

Gujarat, Madhya Pradesh and Lakshadweep

Overview	150
Ahmedabad District, Gujarat State	152
Mahesana District, Gujarat State	154
Gandhinagar District, Gujarat State	156
Kheda District, Gujarat State	158
Bhavnagar District, Gujarat State	160
Sabarkantha District, Gujarat State	162
Indore District, Madhya Pradesh State	164
Lakshadweep	166

GUJARAT STATE

Figure 5(Q) gives the Map of India highlighting Gujarat State and Figure 5(R) gives the Map of Gujarat State highlighting the Districts where the MAAR was above 36.2 /100,000.

There were 6 districts in Gujarat that had a MAAR higher than 36.2/100,000. These 6 districts in the descending order of their MAAR were: Ahmedabad, Mahesana, Gandhinagar, Kheda, Bhavnagar and Sabarkantha.

Leading Sites of Cancer in Males: Cancer of the tongue was the leading site in five of the six districts. The district of Bhavnagar had tongue as the second leading site of cancer, only preceded by cancer of the mouth. Cancer of the lung was the second or third leading site except Kheda district where it was the fifth leading site of cancer. Cancers of the hypopharynx, oesophagus and larynx were the other sites of cancer (all tobacco related cancers) that were important leading sites.

Leading Sites of Cancer in Females: Among females, cancer of the breast was the leading site followed by cancer cervix in Ahmedabad and Bhavnagar. In the remaining four districts cancer of the cervix was followed by cancer of the breast as the leading site. Cancers of the mouth, oesophagus, hypopharynx and even lung were important leading sites of cancer in women.

The Gujarat Cancer and Research Institute, Ahmedabad accounted for the majority of the cases falling in the districts of Gujarat. The HBCR and PBCR, Mumbai were the other centres the registered cases from the districts.

MADHYA PRADESH STATE

Indore District

Among males, cancer of the mouth was the leading site followed by cancer of the lung, tongue, larynx and oesophagus. Among females, cancer of the breast was the leading site forming 23.5% of all cancers in that sex, followed by cancer of the cervix. Cancer of the mouth, oesophagus, tongue and lung also fell within the first ten leading sites of cancer in women. [Fig. 5.70(c)]. MGM Medical College, Indore was the main centre responsible for the cases registered in this district. [Table 5.70(b)].

