Females		
	All sites	#	%	All sites	#	%
Mumbai	17637	6123	34.7	13679	1564	11.4
Bangalore	6106	1901	31.1	7543	1242	16.5
Chennai	6195	2043	33.0	7139	884	12.4
Thi'puram	7850	2342	29.8	7247	829	11.4
Dibrugarh	997	502	50.4	536	116	21.6
All Registries	38785	12911	33.3	36144	4635	12.8

**Fig. 14.1: Trends in Actual Numbers - Head and Neck Cancers (1999-2000)**

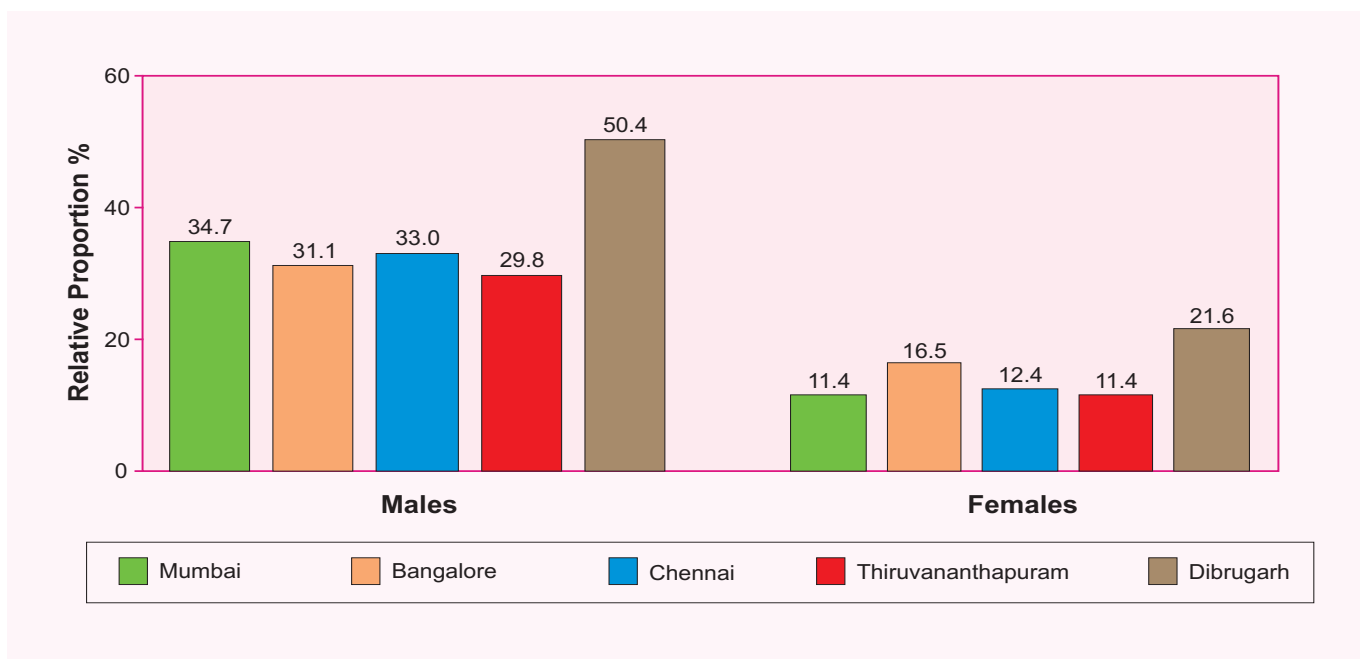
**Males**



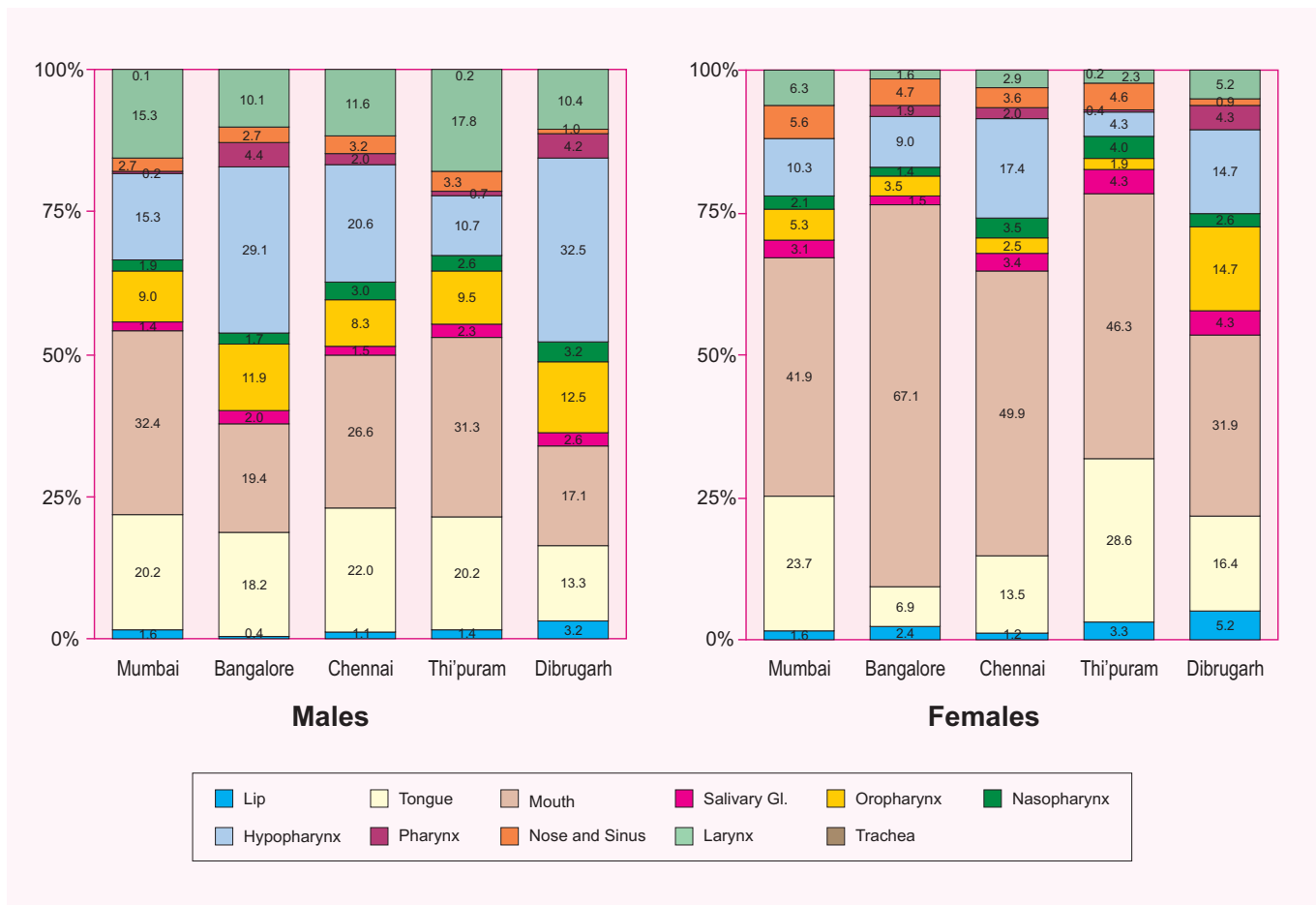
**Females**



**Fig. 14.2: Proportion(%) of Head and Neck Cancers Relative to All Sites (1999-2000)**



**Fig. 14.3: Stack(100%) diagram showing Proportion of Specific Head and Neck Cancer Sites Relative to All Head and Neck Cancers (1999-2000)**





**Table 14.2: Number(#) & Relative Proportion(%) of specific Head and Neck sites relative to all sites of cancer (1999-2000)****Males**

Sites of Cancer	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Lip	96	0.5	7	0.1	22	0.4	32	0.4	16	1.6
Tongue	1236	7.0	346	5.7	450	7.3	473	6.0	67	6.7
Mouth	1986	11.3	368	6.0	544	8.8	734	9.3	86	8.6
Salivary Gl.	84	0.5	38	0.6	31	0.5	54	0.7	13	1.3
Oropharynx	554	3.1	227	3.7	170	2.7	222	2.8	63	6.3
Nasopharynx	115	0.7	33	0.5	62	1.0	61	0.8	16	1.6
Hypopharynx	935	5.3	554	9.1	420	6.8	250	3.2	163	16.3
Pharynx etc.	12	0.1	84	1.4	41	0.7	17	0.2	21	2.1
Nose & sinus	163	0.9	52	0.9	65	1.0	78	1.0	5	0.5
Larynx	937	5.3	192	3.1	238	3.8	417	5.3	52	5.2
Trachea	5	0.0	0	0.0	0	0.0	4	0.1	0	0.0
Head & Neck	6123	34.7	1901	31.1	2043	33.0	2342	29.8	502	50.4
<b>All Sites</b>	<b>17637</b>	<b>100.0</b>	<b>6106</b>	<b>100.0</b>	<b>6195</b>	<b>100.0</b>	<b>7859</b>	<b>100.0</b>	<b>997</b>	<b>100.0</b>

