State of California — Department of Health Services

Memorandum

To : Robert L. Holtzer, M.D.
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Environmental Epidemiology
and Toxicology Branch
714 P Street, Room 499
Sacramento, CA 95814

Date : October 10, 1990

Subject: Cancer incidence rates, L.A. County

From : Research and Surveillance Program
Cancer Surveillance Section
1812 14th Street
Sacramento, CA 95814
7-4663

Enclosed please find the report "Cancer incidence rates in five Los Angeles County census tracts," which summarizes cancer incidence rates in an area adjacent to a hazardous waste site in Ventura county.

The report has been reviewed by Dr. Ronald Ross, Director, Cancer Surveillance Program of Los Angeles (Region 9 cancer registry). At his suggestion, Region 9 will do some follow-up analyses, as indicated in the recommendations at the end of the report. We will keep you informed of these results.

Please do not hesitate to contact either of us if you have any questions or comments.

Thank you.

William E. Wright

William E. Wright, Ph.D., Chief

Carin Perkins

Carin Perkins, M.S.
Research Scientist

cc: John Young, Dr.P.H., Chief, Cancer Surveillance Section
Eva Glazer, M.D., M.P.H., Cancer Surveillance Section
Ronald Ross, M.D., Director, Cancer Surveillance Program of Los Angeles

CANCER INCIDENCE RATES IN FIVE LOS ANGELES COUNTY CENSUS TRACTS

Summary

Cancer incidence rates were examined in five Los Angeles county census tracts (1132, 1343, 1344, 1351, 1352) located within a five mile radius of a hazardous waste site in Ventura county.

Age-adjusted cancer incidence rates for all sites and ten sites of interest were calculated for each of the five census tracts and compared to the age-adjusted cancer incidence rates for Los Angeles county as a whole. Rates were calculated for two five-year time periods: 1978-82 and 1983-87. Statistical significance was approximated by using the Poisson distribution. In addition, age-adjusted cancer incidence rates were ranked (high to low) for each of the 1,296 census tracts in Los Angeles county. Cancer sites examined were: lung, bone, bladder, thyroid, Hodgkins and Non-Hodgkin's lymphomas, and leukemia (ALL, ANLL, CLL, CML).

Census tract age-adjusted incidence rates were found to be significantly higher than comparable county rates in three comparisons: 1) tract 1352, all sites, 1978-82; 2) tract 1132, bladder, 1983-87, and; 3) tract 1352, ANLL leukemia, 1983-87. Three rates were found to be significantly lower. Given the large number of comparisons made (five census tracts, two time periods, eleven sites), these findings are consistent with random variation in cancer incidence rates.

Four census tract incidence rates were in the top quartile in both time periods when age-adjusted incidence rates in all 1,296 Los Angeles county census tracts were ranked: 1) tract 1343, bladder cancer; 2) tract 1344, bladder cancer; 3) tract 1344, Hodgkin's lymphoma, and; 4) tract 1351, CML leukemia.

In sum, bladder cancer incidence rates were significantly higher in one time period in census tract 1132 and were in the top quartile in tracts 1343 and 1344 in both time periods. These three census tracts are closer than the other two to the hazardous waste site. The age-adjusted incidence rates in these three census tracts are approximately 50% higher than the overall age-adjusted rate in the county in both time periods. This may result from a number of factors not related to exposure to the waste site which cannot be evaluated with the data currently available, including a higher proportion of high risk individuals (e.g., non-hispanic whites) in these census tracts than elsewhere in the county.

The suggestion of an elevation in bladder cancer rates in the three census tracts closest to the hazardous waste site should be further evaluated by calculating age- and race-adjusted rates for 1978-82, the time period for which reliable population estimates are available at the census tract level. In addition, bladder cancer incidence rates should be re-evaluated in these census tracts and examined in Ventura county census tracts close to the site when 1988 cancer case data is available.

Background

This analysis was initiated at the request of Dr. Robert Holtzer from the Environmental Epidemiology and Toxicology Branch (EETB), who asked the Cancer Surveillance Section to assist in the evaluation of potential adverse health outcomes in the vicinity of a hazardous waste site located in eastern Ventura County adjacent to Los Angeles county. The map of the area provided by Dr. Holtzer is attached. EETB wanted to evaluate cancer rates in the area as part of an overall environmental assessment.

Cancer incidence data from Ventura county (Region 4, TriCounty) are not currently available, as this region did not begin collecting case data until 1/1/88, and 1988 data is not yet available.

