



1999 Report on Occupational Radiation Exposures in Canada

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Part 2 of 3

Table 4 (Cont'd)
Chiropractor

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	938	0.00	0.00
>0-1	41	16.90	0.41
>1-2	3	4.30	1.43
>2-5	2	8.80	4.40
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	984	30.00	0.03
Five year period 1993-1997			
0	1072	0.00	0.00
>0-5	256	142.70	0.56
>5-25	7	80.30	11.47
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	1335	223.00	0.17

Lognormal parameters for positive doses in 1997:

μ : -0.8355

F^2 : 0.6136

Sample size: 46

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

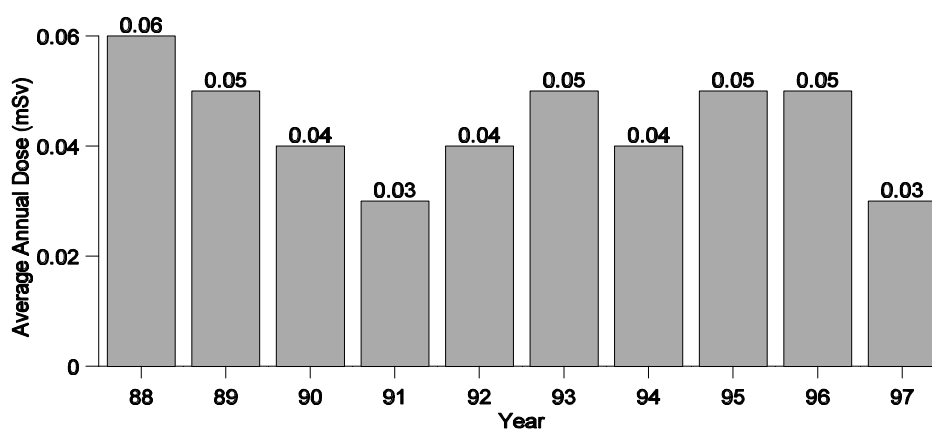


Table 4 (Cont'd)
Dental Assistant

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	8311	0.00	0.00
>0-1	137	38.00	0.28
>1-2	1	1.40	1.40
>2-5	4	11.70	2.93
>5-20	3	25.00	8.33
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	8456	76.10	0.01
Five year period 1993-1997			
0	9902	0.00	0.00
>0-5	316	136.10	0.43
>5-25	12	131.80	10.98
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	10230	267.90	0.03

Lognormal parameters for positive doses in 1997:

μ : -1.2282

F^2 : 0.5605

Sample size: 145

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

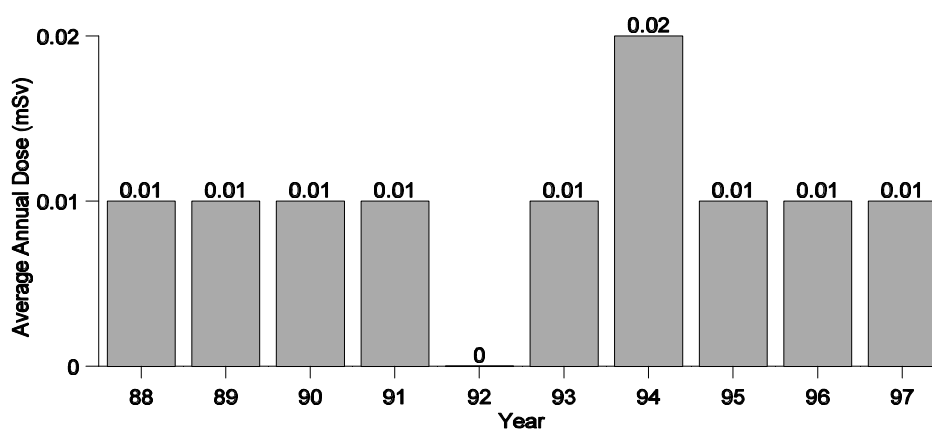


Table 4 (Cont'd)
Dental Hygienist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	6664	0.00	0.00
>0-1	127	40.50	0.32
>1-2	3	4.50	1.50
>2-5	1	4.70	4.70
>5-20	1	7.60	7.60
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	6796	57.30	0.01
Five year period 1993-1997			
0	10144	0.00	0.00
>0-5	395	183.92	0.47
>5-25	5	59.00	11.80
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	10544	242.92	0.02