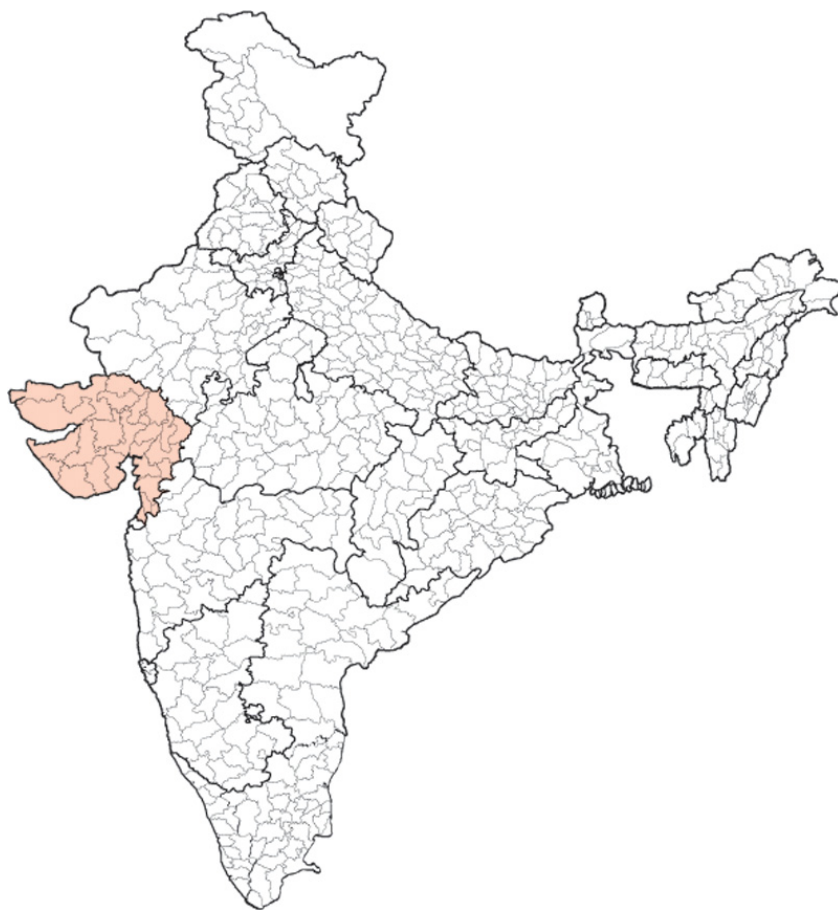


FIGURE 5(Q) : Map of India highlighting Gujarat State

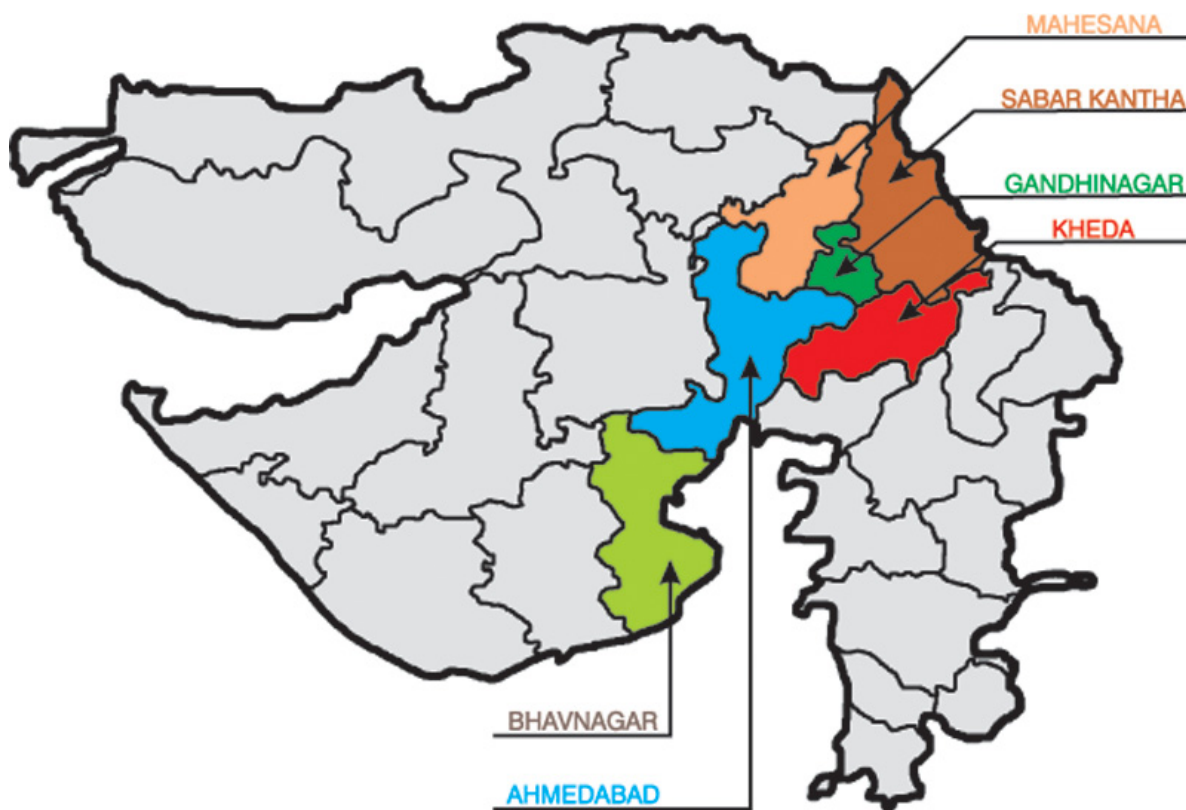


FIGURE 5(R) : Map of Gujarat State highlighting the districts with MAAR above 36.2 per 100,000

5.64. AHMEDABAD DISTRICT, Gujarat State

(Code 2407)

**TABLE 5.64(a) : Profile of Ahmedabad District
(2001 Census)**

Area (in sq. kms.)	8,086.8
Decadal Growth Rate (1991-2001)	26.61%
Literacy Rate	
Males	87.81%
Females	71.12%
Sex Ratio (females per 1000 males)	892
Density (persons per sq. km)	718

Source: NCRP, Bangalore



FIGURE 5.64(a) : Map of India highlighting Gujarat State

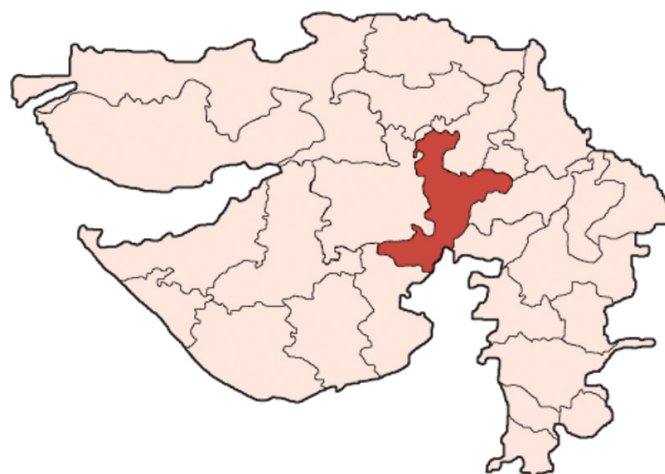


FIGURE 5.64(b) : Map of Gujarat State highlighting Ahmedabad District

TABLE 5.64(b) : Centrewise Distribution of Cancers

Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
The GCRI (63)	1774	96.5	2121	97.6	3895	97.1
HBCR - Mumbai (1008)	31	1.7	29	1.3	60	1.5
PBCR - Mumbai (1002)	28	1.5	21	1.0	49	1.2
All Other Centres	6	0.3	2	0.1	8	0.2
Total Cancers	1839	100.0	2173	100.0	4012	100.0

Source: NCRP, Bangalore

TABLE 5.64(c) : Salient features of Cancer Incidence

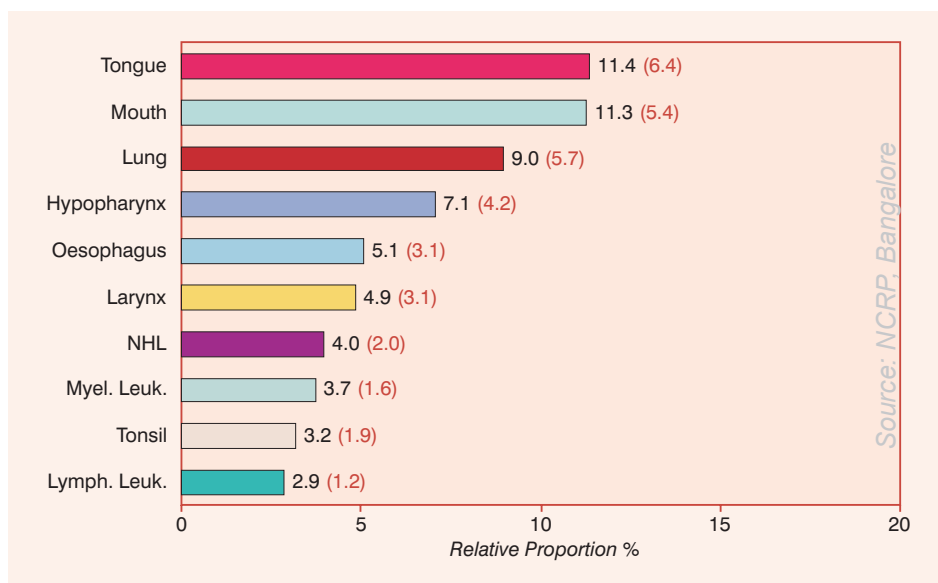
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	30,76,180	27,44,633	31,30,094	27,91,015	62,06,274	55,35,648
Total Cancers (All sites)	1,029	810	1,249	924	2,278	1,734
Min. Crude IR	33.5	29.5	39.9	33.1	36.7	31.3
Min. Age Adjusted IR	50.3	41.6	58.9	46.6	54.6	44.1
Min. Truncated IR	92.8	85.1	111.7	99.9	102.4	92.2