Dr. Holtzer identified six census tracts in Los Angeles county that are located within a five mile radius of the Ventura hazardous waste site. One census tract (9203) was excluded from the analysis at the recommendation of Region 9 Cancer Registry (Los Angeles) because the densely populated areas of this census tract are not within a five mile radius of the site. In 1980, these five census tracts had populations summing to 76,436, representing 1.02% of the total Los Angeles County population. Census tracts included in the analysis and 1980 populations are as follows:

Census Tract	Locality	1980 pop	% Hispanics	Hispanics
All	Los Angeles County	7,477,503	27.6%	2,063,791
1132	Chatsworth/Canoga Pk.	25,822	7.9%	2,040
1343	Canoga Park	14,420	13.0%	1,875
1344	Canoga Park	11,120	5.9%	656
1351	Canoga Pk/Woodland Hills	11,534	5.1%	588
1352	Canoga Pk/Woodland Hills	13,540	6.1%	826
		76,436	7.8	5,985

Cancer sites of interest were identified by Dr. Holtzer, and cancer incidence rates had been obtained by him from Region 9 as hard-copy output.

Methods

Data obtained from Region 9 consisted of cancer counts and age-specific and age-adjusted incidence rates per 100,000 for the census tracts of interest and Los Angeles county as a whole. Census tract populations used in calculating rates were estimated by Region 9 by extrapolating from age- and sex-specific census tract populations as determined by the 1970 and 1980 census, and then summing to estimate the total census tract population. Age is adjusted to the 1980 US population. The 1980 census tract populations and the proportion of Hispanics shown above were obtained from Bureau of the Census publications. Cancer case data is currently available to census tract coded to four digits only.

Approximate 95% confidence intervals for age-adjusted rates were calculated using the Poisson distribution (std err = rate divided by square root of number of cases). Census tract rates were then compared to the county rates; if confidence intervals did not overlap, the difference was considered to be significant.

Region 9 also provided the rank of the age-adjusted incidence rate compared to the 1,296 census tracts in Los Angeles county. Ranks were divided into quartiles (1-324, 325-648, 649-972, 973-1296).

Results

Age-adjusted rates and upper and lower 95% confidence intervals are shown in Table 1. Ranks, both numeric and by quartile, are shown in Table 1 and are summarized in Table 2.

All sites

Census tract 1352 had a significantly higher overall age-adjusted cancer rate than the county as a whole (483.9 versus 404.6, respectively) during the period 1978-82, and was located in the top quartile when census tracts were ranked by overall age-adjusted cancer rates. However, it dropped down into the fourth quartile during 1983-87.

The overall cancer rate declined in each census tract and in the county as a whole between 1978-82 and 1983-87. The percent decrease ranged from 2.1% (tract 1132) to 38.5% (tract 1351).

Lung Cancer

None of the census tracts were significantly higher than the county rate in either time period. None of the census tracts were located in the top quartile in either time period. Lung cancer rates were fairly stable in all census tracts between the two time periods.

Bone Cancer

There were only a total of 11 cases of bone cancer in these five census tracts over the entire ten year period. Only one census tract (tract 1351) was in the first quartile, and this was based on two cases during 1983-87.

Bladder Cancer

One census tract (tract 1132) showed a significantly higher age-adjusted rate of bladder cancer than the overall county rate during 1983-87 (24.6 vs. 16.1, about 50% higher). In addition, two census tracts (tracts 1343 and 1344) were in the top quartile during both time periods, and although not significantly different from the county rate, had rates which were about the same or higher than the rate in tract 1132. Tracts 1351 and 1352 were in the second quartile in 1978-1982 and in the third quartile during 1983-1987.

Thyroid Cancer

No census tracts show rates which are significantly higher than the county rate in either time period. All census tracts are located in the second or third quartile both years.

Leukemia (ALL, ANLL, CLL, CML)

There are too few cases of leukemia (from zero to seven cases per census tract per time period) for stable estimates to be calculated. Based on seven cases, tract 1352 had a significantly higher rate of ANLL leukemia in 1983-87, but this does not appear to be part of a consistent pattern and more likely reflects random variation in cancer rates.

Hodgkin's lymphoma

No census tracts showed significantly higher rates of Hodgkin's lymphoma compared to overall county rates. Census tract 1344 was in the first quartile in both time periods, but this was based on two and three cases respectively.

Non-Hodgkin's lymphoma

None of the census tracts have a significantly higher rate than the county as a whole. Census tract 1352 is in the first quartile during 78-82, but drops down into the second quartile during 83-87.

Discussion

Among the cancer sites examined, only bladder cancer shows any suggestion of an elevation in the census tracts of interest compared to rates in the county as a whole.

Average annual age-adjusted bladder cancer incidence rates in the county as a whole were 17.5/100,000 during 1978-82 and 16.1/100,000 during 1983-87. These rates are similar to the bladder cancer incidence rates reported by the National Cancer Institute based on the SEER program,[1] (16.7/100,000 in 1985 and 17.0/100,000 in 1986-87), which are age-adjusted to the 1970 US population. NCI also calculates that bladder cancer incidence rates have increased an average of 0.9 percent per year over the time period 1973-1987.