Lognormal parameters for positive doses in 1997:

μ : -1.1717

F^2 : 0.3875

Sample size: 132

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

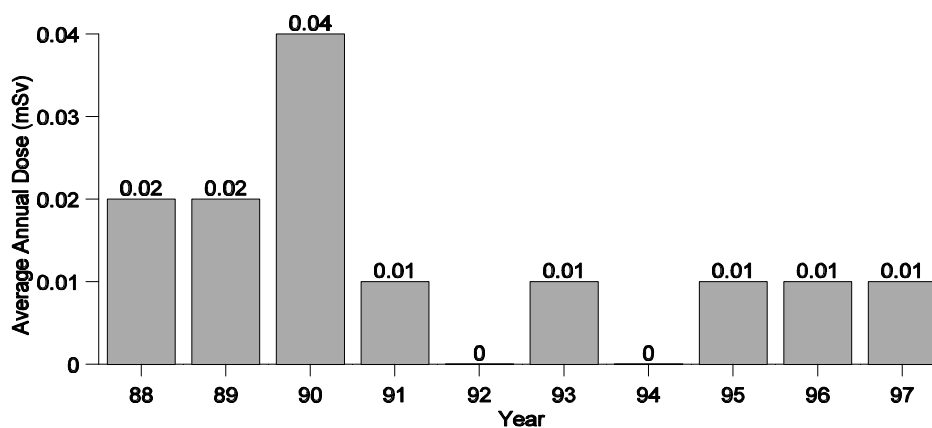


Table 4 (Cont'd)
Dental Therapist/Nurse

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	85	0.00	0.00
>0-1	3	2.20	0.73
>1-2	0	0.00	0.00
>2-5	0	0.00	0.00
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	88	2.20	0.03
Five year period 1993-1997			
0	90	0.00	0.00
>0-5	4	2.40	0.60
>5-25	0	0.00	0.00
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	94	2.40	0.03

Lognormal parameters for positive doses in 1997:

μ : -0.3499

F^2 : 0.0801

Sample size: 3

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

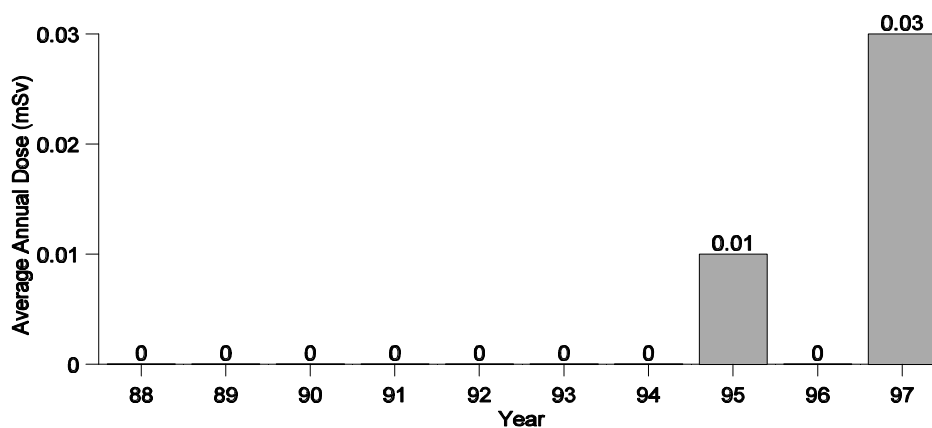


Table 4 (Cont'd)
Dentist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	6577	0.00	0.00
>0-1	160	48.00	0.30
>1-2	3	3.80	1.27
>2-5	3	10.20	3.40
>5-20	1	10.00	10.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	6744	72.00	0.01
Five year period 1993-1997			
0	7948	0.00	0.00
>0-5	508	240.26	0.47
>5-25	7	65.00	9.29
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	8463	305.26	0.04

Lognormal parameters for positive doses in 1997:

μ : -1.2315

F^2 : 0.4288

Sample size: 167

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

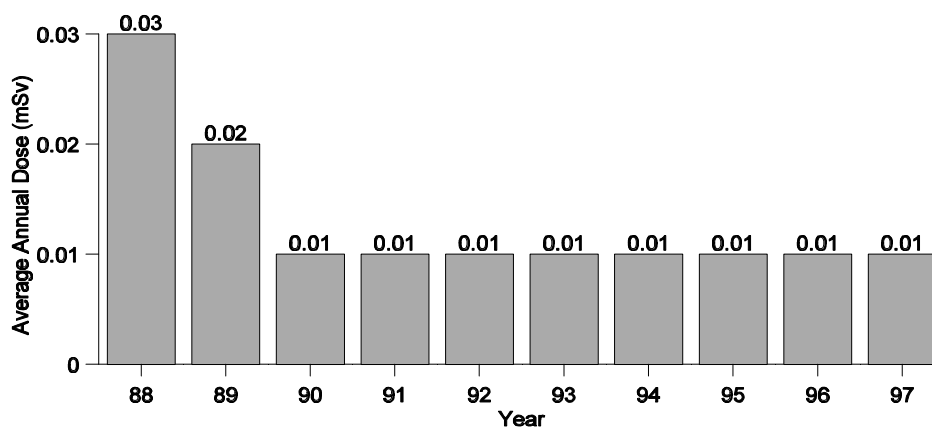


Table 4 (Cont'd)
Gynaecologist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	21	0.00	0.00
>0-1	8	4.10	0.51
>1-2	0	0.00	0.00
>2-5	0	0.00	0.00
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	29	4.10	0.14
Five year period 1993-1997			
0	48	0.00	0.00
>0-5	16	10.50	0.66
>5-25	0	0.00	0.00
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	64	10.50	0.16

Lognormal parameters for positive doses in 1997:

μ : -1.0059

F^2 : 0.7272

Sample size: 8

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

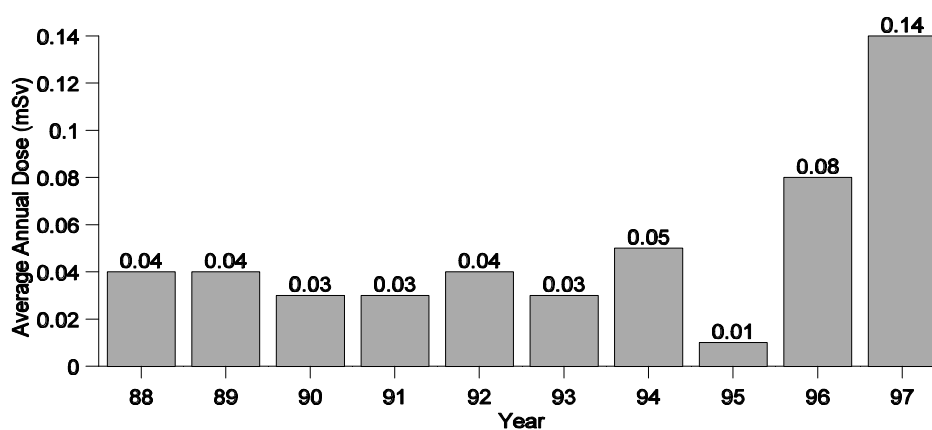


Table 4 (Cont'd)
Laboratory Technician (Medical)

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	3007	0.00	0.00
>0-1	326	107.96	0.33
>1-2	23	33.40	1.45
>2-5	8	25.30	3.16
>5-20	5	36.40	7.28
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	3369	203.06	0.06
Five year period 1993-1997			
0	4761	0.00	0.00
>0-5	1705	888.17	0.52
>5-25	27	241.90	8.96
>25-100	2	78.30	39.15
>100	0	0.00	0.00
Total	6495	1208.37	0.19

Lognormal parameters for positive doses in 1997:

μ : -1.1141

F^2 : 0.7866

Sample size: 362

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

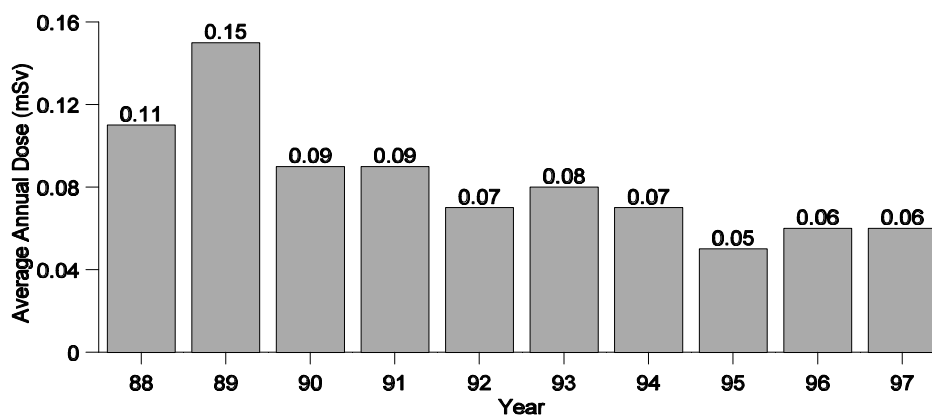


Table 4 (Cont'd)
Medical Physicist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	220	0.00	0.00
>0-1	46	12.90	0.28
>1-2	3	4.80	1.60
>2-5	1	3.80	3.80
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	270	21.50	0.08
Five year period 1993-1997			
0	261	0.00	0.00
>0-5	147	107.80	0.73
>5-25	4	40.40	10.10
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	412	148.20	0.36

Lognormal parameters for positive doses in 1997:

μ : -1.2404

F^2 : 0.5826

Sample size: 50

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

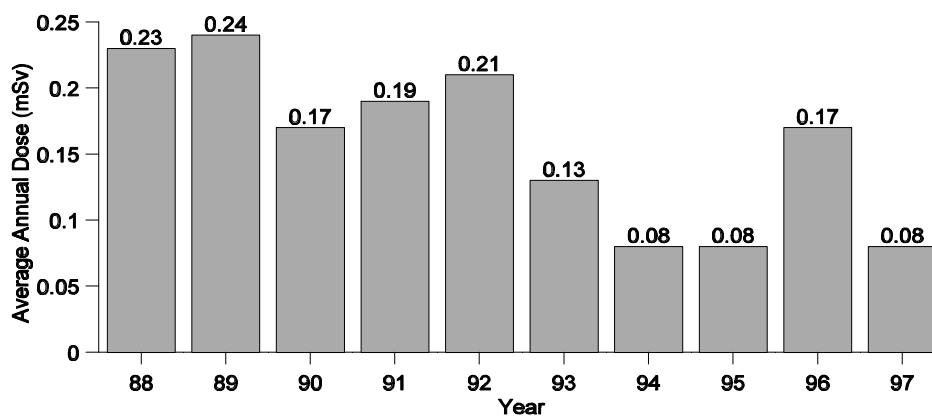


Table 4 (Cont'd)
Medical Radiation Technologist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	9880	0.00	0.00
>0-1	1790	636.40	0.36
>1-2	124	172.90	1.39
>2-5	42	125.60	2.99
>5-20	6	48.80	8.13
>20-50	1	44.90	44.90
>50	0	0.00	0.00
Total	11843	1028.60	0.09
Five year period 1993-1997			
0	8300	0.00	0.00
>0-5	6415	4080.95	0.64
>5-25	116	995.10	8.58
>25-100	6	248.20	41.37
>100	0	0.00	0.00
Total	14837	5324.25	0.36

Lognormal parameters for positive doses in 1997:

μ : -1.0556

F^2 : 0.5655

Sample size: 1963

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

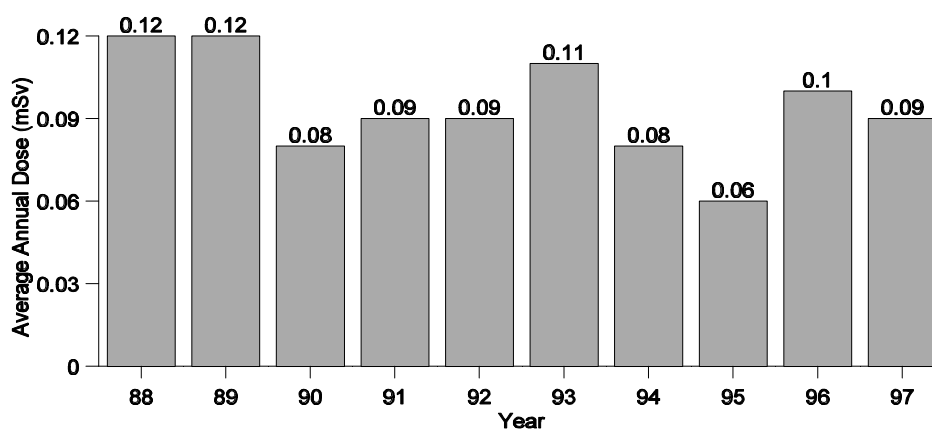


Table 4 (Cont'd)
Nuclear Medicine Technologist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	416	0.00	0.00
>0-1	419	225.27	0.54
>1-2	315	478.30	1.52
>2-5	293	895.10	3.05
>5-20	25	187.60	7.50
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	1468	1786.27	1.22
Five year period 1993-1997			
0	479	0.00	0.00
>0-5	901	1736.27	1.93
>5-25	667	7021.30	10.53
>25-100	20	637.90	31.90
>100	0	0.00	0.00
Total	2067	9395.47	4.55

Hybrid lognormal parameters for positive doses in 1997:

D: 0.1668

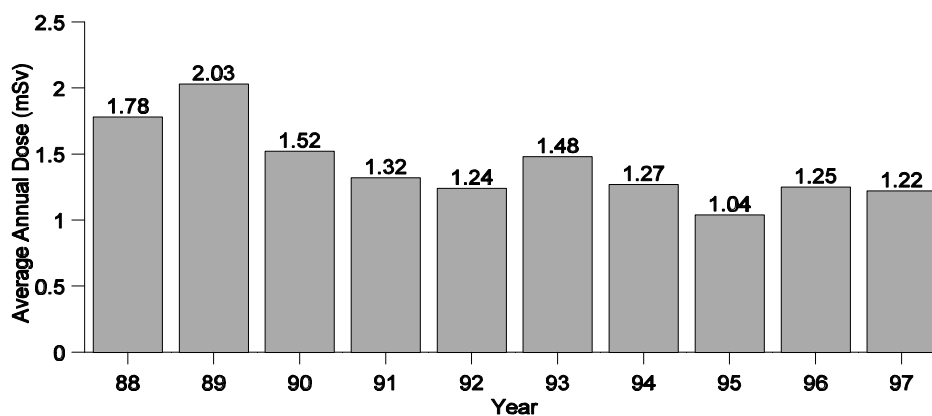
μ : -1.4704

F²: 1.3639

Sample size: 1052

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997



**Table 4 (Cont'd)
Nurse**

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	3698	0.00	0.00
>0-1	1051	379.85	0.36
>1-2	42	58.00	1.38
>2-5	8	20.90	2.61
>5-20	4	22.80	5.70
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	4803	481.55	0.10
Five year period 1993-1997			
0	5603	0.00	0.00
>0-5	2731	1719.99	0.63
>5-25	28	251.20	8.97
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	8362	1971.19	0.24

Lognormal parameters for positive doses in 1997:

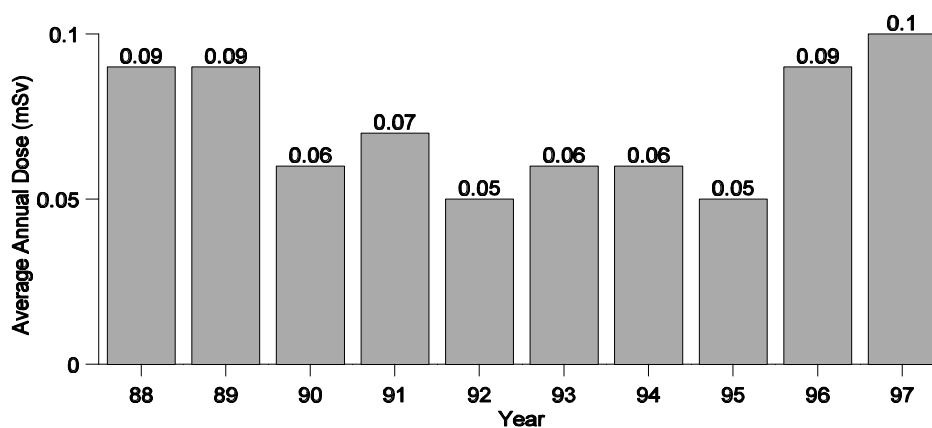
μ : -1.1193

F^2 : 0.4872

Sample size: 1105

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997



**Table 4 (Cont'd)
Physician**

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	1557	0.00	0.00
>0-1	407	149.00	0.37
>1-2	46	64.90	1.41
>2-5	17	49.50	2.91
>5-20	9	67.50	7.50
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	2036	330.90	0.16
Five year period 1993-1997			
0	1763	0.00	0.00
>0-5	1272	1070.50	0.84
>5-25	65	592.70	9.12
>25-100	7	271.20	38.74
>100	0	0.00	0.00
Total	3107	1934.40	0.62

Lognormal parameters for positive doses in 1997:

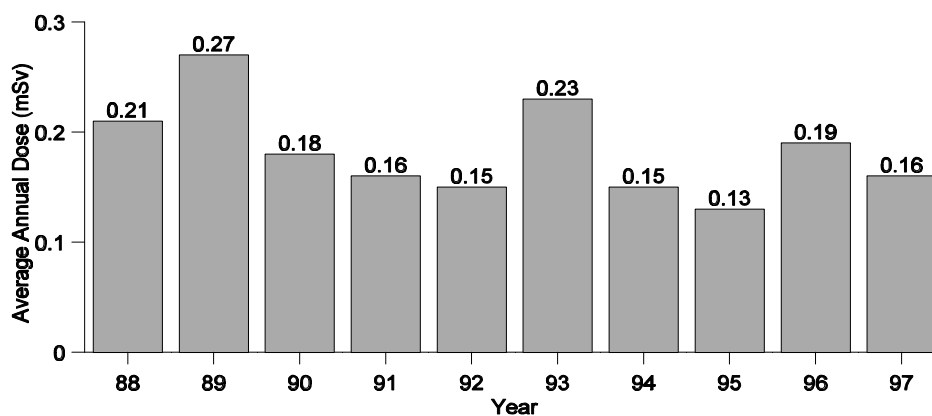
μ : -0.9203

F^2 : 0.8135

Sample size: 479

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997



**Table 4 (Cont'd)
Radiation Therapist**

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	733	0.00	0.00
>0-1	280	89.10	0.32
>1-2	9	12.50	1.39
>2-5	6	16.20	2.70
>5-20	4	38.00	9.50
>20-50	1	35.40	35.40
>50	1	63.40	63.40
Total	1034	254.60	0.25
Five year period 1993-1997			
0	466	0.00	0.00
>0-5	867	849.20	0.98
>5-25	40	380.60	9.52
>25-100	4	168.40	42.10
>100	0	0.00	0.00
Total	1377	1398.20	1.02

Lognormal parameters for positive doses in 1997:

μ : -1.1492

F^2 : 0.7734

Sample size: 301

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

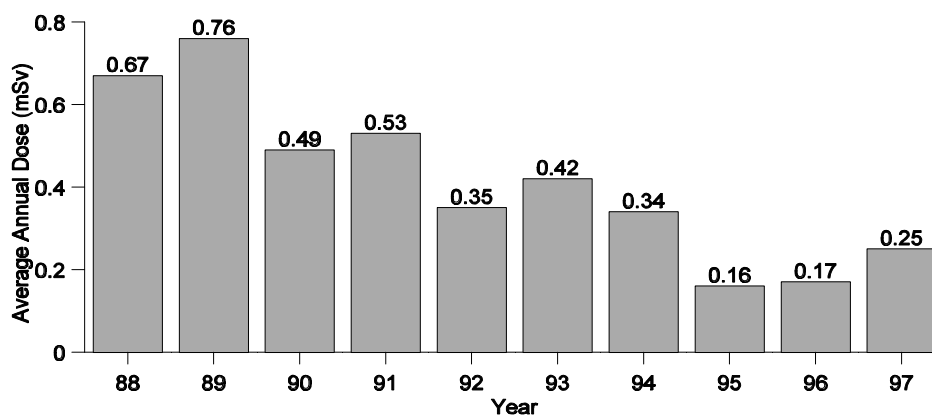


Table 4 (Cont'd)
Radiologist (Diagnostic)