Source: NCRP, Bangalore

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

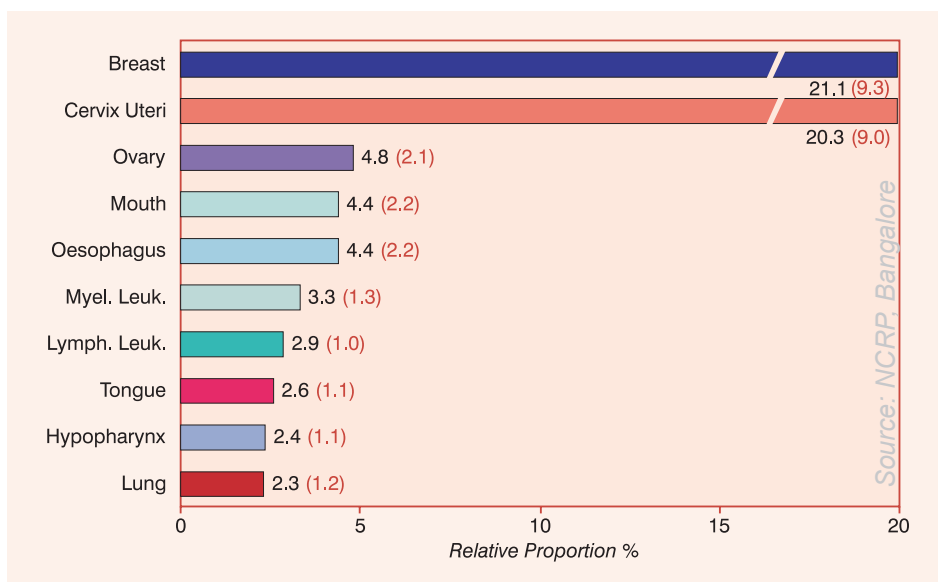
FIGURE 5.64(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.65. MAHESANA DISTRICT, Gujarat State

(Code 2404)

**TABLE 5.65(a) : Profile of Mahesana District
(2001 Census)**

Area (in sq. kms.)	4,382.8
Decadal Growth Rate (1991-2001)	12.04%
Literacy Rate	
Males	86.52%
Females	63.96%
Sex Ratio (females per 1000 males)	926
Density (persons per sq. km)	419

Source: NCRP, Bangalore



FIGURE 5.65(a) : Map of India highlighting Gujarat State

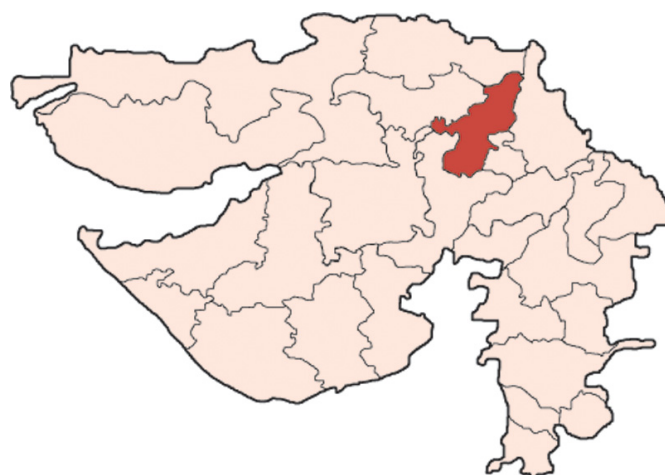


FIGURE 5.65(b) : Map of Gujarat State highlighting Mahesana District

TABLE 5.65(b) : Centrewise Distribution of Cancers

Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
The GCRI, Ahmedabad (63)	434	97.7	505	98.4	939	98.1
HBCR - Mumbai (1008)	4	0.9	6	1.2	10	1.0
All Other Centres	6	1.4	2	0.4	8	0.8
Total Cancers	444	100.0	513	100.0	957	100.0

Source: NCRP, Bangalore

TABLE 5.65(c) : Salient features of Cancer Incidence

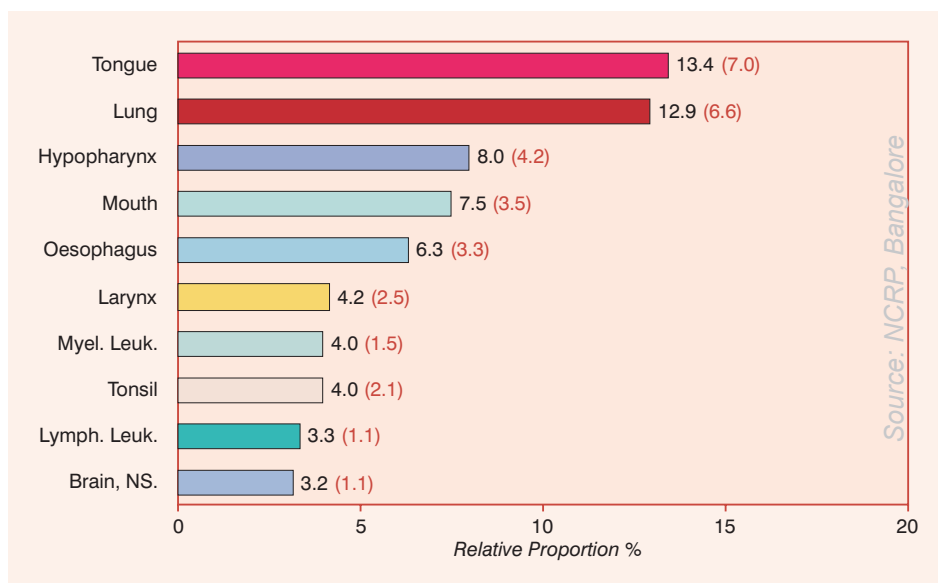
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	9,45,519	8,78,336	9,48,784	8,84,494	18,94,303	17,62,830
Total Cancers (All sites)	294	150	309	204	603	354
Min. Crude IR	31.1	17.1	32.6	23.1	31.8	20.1
Min. Age Adjusted IR	46.4	21.8	49.7	30.1	48.1	26.0
Min. Truncated IR	100.9	50.3	95.0	67.0	97.5	58.5

Source: NCRP, Bangalore

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

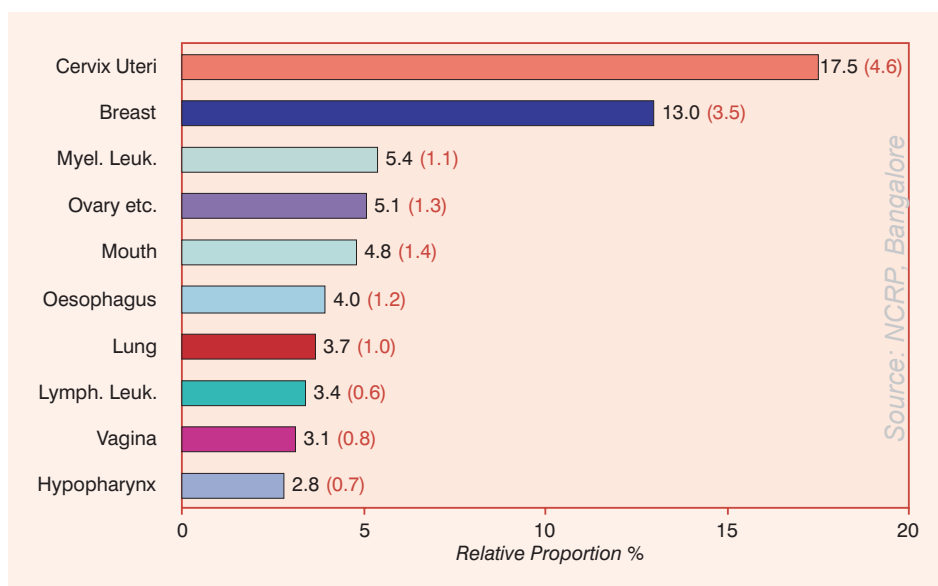
FIGURE 5.65(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.66. GANDHINAGAR DISTRICT, Gujarat State