The three census tracts with elevated bladder cancer rates (1132, 1343, 1344) are closer to the waste site than 1351 or 1352. However, it should be noted that this doesn't necessarily mean the cases are located closer to the site, since the tracts extend considerably to the east. These census tracts defined at the four-digit level are actually composed of multiple census tracts at the

six-digit level. Region 9 is currently in the process of having census tract recoded to the six-digit level. However, population estimates at the six-digit census tract level will not be available until 1990 census estimates are reported.

The most important known risk for bladder cancer is cigarette smoking, and the smoking attributable fraction for bladder cancer mortality is about forty percent. However, since lung cancer rates are not high in this area, it does not seem likely that higher smoking prevalence is a likely explanation.

It should also be noted that bladder cancer rates vary considerably by gender and race/ethnicity. An analysis of California mortality data for 1985-88[2] shows that whites are approximately two times more likely to die of bladder cancer than Hispanics (3.2 and 1.7 deaths per 100,000 population, respectively, age-adjusted to 1970 standard US million). Comparable race-specific bladder cancer incidence rates are not available.

Therefore, some of the elevation in bladder cancer incidence can probably be explained by the larger proportion of whites in these census tracts. The distribution of race/ethnicity in the census tracts under study is markedly different from the rest of the county; based on 1980 census information, 27.6% of Los Angeles county was Hispanic, compared to 5% to 13% of the population in the census tracts being evaluated (see table on page 2). Unfortunately, race-adjusted incidence rates at the census tract level can not reliably be calculated for 1983-1988 due to the lack of reliable population estimates by race. However, if it were solely a question of the proportion of whites in the area, one would expect the rates in census tracts 1152 and 1153 to be elevated as well, and they are not.

Recommendations

1. Region 9 will calculate age-adjusted race and sex-specific bladder cancer incidence rates for the county as a whole for the two time periods (1978-82 and 1983-87). This will validate the assumption that bladder cancer incidence rates are higher among whites than among Hispanics, as indicated by the mortality data.

2. Region 9 will calculate age-adjusted race-specific rates at the census tract level for 1978-82, using 1980 census population figures. Although census tract 1132 was not significantly higher than the county rate during this time period, the rates in all three census tracts are about the same in the two time periods. Race-specific rates for the one time period for which reliable population data exist at the census tract level will help evaluate the impact of racial distribution on bladder cancer rates.

3. Examine 1988 cancer incidence data from Ventura county when available, especially bladder cancer.

4. Examine 1988 bladder cancer incidence data from Region 9 when available.

[1] Cancer Statistics Review 1983-1987. L.A. Gloeckler Ries, B.F.R. Hankey, B.K. Edwards, eds. National Cancer Institute. NIH Publication No. 90-2789.

[2] Unpublished data from Research and Surveillance Program, Cancer Surveillance Program, California Department of Health Services.

Table 1, continued: Cancer Incidence Rates, L.A. County and selected census tracts near Rockedyne site, Ventura Cnty from data provided by Region 9 to Bob Holtzer — 12:38 Wednesday, June 13, 1990

Thyroid Cancer

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
49	1132	638	2	5	3.4	0.4	6.4
50	1343	472	2	4	4.8	0.1	9.5
51	1344	687	3	2	3.0	-1.2	7.2
52	1351	761	3	2	2.2	-0.8	5.2
53	1352	396	2	4	5.7	0.1	11.3
54	LA County	512	2	1674	4.5	4.3	4.7

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
55	1132	486	2	10	4.8	1.8	7.8
56	1343	786	3	2	2.0	-0.8	4.8
57	1344	544	2	2	4.3	-1.7	10.3
58	1351	817	3	2	1.6	-0.6	3.8
59	1352	619	2	3	3.6	-0.5	7.7
60	LA County	551	2	1766	4.3	4.1	4.5

Hodgkins Disease

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
61	1132	312	1	5	4.1	0.5	7.7
62	1343	406	2	2	3.2	-1.2	7.6
63	1344	181	1	3	5.8	-0.8	12.4
64	1351	942	3	0	0.0	.	.
65	1352	407	2	2	3.2	-1.2	7.6
66	LA County	492	2	925	2.5	2.3	2.7

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
67	1132	343	2	8	3.8	1.2	6.4
68	1343	553	2	1	1.9	-1.8	5.6
69	1344	324	1	2	4.0	-1.5	9.5
70	1351	584	2	1	1.5	-1.4	4.4
71	1352	631	2	1	0.9	-0.9	2.7
72	LA County	489	2	985	2.3	2.2	2.4

Table 1, continued:

Cancer Incidence Rates, L.A. County
and selected census tracts near Rockedyne site, Ventura Cnty
from data provided by Region 9 to Bob Holtzer

12:38 Wednesday, June 13, 1990

Non-Hodgkins Lymphoma

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
73	1132	703	3	10	9.0	3.4	14.6
74	1343	667	3	6	9.5	1.9	17.1
75	1344	1018	4	1	3.8	-3.6	11.2
76	1351	605	2	7	10.4	2.7	18.1
77	1352	248	1	8	17.1	5.3	28.9
78	LA County	554	2	3795	11.1	10.7	11.5

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
79	1132	707	3	14	10.1	4.8	15.4
80	1343	419	2	11	14.6	6.0	23.2
81	1344	358	2	6	15.8	3.2	28.4
82	1351	501	2	17	13.2	6.9	19.5
83	1352	364	2	12	15.7	6.8	24.6
84	LA County	607	2	4458	11.4	11.1	11.7

Leukemia - ALL

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
85	1132	1080	4	0	0.0	.	.
86	1343	848	3	0	0.0	.	.
87	1344	849	3	0	0.0	.	.
88	1351	368	2	1	1.1	-1.1	3.3
89	1352	824	3	0	0.0	.	.
90	LA County	358	2	495	1.4	1.3	1.5

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
91	1132	400	2	1	0.8	-0.8	2.4
92	1343	350	2	1	1.6	-1.5	4.7
93	1344	383	2	1	1.2	-1.2	3.6
94	1351	1060	4	0	0.0	.	.
95	1352	1061	4	0	0.0	.	.
96	LA County	373	2	504	1.3	1.2	1.4

Table 1: Cancer Incidence Rates, L.A. County 12:38 Wednesday, June 13, 1990
and selected census tracts near Rocketdyne site, Ventura Cnty
from data provided by Region 9 to Bob Holtzer

---------- All sites ----------

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
1	1132	859	3	421	392.9	355.4	430.4
2	1343	401	2	277	453.0	399.7	506.3
3	1344	306	1	163	472.6	400.0	545.2
4	1351	953	3	318	380.5	338.7	422.3
5	1352	258	1	240	483.9	422.7	545.1
6	LA County	773	3	139241	404.6	402.5	406.7

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
7	1132	872	3	595	384.8	353.9	415.7
8	1343	924	3	291	377.7	334.3	421.1
9	1344	863	3	178	386.2	329.5	442.9
10	1351	1269	4	342	233.9	209.1	258.7
11	1352	995	4	234	366.3	319.4	413.2
12	LA County	895	3	148623	381.7	379.8	383.6

---------- Lung Cancer ----------

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
13	1132	850	3	52	48.7	35.5	61.9
14	1343	447	2	36	66.0	44.4	87.6
15	1344	525	2	18	62.3	33.5	91.1
16	1351	1071	4	35	39.4	26.3	52.5
17	1352	635	2	34	58.0	38.5	77.5
18	LA County	675	3	19120	56.4	55.6	57.2

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
19	1132	667	3	83	55.6	43.6	67.6
20	1343	386	2	50	69.7	50.4	89.0
21	1344	849	3	22	46.7	27.2	66.2
22	1351	1224	4	42	23.1	16.1	30.1
23	1352	526	2	34	61.6	40.9	82.3
24	LA County	751	3	19807	52.0	51.3	52.7

Table 1, continued:

Cancer Incidence Rates, L.A. County
and selected census tracts near Rockedyne site, Ventura Cnty
from data provided by Region 9 to Bob Holtzer

12:38 Wednesday, June 13, 1990

Bone Cancer

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
25	1132	1061	4	0	0.0	.	.
26	1343	328	2	1	1.2	-1.2	3.6
27	1344	333	2	1	1.1	-1.1	3.3
28	1351	332	2	1	1.1	-1.1	3.3
29	1352	336	2	1	1.0	-1.0	3.0
30	LA County	329	2	428	1.2	1.1	1.3

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
31	1132	363	2	2	1.0	-0.4	2.4
32	1343	368	2	1	1.0	-1.0	3.0
33	1344	369	2	1	1.0	-1.0	3.0
34	1351	258	1	2	2.7	-1.0	6.4
35	1352	331	2	1	1.5	-1.4	4.4
36	LA County	350	2	505	1.3	1.2	1.4

Bladder Cancer

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
37	1132	375	2	22	22.4	13.0	31.8
38	1343	231	1	16	27.1	13.8	40.4
39	1344	163	1	8	31.0	9.5	52.5
40	1351	449	2	18	20.5	11.0	30.0
41	1352	563	2	9	18.1	6.3	29.9
42	LA County	597	2	5861	17.5	17.1	17.9

