



2000 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 1998
0	875	0.00	0.00
>0-1	68	24.60	0.36
>1-2	3	4.70	1.57
>2-5	0	0.00	0.00
>5-20	0	0.00	0.00
>20-50	1	25.60	25.60
>50	0	0.00	0.00
Total	947	54.90	0.06
Five year period 1994-1998			
0	1082	0.00	0.00
>0-5	237	137.40	0.58
>5-25	6	62.80	10.47
>25-100	1	25.60	25.60
>100	0	0.00	0.00
Total	1326	225.80	0.17

Lognormal parameters for positive doses in 1998:

μ : -1.0303

σ^2 : 0.5973

Sample size: 72

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

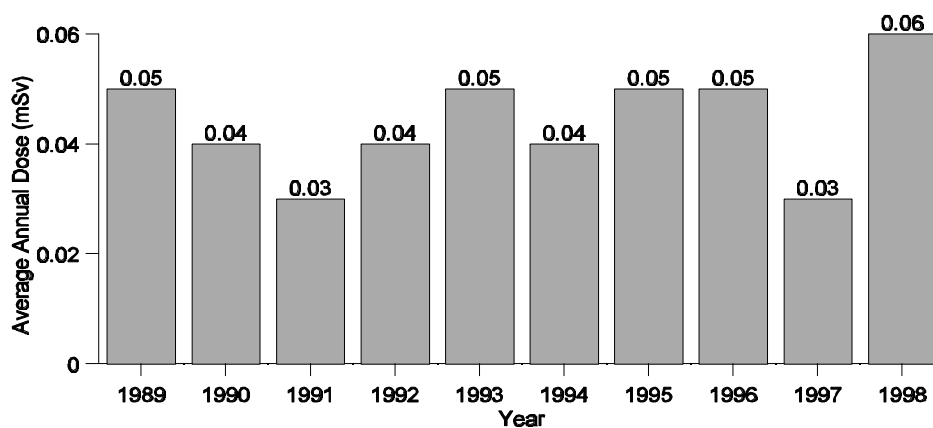


Table 4 (Cont'd)
Dental Assistant

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	8698	0.00	0.00
>0-1	267	76.60	0.29
>1-2	1	1.30	1.30
>2-5	2	4.90	2.45
>5-20	2	11.60	5.80
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	8970	94.40	0.01
Five year period 1994-1998			
0	11415	0.00	0.00
>0-5	545	209.00	0.38
>5-25	13	127.40	9.80
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	11973	336.40	0.03

Lognormal parameters for positive doses in 1998:

μ : -1.2799

σ^2 : 0.2450

Sample size: 272

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

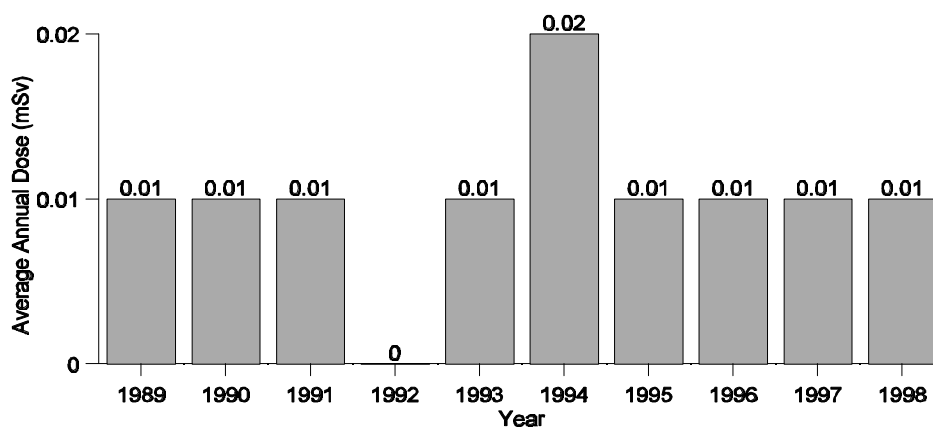


Table 4 (Cont'd)
Dental Hygienist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	6649	0.00	0.00
>0-1	200	59.00	0.30
>1-2	6	9.20	1.53
>2-5	1	3.80	3.80
>5-20	1	19.00	19.00
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	6857	91.00	0.01
Five year period 1994-1998			
0	9950	0.00	0.00
>0-5	499	215.52	0.43
>5-25	5	60.00	12.00
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	10454	275.52	0.03