(Code 2406)

**TABLE 5.66(a) : Profile of Gandhinagar District
(2001 Census)**

Area (in sq. kms.)	2,163.4
Decadal Growth Rate (1991-2001)	23.88%
Literacy Rate	
Males	87.92%
Females	64.85%
Sex Ratio (females per 1000 males)	911
Density (persons per sq. km)	617

Source: NCRP, Bangalore



FIGURE 5.66(a) : Map of India highlighting Gujarat State



FIGURE 5.66(b) : Map of Gujarat State highlighting Gandhinagar District

TABLE 5.66(b) : Centrewise Distribution of Cancers

Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
The GCRI, Ahmedabad (63)	309	96.6	374	99.5	683	98.1
PBCR - Mumbai (1002)	6	1.9	2	0.5	8	1.1
HBCR - Mumbai (1008)	5	1.6	0	0.0	5	0.7
Total Cancers	320	100.0	376	100.0	696	100.0

Source: NCRP, Bangalore

TABLE 5.66(c) : Salient features of Cancer Incidence

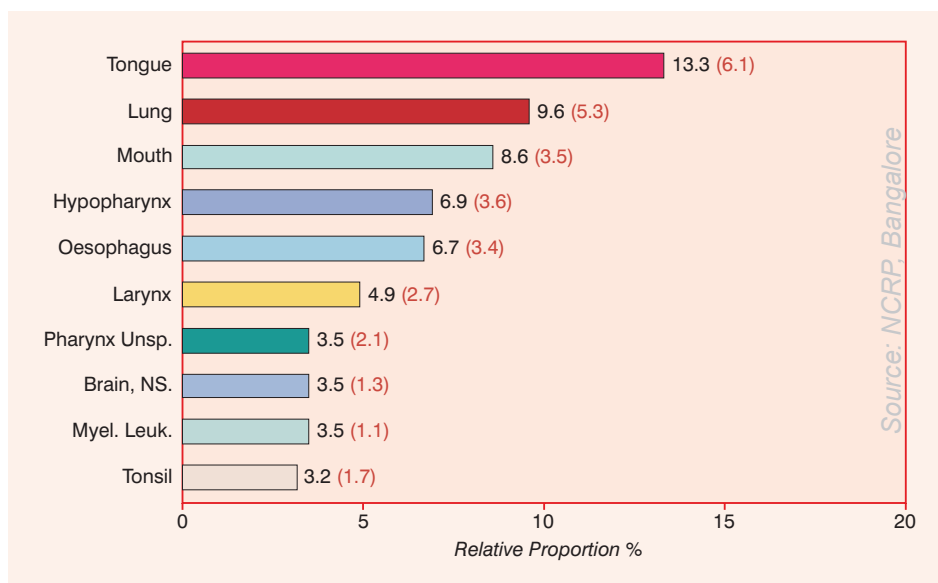
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	7,08,658	6,46,062	7,56,755	6,89,805	14,65,413	13,35,867
Total Cancers (All sites)	185	135	221	155	406	290
Min. Crude IR	26.1	20.9	29.2	22.5	27.7	21.7
Min. Age Adjusted IR	43.6	30.5	49.4	34.3	46.6	32.5
Min. Truncated IR	75.0	68.3	94.0	73.3	85.0	70.7

Source: NCRP, Bangalore

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

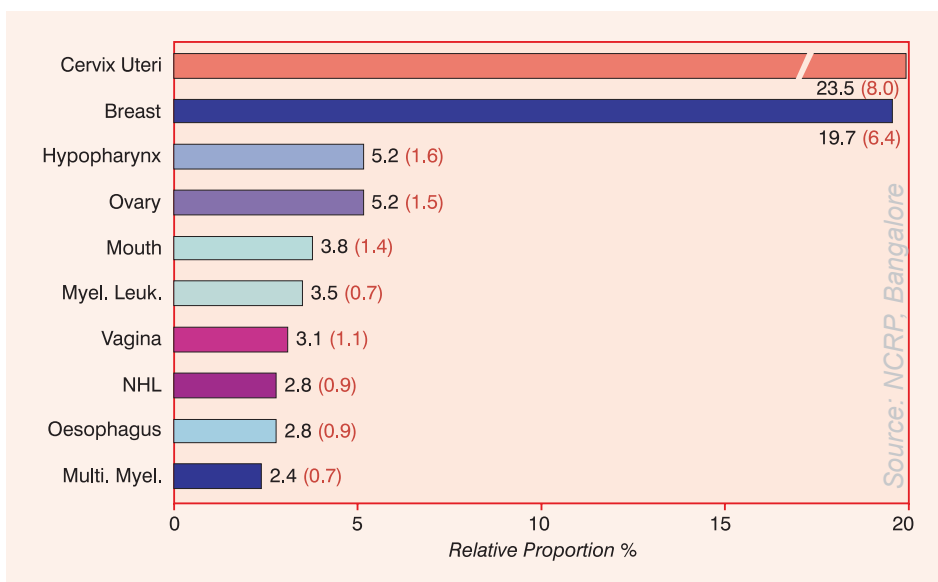
FIGURE 5.66(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.67. KHEDA DISTRICT, Gujarat State

(Code 2416)

TABLE 5.67(a) : Profile of Kheda District (2001 Census)

Area (in sq. kms.)	Source: NCRP, Bangalore	4,218.8
Decadal Growth Rate (1991-2001)		13.24%
Literacy Rate		
Males		86.58%
Females		57.77%
Sex Ratio (females per 1000 males)		922
Density (persons per sq. km)		480



FIGURE 5.67(a) : Map of India highlighting Gujarat State



FIGURE 5.67(b) : Map of Gujarat State highlighting Kheda District

TABLE 5.67(b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
The GCRI, Ahmedabad (63)	433	90.0	481	91.6	914	90.9
Pramukhswami MC, Karamsad (26)	42	8.7	33	6.3	75	7.5
HBCR - Mumbai (1008)	5	1.0	5	1.0	10	1.0
PBCR - Mumbai (1002)	1	0.2	3	0.6	4	0.4
Government Medical College, Nanded (37)	0	0.0	3	0.6	3	0.3
Total Cancers	481	100.0	525	100.0	1006	100.0