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
43	1132	269	1	37	24.6	16.7	32.5
44	1343	305	1	19	23.4	12.9	33.9
45	1344	253	1	11	25.0	10.2	39.8
46	1351	919	3	17	10.0	5.2	14.8
47	1352	772	3	8	13.0	4.0	22.0
48	LA County	619	2	6154	16.1	15.7	16.5

Table 1, continued:

Cancer Incidence Rates, L.A. County
and selected census tracts near Rocketdyne site, Ventura Cnty
from data provided by Region 9 to Bob Holtzer

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Leukemia - ANLL

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
97	1132	682	3	3	2.4	-0.3	5.1
98	1343	565	2	2	3.6	-1.4	8.6
99	1344	122	1	3	11.0	-1.4	23.4
100	1351	293	1	6	6.8	1.4	12.2
101	1352	686	3	1	2.3	-2.2	6.8
102	LA County	535	2	1386	4.0	3.8	4.2

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
103	1132	675	3	3	1.4	-0.2	3.0
104	1343	423	2	3	4.3	-0.6	9.2
105	1344	652	3	1	1.7	-1.6	5.0
106	1351	682	3	3	1.4	-0.2	3.0
107	1352	49	1	7	13.5	3.5	23.5
108	LA County	505	2	1296	3.3	3.1	3.5

Leukemia - CLL

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
109	1132	473	2	2	2.4	-0.9	5.7
110	1343	510	2	1	1.9	-1.8	5.6
111	1344	200	1	1	5.8	-5.6	17.2
112	1351	479	2	2	2.4	-0.9	5.7
113	1352	561	2	1	0.8	-0.8	2.4
114	LA County	463	2	866	2.6	2.4	2.8

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
115	1132	435	2	3	2.5	-0.3	5.3
116	1343	245	1	3	4.7	-0.6	10.0
117	1344	527	2	1	1.2	-1.2	3.6
118	1351	519	2	3	1.3	-0.2	2.8
119	1352	1089	4	0	0.0	.	.
120	LA County	461	2	848	2.2	2.1	2.3

Table 1, continued:

Cancer Incidence Rates, L.A. County
and selected census tracts near Rockedyne site, Ventura Cnty
from data provided by Region 9 to Bob Holtzer

12:38 Wednesday, June 13, 1990

Leukemia - CML

1978-1982

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
121	1132	417	2	1	0.6	-0.6	1.8
122	1343	400	2	1	1.4	-1.3	4.1
123	1344	1195	4	0	0.0	.	.
124	1351	248	1	3	3.5	-0.5	7.5
125	1352	222	1	2	4.0	-1.5	9.5
126	LA County	391	2	556	1.6	1.5	1.7

1983-1987

OBS	CENSUS	RANK	QUARTILE	CASES	AAR	LOWER	UPPER
127	1132	888	3	0	0.0	.	.
128	1343	386	2	1	1.0	-1.0	3.0
129	1344	385	2	1	1.0	-1.0	3.0
130	1351	300	1	2	2.1	-0.8	5.0
131	1352	826	3	0	0.0	.	.
132	LA County	369	2	532	1.3	1.2	1.4

Table 2: Rank among all census tracts, by quartile, of Cancer Incidence Rates during 1978-82 and 1983-87 Among Five Census Tracts and Los Angeles County

Census	All Sites		Lung		Bone		Bladder	
Tract	78-82	83-87	78-82	83-87	78-82	83-87	78-82	83-87
1132	3	3	3	3	4	2	2	1*
1343	2	3	2	2	2	2	1	1
1344	1	3	2	3	2	2	1	1
1351	3	4	4	4	2	1	2	3
1352	1*	4	2	2	2	2	2	3
L.A. County	3	3	3	3	2	2	2	2