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	1426	0.00	0.00
>0-1	335	133.40	0.40
>1-2	30	42.10	1.40
>2-5	12	36.10	3.01
>5-20	4	30.20	7.55
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	1807	241.80	0.13
Five year period 1993-1997			
0	1300	0.00	0.00
>0-5	1116	876.20	0.79
>5-25	43	394.10	9.17
>25-100	2	86.70	43.35
>100	0	0.00	0.00
Total	2461	1357.00	0.55

Lognormal parameters for positive doses in 1997:

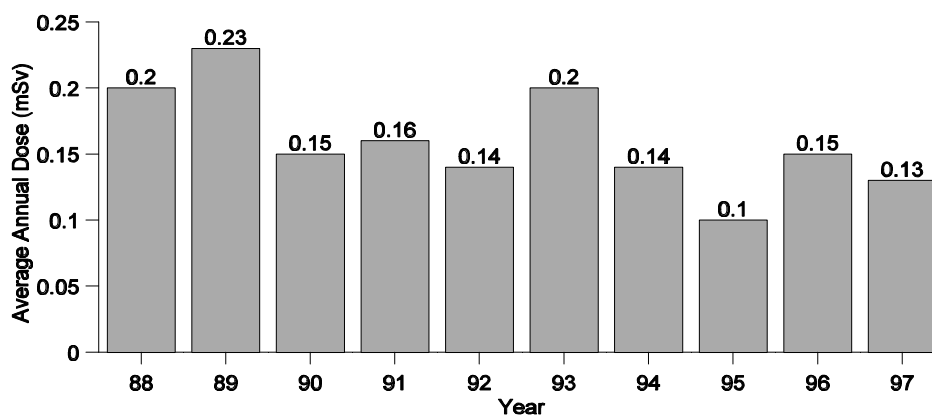
μ : -0.8904

F^2 : 0.6666

Sample size: 381

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997



**Table 4 (Cont'd)
Radiologist (Therapeutic)**

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	125	0.00	0.00
>0-1	29	9.00	0.31
>1-2	1	1.10	1.10
>2-5	0	0.00	0.00
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	155	10.10	0.07
Five year period 1993-1997			
0	141	0.00	0.00
>0-5	125	81.40	0.65
>5-25	3	31.70	10.57
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	269	113.10	0.42

Lognormal parameters for positive doses in 1997:

μ : -1.2187

F^2 : 0.2391

Sample size: 30

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

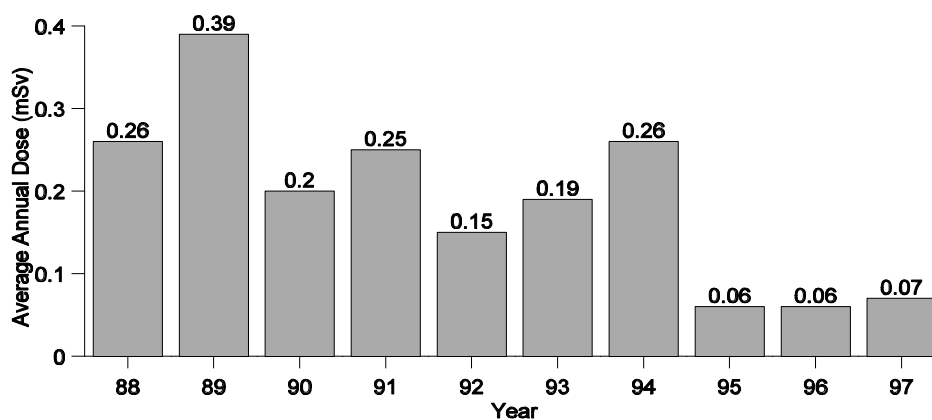


Table 4 (Cont'd)
Veterinarian

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
Year 1997			
0	3904	0.00	0.00
>0-1	245	84.09	0.34
>1-2	19	24.90	1.31
>2-5	6	18.90	3.15
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	4174	127.89	0.03
Five year period 1993-1997			
0	4131	0.00	0.00
>0-5	1331	749.10	0.56
>5-25	22	167.90	7.63
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	5484	917.00	0.17