TABLE 5.67(c) : Salient features of Cancer Incidence

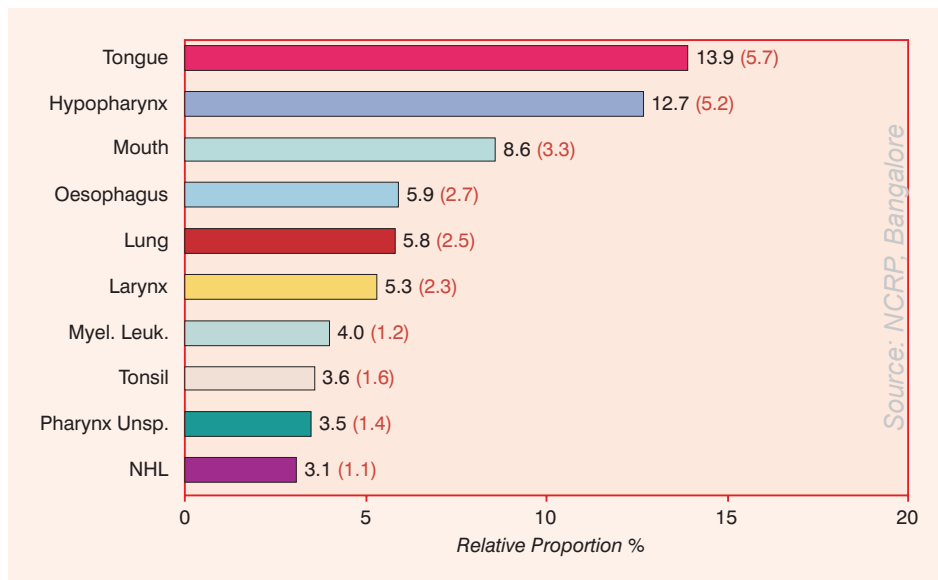
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	10,51,638	9,69,797	10,63,607	9,80,632	21,15,245	19,50,429
Total Cancers (All sites)	265	216	341	184	606	400
Min. Crude IR	25.2	22.3	32.1	18.8	28.7	20.5
Min. Age Adjusted IR	34.6	28.6	44.5	24.7	39.6	26.6
Min. Truncated IR	69.2	67.3	90.0	63.5	79.6	65.4

Source: NCRP, Bangalore

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

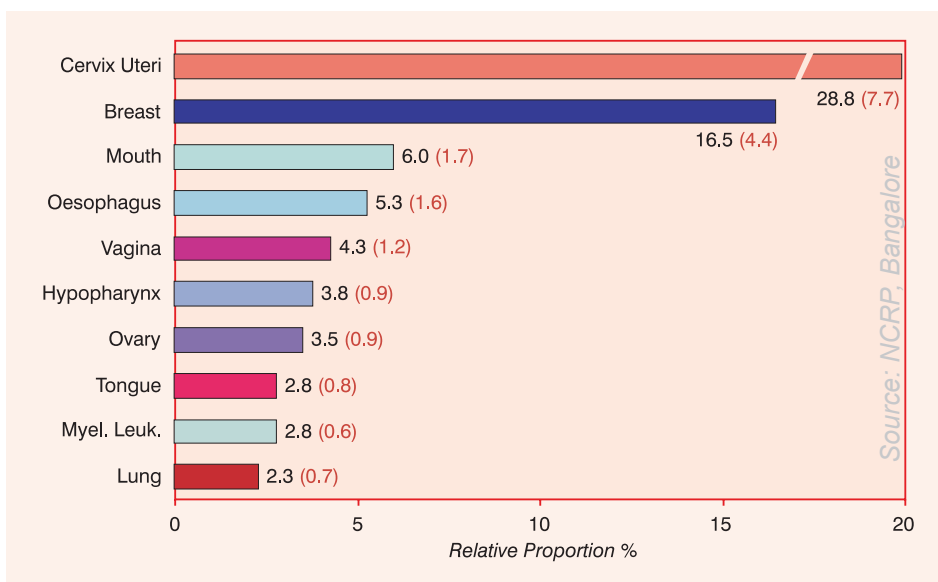
FIGURE 5.67(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.68. BHAVNAGAR DISTRICT, Gujarat State

(Code 2414)

**TABLE 5.68(a) : Profile of Bhavnagar District
(2001 Census)**

Area (in sq. kms.)	9,980.9
Decadal Growth Rate (1991-2001)	19.29%
Literacy Rate	
Males	78.83%
Females	54.46%
Sex Ratio (females per 1000 males)	936
Density (persons per sq. km)	247