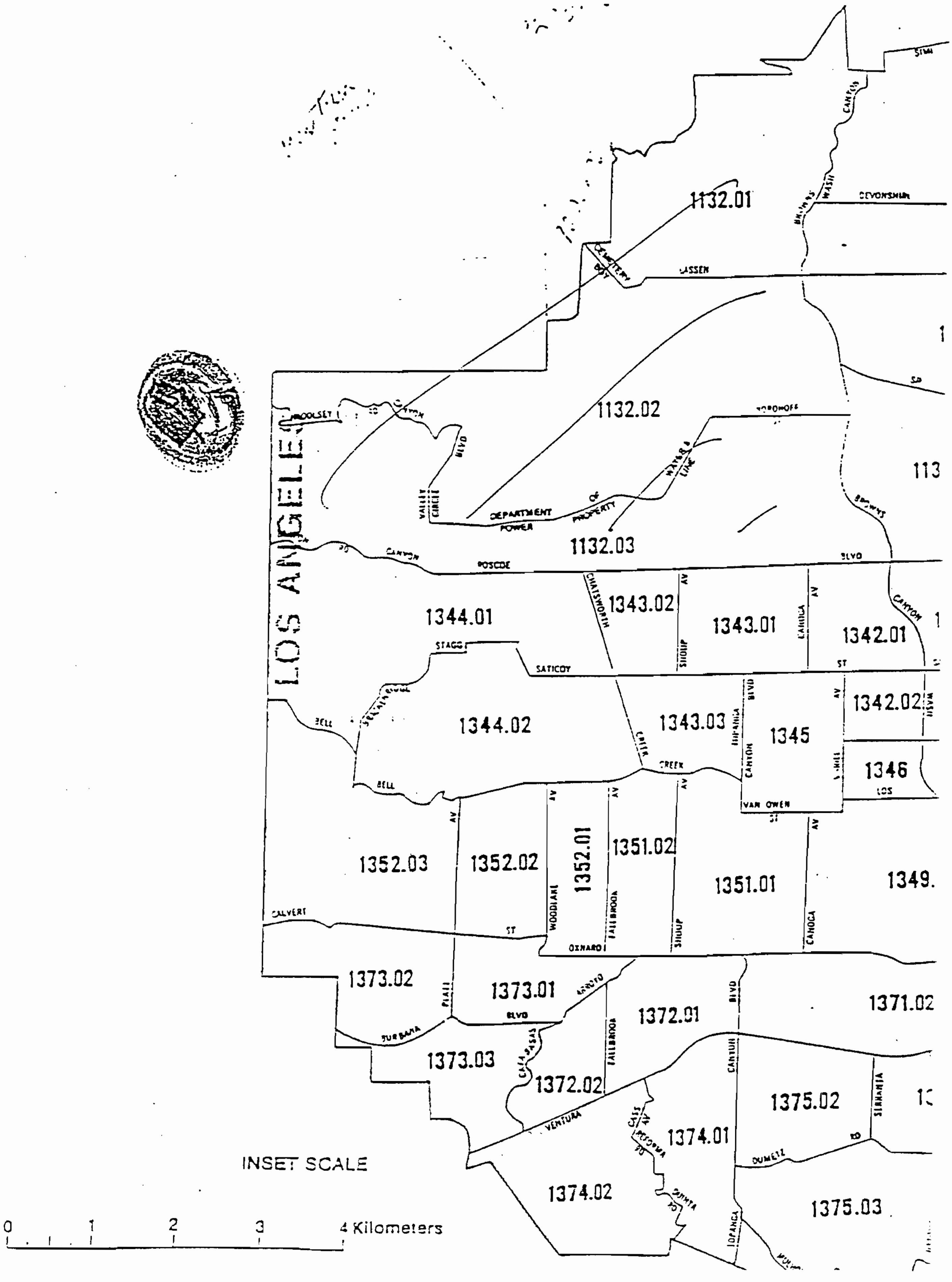
Census	Thyroid		Hodgkins		Non-Hodgkins		ALL	
Tract	78-82	83-87	78-82	83-87	78-82	83-87	78-82	83-87
1132	2	2	1	2	3	3	4	2
1343	2	3	2	2	3	2	3	2
1344	3	2	1	1	4	2	3	2
1351	3	3	3	2	2	2	2	4
1352	2	2	2	2	1	2	3	4
L.A. County	2	2	2	2	2	2	2	2