**Females**

Sites of Cancer	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Lip	25	0.2	30	0.4	11	0.2	27	0.4	6	1.1
Tongue	370	2.7	86	1.1	119	1.7	237	3.3	19	3.5
Mouth	656	4.8	833	11.0	441	6.2	384	5.3	37	6.9
Salivary Gl.	49	0.4	19	0.3	30	0.4	36	0.5	5	0.9
Oropharynx	83	0.6	44	0.6	22	0.3	16	0.2	17	3.2
Nasopharynx	33	0.2	17	0.2	31	0.4	33	0.5	3	0.6
Hypopharynx	161	1.2	112	1.5	154	2.2	36	0.5	17	3.2
Pharynx etc.	0	0.0	23	0.3	18	0.3	3	0.0	5	0.9
Nose & sinus	88	0.6	58	0.8	32	0.4	38	0.5	1	0.2
Larynx	99	0.7	20	0.3	26	0.4	19	0.3	6	1.1
Trachea	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Head & Neck	1564	11.4	1242	16.5	884	12.4	829	11.4	116	21.6
<b>All Sites</b>	<b>13679</b>	<b>100.0</b>	<b>7543</b>	<b>100.0</b>	<b>7139</b>	<b>100.0</b>	<b>7247</b>	<b>100.0</b>	<b>536</b>	<b>100.0</b>

**Table 14.3 : Number(#) & Relative Proportion(%) of specific Head and Neck sites relative to all head and neck cancers (1999-2000)****Males**

Sites of Cancer	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Lip	96	1.6	7	0.4	22	1.1	32	1.4	16	3.2
Tongue	1236	20.2	346	18.2	450	22.0	473	20.2	67	13.3
Mouth	1986	32.4	368	19.4	544	26.6	734	31.3	86	17.1
Salivary Gl.	84	1.4	38	2.0	31	1.5	54	2.3	13	2.6
Oropharynx	554	9.0	227	11.9	170	8.3	222	9.5	63	12.5
Nasopharynx	115	1.9	33	1.7	62	3.0	61	2.6	16	3.2
Hypopharynx	935	15.3	554	29.1	420	20.6	250	10.7	163	32.5
Pharynx etc.	12	0.2	84	4.4	41	2.0	17	0.7	21	4.2
Nose & sinus	163	2.7	52	2.7	65	3.2	78	3.3	5	1.0
Larynx	937	15.3	192	10.1	238	11.6	417	17.8	52	10.4
Trachea	5	0.1	0	0.0	0	0.0	4	0.2	0	0.0
<b>Head &amp; Neck</b>	<b>6123</b>	<b>100.0</b>	<b>1901</b>	<b>100.0</b>	<b>2043</b>	<b>100.0</b>	<b>2342</b>	<b>100.0</b>	<b>502</b>	<b>100.0</b>

**Females**

Sites of Cancer	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Lip	25	1.6	30	2.4	11	1.2	27	3.3	6	5.2
Tongue	370	23.7	86	6.9	119	13.5	237	28.6	19	16.4
Mouth	656	41.9	833	67.1	441	49.9	384	46.3	37	31.9
Salivary Gl.	49	3.1	19	1.5	30	3.4	36	4.3	5	4.3
Oropharynx	83	5.3	44	3.5	22	2.5	16	1.9	17	14.7
Nasopharynx	33	2.1	17	1.4	31	3.5	33	4.0	3	2.6
Hypopharynx	161	10.3	112	9.0	154	17.4	36	4.3	17	14.7
Pharynx etc.	0	0.0	23	1.9	18	2.0	3	0.4	5	4.3
Nose & sinus	88	5.6	58	4.7	32	3.6	38	4.6	1	0.9
Larynx	99	6.3	20	1.6	26	2.9	19	2.3	6	5.2
Trachea	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
<b>Head &amp; Neck</b>	<b>1564</b>	<b>100.0</b>	<b>1242</b>	<b>100.0</b>	<b>884</b>	<b>100.0</b>	<b>829</b>	<b>100.0</b>	<b>116</b>	<b>100.0</b>

**Table 14.4: Number(#) and Relative Proportion(%) of Head and Neck Cancers by five-year age groups (1999-2000)****Males**

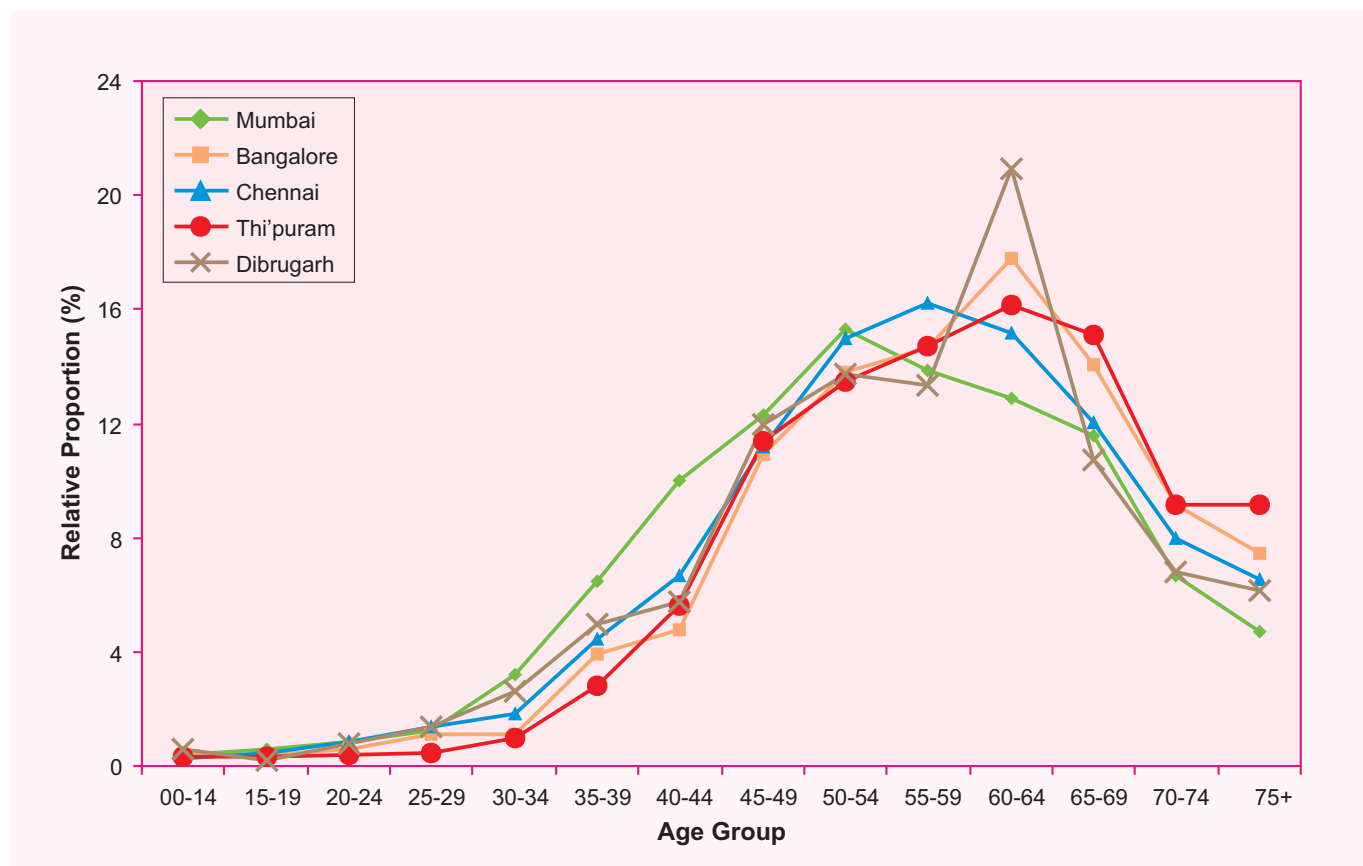
Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
00-14	23	0.4	8	0.4	6	0.3	8	0.3	3	0.6
15-19	35	0.6	7	0.4	10	0.5	7	0.3	1	0.2
20-24	51	0.8	11	0.6	18	0.9	9	0.4	4	0.8
25-29	78	1.3	21	1.1	28	1.4	11	0.5	7	1.4
30-34	197	3.2	21	1.1	37	1.8	23	1.0	13	2.6
35-39	395	6.5	74	3.9	91	4.5	66	2.8	25	5.0
40-44	611	10.0	91	4.8	136	6.7	131	5.6	29	5.8
45-49	752	12.3	207	10.9	228	11.2	267	11.4	60	12.0
50-54	937	15.3	262	13.8	306	15.0	315	13.5	69	13.7
55-59	850	13.9	278	14.6	331	16.2	344	14.7	67	13.3
60-64	788	12.9	338	17.8	310	15.2	378	16.1	105	20.9
65-69	709	11.6	267	14.0	246	12.0	354	15.1	54	10.8
70-74	407	6.6	174	9.2	163	8.0	214	9.1	34	6.8
75+	290	4.7	142	7.5	133	6.5	215	9.2	31	6.2
<b>All ages</b>	<b>6123</b>	<b>100.0</b>	<b>1901</b>	<b>100.0</b>	<b>2043</b>	<b>100.0</b>	<b>2342</b>	<b>100.0</b>	<b>502</b>	<b>100.0</b>
<b>Mean</b>	53.5		56.7		55.6		58.4		54.9	
<b>SD</b>	12.90		12.41		12.68		12.21		12.99	