Lognormal parameters for positive doses in 1998:

μ : -1.2294

σ^2 : 0.3479

Sample size: 208

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

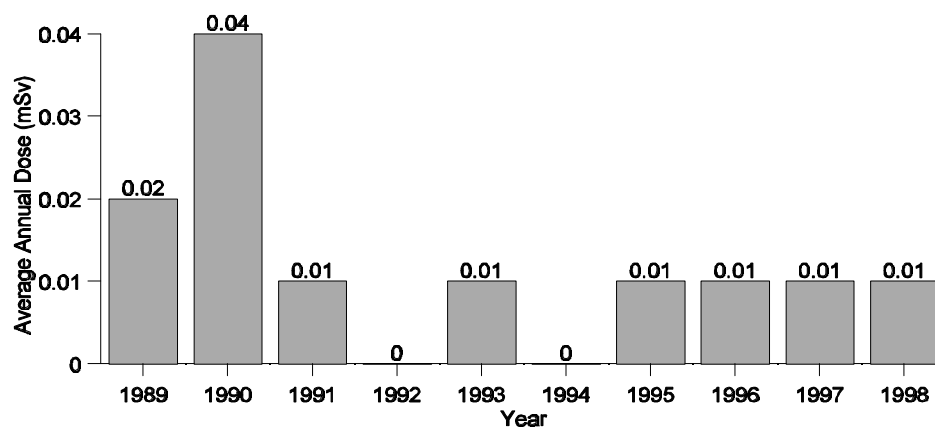


Table 4 (Cont'd)
Dental Therapist/Nurse

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	93	0.00	0.00
>0-1	3	0.90	0.30
>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	96	0.90	0.01
Five year period 1994-1998			
0	105	0.00	0.00
>0-5	8	4.10	0.51
>5-25	0	0.00	0.00
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	113	4.10	0.04

Lognormal parameters for positive doses in 1998:

μ : -1.2432

σ^2 : 0.0808

Sample size: 3

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

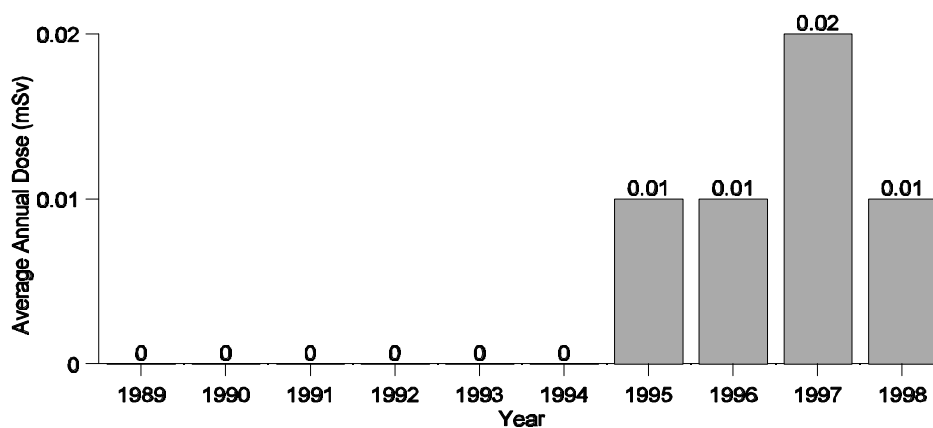


Table 4 (Cont'd)
Dentist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	6550	0.00	0.00
>0-1	254	74.90	0.29
>1-2	2	2.90	1.45
>2-5	0	0.00	0.00
>5-20	1	6.30	6.30
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	6807	84.10	0.01
Five year period 1994-1998			
0	7932	0.00	0.00
>0-5	632	260.46	0.41
>5-25	7	65.30	9.33
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	8571	325.76	0.04

Lognormal parameters for positive doses in 1998:

μ : -1.2943

σ^2 : 0.2259

Sample size: 257

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

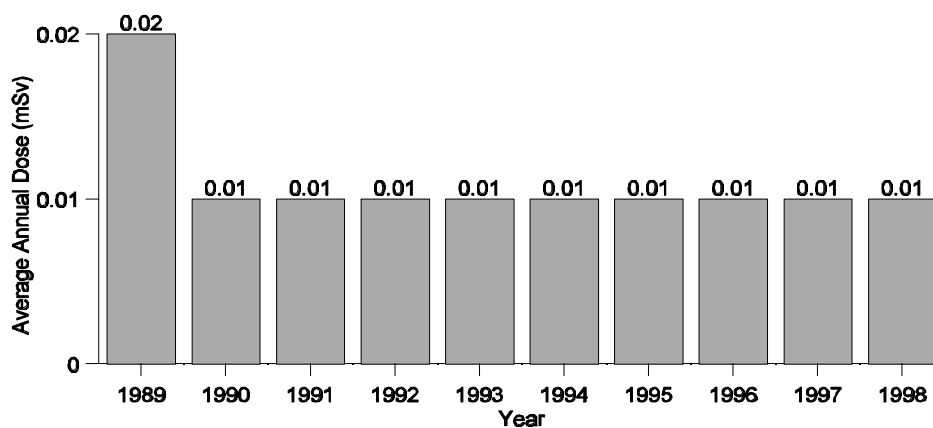


Table 4 (Cont'd)
Gynaecologist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	23	0.00	0.00
>0-1	2	0.90	0.45
>1-2	2	2.20	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	27	3.10	0.11
Five year period 1994-1998			
0	40	0.00	0.00
>0-5	13	12.20	0.94
>5-25	0	0.00	0.00
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	53	12.20	0.23

Lognormal parameters for positive doses in 1998:

μ : -0.3810

σ^2 : 0.2870

Sample size: 4

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

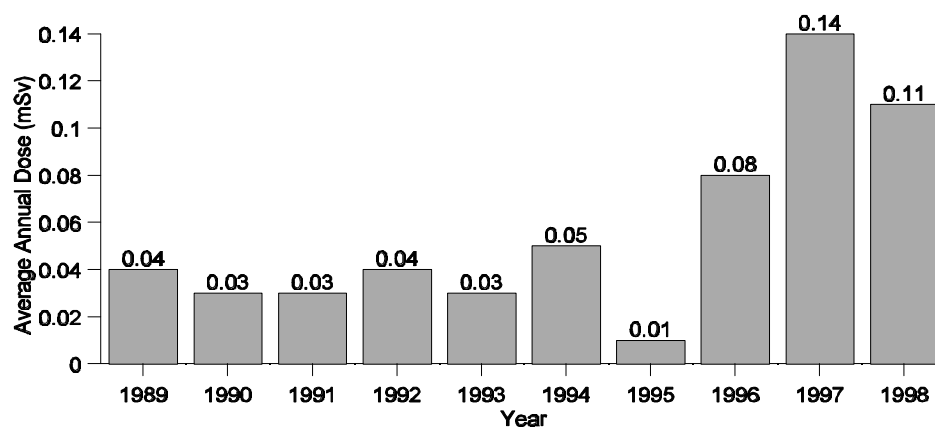


Table 4 (Cont'd)
Laboratory Technician (Medical)

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	2634	0.00	0.00
>0-1	391	125.14	0.32
>1-2	28	39.70	1.42
>2-5	17	55.50	3.26
>5-20	2	13.40	6.70
>20-50	1	33.20	33.20
>50	0	0.00	0.00
Total	3073	266.94	0.09
Five year period 1994-1998			
0	4535	0.00	0.00
>0-5	1567	813.95	0.52
>5-25	26	234.80	9.03
>25-100	3	104.30	34.77
>100	0	0.00	0.00
Total	6131	1153.05	0.19

Lognormal parameters for positive doses in 1998:

μ : -1.1100

σ^2 : 0.8313

Sample size: 439

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

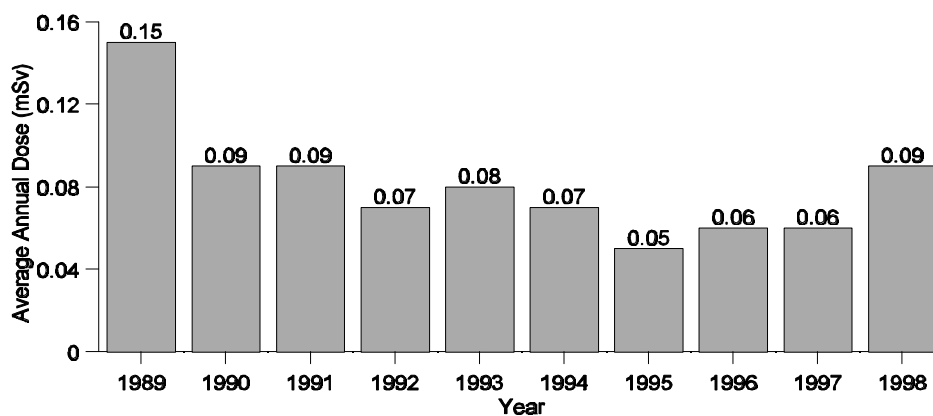


Table 4 (Cont'd)
Medical Physicist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	219	0.00	0.00
>0-1	53	15.21	0.29
>1-2	3	4.40	1.47
>2-5	1	3.10	3.10
>5-20	0	0.00	0.00
>20-50	1	41.20	41.20
>50	0	0.00	0.00
Total	277	63.91	0.23
Five year period 1994-1998			
0	258	0.00	0.00
>0-5	136	83.71	0.62
>5-25	5	47.90	9.58
>25-100	1	43.70	43.70
>100	0	0.00	0.00
Total	400	175.31	0.44

Lognormal parameters for positive doses in 1998:

μ : -1.1718

σ^2 : 0.9465

Sample size: 58

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

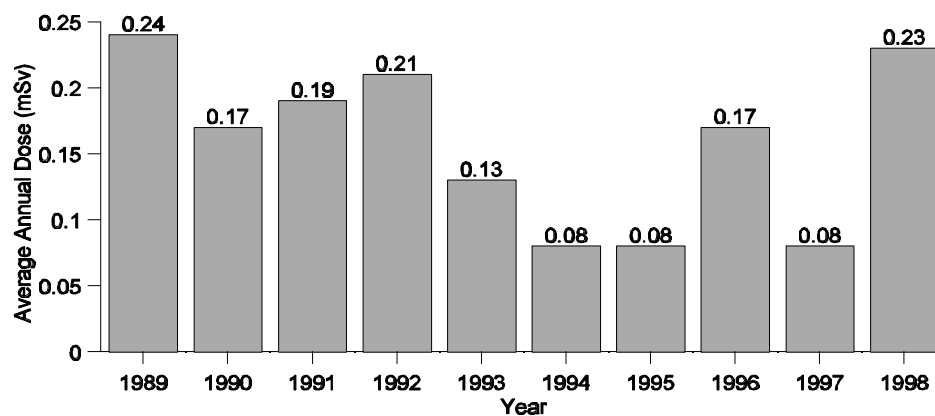


Table 4 (Cont'd)
Medical Radiation Technologist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	9428	0.00	0.00
>0-1	2104	730.80	0.35
>1-2	97	141.70	1.46
>2-5	55	165.60	3.01
>5-20	5	43.30	8.66
>20-50	1	20.10	20.10
>50	0	0.00	0.00
Total	11690	1101.50	0.09
Five year period 1994-1998			
0	8406	0.00	0.00
>0-5	6222	4060.55	0.65
>5-25	99	859.00	8.68
>25-100	7	260.30	37.19
>100	0	0.00	0.00
Total	14734	5179.85	0.35

Lognormal parameters for positive doses in 1998:

μ : -1.0842

σ^2 : 0.5435

Sample size: 2262

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

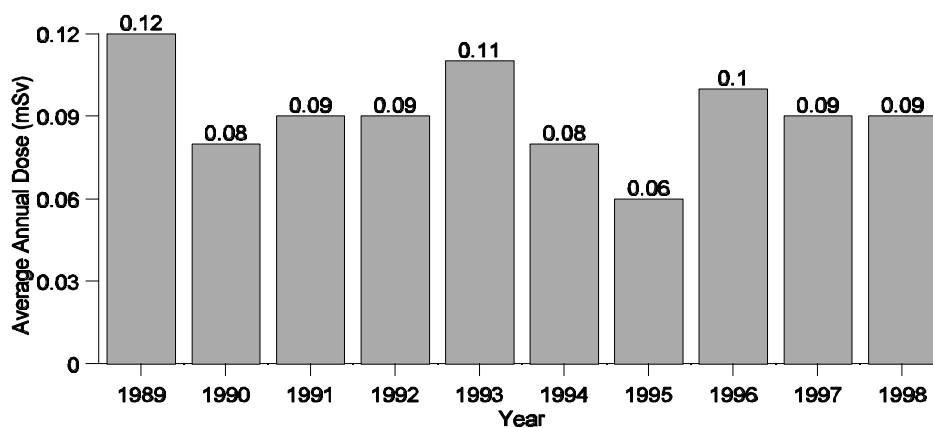


Table 4 (Cont'd)
Nuclear Medicine Technologist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	381	0.00	0.00
>0-1	334	170.90	0.51
>1-2	311	477.80	1.54
>2-5	370	1145.90	3.10
>5-20	38	273.40	7.19
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	1434	2068.00	1.44
Five year period 1994-1998			
0	470	0.00	0.00
>0-5	821	1599.17	1.95
>5-25	683	7066.40	10.35
>25-100	16	564.50	35.28
>100	0	0.00	0.00
Total	1990	9230.07	4.64

Hybrid lognormal parameters for positive doses in 1998:

ρ : 0.3012

μ : -0.3008

σ^2 : 1.9291

Sample size: 1053

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

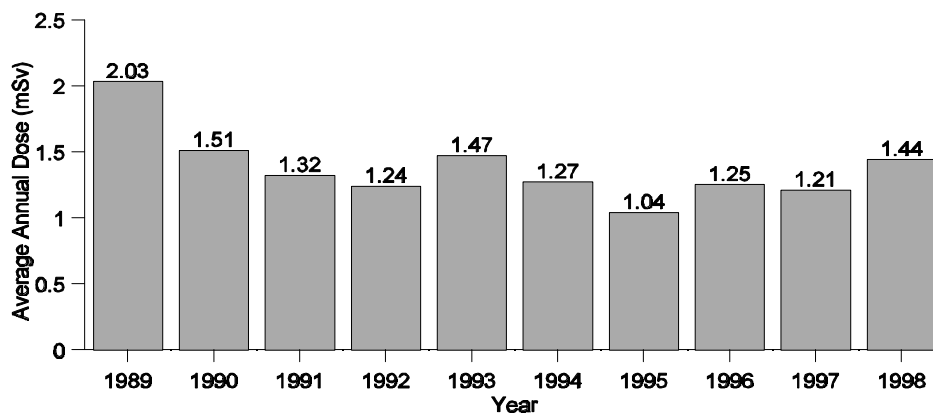


Table 4 (Cont'd)
Nurse

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	3334	0.00	0.00
>0-1	907	440.96	0.49
>1-2	306	386.70	1.26
>2-5	22	65.30	2.97
>5-20	6	39.50	6.58
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	4575	932.46	0.20
Five year period 1994-1998			
0	5515	0.00	0.00
>0-5	2684	2316.75	0.86
>5-25	29	251.20	8.66
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	8228	2567.95	0.31

Hybrid lognormal parameters for positive doses in 1998:

ρ : 0.1629

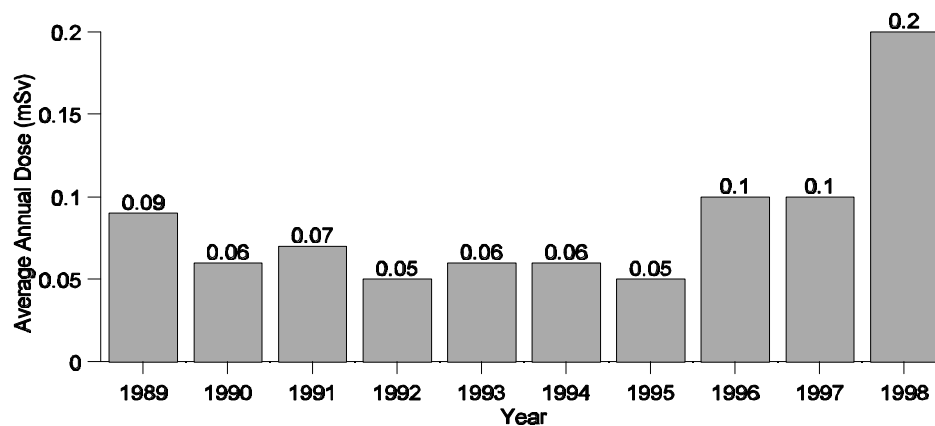
μ : -2.2937

σ^2 : 0.8446

Sample size: 1241

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998



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

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	1461	0.00	0.00
>0-1	449	180.20	0.40
>1-2	47	66.40	1.41
>2-5	20	62.20	3.11
>5-20	8	83.50	10.44
>20-50	2	81.00	40.50
>50	0	0.00	0.00
Total	1987	473.30	0.24
Five year period 1994-1998			
0	1666	0.00	0.00
>0-5	1243	1085.20	0.87
>5-25	58	531.10	9.16
>25-100	7	261.50	37.36
>100	0	0.00	0.00
Total	2974	1877.80	0.63

Lognormal parameters for positive doses in 1998:

μ : -0.8313

σ^2 : 0.9304

Sample size: 526

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

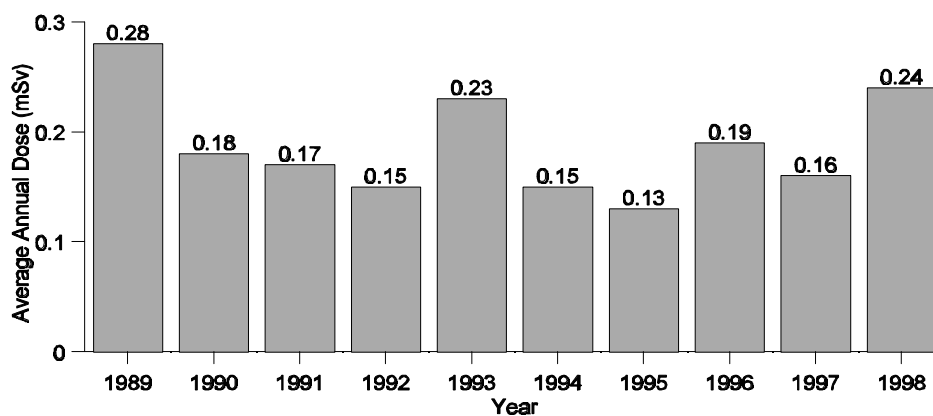


Table 4 (Cont'd)
Radiation Therapist

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	755	0.00	0.00
>0-1	264	77.50	0.29
>1-2	8	11.40	1.43
>2-5	6	19.70	3.28
>5-20	2	13.40	6.70
>20-50	1	24.00	24.00
>50	0	0.00	0.00
Total	1036	146.00	0.14
Five year period 1994-1998			
0	508	0.00	0.00
>0-5	813	690.50	0.85
>5-25	24	266.20	11.09
>25-100	3	136.10	45.37
>100	0	0.00	0.00
Total	1348	1092.80	0.81

Lognormal parameters for positive doses in 1998:

μ : -1.2550

σ^2 : 0.6824

Sample size: 281

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

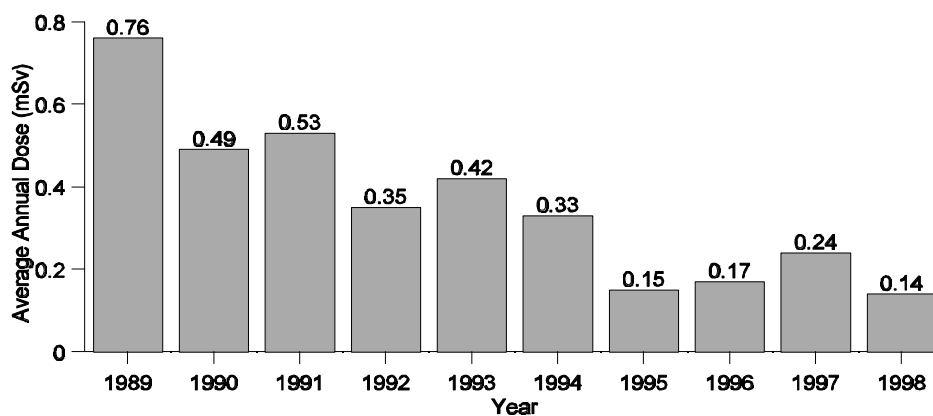


Table 4 (Cont'd)
Radiologist (Diagnostic)