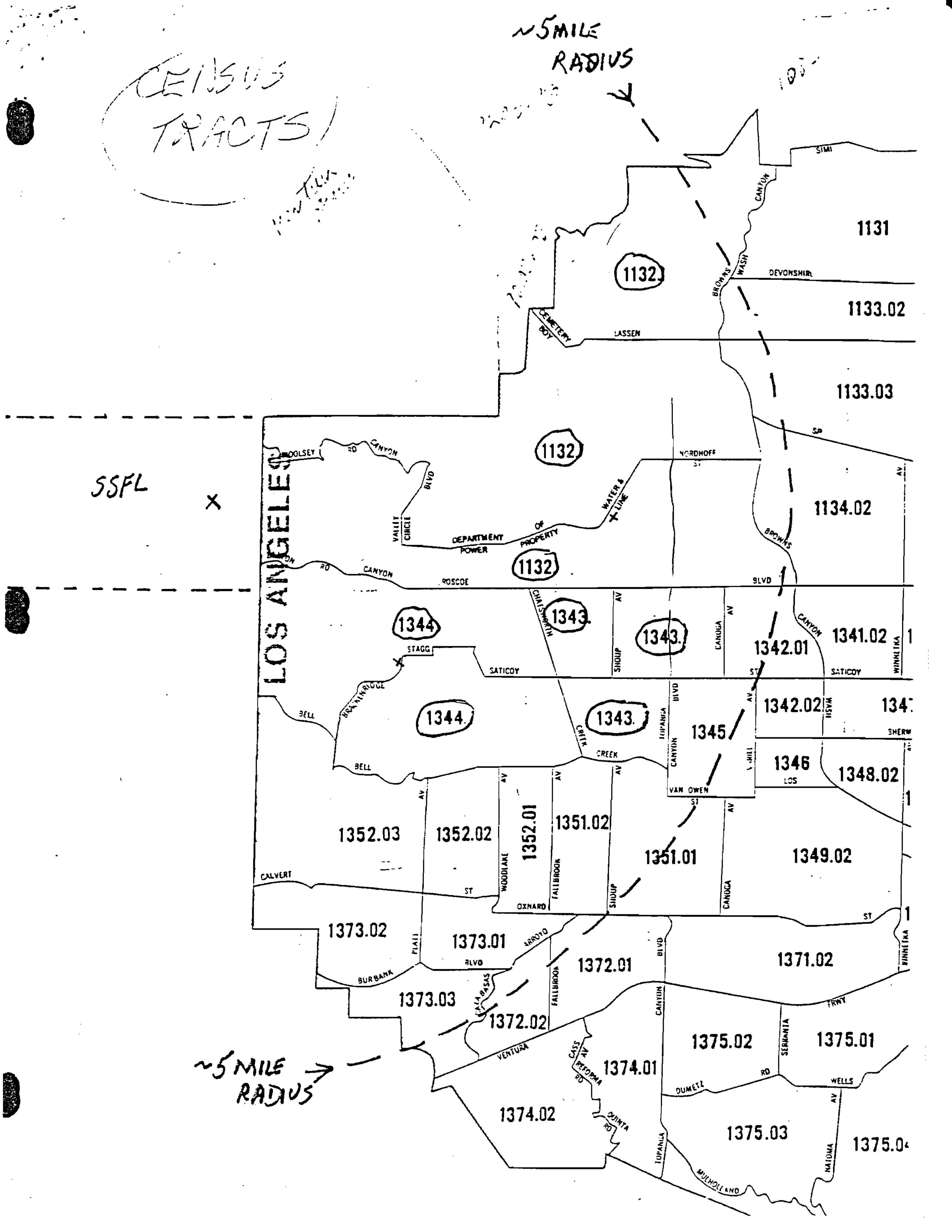
Census	ANLL		CLL		CML	
Tract	78-82	83-87	78-82	83-87	78-82	83-87
1132	3	3	2	2	2	3
1343	2	2	2	1	2	2
1344	1	3	1	2	4	2
1351	1	3	2	2	1	1
1352	3	1*	2	4	1	3
L.A. County	2	2	2	2	2	2

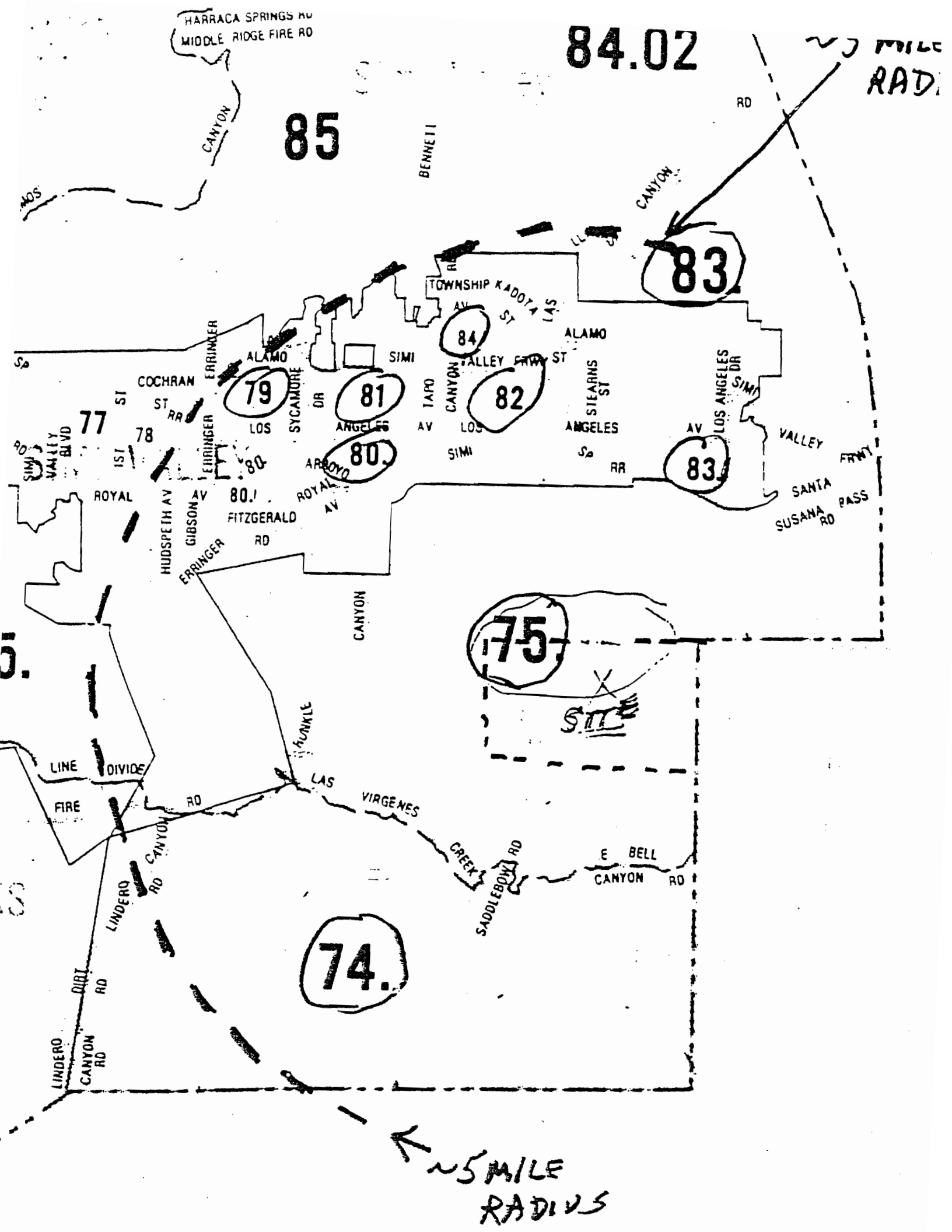
* Census tract age-adjusted incidence rate is significantly higher than county age-adjusted incidence rate