**Females**

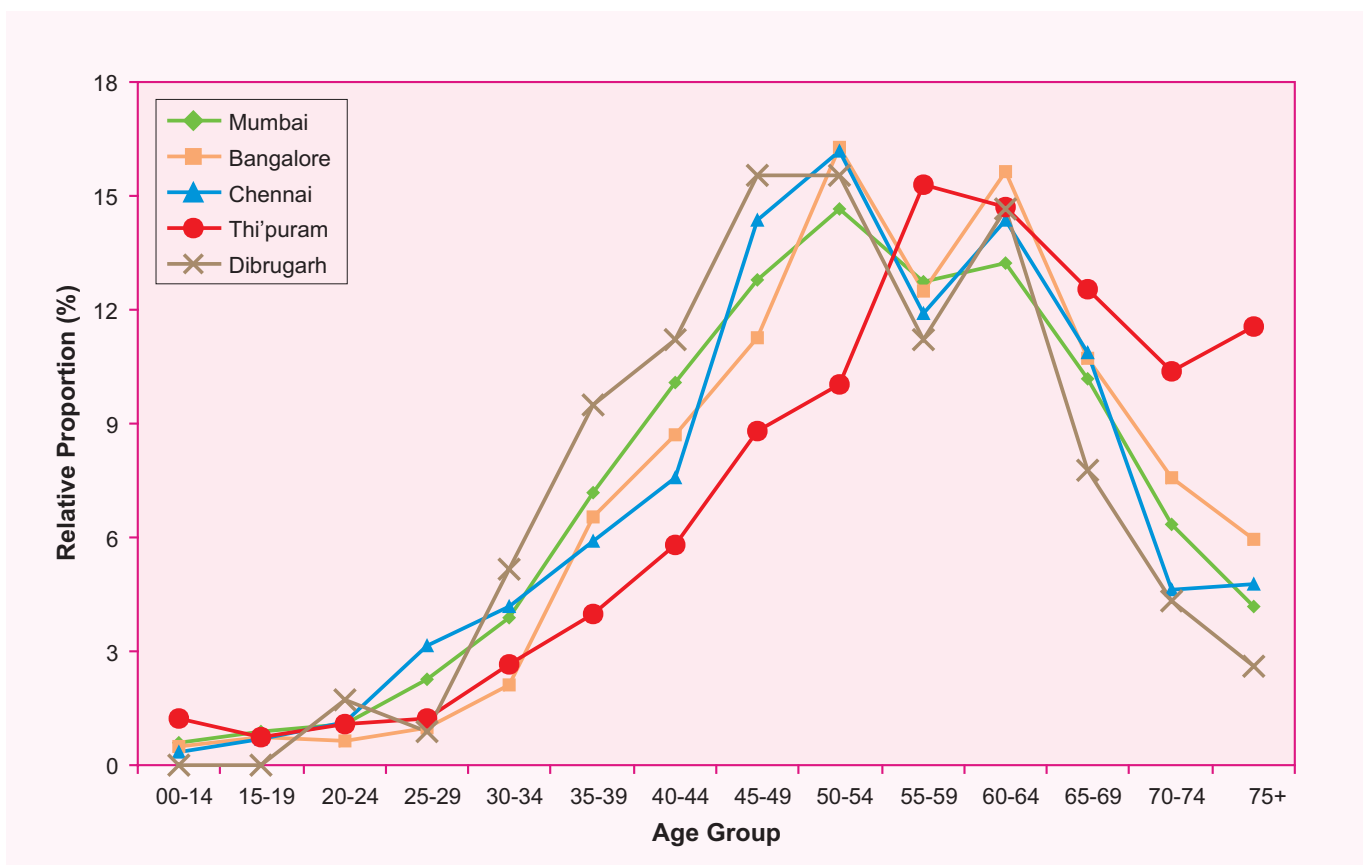
Age Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
00-14	9	0.6	6	0.5	3	0.3	10	1.2	0	0.0
15-19	14	0.9	9	0.7	6	0.7	6	0.7	0	0.0
20-24	17	1.1	8	0.6	10	1.1	9	1.1	2	1.7
25-29	35	2.2	12	1.0	28	3.2	10	1.2	1	0.9
30-34	61	3.9	26	2.1	37	4.2	22	2.7	6	5.2
35-39	112	7.2	81	6.5	52	5.9	33	4.0	11	9.5
40-44	158	10.1	108	8.7	67	7.6	48	5.8	13	11.2
45-49	200	12.8	140	11.3	127	14.4	73	8.8	18	15.5
50-54	229	14.6	202	16.3	143	16.2	83	10.0	18	15.5
55-59	199	12.7	155	12.5	105	11.9	127	15.3	13	11.2
60-64	207	13.2	194	15.6	127	14.4	122	14.7	17	14.7
65-69	159	10.2	133	10.7	96	10.9	104	12.5	9	7.8
70-74	99	6.3	94	7.6	41	4.6	86	10.4	5	4.3
75+	65	4.2	74	6.0	42	4.8	96	11.6	3	2.6
<b>All ages</b>	<b>1564</b>	<b>100.0</b>	<b>1242</b>	<b>100.0</b>	<b>884</b>	<b>100.0</b>	<b>829</b>	<b>100.0</b>	<b>116</b>	<b>100.0</b>
<b>Mean</b>	52.0		53.7		52.1		57.3		50.2	
<b>SD</b>	13.48		13.08		13.30		14.69		12.45	

**Fig. 14.4: Relative Proportion(%) of Head and Neck Cancers by Five Year Age Group (1999-2000)**

**Males**



**Females**



**Table 14.5: Number(#) & Relative Proportion(%) of head and neck cancers based on different methods of diagnosis (1999-2000)**

Registry	Microscopic		Clinical		X-ray		Others		Total	
	#	%	#	%	#	%	#	%	#	%
<b>Males</b>										
Mumbai	5752	93.9	1	0.0	5	0.1	365	6.0	6123	100.0
Bangalore	1798	94.6	2	0.1	99	5.2	2	0.1	1901	100.0
Chennai	1386	67.8	3	0.1	650	31.8	4	0.2	2043	100.0
Thi'puram	2247	95.9	0	0.0	92	3.9	3	0.1	2342	100.0
Dibrugarh	499	99.4	0	0.0	1	0.2	2	0.4	502	100.0
<b>Females</b>										
Mumbai	1489	95.2	0	0.0	3	0.2	72	4.6	1564	100.0
Bangalore	1204	96.9	2	0.2	34	2.7	2	0.2	1242	100.0
Chennai	622	70.4	0	0.0	262	29.6	0	0.0	884	100.0
Thi'puram	774	93.4	0	0.0	52	6.3	3	0.4	829	100.0
Dibrugarh	116	100.0	0	0.0	0	0.0	0	0.0	116	100.0

**Table 14.6: Number(#) & Relative Proportion(%) of head and neck cancers based on broad groups of treatment (1999-2000)**

Treatment Group	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Males</b>										
Prior Tmt. Only	580	9.5	80	4.2	287	14.0	69	2.9	0	0.0
Prior & Tmt. at RI	313	5.1	21	1.1	30	1.5	167	7.1	12	2.4
Tmt. Only at RI	2342	38.2	826	43.5	783	38.3	1739	74.3	455	90.6
No CDT*	2888	47.2	974	51.2	943	46.2	367	15.7	35	7.0
<b>Total Patients</b>	<b>6123</b>	<b>100.0</b>	<b>1901</b>	<b>100.0</b>	<b>2043</b>	<b>100.0</b>	<b>2342</b>	<b>100.0</b>	<b>502</b>	<b>100.0</b>
<b>Females</b>										
Prior Tmt. Only	117	7.5	29	2.3	100	11.3	27	3.3	0	0.0
Prior & Tmt. at RI	69	4.4	17	1.4	18	2.0	75	9.0	0	0.0
Tmt. Only at RI	693	44.3	586	47.2	378	42.8	593	71.5	111	95.7
No CDT*	685	43.8	610	49.1	388	43.9	134	16.2	5	4.3
<b>Total Patients</b>	<b>1564</b>	<b>100.0</b>	<b>1242</b>	<b>100.0</b>	<b>884</b>	<b>100.0</b>	<b>829</b>	<b>100.0</b>	<b>116</b>	<b>100.0</b>

**Table 14.7: Number(#) and Relative Proportion(%) of Head and Neck cancer patients according to Clinical Extent of Disease (Excludes Patients Previously Treated) (1999-2000)****Males**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
Mumbai	1616	30.9	3273	62.6	4889	93.5	341	6.5	0	0.0	5230	100.0
Bangalore	126	7.0	1543	85.7	1669	92.7	109	6.1	22	1.2	1800	100.0
Chennai	193	11.2	1514	87.7	1707	98.9	19	1.1	0	0.0	1726	100.0
Thi'puram	332	15.8	1715	81.4	2047	97.2	59	2.8	0	0.0	2106	100.0
Dibrugarh	39	8.0	419	85.5	458	93.5	11	2.2	21	4.3	490	100.0