Source: NCRP, Bangalore

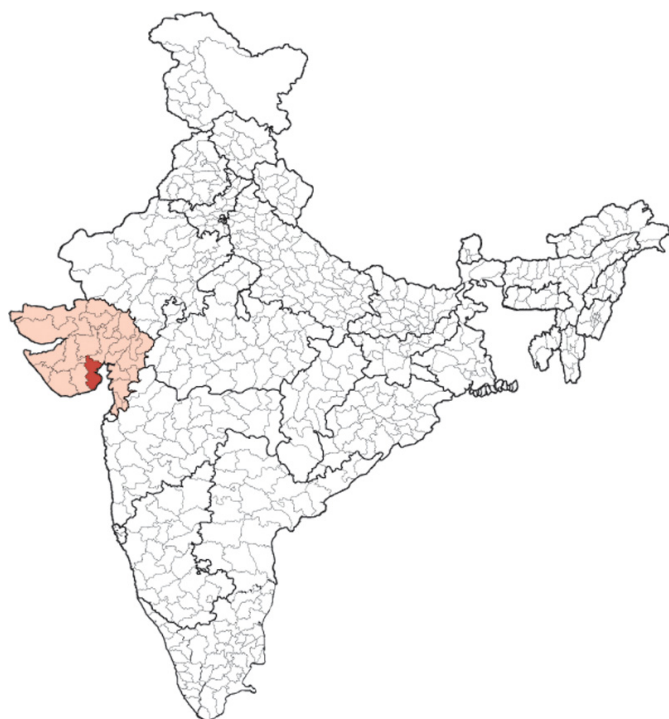


FIGURE 5.68(a) : Map of India highlighting Gujarat State

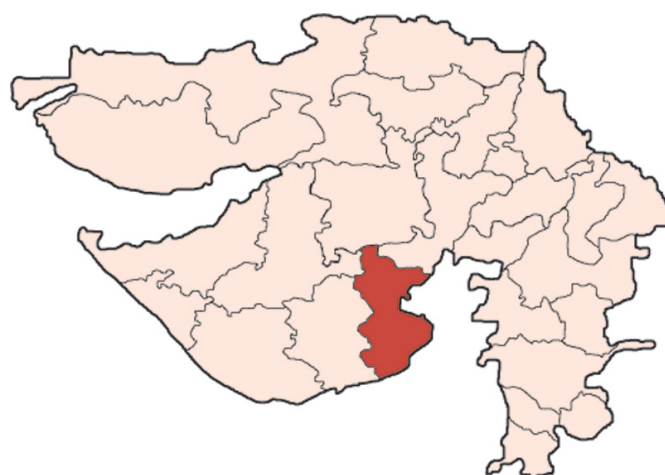


FIGURE 5.68(b) : Map of Gujarat State highlighting Bhavnagar District

TABLE 5.68(b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
The GCRI, Ahmedabad (63)	378	90.2	458	92.7	836	91.6
HBCR - Mumbai (1008)	20	4.8	23	4.7	43	4.7
PBCR - Mumbai (1002)	17	4.1	11	2.2	28	3.1
All Other Centres	4	1.0	2	0.4	6	0.7
Total Cancers	419	100.0	494	100.0	913	100.0

Source: NCRP, Bangalore

TABLE 5.68(c) : Salient features of Cancer Incidence

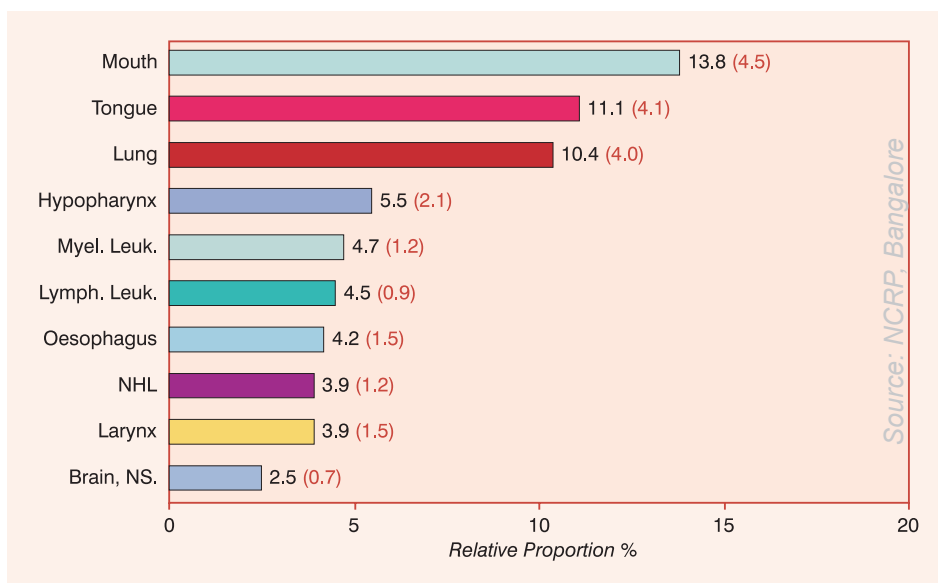
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	12,68,686	11,88,874	12,78,565	11,96,601	25,47,251	23,85,475
Total Cancers (All sites)	259	160	337	157	596	317
Min. Crude IR	20.4	13.5	26.4	13.1	23.4	13.3
Min. Age Adjusted IR	29.5	18.5	37.7	17.3	33.6	17.9
Min. Truncated IR	57.6	42.5	79.5	39.9	68.9	41.2

Source: NCRP, Bangalore

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

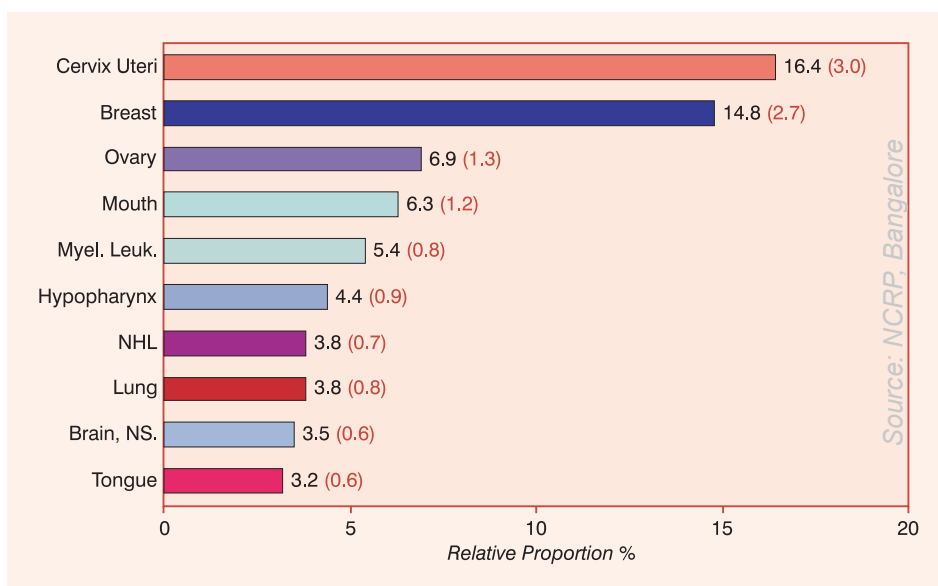
FIGURE 5.68(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.69. SABARKANTHA DISTRICT, Gujarat State

(Code 2405)

**TABLE 5.69(a) : Profile of Sabarkantha District
(2001 Census)**

Area (in sq. kms.)	7,390.0
Decadal Growth Rate (1991-2001)	18.30%
Literacy Rate	
Males	81.19%
Females	52.85%
Sex Ratio (females per 1000 males)	948
Density (persons per sq. km)	282