Lognormal parameters for positive doses in 1997:

μ : -1.0584

F^2 : 0.4714

Sample size: 270

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

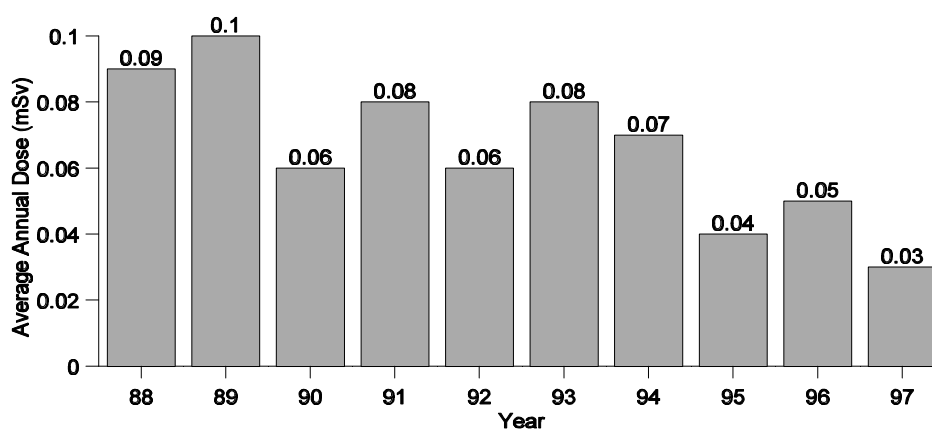


Table 4 (Cont'd)
Veterinary Technician

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	9	0.00	0.00
>0-1	0	0.00	0.00
>1-2	0	0.00	0.00
>2-5	0	0.00	0.00
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	9	0.00	0.00
Five year period 1993-1997			
0	24	0.00	0.00
>0-5	6	6.50	1.08
>5-25	0	0.00	0.00
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	30	6.50	0.22

Lognormal or hybrid lognormal parameters for positive doses in 1997:
Not applicable
(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

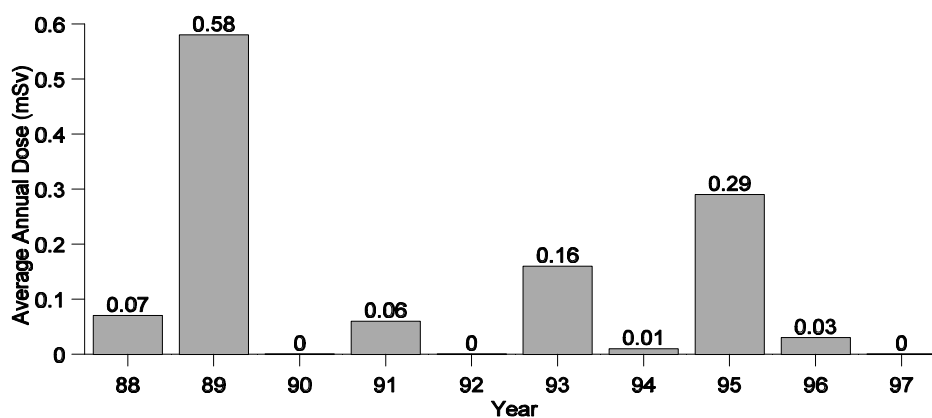


Table 4 (Cont'd)
Ward Aid/Orderly

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1997
0	1506	0.00	0.00
>0-1	172	63.10	0.37
>1-2	12	16.40	1.37
>2-5	6	19.40	3.23
>5-20	0	0.00	0.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	1696	98.90	0.06
Five year period 1993-1997			
0	2518	0.00	0.00
>0-5	714	443.20	0.62
>5-25	23	199.70	8.68
>25-100	1	32.00	32.00
>100	0	0.00	0.00
Total	3256	674.90	0.21

Lognormal parameters for positive doses in 1997:

μ : -1.0209

F^2 : 0.6230

Sample size: 190

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1988-1997