**Females**

Registry	Localised (L)		Regional (R)		L + R		Distant		Others		All Stages	
	#	%	#	%	#	%	#	%	#	%	#	%
Mumbai	495	35.9	805	58.4	1300	94.3	77	5.6	1	0.1	1378	100.0
Bangalore	78	6.5	1008	84.3	1086	90.8	87	7.3	23	1.9	1196	100.0
Chennai	70	9.1	693	90.5	763	99.6	3	0.1	0	0.0	766	100.0
Thi'puram	127	17.5	580	79.8	707	97.3	20	2.8	0	0.0	727	100.0
Dibrugarh	19	16.4	93	80.2	112	96.6	1	0.9	3	2.6	116	100.0

**Table 14.8: Number (#) & Relative Proportion (%) of head and neck cancer patients according to Type of Treatment given (1999-2000)****Males**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>5667</b>	<b>100.0</b>	<b>2227</b>	<b>100.0</b>	<b>1828</b>	<b>100.0</b>	<b>4766</b>	<b>100.0</b>	<b>832</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	1635	28.9	349	15.7	235	12.9	164	3.4	49	5.9
Radiotherapy(R)	877	15.5	820	36.8	714	39.1	2012	42.2	635	76.3
Chemotherapy(C)	1200	21.2	396	17.8	389	21.3	1035	21.7	69	8.3
S + R	788	13.9	264	11.9	174	9.5	218	4.6	37	4.4
S + C	230	4.1	88	4.0	59	3.2	64	1.3	16	1.9
R + C	695	12.3	242	10.9	166	9.1	790	16.6	20	2.4
S + R + C	142	2.5	48	2.2	34	1.9	54	1.1	3	0.4
Others	100	1.8	20	0.9	57	3.1	429	9.0	3	0.4
<b>Modality of therapy*</b>										
Single	3712	65.5	1565	70.3	1338	73.2	3211	67.4	753	90.5
Combination	1855	32.7	642	28.8	433	23.7	1126	23.6	76	9.1
<b>Type of Any Treatment*</b>										
Any Surgery	2795	49.3	749	33.6	502	27.5	500	10.5	105	12.6
Any R	2502	44.2	1374	61.7	1088	59.5	3074	64.5	695	83.5
Any C	2267	40.0	774	34.8	648	35.4	1943	40.8	108	13.0

**Females**

Type of Treatment	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>Total patients</b>	<b>4470</b>	<b>100.0</b>	<b>3334</b>	<b>100.0</b>	<b>2616</b>	<b>100.0</b>	<b>3325</b>	<b>100.0</b>	<b>430</b>	<b>100.0</b>
<b>Specific Treatments</b>										
Surgery(S)	1140	25.5	294	8.8	109	4.2	143	4.3	47	10.9
Radiotherapy(R)	1046	23.4	1506	45.2	1302	49.8	1247	37.5	254	59.1
Chemotherapy(C)	531	11.9	364	10.9	223	8.5	659	19.8	39	9.1
S + R	377	8.4	367	11.0	152	5.8	208	6.3	44	10.2
S + C	309	6.9	166	5.0	56	2.1	158	4.8	39	9.1
R + C	235	5.3	336	10.1	151	5.8	363	10.9	5	1.2
S + R + C	240	5.4	157	4.7	24	0.9	144	4.3	1	0.2
Others	592	13.2	144	4.3	599	22.9	403	12.1	1	0.2
<b>Modality of therapy*</b>										
Single	2717	60.8	2164	64.9	1634	62.5	2049	61.6	340	79.1
Combination	1161	26.0	1026	30.8	383	14.6	873	26.3	89	20.7
<b>Type of Any Treatment*</b>										
Any Surgery	2066	46.2	984	29.5	341	13.0	653	19.6	131	30.5
Any R	1898	42.5	2366	71.0	1629	62.3	1962	59.0	304	70.7
Any C	1315	29.4	1023	30.7	454	17.4	1324	39.8	84	19.5

# Chapter 15

## HISTOLOGIC TYPES OF SELECTED SITES OF CANCER

The number and relative proportion of the specific histologic types of cancer (for Microscopically Diagnosed Cases) as appropriate for the selected anatomical sites of cancer is given below.

### TONGUE (ICD-10: C01-C02)

**Table 15.1: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	1	0.1	7	2.1	12	4.1	1	0.2	0	0.0
Carcinomas	5	0.4	30	9.2	10	3.4	7	1.5	4	6.1
Verrucous Carcinoma	4	0.3	3	0.9	1	0.3	1	0.2	0	0.0
Squamous Cell Carcinoma	1142	98.9	285	87.2	265	91.4	443	97.4	60	90.9
Adeno Carcinoma	3	0.3	1	0.3	2	0.7	2	0.4	0	0.0
Others	0	0.0	1	0.3	0	0.0	1	0.2	2	3.0
<b>All Histologic Types</b>	<b>1155</b>	<b>100.0</b>	<b>327</b>	<b>100.0</b>	<b>290</b>	<b>100.0</b>	<b>455</b>	<b>100.0</b>	<b>66</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	0	0.0	3	3.7	3	3.5	1	0.5	0	0.0
Carcinomas	2	0.6	5	6.1	1	1.2	4	1.8	0	0.0
Verrucous Carcinoma	3	0.9	0	0.0	0	0.0	4	1.8	0	0.0
Squamous Cell Carcinoma	341	97.7	74	90.2	79	91.9	207	94.5	19	100.0
Adeno Carcinoma	1	0.3	0	0.0	3	3.5	3	1.4	0	0.0
Others	2	0.6	0	0.0	0	0.0	0	0.0	0	0.0
<b>All Histologic Types</b>	<b>349</b>	<b>100.0</b>	<b>82</b>	<b>100.0</b>	<b>86</b>	<b>100.0</b>	<b>219</b>	<b>100.0</b>	<b>19</b>	<b>100.0</b>



**MOUTH (ICD-10: C03-C06)****Table 15.2: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	3	0.2	5	1.4	12	3.8	1	0.1	0	0.0
Carcinomas	9	0.5	19	5.4	6	1.9	5	0.7	2	2.3
Verrucous Carcinoma	22	1.2	9	2.6	5	1.6	15	2.2	1	1.2
Squamous Cell Carcinoma	1828	97.4	313	89.2	290	91.8	649	95.0	81	94.2
Adeno Carcinoma	7	0.4	2	0.6	2	0.6	5	0.7	0	0.0
Others	8	0.4	3	0.9	1	0.3	8	1.2	2	2.3
<b>All Histologic Types</b>	<b>1877</b>	<b>100.0</b>	<b>351</b>	<b>100.0</b>	<b>316</b>	<b>100.0</b>	<b>683</b>	<b>100.0</b>	<b>86</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	3	0.5	25	3.1	6	2.2	2	0.6	0	0.0
Carcinomas	5	0.8	24	3.0	5	1.9	2	0.6	1	2.7
Verrucous Carcinoma	10	1.6	35	4.3	3	1.1	10	2.8	1	2.7
Squamous Cell Carcinoma	595	93.8	713	88.1	244	90.7	328	92.9	35	94.6
Adeno Carcinoma	11	1.7	6	0.7	9	3.3	5	1.4	0	0.0
Others	10	1.6	6	0.7	2	0.7	6	1.7	0	0.0
<b>All Histologic Types</b>	<b>634</b>	<b>100.0</b>	<b>809</b>	<b>100.0</b>	<b>269</b>	<b>100.0</b>	<b>353</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>

**PHARYNX (ICD-10: C09-C10 and C12-C14)****Table 15.3: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	12	0.9	11	1.3	21	4.6	1	0.2	0	0.0
Carcinomas	20	1.4	62	7.5	16	3.5	26	5.4	13	5.3
Squamous Cell Carcinoma	1372	97.5	749	91.0	414	91.6	447	93.3	234	94.7
Others	3	0.2	1	0.1	1	0.2	5	1.0	0	0.0
<b>All Histologic Types</b>	<b>1407</b>	<b>100.0</b>	<b>823</b>	<b>100.0</b>	<b>452</b>	<b>100.0</b>	<b>479</b>	<b>100.0</b>	<b>247</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	0	0.0	3	1.7	6	3.7	0	0.0	0	0.0
Carcinomas	5	2.2	12	6.9	7	4.3	1	1.9	2	5.1
Squamous Cell Carcinoma	222	97.8	156	90.2	148	91.9	50	96.2	37	94.9
Others	0	0.0	2	1.2	0	0.0	1	1.9	0	0.0
<b>All Histologic Types</b>	<b>227</b>	<b>100.0</b>	<b>173</b>	<b>100.0</b>	<b>161</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>	<b>39</b>	<b>100.0</b>

