

Goa and Maharashtra States

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STATES AND U.T. IN THE WESTERN REGION

STATES OF GOA & MAHARASHTRA

Figure 5(O) gives the Map of India highlighting Goa & Maharashtra States and Figure 5(P) gives the Map of both State highlighting the Districts where the MAAR was above 36.2 /100,000.

GOA STATE

Goa State comprises two districts - North and South and both districts had MAAR much higher than 36.2/100,00 and in fact comparable or higher than that of the urban PBCRs under the NCRP. The leading sites of cancer in both the districts were almost the same. In males, cancer of the lung followed by cancer oesophagus were the leading sites. Cancer of the stomach was the third leading site in South Goa. Among females cancer of the breast was almost twice the proportion of cervical cancers in both districts. Cancer thyroid was the third leading site in South Goa, whereas this was fifth most important site in North Goa. Cancer of the rectum was the fourth leading site in women in North Goa and the seventh leading site in South Goa. In both districts this is higher in rank than that seen in corresponding males. [Figs. 5.59(c) & 5.60(c)]. Goa Medical College accounted for around 80% of the cases in either district, the remainder being registered at PBCR and HBCR, Mumbai and Kasturba Medical College, Manipal. [Tables 5.59(b) & 5.60(b)].

MAHARASHTRA STATE

Wardha District

Among males, cancer of the mouth accounted for 18.8% of all cancers with a MAAR of 10.5/100,000 and was the leading site of cancer. This was, followed by, cancers of the lung, oesophagus and non-Hodgkin's Lymphoma. Cancer of the penis was the fifth leading site. This has been consistently observed during both the years 2001 and 2002. Among females, cancer of the breast was the leading site of cancer followed by cancer of the cervix, ovary, mouth, oesophagus and lung. Like penile cancer in males, cancer of the lung in females was consistently seen as a leading site in both the calendar years. [Fig. 5.61(c)]. Mahatma Gandhi Institute of Medical Sciences accounted for the majority of the cancers reported from this district. [Table 5.61(b)].

Thane District

Cancer of the mouth constituted 9.1% of all cancers in males and was the leading site, followed by cancer of the Brain NS, larynx, lung and tongue. Cancer of the breast was the leading site in females forming over a quarter of all cancers in women. This was followed by cancer of the cervix, ovary and mouth. [Fig. 5.62(c)]. The HBCR and PBCR, Mumbai were the main sources of registration of the cases from this district. [Table 5.62(b)].

Nagpur District

The first five leading sites in males were all sites of cancer associated with the use of tobacco. Larynx was the leading site followed closely by mouth, lung, tongue and oesophagus. In women, cancer of the breast was the leading site accounting for 26.6% of all cancers, followed by cancer of the cervix that formed 22.4% of all cancers in women. Cancer of the mouth was also common in women - being the fourth leading site of cancer in that sex. [Fig. 5.63(c)]. The Government Medical College, Nagpur accounted for the majority of the cases registered in this district. [Table 5.63(b)].