Source: NCRP, Bangalore



FIGURE 5.69(a) : Map of India highlighting Gujarat State

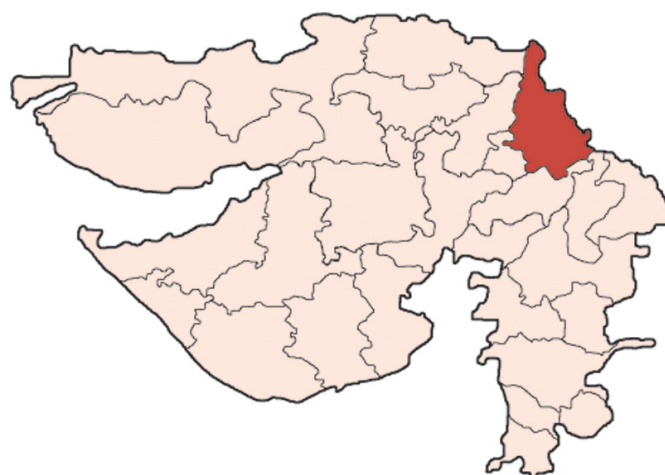


FIGURE 5.69(b) : Map of Gujarat State highlighting Sabarkantha District

TABLE 5.69(b) : Centrewise Distribution of Cancers

Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
The GCRI, Ahmedabad (63)	421	98.6	499	99.4	920	99.0
HBCR - Mumbai (1008)	3	0.7	2	0.4	5	0.5
PBCR - Mumbai (1002)	2	0.5	1	0.2	3	0.3
Pramukhswami MC, Karamsad (26)	1	0.2	0	0.0	1	0.1
Total Cancers	427	100.0	502	100.0	929	100.0

Source: NCRP, Bangalore

TABLE 5.69(c) : Salient features of Cancer Incidence

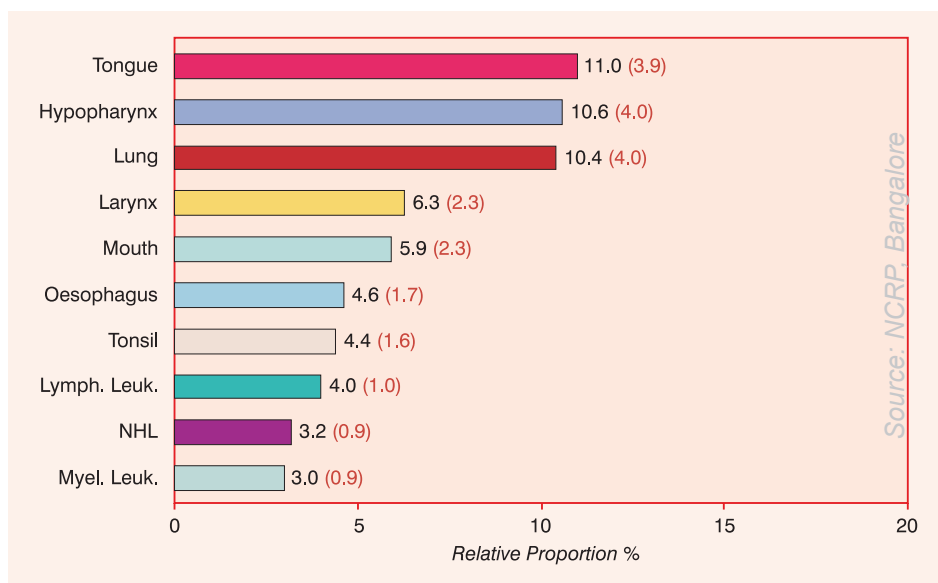
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	10,67,256	10,11,637	10,84,483	10,26,409	21,51,739	20,38,046
Total Cancers (All sites)	245	182	282	220	527	402
Min. Crude IR	23.0	18.0	26.0	21.4	24.5	19.7
Min. Age Adjusted IR	33.1	23.5	36.4	27.3	34.8	25.4
Min. Truncated IR	65.9	57.0	75.8	71.1	70.8	63.8

Source: NCRP, Bangalore

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

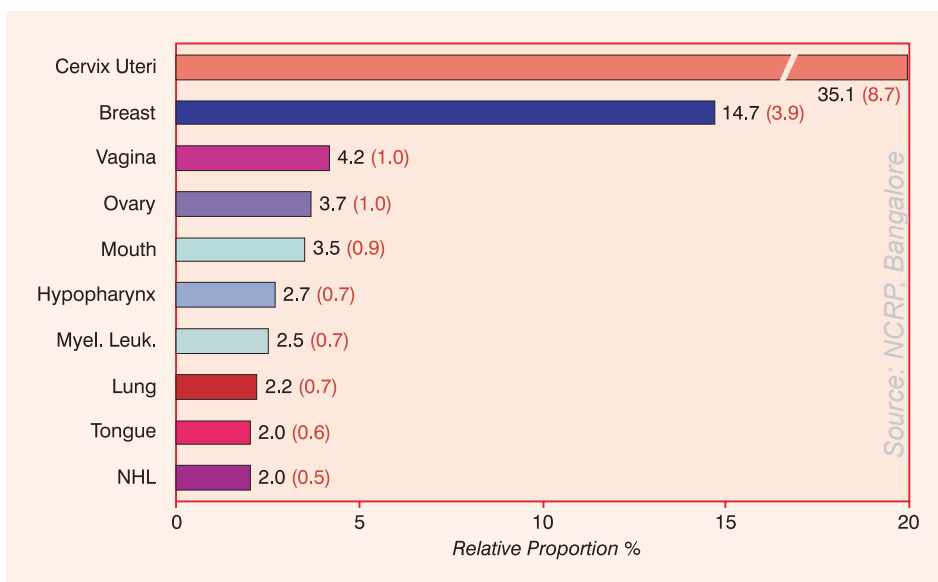
FIGURE 5.69(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.70. INDORE DISTRICT, Madhya Pradesh State

(Code 2326)

TABLE 5.70(a) : Profile of Indore District (2001 Census)

Area (in sq. kms.)	3,898.0
Decadal Growth Rate (1991-2001)	40.82%
Literacy Rate	
Males	84.71%
Females	63.96%
Sex Ratio (females per 1000 males)	911
Density (persons per sq. km)	663

Source: NCRP, Bangalore

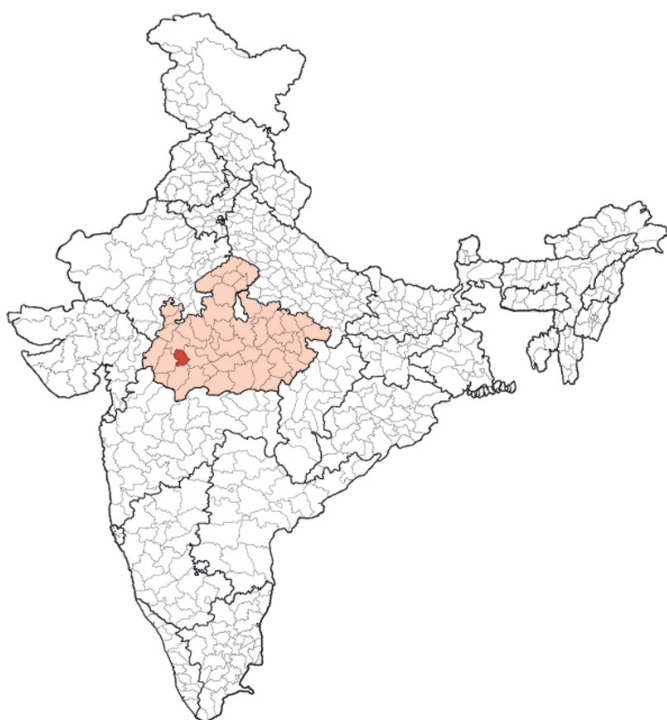


FIGURE 5.70(a) : Map of India highlighting Madhya Pradesh State



FIGURE 5.70(b) : Map of Madhya Pradesh State highlighting Indore District

TABLE 5.70(b) : Centrewise Distribution of Cancers
Number (#) and Relative Proportion (%)