**OESOPHAGUS (ICD-10: C15)****Table 15.4: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	2	0.2	25	4.4	11	2.8	2	0.5	0	0.0
Carcinomas	34	3.7	47	8.3	25	6.5	18	4.6	1	0.8
Squamous Cell Carcinoma	765	84.0	449	79.5	306	79.1	304	78.4	127	95.5
Adeno Carcinoma	102	11.2	41	7.3	36	9.3	47	12.1	5	3.8
Others	8	0.9	3	0.5	9	2.3	17	4.4	0	0.0
<b>All Histologic Types</b>	<b>911</b>	<b>100.0</b>	<b>565</b>	<b>100.0</b>	<b>387</b>	<b>100.0</b>	<b>388</b>	<b>100.0</b>	<b>133</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	1	0.2	11	2.4	3	1.3	0	0.0	0	0.0
Carcinomas	11	2.3	46	10.1	12	5.4	2	1.9	2	3.4
Squamous Cell Carcinoma	421	89.8	386	85.0	187	83.9	93	90.3	55	93.2
Adeno Carcinoma	31	6.6	9	2.0	21	9.4	6	5.8	1	1.7
Others	5	1.1	2	0.4	0	0.0	2	1.9	1	1.7
<b>All Histologic Types</b>	<b>469</b>	<b>100.0</b>	<b>454</b>	<b>100.0</b>	<b>223</b>	<b>100.0</b>	<b>103</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>

**STOMACH (ICD-10: C16)****Table 15.5: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	7	1.6	19	5.0	20	5.1	5	1.6	0	0.0
Carcinomas	19	4.3	51	13.4	34	8.7	46	15.1	4	12.5
Adeno Carcinomas	337	76.9	264	69.5	304	77.7	189	62.0	25	78.1
Papillary Adeno Carcinoma	0	0.0	6	1.6	1	0.3	4	1.3	0	0.0
Mucinous Adeno Carcinoma	10	2.3	18	4.7	25	6.4	35	11.5	3	9.4
Sarcomas	3	0.7	1	0.3	0	0.0	2	0.7	0	0.0
Others	62	14.2	21	5.5	7	1.8	24	7.9	0	0.0
<b>All Histologic Types</b>	<b>438</b>	<b>100.0</b>	<b>380</b>	<b>100.0</b>	<b>391</b>	<b>100.0</b>	<b>305</b>	<b>100.0</b>	<b>32</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	0	0.0	8	5.3	13	8.1	1	1.2	0	0.0
Carcinomas	12	6.6	17	11.3	14	8.7	8	9.9	0	0.0
Adeno Carcinomas	124	68.5	105	69.5	107	66.5	48	59.3	10	62.5
Papillary Adeno Carcinoma	0	0.0	1	0.7	0	0.0	1	1.2	1	6.3
Mucinous Adeno Carcinoma	6	3.3	6	4.0	13	8.1	8	9.9	4	25.0
Sarcomas	2	1.1	1	0.7	0	0.0	0	0.0	0	0.0
Others	37	20.4	13	8.6	14	8.7	15	18.5	1	6.3
<b>All Histologic Types</b>	<b>181</b>	<b>100.0</b>	<b>151</b>	<b>100.0</b>	<b>161</b>	<b>100.0</b>	<b>81</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>

## LUNG (ICD-10: C33-C34)

**Table 15.6: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	58	5.1	22	5.7	19	7.5	37	4.3	0	0.0
Large Cell Carcinoma	39	3.4	2	0.5	2	0.8	13	1.5	0	0.0
Undiff/Anaplastic Carcinoma	6	0.5	1	0.3	3	1.2	16	1.9	0	0.0
Small Cell Carcinoma	127	11.1	59	15.3	29	11.5	111	13.0	4	9.8
Squamous Cell Carcinoma	369	32.3	35	9.1	81	32.0	221	25.8	17	41.5
Other Carcinomas	111	9.7	67	17.4	57	22.5	184	21.5	1	2.4
Papillary AdenoCarcinoma	6	0.5	1	0.3	4	1.6	16	1.9	0	0.0
Adeno Squamous Carcinoma	12	1.1	0	0.0	0	0.0	9	1.1	0	0.0
Adeno Carcinoma NOS	390	34.2	74	19.2	54	21.3	226	26.4	10	24.4
Others	23	2.0	124	32.2	4	1.6	22	2.6	9	22.0
<b>All Histologic Types</b>	<b>1141</b>	<b>100.0</b>	<b>385</b>	<b>100.0</b>	<b>253</b>	<b>100.0</b>	<b>855</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	10	3.7	6	8.1	14	21.5	3	2.4	0	0.0
Large Cell Carcinoma	7	2.6	2	2.7	2	3.1	0	0.0	0	0.0
Undiff/Anaplastic Carcinoma	1	0.4	1	1.4	2	3.1	2	1.6	0	0.0
Small Cell Carcinoma	15	5.5	7	9.5	3	4.6	5	4.1	0	0.0
Squamous Cell Carcinoma	44	16.2	8	10.8	4	6.2	18	14.6	4	57.1
Other Carcinomas	28	10.3	16	21.6	14	21.5	29	23.6	0	0.0
Papillary AdenoCarcinoma	1	0.4	1	1.4	1	1.5	5	4.1	0	0.0
Adeno Squamous Carcinoma	6	2.2	0	0.0	0	0.0	0	0.0	0	0.0
Adeno Carcinoma NOS	143	52.6	17	23.0	23	35.4	53	43.1	1	14.3
Others	17	6.3	16	21.6	2	3.1	8	6.5	2	28.6
<b>All Histologic Types</b>	<b>272</b>	<b>100.0</b>	<b>74</b>	<b>100.0</b>	<b>65</b>	<b>100.0</b>	<b>123</b>	<b>100.0</b>	<b>7</b>	<b>100.0</b>

## BONE (ICD-10: C40-C41)

**Table 15.7: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	3	1.0	4	4.0	8	6.6	1	1.0	0	0.0
Sarcomas	9	3.0	2	2.0	3	2.5	9	9.0	2	12.5
Osteosarcomas	187	62.5	42	42.0	57	46.7	59	59.0	6	37.5
Chondrosarcomas	32	10.7	15	15.0	13	10.7	8	8.0	3	18.8
Giant Cell Tumour	1	0.3	0	0.0	5	4.1	1	1.0	0	0.0
Ewing's Sarcoma	52	17.4	19	19.0	28	23.0	16	16.0	0	0.0
Chondroma	1	0.3	0	0.0	0	0.0	1	1.0	0	0.0
Others	14	4.7	18	18.0	8	6.6	5	5.0	5	31.3
<b>All Histologic Types</b>	<b>299</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>122</b>	<b>100.0</b>	<b>100</b>	<b>100.0</b>	<b>16</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	1	0.9	3	5.0	8	12.1	0	0.0	1	12.5
Sarcomas	7	6.6	4	6.7	4	6.1	1	1.6	0	0.0
Osteosarcomas	70	66.0	19	31.7	28	42.4	33	54.1	1	12.5
Chondrosarcomas	11	10.4	10	16.7	5	7.6	5	8.2	0	0.0
Giant Cell Tumour	1	0.9	3	5.0	4	6.1	0	0.0	0	0.0
Ewing's Sarcoma	15	14.2	13	21.7	13	19.7	15	24.6	1	12.5
Chondroma	0	0.0	1	1.7	0	0.0	1	1.6	0	0.0
Others	1	0.9	7	11.7	4	6.1	6	9.8	5	62.5
<b>All Histologic Types</b>	<b>106</b>	<b>100.0</b>	<b>60</b>	<b>100.0</b>	<b>66</b>	<b>100.0</b>	<b>61</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>

## SOFT TISSUE (ICD-10: C47 &C49)

**Table 15.8: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	0	0.0	0	0.0	9	7.0	5	4.7	0	0.0
Sarcoma NOS	0	0.0	8	12.5	23	17.8	4	3.8	0	0.0
Spindle Cell Sarcoma	0	0.0	19	29.7	31	24.0	20	18.9	1	16.7
Pleomorphic Cell Sarcoma	0	0.0	7	10.9	9	7.0	7	6.6	0	0.0
Fibrous Histiocytoma	0	0.0	3	4.7	16	12.4	8	7.5	0	0.0
Liposarcoma	0	0.0	5	7.8	3	2.3	6	5.7	0	0.0
Leiomyosarcoma	0	0.0	1	1.6	3	2.3	2	1.9	1	16.7
Rhabdomyosarcoma	0	0.0	1	1.6	14	10.9	14	13.2	1	16.7
Synovial Sarcoma	0	0.0	10	15.6	9	7.0	15	14.2	1	16.7
Neurofibrosarcoma	3	5.4	1	1.6	1	0.8	4	3.8	1	16.7
Neurilemmoma	0	0.0	3	4.7	1	0.8	1	0.9	0	0.0
Others	53	94.6	6	9.4	10	7.8	20	18.9	1	16.7
<b>All Histologic Types</b>	<b>56</b>	<b>100.0</b>	<b>64</b>	<b>100.0</b>	<b>129</b>	<b>100.0</b>	<b>106</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	0	0.0	2	4.3	3	4.1	4	5.0	0	0.0
Sarcoma NOS	0	0.0	2	4.3	15	20.3	5	6.3	0	0.0
Spindle Cell Sarcoma	0	0.0	16	34.8	20	27.0	22	27.5	0	0.0
Pleomorphic Cell Sarcoma	0	0.0	7	15.2	2	2.7	6	7.5	0	0.0
Fibrous Histiocytoma	0	0.0	1	2.2	5	6.8	8	10.0	0	0.0
Liposarcoma	0	0.0	1	2.2	3	4.1	8	10.0	0	0.0
Leiomyosarcoma	0	0.0	3	6.5	0	0.0	0	0.0	0	0.0
Rhabdomyosarcoma	0	0.0	3	6.5	6	8.1	5	6.3	2	100.0
Synovial Sarcoma	0	0.0	4	8.7	4	5.4	7	8.8	0	0.0
Neurofibrosarcoma	1	3.7	0	0.0	2	2.7	3	3.8	0	0.0
Neurilemmoma	0	0.0	1	2.2	1	1.4	1	1.3	0	0.0
Others	26	96.3	6	13.0	13	17.6	11	13.8	0	0.0
<b>All Histologic Types</b>	<b>27</b>	<b>100.0</b>	<b>46</b>	<b>100.0</b>	<b>74</b>	<b>100.0</b>	<b>80</b>	<b>100.0</b>	<b>2</b>	<b>100.0</b>