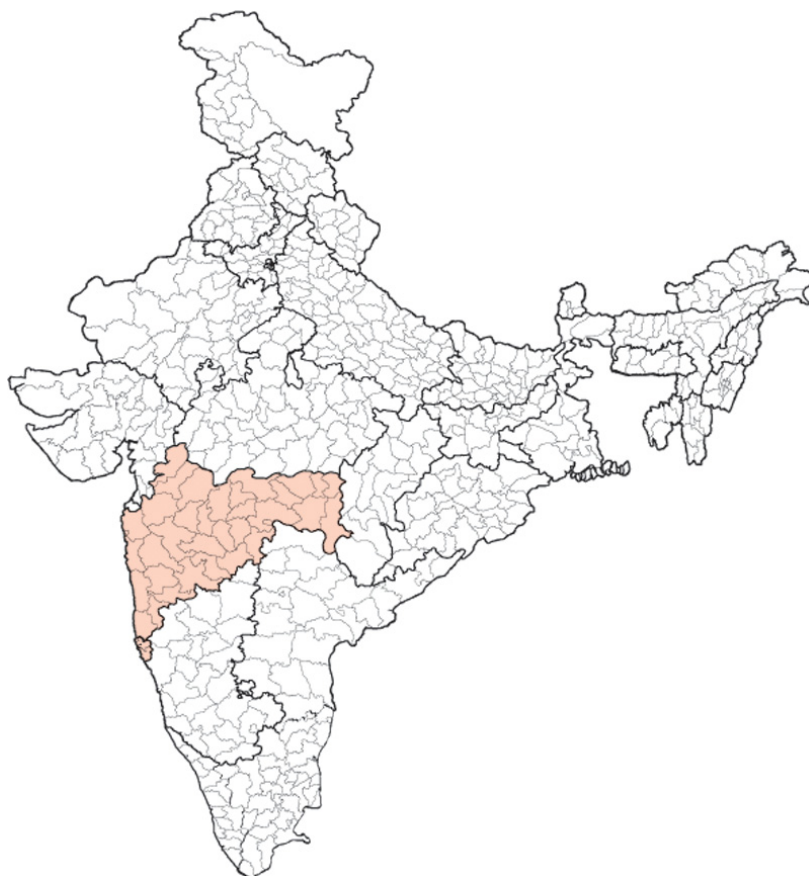


FIGURE 5(O) : Map of India highlighting Goa & Maharashtra States

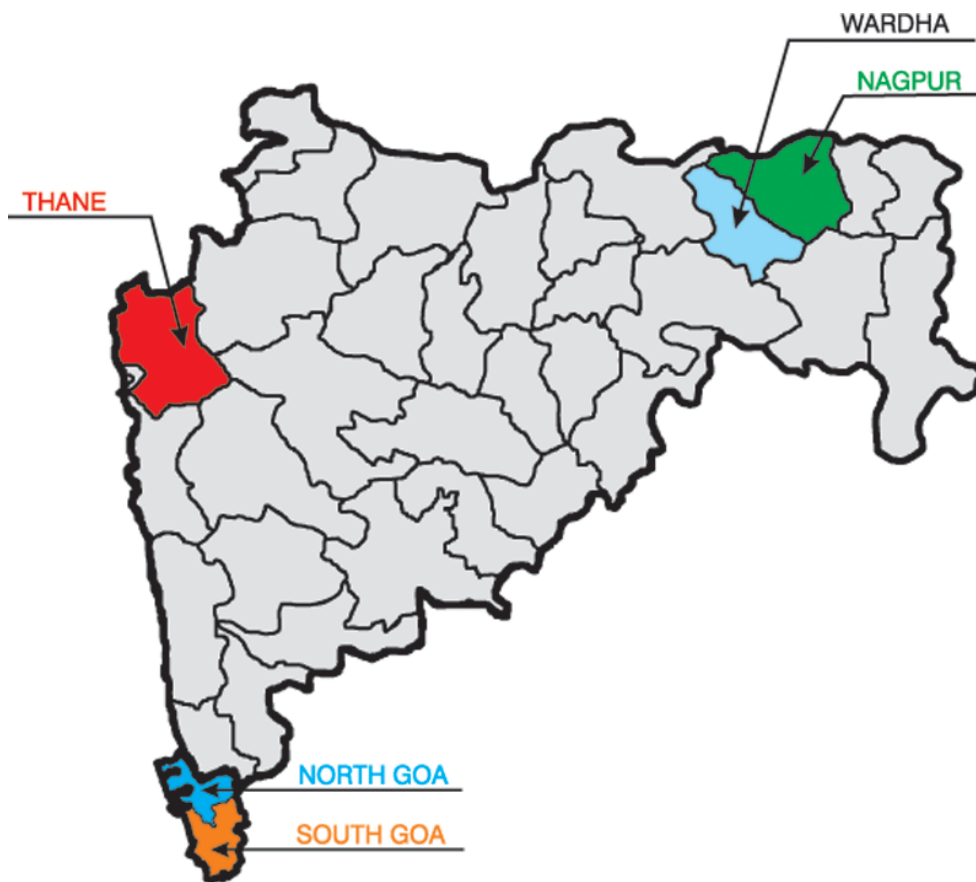


FIGURE 5(P) : Map of Goa & Maharashtra States highlighting the districts with MAAR above 36.2 per 100,000

5.59. NORTH GOA DISTRICT, Goa State

(Code 3001)

**TABLE 5.59(a) : Profile of North Goa District
(2001 Census)**

Area (in sq. kms.)	1,736.0
Decadal Growth Rate (1991-2001)	13.93%
Literacy Rate	
Males	90.63%
Females	77.29%
Sex Ratio (females per 1000 males)	951
Density (persons per sq. km)	436

Source: NCRP, Bangalore



FIGURE 5.59(a) : Map of India highlighting Goa State

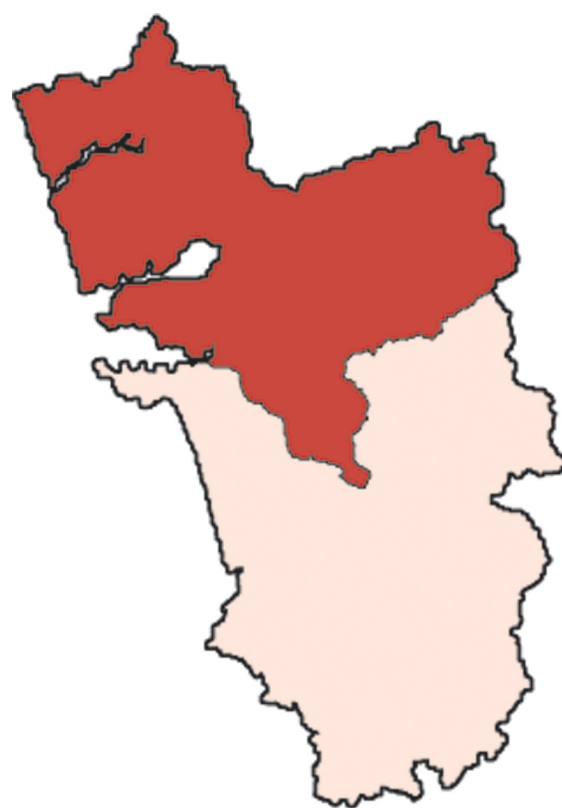


FIGURE 5.59(b) : Map of Goa State highlighting North Goa District

TABLE 5.59(b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Goa Medical College, Goa (100)	461	83.2	614	88.5	1075	86.1
HBCR - Mumbai (1008)	51	9.2	56	8.1	107	8.6
PBCR - Mumbai (1002)	19	3.4	11	1.6	30	2.4
Kasturba Medical College, Manipal (77)	14	2.5	6	0.9	20	1.6
All Other Centres	9	1.6	7	1.0	16	1.3
Total Cancers	554	100.0	694	100.0	1248	100.0