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	1320	0.00	0.00
>0-1	390	142.50	0.37
>1-2	35	46.20	1.32
>2-5	18	48.30	2.68
>5-20	3	23.70	7.90
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	1766	260.70	0.15
Five year period 1994-1998			
0	1251	0.00	0.00
>0-5	1061	841.50	0.79
>5-25	41	379.30	9.25
>25-100	1	32.10	32.10
>100	0	0.00	0.00
Total	2354	1252.90	0.53

Lognormal parameters for positive doses in 1998:

μ : -0.9701

σ^2 : 0.7145

Sample size: 446

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

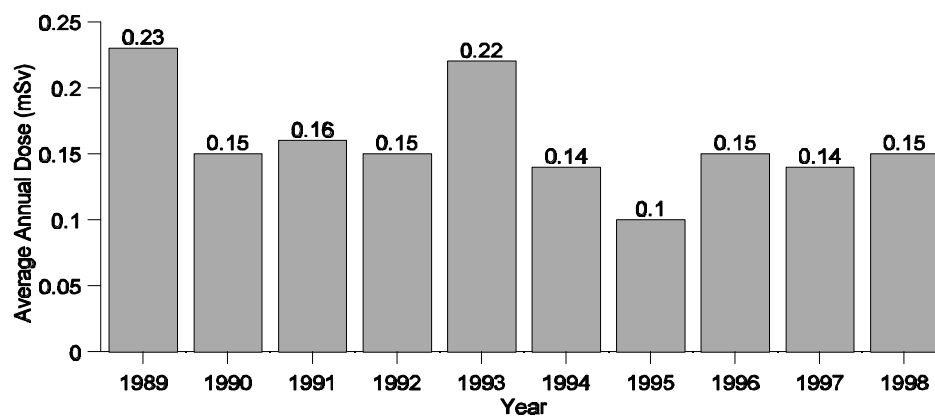


Table 4 (Cont'd)
Radiologist (Therapeutic)

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	124	0.00	0.00
>0-1	22	6.90	0.31
>1-2	1	1.10	1.10
>2-5	1	2.20	2.20
>5-20	1	8.70	8.70
>20-50	0	0.00	0.00
>50	0	0.00	0.00
Total	149	18.90	0.13
Five year period 1994-1998			
0	153	0.00	0.00
>0-5	107	66.80	0.62
>5-25	2	30.30	15.15
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	262	97.10	0.37

Lognormal parameters for positive doses in 1998:

μ : -1.0401

σ^2 : 0.9151

Sample size: 25

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

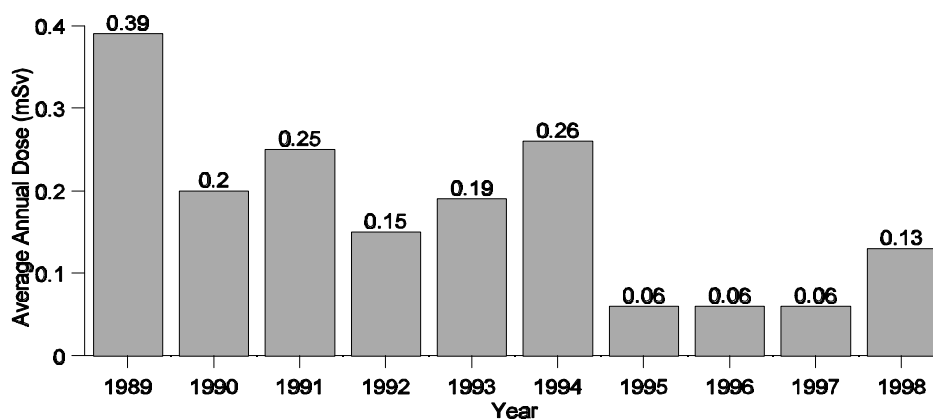


Table 4 (Cont'd)
Veterinarian

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	3752	0.00	0.00
>0-1	391	122.61	0.31
>1-2	19	27.90	1.47
>2-5	7	20.40	2.91
>5-20	1	5.90	5.90
>20-50	2	56.60	28.30
>50	0	0.00	0.00
Total	4172	233.41	0.06
Five year period 1994-1998			
0	4346	0.00	0.00
>0-5	1347	713.47	0.53
>5-25	21	158.00	7.52
>25-100	2	60.60	30.30
>100	0	0.00	0.00
Total	5716	932.07	0.16