## FEMALE BREAST (ICD-10: C50)

**Table 15.9: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Neoplasm Malignant	21	0.7	48	5.1	19	1.5	46	2.3	0	0.0
Carcinomas	71	2.2	52	5.5	15	1.2	143	7.3	2	3.1
Papillary Carcinoma	13	0.4	1	0.1	5	0.4	18	0.9	0	0.0
Squamous Cell Carcinoma	9	0.3	3	0.3	0	0.0	4	0.2	0	0.0
Adeno Carcinoma NOS	37	1.2	4	0.4	4	0.3	11	0.6	0	0.0
Mucinous Adeno Carcinoma	23	0.7	16	1.7	8	0.6	20	1.0	2	3.1
Infil. Duct Carcinoma	2815	88.7	761	80.6	1180	91.3	1638	83.1	54	84.4
Medullary Carcinoma	15	0.5	11	1.2	5	0.4	16	0.8	2	3.1
Lobular Carcinoma	90	2.8	19	2.0	22	1.7	44	2.2	1	1.6
Paget's Disease	13	0.4	2	0.2	2	0.2	2	0.1	0	0.0
Cystosarc. Phyllodes	14	0.4	14	1.5	8	0.6	10	0.5	1	1.6
Others	54	1.7	13	1.4	25	1.9	18	0.9	2	3.1
<b>All Histologic Types</b>	<b>3175</b>	<b>100.0</b>	<b>944</b>	<b>100.0</b>	<b>1293</b>	<b>100.0</b>	<b>1970</b>	<b>100.0</b>	<b>64</b>	<b>100.0</b>

## CERVIX (ICD-10: C53)

**Table 15.10: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Neoplasm Malignant	0	0.0	71	3.0	48	2.2	3	0.3	0	0.0
Carcinomas	31	1.3	59	2.5	50	2.3	17	1.9	2	2.5
Non-Kerat Large Cell	20	0.8	1047	43.8	1085	50.0	351	39.6	45	56.3
Non-Kerat Small Cell	2	0.1	4	0.2	6	0.3	8	0.9	4	5.0
Kerat Squa Cell Carcinoma NOS	12	0.5	531	22.2	191	8.8	200	22.6	6	7.5
Squa Cell Carcinoma NOS	2278	92.0	538	22.5	588	27.1	229	25.8	17	21.3
Other Squa Cell Carcinoma	3	0.1	11	0.5	5	0.2	3	0.3	0	0.0
Adeno Carcinoma	87	3.5	68	2.8	70	3.2	43	4.9	4	5.0
Adeno Squa Carcinoma	20	0.8	40	1.7	120	5.5	12	1.4	0	0.0
Others	24	1.0	20	0.8	6	0.3	20	2.3	2	2.5
<b>All Histologic Types</b>	<b>2477</b>	<b>100.0</b>	<b>2389</b>	<b>100.0</b>	<b>2169</b>	<b>100.0</b>	<b>886</b>	<b>100.0</b>	<b>80</b>	<b>100.0</b>

## OVARY (ICD-10: C56)

**Table 15.11: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
Neoplasm Malignant	6	0.9	14	4.4	18	8.3	10	1.8	0	0.0
Carcinomas	24	3.6	33	10.4	14	6.4	14	2.6	0	0.0
Other Carcinomas	2	0.3	2	0.6	0	0.0	1	0.2	0	0.0
Papillary Carcinoma	2	0.3	2	0.6	1	0.5	3	0.5	1	3.6
Squamous Cell Carcinoma	1	0.1	7	2.2	0	0.0	2	0.4	0	0.0
Adeno Carcinoma	263	39.1	56	17.6	95	43.6	92	16.8	16	57.1
Papillary Adeno Carcinoma	36	5.3	38	11.9	31	14.2	45	8.2	5	17.9
Clear Cell Adeno Carcinoma	11	1.6	3	0.9	0	0.0	12	2.2	0	0.0
Endometrioid Carcinoma	40	5.9	6	1.9	3	1.4	44	8.1	0	0.0
Papi/Serous Cystadeno	149	22.1	86	27.0	20	9.2	142	26.0	2	7.1
Muc Adeno/Cystadeno	34	5.1	21	6.6	12	5.5	95	17.4	1	3.6
Granulosa Cell Tumour	4	0.6	10	3.1	4	1.8	4	0.7	0	0.0
Sarcomas	1	0.1	3	0.9	0	0.0	0	0.0	0	0.0
Stromal Tumours	3	0.4	2	0.6	1	0.5	3	0.5	0	0.0
Dysgerminoma	32	4.8	15	4.7	4	1.8	32	5.9	0	0.0
Endodermal Sinus Tumour	18	2.7	5	1.6	2	0.9	9	1.6	0	0.0
Teratomas	16	2.4	5	1.6	2	0.9	10	1.8	0	0.0
Others	31	4.6	10	3.1	11	5.0	28	5.1	3	10.7
<b>All Histologic Types</b>	<b>673</b>	<b>100.0</b>	<b>318</b>	<b>100.0</b>	<b>218</b>	<b>100.0</b>	<b>546</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>

## KIDNEY (ICD-10: C64)

**Table 15.12: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	5	3.0	4	7.4	0	0.0	0	0.0	0	0.0
Carcinoma NOS	6	3.6	2	3.7	2	6.5	3	4.4	0	0.0
Transitional Cell Carcinoma	4	2.4	1	1.9	2	6.5	1	1.5	0	0.0
Adenocarcinoma	3	1.8	1	1.9	2	6.5	4	5.9	0	0.0
Clear Cell AdenoCarcinoma	6	3.6	0	0.0	0	0.0	3	4.4	0	0.0
Renal Cell Carcinoma	106	64.2	33	61.1	20	64.5	43	63.2	0	0.0
Nephroblastoma	26	15.8	10	18.5	4	12.9	11	16.2	1	100.0
Others	9	5.5	3	5.6	1	3.2	3	4.4	0	0.0
<b>All Histologic Types</b>	<b>165</b>	<b>100.0</b>	<b>54</b>	<b>100.0</b>	<b>31</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	0	0.0	0	0.0	1	4.2	0	0.0	0	0.0
Carcinoma NOS	5	7.0	0	0.0	0	0.0	1	2.7	0	0.0
Transitional Cell Carcinoma	1	1.4	1	2.6	1	4.2	1	2.7	0	0.0
Adenocarcinoma	0	0.0	0	0.0	3	12.5	1	2.7	0	0.0
Clear Cell Adeno Carcinoma	3	4.2	0	0.0	1	4.2	1	2.7	0	0.0
Renal Cell Carcinoma	44	62.0	23	60.5	15	62.5	13	35.1	0	0.0
Nephroblastoma	13	18.3	11	28.9	3	12.5	17	45.9	1	100.0
Others	5	7.0	3	7.9	0	0.0	3	8.1	0	0.0
<b>All Histologic Types</b>	<b>71</b>	<b>100.0</b>	<b>38</b>	<b>100.0</b>	<b>24</b>	<b>100.0</b>	<b>37</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>



## BRAIN (ICD-10: C70-C72)

**Table 15.13: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	0	0.0	12	4.9	0	0.0	1	0.4	0	0.0
Gliomas	17	5.3	26	10.6	4	9.8	58	25.7	0	0.0
Ependymoma	14	4.3	3	1.2	1	2.4	2	0.9	2	25.0
Astrocytoma	198	61.5	133	54.3	20	48.8	97	42.9	2	25.0
Glioblastoma	26	8.1	19	7.8	5	12.2	30	13.3	0	0.0
Oligodendroglioma	14	4.3	10	4.1	1	2.4	7	3.1	0	0.0
Medulloblastoma	40	12.4	30	12.2	6	14.6	16	7.1	1	12.5
Others	13	4.0	12	4.9	4	9.8	15	6.6	3	37.5
<b>All Histologic Types</b>	<b>322</b>	<b>100.0</b>	<b>245</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>	<b>226</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	1	0.5	7	6.4	0	0.0	3	2.2	0	0.0
Gliomas	12	6.4	3	2.7	2	11.1	29	21.2	0	0.0
Ependymoma	9	4.8	2	1.8	0	0.0	4	2.9	0	0.0
Astrocytoma	119	63.6	59	53.6	10	55.6	58	42.3	2	66.7
Glioblastoma	8	4.3	11	10.0	2	11.1	11	8.0	1	33.3
Oligodendroglioma	10	5.3	6	5.5	2	11.1	4	2.9	0	0.0
Medulloblastoma	23	12.3	11	10.0	1	5.6	18	13.1	0	0.0
Others	5	2.7	11	10.0	1	5.6	10	7.3	0	0.0
<b>All Histologic Types</b>	<b>187</b>	<b>100.0</b>	<b>110</b>	<b>100.0</b>	<b>18</b>	<b>100.0</b>	<b>137</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>