Source: NCRP, Bangalore

TABLE 5.59(c) : Salient features of Cancer Incidence

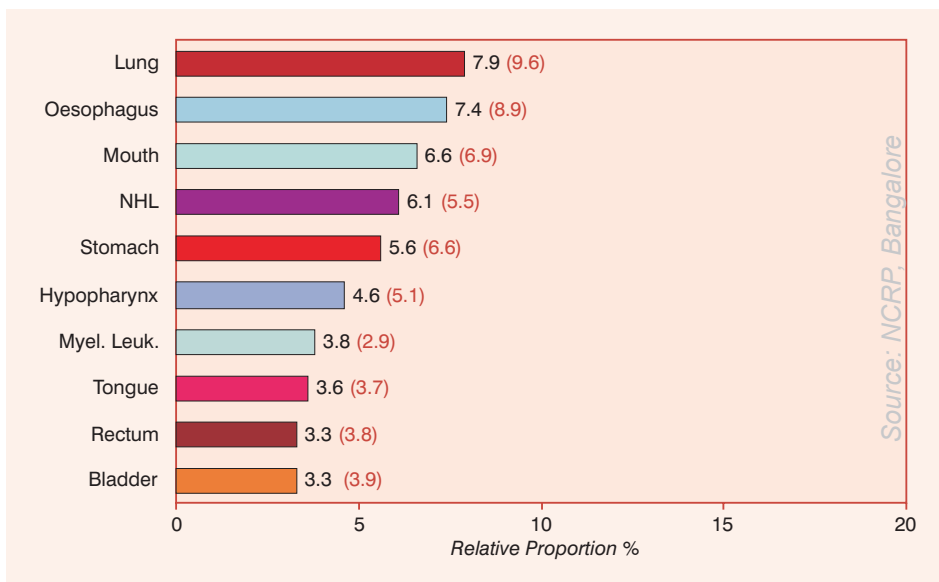
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	3,88,567	3,69,455	3,93,492	3,73,946	7,82,059	7,43,401
Total Cancers (All sites)	271	283	336	358	607	641
Min. Crude IR	69.7	76.6	85.4	95.7	77.6	86.2
Min. Age Adjusted IR	95.1	87.9	119.0	112.2	107.1	100.1
Min. Truncated IR	180.6	199.9	237.9	242.1	209.5	220.8

Source: NCRP, Bangalore

Min. = Minimum IR = Incidence Rate / 100,000

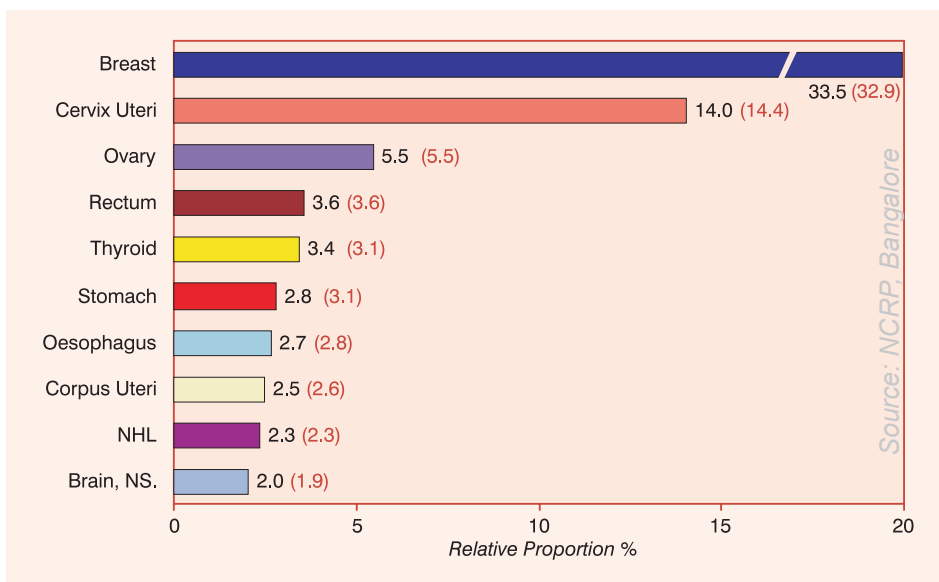
FIGURE 5.59(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.60. SOUTH GOA DISTRICT, Goa State

(Code 3002)

TABLE 5.60(a) : Profile of South Goa District (2001 Census)	
Area (in sq. kms.)	1,966.0
Decadal Growth Rate (1991-2001)	16.16%
Literacy Rate	
Males	86.58%
Females	73.22%
Sex Ratio (females per 1000 males)	972
Density (persons per sq. km)	298

