

## APPENDIX 5

### Investigation into incidence of all cancers excluding non-melanoma skins at 0-5km from Cranlome mast 2001 cases only

males & females combined_all cancers exc NMS									
Dungannon			≤3km radius from mast				3-5km from mast		
age-band	incident cases	age-specific							
		pop years	rate (per 100,000)	pop years	observed cases	expected cases	pop years	observed cases	expected cases
0-4		3,557	0.0000	31		0.000000	82		0.000000
05-9		3,746	26.6951	31		0.008275	89		0.023759
10-14		4,133	0.0000	26		0.000000	92		0.000000
15-19	11*	3,937	0.0000	36		0.000000	109		0.000000
20-24		3,023	66.1594	35		0.023156	98		0.064836
25-29		3,450	28.9855	31		0.008986	91		0.026377
30-34		3,501	199.9429	32		0.063982	82		0.163953
35-39	5	3,382	147.8415	29		0.042874	64		0.094619
40-44	4	3,226	123.9926	19		0.023559	74		0.091754
45-49	4	2,845	140.5975	26		0.036555	68		0.095606
50-54	8	2,702	296.0770	22		0.065137	72		0.213175
55-59	19	2,351	808.1667	19		0.153552	52		0.420247
60-64	21	2,008	1045.8167	15		0.156873	43		0.449701
65-69	22	1,808	1216.8142	12		0.146018	48		0.584071
70-74	30	1,580	1898.7342	14		0.265823	29		0.550633
75-79	22	1,246	1765.6501	6		0.105939	19		0.335474
80-84	18	778	2313.6247	5		0.115681	23		0.532134
85+	8	576	1388.8889	6		0.083333	12		0.166667
<b>Total</b>	<b>172</b>	<b>47,849</b>	<b>359.4641</b>	<b>395</b>	<b>2</b>	<b>1.299742</b>	<b>1147</b>	<b>2</b>	<b>3.813005</b>

\* numbers in age categories have been suppressed out of respect for confidentiality

#### Analysis 1: Testing for an excess of cancer cases in the area up to 3km from the mast

$$\text{Obs/Expected} = 2/1.2997 = 1.539$$

Without correcting for underestimation of population surrounding mast, there are more cases observed than expected. Testing the hypothesis that Obs/Exp = 1, versus the alternative hypothesis that Obs/Exp > 1, → insufficient evidence to reject Null Hypothesis.

So no evidence of an excess of all cancers exc. non-melanoma skin cancers in the area encompassing 3km around the mast (2001).

#### Analysis 2: Testing for an excess of cancer cases in the area 3-5km from the mast

$$\text{Obs/Expected} = 2/3.8130 = 0.524$$

Without correcting for underestimation of population surrounding mast, there are fewer cases observed than expected. Testing the hypothesis that Obs/Exp = 1, versus the alternative hypothesis that Obs/Exp > 1, → insufficient evidence to reject Null Hypothesis.

So no evidence of an excess of all cancers exc. non-melanoma skin cancers in the area encompassing 3-5km from the mast (2001).

**Investigation into incidence of all cancers at 0-5km from Cranlome mast  
2001 cases only**

males & females combined_all cancers									
Dungannon			≤3km radius from mast			3-5km from mast			
age-band	incident cases	pop years	age-specific		observed cases	expected cases	pop years	observed cases	expected cases
			rate (per 100,000)	pop years					
0-4		3,557	0.0000	31	0.000000	82	0.000000		
05-9		3,746	26.6951	31	0.008275	89	0.023759		
10-14		4,133	0.0000	26	0.000000	92	0.000000		
15-19	13*	3,937	0.0000	36	0.000000	109	0.000000		
20-24		3,023	99.2392	35	0.034734	98	0.097254		
25-29		3,450	28.9855	31	0.008986	91	0.026377		
30-34		3,501	228.5061	32	0.073122	82	0.187375		
35-39	6	3,382	177.4098	29	0.051449	64	0.113542		
40-44	4	3,226	123.9926	19	0.023559	74	0.091754		
45-49	6	2,845	210.8963	26	0.054833	68	0.143409		
50-54	9	2,702	333.0866	22	0.073279	72	0.239822		
55-59	23	2,351	978.3071	19	0.185878	52	0.508720		
60-64	27	2,008	1344.6215	15	0.201693	43	0.578187		
65-69	30	1,808	1659.2920	12	0.199115	48	0.796460		
70-74	39	1,580	2468.3544	14	0.345570	29	0.715823		
75-79	35	1,246	2808.9888	6	0.168539	19	0.533708		
80-84	25	778	3213.3676	5	0.160668	23	0.739075		
85+	15	576	2604.1667	6	0.156250	12	0.312500		
<b>Total</b>	<b>232</b>	<b>47,849</b>	<b>484.8586</b>	<b>395</b>	<b>2</b>	<b>1,745,950</b>	<b>1147</b>	<b>3</b>	<b>5.107766</b>

\* numbers in age categories have been suppressed out of respect for confidentiality

**Analysis 1: Testing for an excess of cancer cases in the area up to 3km from the mast**

Obs/Expected = 2/1.746 = 1.145

Without correcting for underestimation of population surrounding mast, there are more cases observed than expected. Testing the hypothesis that Obs/Exp = 1, versus the alternative hypothesis that Obs/Exp > 1, → insufficient evidence to reject Null Hypothesis.

So no evidence of an excess of cancer in the area encompassing 3km around the mast.

**Analysis 2: Testing for an excess of cancer cases in the area 3-5km from the mast**

Obs/Expected = 3/5.108 = 0.587

Without correcting for underestimation of population surrounding mast, there are fewer cases observed than expected. Testing the hypothesis that Obs/Exp = 1, versus the alternative hypothesis that Obs/Exp > 1, → insufficient evidence to reject Null Hypothesis.

So no evidence of an excess of cancer in the area encompassing 3-5km from the mast.

**Investigation into incidence of all cancers at 0-5km from Cranlome mast**  
**2001 cases only**