## THYROID GLAND (ICD-10: C73)

**Table 15.14: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Neoplasm Malignant	3	1.6	3	3.2	1	1.1	0	0.0	0	0.0
Other Carcinomas	7	3.8	9	9.7	7	8.0	4	2.0	0	0.0
Undifferentiated Carcinoma	6	3.3	1	1.1	4	4.6	9	4.4	2	40.0
Papillary CarcinomaNOS	94	51.4	55	59.1	55	63.2	139	68.1	0	0.0
Papillary Adeno Carcinoma	0	0.0	1	1.1	8	9.2	1	0.5	0	0.0
Follicular Carcinoma	28	15.3	13	14.0	6	6.9	16	7.8	2	40.0
Mixed Papi & Folli Carcinoma	9	4.9	6	6.5	1	1.1	25	12.3	0	0.0
Medullary Carcinoma	32	17.5	4	4.3	2	2.3	7	3.4	0	0.0
Others	4	2.2	1	1.1	3	3.4	3	1.5	1	20.0
<b>All Histologic Types</b>	<b>183</b>	<b>100.0</b>	<b>93</b>	<b>100.0</b>	<b>87</b>	<b>100.0</b>	<b>204</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>
<b>FEMALES</b>										
Neoplasm Malignant	2	0.9	9	4.3	1	0.8	2	0.3	0	0.0
Other Carcinomas	10	4.3	12	5.7	14	10.7	4	0.6	1	20.0
Undifferentiated Carcinoma	7	3.0	6	2.9	7	5.3	12	1.9	1	20.0
Papillary CarcinomaNOS	128	55.7	132	62.9	75	57.3	434	70.0	0	0.0
Papillary AdenoCarcinoma	1	0.4	0	0.0	8	6.1	1	0.2	0	0.0
Follicular Carcinoma	40	17.4	21	10.0	16	12.2	70	11.3	3	60.0
Mixed Papi & Folli Carcinoma	30	13.0	18	8.6	2	1.5	78	12.6	0	0.0
Medullary Carcinoma	10	4.3	5	2.4	3	2.3	14	2.3	0	0.0
Others	2	0.9	7	3.3	5	3.8	5	0.8	0	0.0
<b>All Histologic Types</b>	<b>230</b>	<b>100.0</b>	<b>210</b>	<b>100.0</b>	<b>131</b>	<b>100.0</b>	<b>620</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>

## TUMOURS OF LYMPHOID AND HAEMATOPOIETIC SYSTEM (LHM) (ICD-10: C81-C85 and C90-C96)

**Table 15.15: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

LHM Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
NHL	363	11.9	121	14.6	77	10.3	75	6.5	1	5.0
HD	950	31.1	250	30.2	269	35.8	408	35.4	10	50.0
MM	181	5.9	46	5.5	43	5.7	154	13.4	0	0.0
Leukaemias	1560	51.1	412	49.7	362	48.2	514	44.7	9	45.0
<b>All Types</b>	<b>3054</b>	<b>100.0</b>	<b>829</b>	<b>100.0</b>	<b>751</b>	<b>100.0</b>	<b>1151</b>	<b>100.0</b>	<b>20</b>	<b>100.0</b>
<b>FEMALES</b>										
NHL	98	8.6	34	7.2	29	8.1	25	3.9	0	0.0
HD	359	31.6	127	26.8	96	27.0	200	31.2	1	11.1
MM	67	5.9	15	3.2	20	5.6	75	11.7	1	11.1
Leukaemias	611	53.8	298	62.9	211	59.3	341	53.2	7	77.8
<b>All Types</b>	<b>1135</b>	<b>100.0</b>	<b>474</b>	<b>100.0</b>	<b>356</b>	<b>100.0</b>	<b>641</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>

## HODGKIN'S DISEASE (ICD-10: C81)

**Table 15.16: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Hodgkin's Disease NOS	61	17.9	27	22.3	32	41.6	13	17.3	1	100.0
HD LP	16	4.7	2	1.7	6	7.8	3	4.0	0	0.0
HD MC	149	43.8	45	37.2	23	29.9	36	48.0	0	0.0
HD LD	1	0.3	3	2.5	6	7.8	1	1.3	0	0.0
HD NS	113	33.2	44	36.4	10	13.0	22	29.3	0	0.0
<b>All Histologic Types</b>	<b>340</b>	<b>100.0</b>	<b>121</b>	<b>100.0</b>	<b>77</b>	<b>100.0</b>	<b>75</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>
<b>FEMALES</b>										
Hodgkin's Disease NOS	14	14.7	9	26.5	16	55.2	3	12.0	0	0.0
HD LP	5	5.3	1	2.9	2	6.9	1	4.0	0	0.0
HD MC	49	51.6	9	26.5	5	17.2	2	8.0	0	0.0
HD LD	0	0.0	1	2.9	0	0.0	0	0.0	0	0.0
HD NS	27	28.4	14	41.2	6	20.7	19	76.0	0	0.0
<b>All Histologic Types</b>	<b>95</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>	<b>29</b>	<b>100.0</b>	<b>25</b>	<b>100.0</b>	<b>0</b>	<b>0.0</b>

## LEUKAEMIAS (ICD-10: C91-C95)

**Table 15.17: Number(#) and Relative Proportion(%) of different histologic types (1999-2000)**

Histologic Type	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Leukaemia NOS	2	0.1	0	0.0	7	1.9	0	0.0	0	0.0
Acute Leukaemia NOS	101	6.9	35	8.5	30	8.3	6	1.2	0	0.0
Acute Lymphoid Leuk	468	32.1	94	22.8	99	27.3	250	48.7	2	22.2
Chronic Lymphoid Leuk	82	5.6	23	5.6	20	5.5	17	3.3	0	0.0
Acute Myeloid Leuk	349	23.9	100	24.3	102	28.2	150	29.2	3	33.3
Chronic Myeloid Leuk	436	29.9	81	19.7	103	28.5	73	14.2	4	44.4
Others	21	1.4	79	19.2	1	0.3	17	3.3	0	0.0
<b>All Histologic Types</b>	<b>1459</b>	<b>100.0</b>	<b>412</b>	<b>100.0</b>	<b>362</b>	<b>100.0</b>	<b>513</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>
<b>FEMALES</b>										
Leukaemia NOS	0	0.0	0	0.0	3	1.4	0	0.0	0	0.0
Acute Leukaemia NOS	39	6.7	25	8.4	34	16.1	9	2.6	0	0.0
Acute Lymphoid Leuk	177	30.6	60	20.1	46	21.8	144	42.2	0	0.0
Chronic Lymphoid Leuk	27	4.7	6	2.0	4	1.9	9	2.6	0	0.0
Acute Myeloid Leuk	167	28.8	92	30.9	60	28.4	141	41.3	5	71.4
Chronic Myeloid Leuk	161	27.8	74	24.8	61	28.9	30	8.8	1	14.3
Others	8	1.4	41	13.8	3	1.4	8	2.3	1	14.3
<b>All Histologic Types</b>	<b>579</b>	<b>100.0</b>	<b>298</b>	<b>100.0</b>	<b>211</b>	<b>100.0</b>	<b>341</b>	<b>100.0</b>	<b>7</b>	<b>100.0</b>

# Chapter 16

## EDUCATIONAL AND MARITAL STATUS; RELIGION AND LANGUAGE SPOKEN

The tables below provide the number and relative proportion of cancers (all sites) according to the educational level attained, marital status, pursuit of a specific religion and language spoken.