Source: NCRP, Bangalore



FIGURE 5.60(a) : Map of India highlighting Goa State

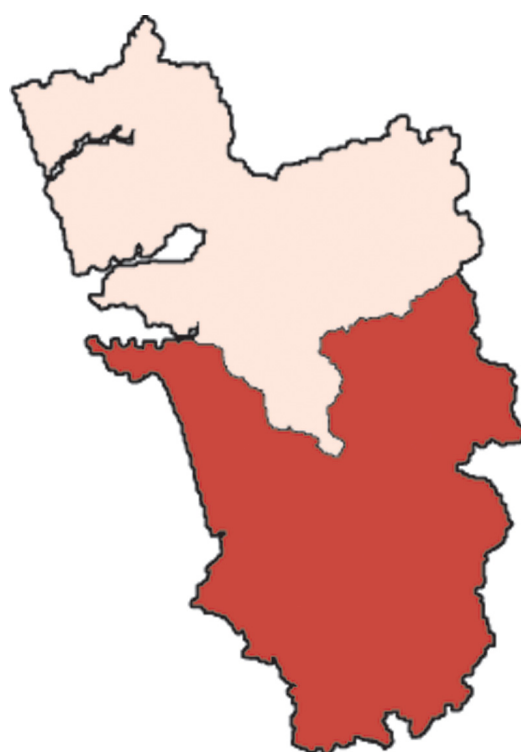


FIGURE 5.60(b) : Map of Goa State highlighting South Goa

TABLE 5.60(b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
Goa Medical College, Goa (100)	379	84.8	311	79.9	690	82.5
HBCR - Mumbai (1008)	37	8.3	55	14.1	92	11.0
Kasturba Medical College, Manipal (77)	24	5.4	12	3.1	36	4.3
PBCR - Mumbai (1002)	4	0.9	4	1.0	8	1.0
The Karnatak Cancer Therapy, Hubli (15)	2	0.4	6	1.5	8	1.0
All Other Centres	1	0.2	1	0.4	2	0.2
Total Cancers	447	100.0	389	100.0	836	100.0

Source: NCRP, Bangalore

TABLE 5.60(c) : Salient features of Cancer Incidence

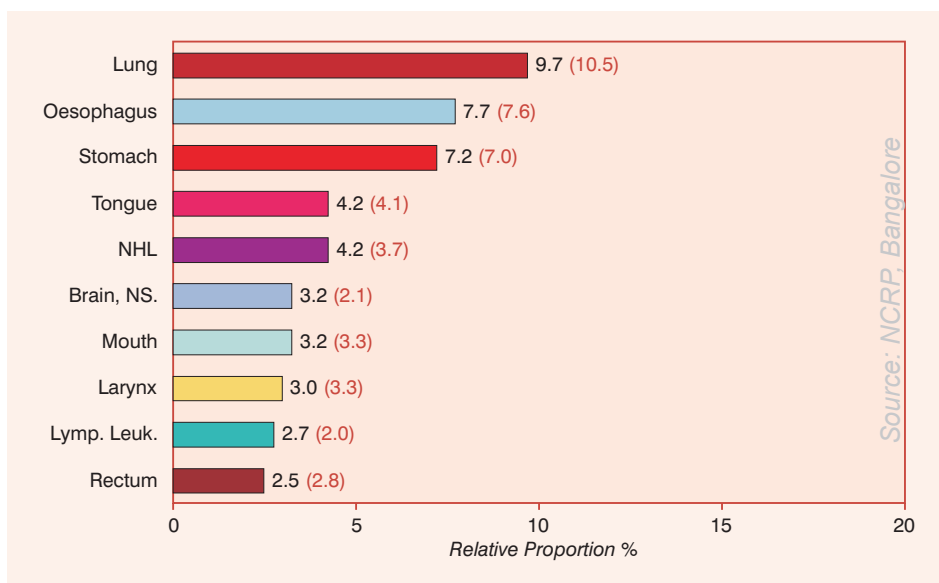
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	2,98,101	2,89,743	3,02,215	2,93,752	6,00,316	5,83,495
Total Cancers (All sites)	220	227	183	206	403	433
Min. Crude IR	73.8	78.4	60.6	70.1	67.1	74.2
Min. Age Adjusted IR	103.3	90.3	85.6	85.9	94.4	88.1
Min. Truncated IR	202.2	195.3	146.5	186.4	174.2	190.9

Source: NCRP, Bangalore

Min. = Minimum IR = Incidence Rate / 100,000

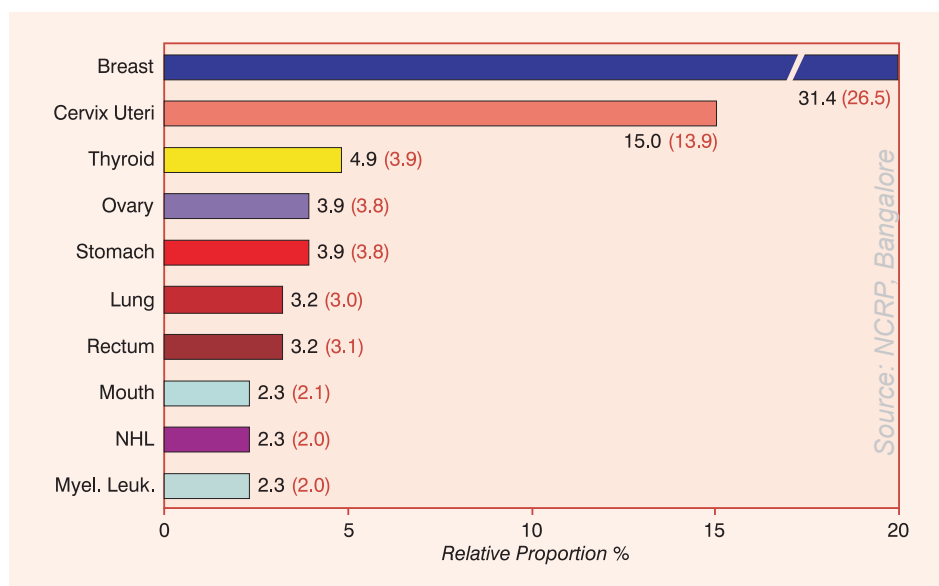
FIGURE 5.60(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.61. WARDHA DISTRICT, Maharashtra State

(Code 2708)

TABLE 5.61 (a) : Profile of Wardha District (2001 Census)