1 1 In first quartile in both time periods

LOS ANGELES


LOS ANGELES
1132.01
1132.02
1132.03
1344.01
1343.02
1343.01
1342.01
1344.02
1343.03
1345
1342.02
1346
1352.03
1352.02
1352.01
1351.02
1351.01
1349.
1373.02
1373.01
1372.01
1371.02
1373.03
1372.02
1375.02
1374.01
1374.02
1375.03
113
DEVONSHIRE
LASSEN
NORDHOFF
ROSCOE
BLVD
SATICOY
STAGG
ST
VAN OWEN
CALVERT
OXNARD
VENTURA
CANYON
WOODLAKE
FALLBROOK
SHOUP
CANOGA
DEPARTMENT
POWER
PROPERTY
INSET SCALE
0
1
2
3
4 Kilometers


CENSUS TRACTS!
~5 MILE RADIUS
SSFL
LOS ANGELES
1131
1132
1133.02
1133.03
1134.02
1341.02
1342.01
1342.02
1343
1344
1345
1346
1348.02
1349.02
1351.01
1351.02
1352.01
1352.02
1352.03
1371.02
1372.01
1372.02
1373.01
1373.02
1373.03
1374.01
1374.02
1375.01
1375.02
1375.03
SIMI
CANYON
BROWNS WASH
DEVONSHIRE
CEMETERY BDY
LASSEN
SP
NORDHOFF ST
WOOLSEY CANYON RD
VALLEY CIRCLE BLVD
DEPARTMENT OF POWER PROPERTY
WATER & LINE
ROSCOE BLVD
CHATSWORTH
SHOUP AV
CANOGA AV
TOPANGA CANYON BLVD
STAGG
SATICOY ST
BRANDENBURGE
BELL
CREEK
VAN OWEN ST
WINNETKA AV
SHERMAN
LOS
CALVERT ST
WOODLAKE
FALLBROOK
OXNARD
PLATT
ARROYO
BURBANK BLVD
CALABASAS
VENTURA
FRWY
CASS AV
REFORMA RD
QUINTA RD
DUMETZ RD
SERRANIA
WELLS
MULHOLLAND
NATOMA
~5 MILE RADIUS


84.02
85
83
84
79
81
82
80
77
78
75
74
SITE
HARRACA SPRINGS RD
MIDDLE RIDGE FIRE RD
CANYON
BENNETT
TOWNSHIP
KADOTA
LAS
ALAMO
SIMI
VALLEY FWY
COCHRAN ST
ERRINGER
SYCAMORE DR
LOS ANGELES
TAPO CANYON
STEARNS ST
LOS ANGELES DR
VALLEY FWY
SANTA SUSANA PASS RD
ROYAL
HUDSPETH AV
GIBSON AV
FITZGERALD RD
ARROYO
ROYAL AV
FUNKLE
LINE
DIVIDE
FIRE
LAS VIRGENES CANYON RD
LINDERO CANYON RD
DIRT RD
SADDLEBOW RD
E BELL CANYON RD
~5 MILE RADIUS