Year	2001		2002		2001 - 2002	
	#	%	#	%	#	%
Centre (with code in parentheses)						
MGM Medical College, Indore (28)	601	83.2	798	87.9	1399	85.8
HBCR - Mumbai (1008)	84	11.6	70	7.7	154	9.4
PBCR - Mumbai (1002)	32	4.4	19	2.1	51	3.1
All Other Centres	5	0.7	21	2.3	26	1.6
Total Cancers	722	100.0	908	100.0	1630	100.0

Source: NCRP, Bangalore

TABLE 5.70(c) : Salient features of Cancer Incidence

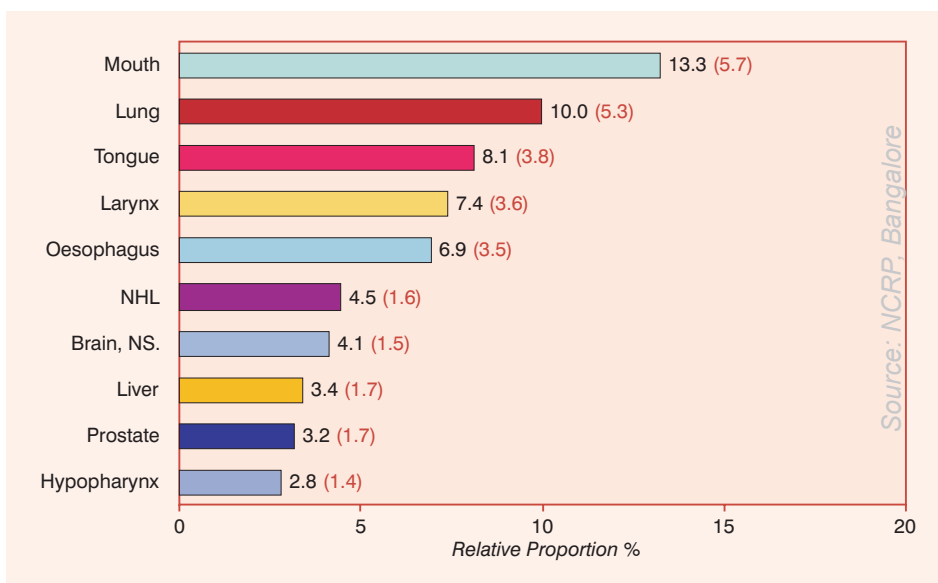
Year	2001		2002		2001 - 2002	
	Males	Females	Males	Females	Males	Females
Estimated Population	13,32,496	12,17,941	13,70,495	12,53,153	27,02,991	24,71,094
Total Cancers (All sites)	383	339	469	439	852	778
Min. Crude IR	28.7	27.8	34.2	35.0	31.5	31.5
Min. Age Adjusted IR	42.3	40.6	50.2	50.1	46.3	45.4
Min. Truncated IR	74.5	84.1	92.1	111.2	83.5	98.0

Source: NCRP, Bangalore

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

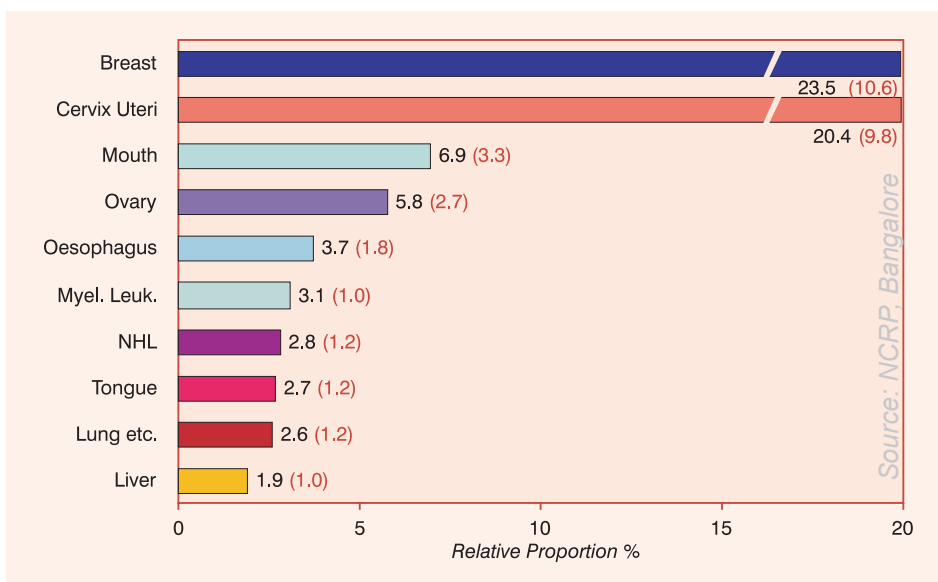
FIGURE 5.70(c) : Ten Leading Sites of Cancer (2001 - 2002)
 (Minimum Age Adjusted Incidence Rates given in parentheses)

Males



Source: NCRP, Bangalore

Females



Source: NCRP, Bangalore

5.71. LAKSHADWEEP

(Code 3101)

TABLE 5.71(a) : Profile of Lakshadweep (2001 Census)

Area (in sq. kms.)	Source: NCRP, Bangalore	32.0
Decadal Growth Rate (1991-2001)		17.19%
Literacy Rate		
Males		93.15%
Females		81.56%
Sex Ratio (females per 1000 males)		947
Density (persons per sq. km)		1,894

TABLE 5.71(b) : Centrewise Distribution of Cancers (2002)
Number (#) and Relative Proportion (%)

Centre (with code in parentheses)	#	%
HBCR - Thiruvananthapuram (1006)	16	100.0
HBCR - Mumbai (1008)	0	0.0
Total Cancers	16	100.0

TABLE 5.71(c) : Salient features of Cancer Incidence (2002)

	Males	Females
Estimated Population	31,644	29,987
Total Cancers (All sites)	12	4
Min. Crude IR	37.90	13.30
Min. Age Adjusted IR	45.50	20.00
Min. Truncated IR	130.22	28.91

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