Area (in sq. kms.)	6,309.0
Decadal Growth Rate (1991-2001)	15.30%
Literacy Rate	
Males	87.70%
Females	72.80%
Sex Ratio (females per 1000 males)	936
Density (persons per sq. km)	195

Source: NCRP, Bangalore

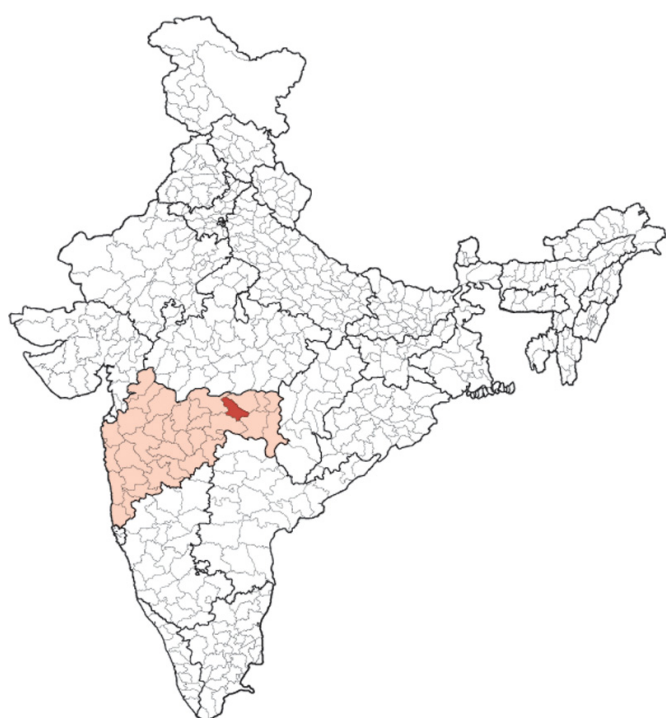


FIGURE 5.61(a) : Map of India highlighting Maharashtra State



FIGURE 5.61(b) : Map of Maharashtra State highlighting Wardha District

TABLE 5.61 (b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
MGIMS, Wardha (18)	263	41.7	516	90.7	779	65.0
JN Medical College, Wardha (51)	191	30.4	0	0.0	191	15.9
Nagpur, PBCR, ICS (203)	100	15.9	0	0.0	100	8.3
Government Medical College, Nagpur (50)	47	7.5	36	6.3	83	6.9
HBCR - Mumbai (1008)	18	2.9	10	1.8	28	2.3
All Other Centres	10	1.6	7	1.2	17	1.5
Total Cancers	629	100.0	569	100.0	1198	100.0

Source: NCRP, Bangalore

TABLE 5.61(c) : Salient features of Cancer Incidence

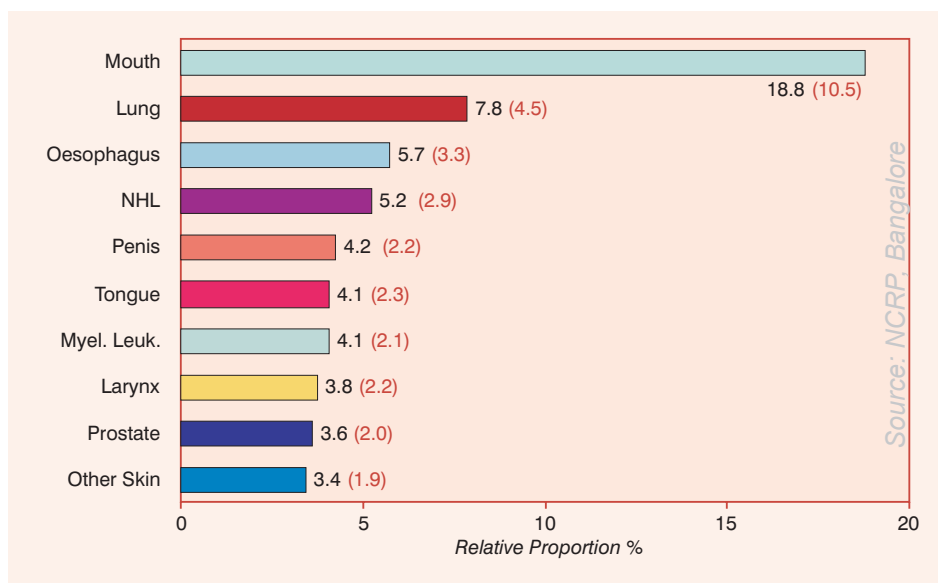
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	6,36,462	5,95,302	6,44,963	6,03,056	12,81,425	11,98,358
Total Cancers (All sites)	340	289	272	297	612	586
Min. Crude IR	53.4	48.6	42.2	49.3	47.8	48.9
Min. Age Adjusted IR	62.4	57.5	48.2	58.6	55.3	58.1
Min. Truncated IR	116.0	116.8	84.2	119.1	100.2	118.2