**Table 16.1: Number(#) and Relative Proportion(%) by Educational Status (All Sites of Cancer) (1999-2000)**

Educational Status	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Illiterate	2921	16.6	3014	49.4	1296	20.9	666	8.5	365	36.6
Literate	239	1.4	488	8.0	268	4.3	62	0.8	384	38.5
Primary	3991	22.6	370	6.1	1549	25.0	2595	33.0	65	6.5
Middle	52	0.3	855	14.0	989	16.0	1440	18.3	37	3.7
Secondary	1551	8.8	745	12.2	1403	22.6	1622	20.6	76	7.6
Technical	391	2.2	82	1.3	90	1.5	134	1.7	0	0.0
College	2116	12.0	372	6.1	523	8.4	708	9.0	28	2.8
Below 5 years	383	2.2	124	2.0	77	1.2	157	2.0	15	1.5
Oth. & Unk.	5993	34.0	56	0.9	0	0.0	475	6.0	27	2.7
<b>Total</b>	<b>17637</b>	<b>100.0</b>	<b>6106</b>	<b>100.0</b>	<b>6195</b>	<b>100.0</b>	<b>7859</b>	<b>100.0</b>	<b>997</b>	<b>100.0</b>
<b>FEMALES</b>										
Illiterate	4984	36.4	5516	73.1	3756	52.6	1065	14.7	323	60.3
Literate	184	1.3	410	5.4	182	2.5	53	0.7	106	19.8
Primary	2622	19.2	254	3.4	1168	16.4	1923	26.5	46	8.6
Middle	13	0.1	539	7.1	762	10.7	1068	14.7	28	5.2
Secondary	890	6.5	477	6.3	876	12.3	1547	21.3	23	4.3
Technical	117	0.9	36	0.5	9	0.1	106	1.5	0	0.0
College	1138	8.3	159	2.1	329	4.6	882	12.2	3	0.6
Below 5 years	191	1.4	83	1.1	57	0.8	123	1.7	3	0.6
Oth. & Unk.	3540	25.9	69	0.9	0	0.0	480	6.6	4	0.7
<b>Total</b>	<b>13679</b>	<b>100.0</b>	<b>7543</b>	<b>100.0</b>	<b>7139</b>	<b>100.0</b>	<b>7247</b>	<b>100.0</b>	<b>536</b>	<b>100.0</b>

**Table 16.2: Number(#) and Relative Proportion(%) by Marital Status (All Sites of Cancer) (1999-2000)**

Marital Status	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Unmarried	2505	14.2	795	13.0	683	11.0	938	11.9	63	6.3
Married	14405	81.7	5195	85.1	5246	84.7	6616	84.2	840	84.3
Widowed	660	3.7	84	1.4	255	4.1	286	3.6	61	6.1
Divorced	16	0.1	3	0.0	2	0.0	18	0.2	1	0.1
Separated	12	0.1	2	0.0	9	0.1	1	0.0	1	0.1
Others & Unk.	39	0.2	27	0.4	0	0.0	0	0.0	31	3.1
<b>Total</b>	<b>17637</b>	<b>100.0</b>	<b>6106</b>	<b>100.0</b>	<b>6195</b>	<b>100.0</b>	<b>7859</b>	<b>100.0</b>	<b>997</b>	<b>100.0</b>
<b>FEMALES</b>										
Unmarried	1044	7.6	396	5.2	295	4.1	726	10.0	26	4.9
Married	10263	75.0	5786	76.7	5194	72.8	4868	67.2	452	84.3
Widowed	2133	15.6	1317	17.5	1559	21.8	1547	21.3	53	9.9
Divorced	28	0.2	7	0.1	5	0.1	106	1.5	0	0.0
Separated	14	0.1	34	0.5	86	1.2	0	0.0	0	0.0
Others & Unk.	197	1.4	3	0.0	0	0.0	0	0.0	5	0.9
<b>Total</b>	<b>13679</b>	<b>100.0</b>	<b>7543</b>	<b>100.0</b>	<b>7139</b>	<b>100.0</b>	<b>7247</b>	<b>100.0</b>	<b>536</b>	<b>100.0</b>

**Table 16.3: Number(#) and Relative Proportion(%) of Cancer patients by Religion (1999-2000)**

Religion	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Hindu	14709	83.4	5314	87.0	5441	87.8	4732	60.2	870	87.3
Muslim	2183	12.4	633	10.4	503	8.1	1398	17.8	104	10.4
Christian	440	2.5	144	2.4	237	3.8	1722	21.9	17	1.7
Sikh	73	0.4	1	0.0	0	0.0	0	0.0	2	0.2
Jain	99	0.6	7	0.1	12	0.2	0	0.0	0	0.0
Neo-Buddhist	1	0.0	1	0.0	2	0.0	0	0.0	1	0.1
Parsi	34	0.2	0	0.0	0	0.0	0	0.0	0	0.0
Others	10	0.1	2	0.0	0	0.0	0	0.0	3	0.3
Unknown	88	0.5	4	0.1	0	0.0	7	0.1	0	0.0
<b>Total</b>	<b>17637</b>	<b>100.0</b>	<b>6106</b>	<b>100.0</b>	<b>6195</b>	<b>100.0</b>	<b>7859</b>	<b>100.0</b>	<b>997</b>	<b>100.0</b>
<b>FEMALES</b>										
Hindu	11451	83.7	6707	88.9	6351	89.0	4479	61.8	465	86.8
Muslim	1399	10.2	656	8.7	443	6.2	1064	14.7	57	10.6
Christian	465	3.4	166	2.2	325	4.6	1695	23.4	8	1.5
Sikh	83	0.6	2	0.0	0	0.0	0	0.0	1	0.2
Jain	104	0.8	10	0.1	19	0.3	0	0.0	0	0.0
Neo-Buddhist	0	0.0	0	0.0	1	0.0	0	0.0	0	0.0
Parsi	56	0.4	0	0.0	0	0.0	0	0.0	0	0.0
Others	15	0.1	0	0.0	0	0.0	0	0.0	5	0.9
Unknown	106	0.8	2	0.0	0	0.0	9	0.1	0	0.0
<b>Total</b>	<b>13679</b>	<b>100.0</b>	<b>7543</b>	<b>100.0</b>	<b>7139</b>	<b>100.0</b>	<b>7247</b>	<b>100.0</b>	<b>536</b>	<b>100.0</b>

**Table 16.4: Number(#) and Relative Proportion(%) by Language Spoken (All Sites of Cancer) (1999-2000)**

Language Spoken	Mumbai		Bangalore		Chennai		Thi'puram		Dibrugarh	
	#	%	#	%	#	%	#	%	#	%
<b>MALES</b>										
Assamese	342	1.9	1	0.0	193	3.1	2	0.0	681	68.3
Bengali	1724	9.8	6	0.1	38	0.6	0	0.0	93	9.3
Gujarati	1041	5.9	3	0.0	13	0.2	1	0.0	0	0.0
Hindi	6290	35.7	48	0.8	96	1.5	0	0.0	70	7.0
Kannada	224	1.3	3417	56.0	18	0.3	3	0.0	0	0.0
Kashmiri	22	0.1	0	0.0	2	0.0	0	0.0	0	0.0
Malayalam	241	1.4	77	1.3	271	4.4	7222	91.9	0	0.0
Marathi	5072	28.8	74	1.2	9	0.1	0	0.0	0	0.0
Oriya	355	2.0	5	0.1	9	0.1	0	0.0	66	6.6
Punjabi	177	1.0	1	0.0	1	0.0	2	0.0	4	0.4
Sanskrit	4	0.0	1	0.0	0	0.0	0	0.0	1	0.1
Sindhi	180	1.0	3	0.0	2	0.0	0	0.0	0	0.0
Tamil	134	0.8	539	8.8	3553	57.4	577	7.3	0	0.0
Telugu	281	1.6	1192	19.5	1796	29.0	0	0.0	1	0.1
Urdu	840	4.8	607	9.9	159	2.6	0	0.0	28	2.8
English	99	0.6	5	0.1	9	0.1	0	0.0	0	0.0
Others	598	3.4	106	1.7	26	0.4	52	0.7	50	5.0
Unknown	13	0.1	21	0.3	0	0.0	0	0.0	3	0.3
<b>Total</b>	<b>17637</b>	<b>100.0</b>	<b>6106</b>	<b>100.0</b>	<b>6195</b>	<b>100.0</b>	<b>7859</b>	<b>100.0</b>	<b>997</b>	<b>100.0</b>
<b>FEMALES</b>										
Assamese	161	1.2	2	0.0	48	0.7	2	0.0	345	64.4
Bengali	1147	8.4	2	0.0	20	0.3	0	0.0	36	6.7
Gujarati	769	5.6	10	0.1	11	0.2	0	0.0	0	0.0
Hindi	4195	30.7	56	0.7	73	1.0	0	0.0	31	5.8
Kannada	163	1.2	3957	52.5	33	0.5	1	0.0	0	0.0
Kashmiri	18	0.1	0	0.0	0	0.0	0	0.0	0	0.0
Malayalam	189	1.4	72	1.0	234	3.3	6618	91.3	0	0.0
Marathi	4894	35.8	94	1.2	15	0.2	1	0.0	0	0.0
Oriya	189	1.4	1	0.0	7	0.1	0	0.0	62	11.6
Punjabi	169	1.2	4	0.1	1	0.0	0	0.0	1	0.2
Sanskrit	1	0.0	1	0.0	0	0.0	0	0.0	2	0.4
Sindhi	205	1.5	2	0.0	1	0.0	1	0.0	0	0.0
Tamil	198	1.4	803	10.6	4097	57.4	561	7.7	2	0.4
Telugu	224	1.6	1788	23.7	2394	33.5	0	0.0	0	0.0
Urdu	546	4.0	612	8.1	174	2.4	0	0.0	24	4.5
English	98	0.7	6	0.1	5	0.1	0	0.0	0	0.0
Others	508	3.7	109	1.4	26	0.4	63	0.9	32	6.0
Unknown	5	0.0	24	0.3	0	0.0	0	0.0	1	0.2
<b>Total</b>	<b>13679</b>	<b>100.0</b>	<b>7543</b>	<b>100.0</b>	<b>7139</b>	<b>100.0</b>	<b>7247</b>	<b>100.0</b>	<b>536</b>	<b>100.0</b>

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