Lognormal parameters for positive doses in 1998:

μ : -1.1100

σ^2 : 0.4599

Sample size: 420

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

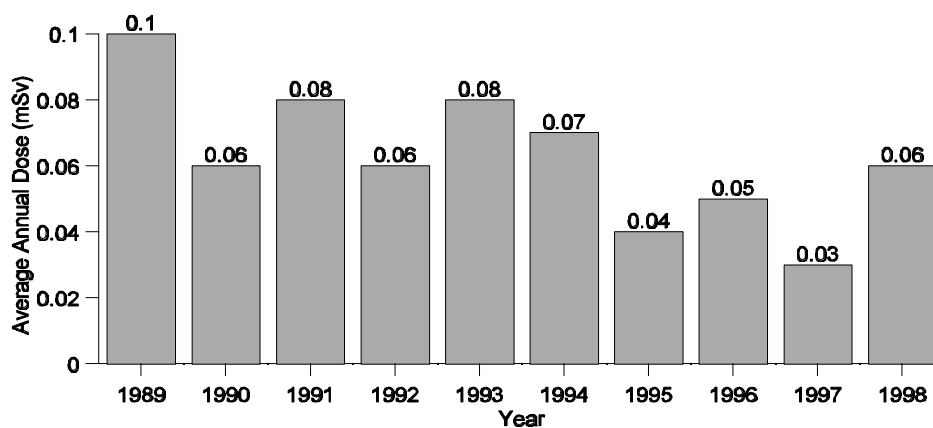


Table 4 (Cont'd)
Veterinary Technician

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	160	0.00	0.00
>0-1	9	2.50	0.28
>1-2	1	1.20	1.20
>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	170	3.70	0.02
Five year period 1994-1998			
0	187	0.00	0.00
>0-5	19	13.80	0.73
>5-25	1	6.20	6.20
>25-100	0	0.00	0.00
>100	0	0.00	0.00
Total	207	20.00	0.10

Lognormal parameters for positive doses in 1998:

μ : -1.1818

σ^2 : 0.2987

Sample size: 10

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

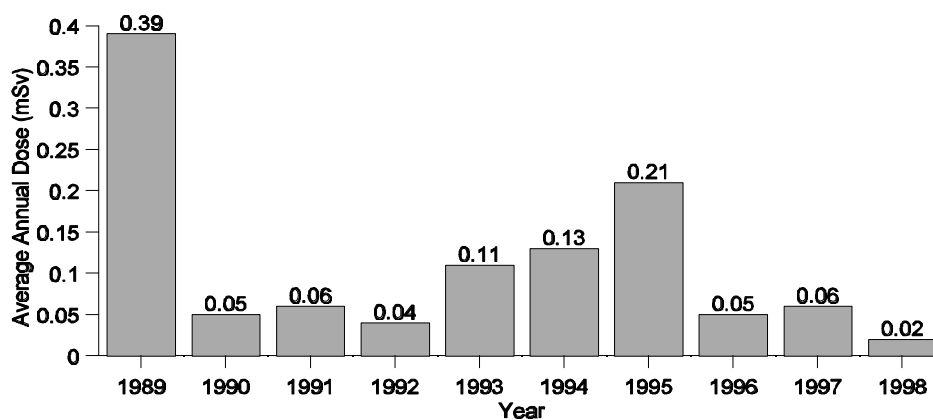


Table 4 (Cont'd)
Ward Aid/Orderly

Dose Interval (mSv)	Number of Workers	Collective Dose	Average Dose
			Year 1998
0	1322	0.00	0.00
>0-1	192	78.50	0.41
>1-2	15	20.10	1.34
>2-5	10	29.40	2.94
>5-20	1	6.90	6.90
>20-50	0	0.00	0.00
>50	1	63.40	63.40
Total	1541	198.30	0.13
Five year period 1994-1998			
0	2471	0.00	0.00
>0-5	672	463.20	0.69
>5-25	17	143.40	8.44
>25-100	2	95.40	47.70
>100	0	0.00	0.00
Total	3162	702.00	0.22

Lognormal parameters for positive doses in 1998:

μ : -0.8466

σ^2 : 0.7618

Sample size: 219

(See Appendix for explanation)

Histogram of average annual doses over ten year period 1989-1998