Source: NCRP, Bangalore

Min. = Minimum IR = Incidence Rate / 100,000

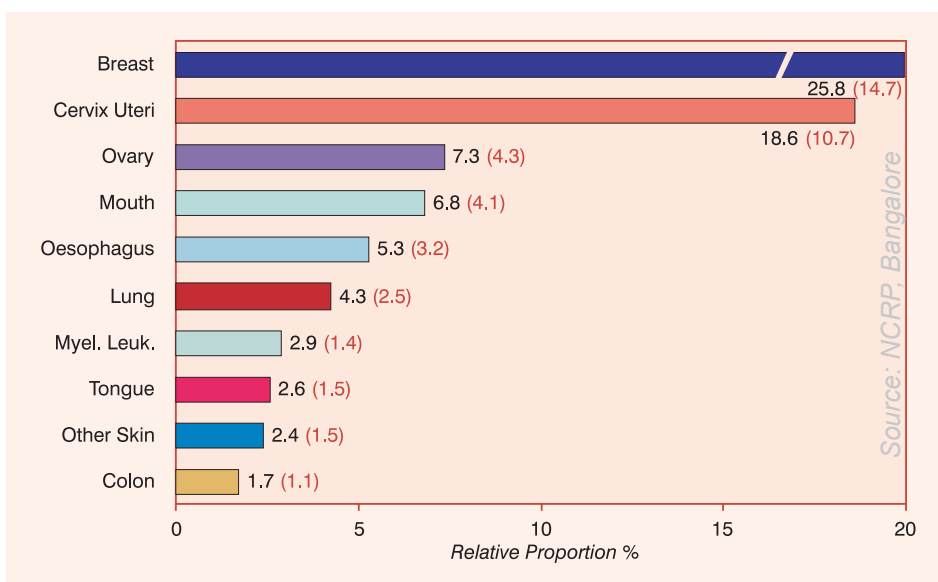
FIGURE 5.61(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.62. THANE DISTRICT, Maharashtra State

(Code 2721)

TABLE 5.62(a) : Profile of Thane District (2001 Census)

Area (in sq. kms.)	9,558.0
Decadal Growth Rate (1991-2001)	54.86%
Literacy Rate	
Males	86.06%
Females	75.00%
Sex Ratio (females per 1000 males)	857
Density (persons per sq. km)	850

Source: NCRP, Bangalore

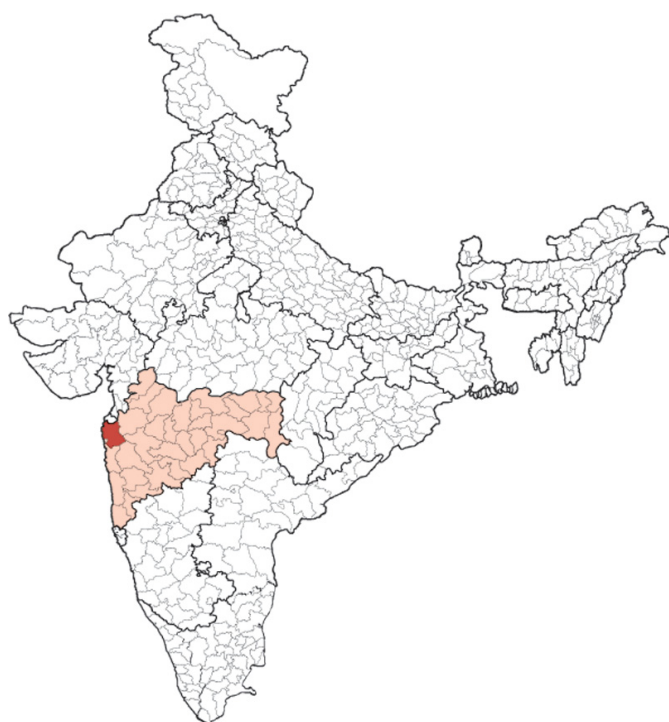


FIGURE 5.62(a) : Map of India highlighting Maharashtra State



FIGURE 5.62(b) : Map of Maharashtra State highlighting Thane District

TABLE 5.62(b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
HBCR - Mumbai (1008)	1356	54.2	1341	59.3	2697	56.6
PBCR - Mumbai (1002)	1107	44.2	859	38.0	1966	41.3
Topiwala National MC, Mumbai (31)	26	1.0	57	2.5	83	1.7
All Other Centres	16	0.6	3	0.1	19	0.4
Total Cancers	2505	100.0	2260	100.0	4765	100.0

Source: NCRP, Bangalore

TABLE 5.62(c) : Salient features of Cancer Incidence

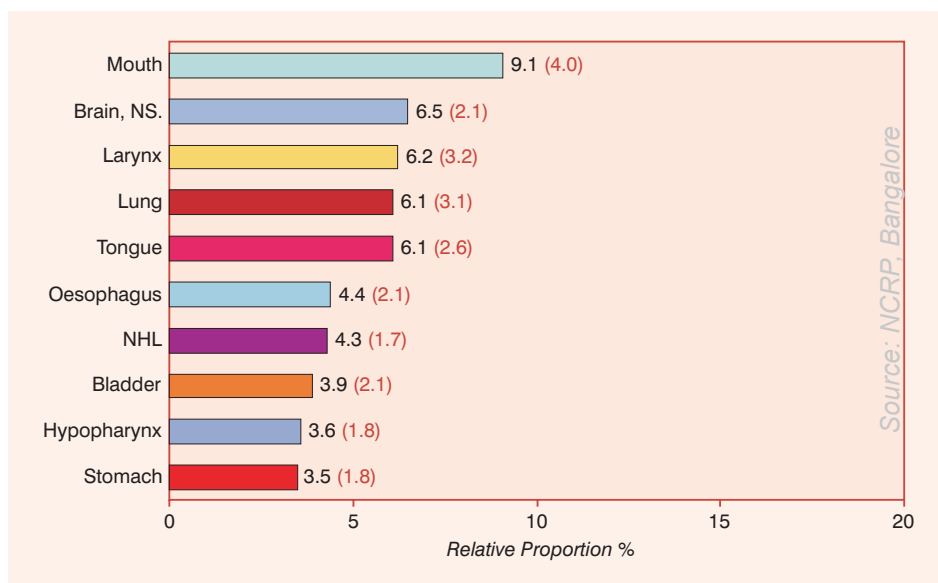
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	44,03,548	37,71,470	45,61,075	39,00,175	89,64,623	76,71,645
Total Cancers (All sites)	1,216	1,289	1,094	1,166	2,310	2,455
Min. Crude IR	27.6	34.2	24.0	29.9	25.8	32.0
Min. Age Adjusted IR	46.1	51.9	41.5	46.3	43.8	49.1
Min. Truncated IR	84.8	121.3	70.9	107.7	77.3	113.9

