



Scatterplot of relative risk in each AOR for childhood cancer 0-4 from 1974-89 by distance from sea

Over the whole sixteen-year period, there was a sharp and highly significant childhood cancer excess risk associated with living in an AOR inside 800 metres from the coast. This excess risk fell off sharply with distance and rates became similar to those in the base population across the whole of Wales except for a slight increase in the 21-40 km strip, which corresponds to the mountainous, high-rainfall areas of Mid and North Wales. The numbers were too small to establish statistically significant time trends throughout the period but the highest effect occurred in the 1984-8 period by which time the relative risk in the narrow coastal strip had become 3.6 (P 0.0000). However, the effect was still constrained to the narrow coastal strip (Table 4.3). The two earlier periods also show this effect but numbers were too small for statistical significance.

Range of distance from sea <sd> (km)	Mean distance (std. dev)	Observed Cases	Expected Cases	Relative Risk	P value (Poisson )	Number of areas aggregated
<0.8	0.56(0.16)	34	15.3	2.2	0.0000	18
0.9<sd<2	1.4(0.5)	33	21.8	1.5	0.009	17
2.1<sd<5	4.2(0.4)	23	20	1.1	-	17
5.1<sd<11	8.24 (0.66)	36	33	1.1	-	17
11.1<sd<21	16.4(2.8)	7	13.5	0.5	-	14
21.1<sd<40	34.7 (5.8)	24	20	1.2	-	17
Sd>41	55 9.3	20	17.9	1.1	-	27
All South Wales		270	195	1.4	-	61

Relative risk by distance from Irish Sea of incidence of cancer in the 0-4 age-group between 1974 and 1989