Source: NCRP, Bangalore

Min. = Minimum IR = Incidence Rate / 100,000

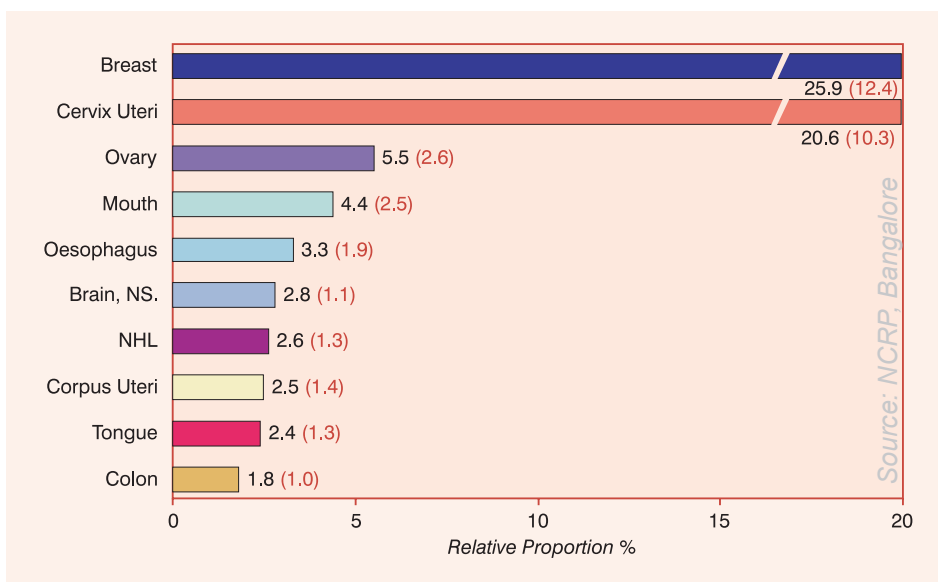
FIGURE 5.62(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.63. NAGPUR DISTRICT, Maharashtra State

(Code 2709)

TABLE 5.63(a) : Profile of Nagpur District (2001 Census)

Area (in sq. kms.)	9,802.0
Decadal Growth Rate (1991-2001)	23.25%
Literacy Rate	
Males	90.25%
Females	77.65%
Sex Ratio (females per 1000 males)	933
Density (persons per sq. km)	413

Source: NCRP, Bangalore

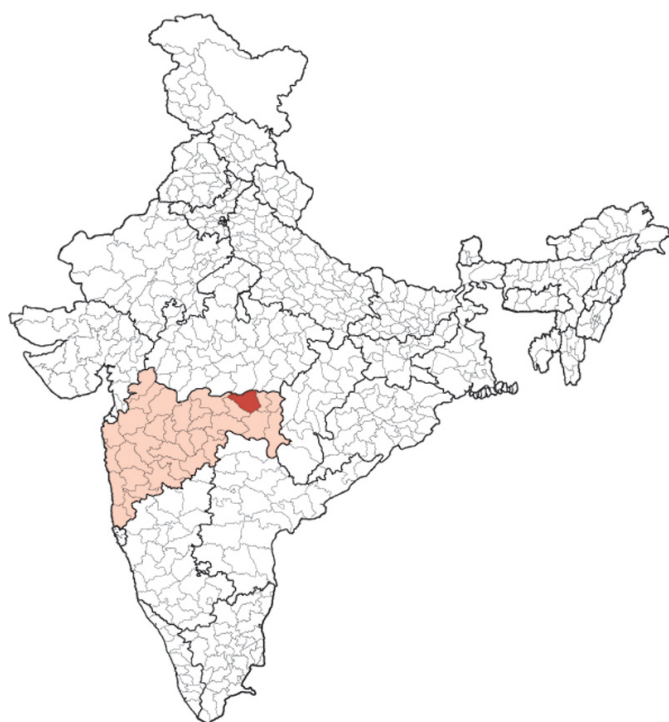


FIGURE 5.63(a) : Map of India highlighting Maharashtra State

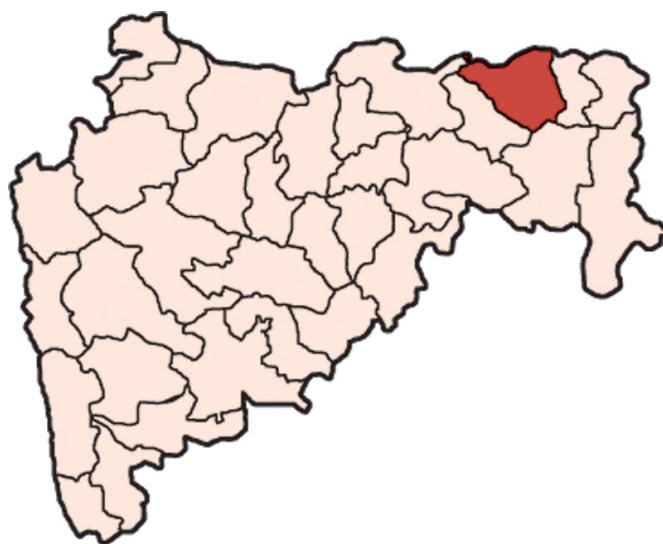


FIGURE 5.63(b) : Map of Maharashtra State highlighting Nagpur District

TABLE 5.63(b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Government Medical College, Nagpur (50)	688	52.7	639	72.4	1327	60.6
Nagpur, PBCR, ICS (203)	361	27.7	0	0.0	361	16.5
Dr. Ravi's Pathology Lab., Nagpur (110)	74	5.7	95	10.8	169	7.7
HBCR - Mumbai (1008)	66	5.1	90	10.2	156	7.2
Indira Gandhi Medical College, Nagpur (10)	58	4.4	0	0.0	58	2.6
City Pathology Lab, Nagpur (126)	11	0.8	36	4.1	47	2.1
PBCR - Mumbai (1002)	30	2.3	5	0.6	35	1.6
All Other Centres	17	1.3	18	2.0	35	1.6
Total Cancers	1305	100.0	883	100.0	2188	100.0

Source: NCRP, Bangalore

TABLE 5.63(c) : Salient features of Cancer Incidence

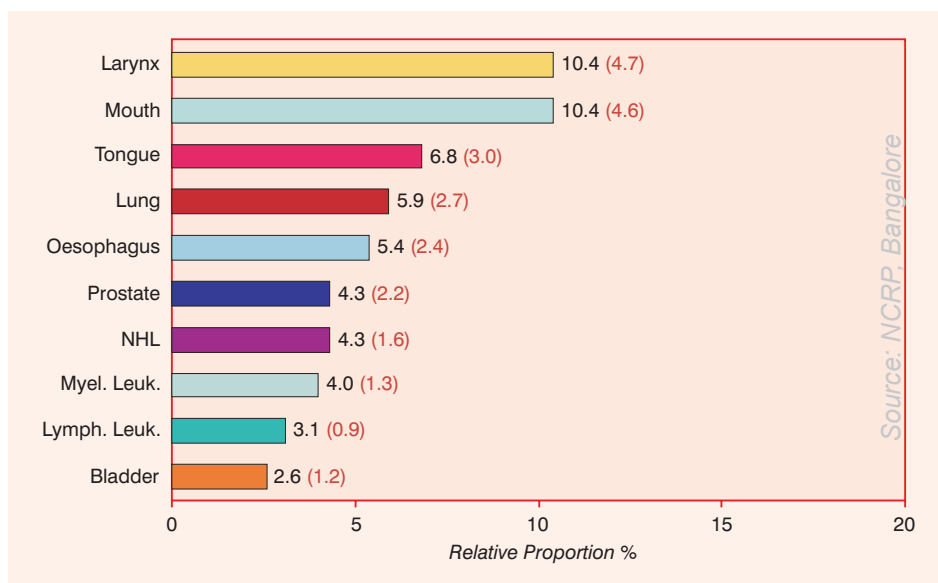
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	21,00,896	19,62,546	21,39,270	20,00,350	42,40,166	39,62,896
Total Cancers (All sites)	681	624	449	434	1,130	1,058
Min. Crude IR	32.4	31.8	21.0	21.7	26.7	26.7
Min. Age Adjusted IR	42.7	41.3	28.5	28.6	35.5	34.9
Min. Truncated IR	75.6	95.6	52.9	62.4	64.5	79.3

Source: NCRP, Bangalore

Min. = Minimum IR = Incidence Rate / 100,000

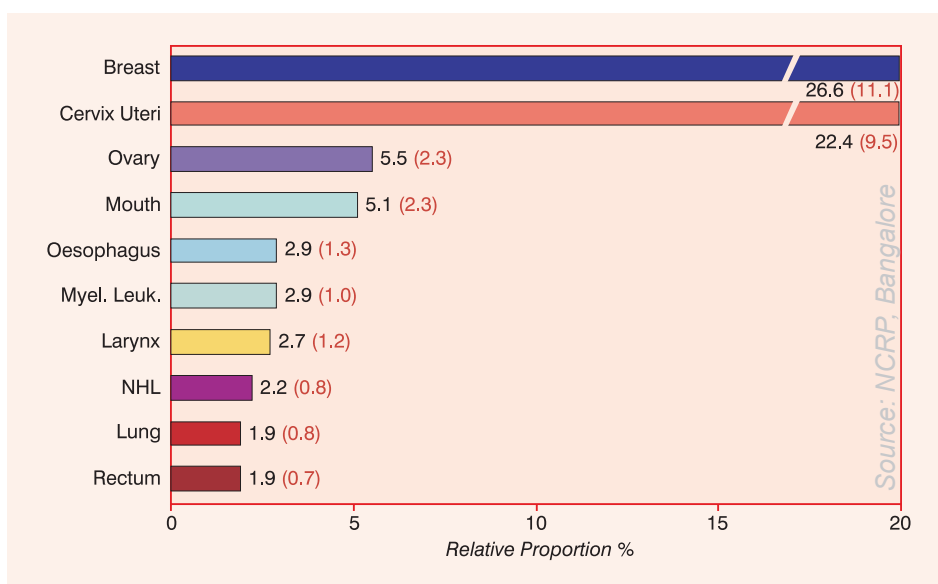
FIGURE 5.63(c) : Ten Leading Sites of Cancer (2001)
(Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore