Cancer in proximity to TV towers in Australia

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There is ongoing controversy about the health effects of low level electro-magnetic fields. An Australian population-based study conducted from 1972 to 1990 has compared cancer incidence and mortality in six northern Sydney municipalities.

The Australian study compared three suburbs which immediately surround three major TV towers with three suburbs which are adjacent but more distant. This provided a ground for comparison as radiofrequency radiation decreases as the square of the distance increases and so the two study groups would have different levels of exposure.

The calculated power density ranged from 8.0μ W/ cm² near the towers, to 0.2μ W/cm² at a 4Km distance and 0.02μ W/cm² at a 12Km distance.

In those suburbs immediately surrounding the TV towers, the rate ratio for leukaemia was increased (1.17, 95% CI: 1.03-1.34) compared to the suburbs that are more distant. For children the rate ratio was 1.61 (95% CI: 1.08-2.41) for incidence, and 2.24 (95% CI: 1.29-3.92) for mortality. Brain cancer was not increased.

The study found that there is an association between childhood leukaemia and proximity to these TV towers. It should also be noted that the power density emitted by the TV towers is much below the present Australian Standard. Further studies are needed to confirm the association and determine any doseresponse relationship before firm conclusions may be reached.

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Electromagnetic Field Litigation in the United Kingdom

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Introduction

In February 1989, Ray and Denise Studholme moved into a semi-detached house on an estate just to the north of Manchester. The house seemed perfect to the couple, particularly its ample room for their two children, Simon, ten and Deborah, eight. However, 18 months later catastrophe struck. In October 1990, Simon started to get some pains in his chest and seemed to bruise very easily. On being taken to the hospital, Simon was diagnosed as suffering from acute lymphatic leukaemia. At about the same time, Deborah started to suffer from epileptic fits.

Over the next two years, Ray and Denise fought to save Simon, a battle that they ultimately lost when Simon died in September 1992.

Following Simon's death, Ray Studholme decided to investigate a suspicion that resulted from seeing a television programme regarding the possible links between electric pylons and childhood cancers like leukaemia. This concern was brought into focus by the fact that their house was literally next door to an electricity substation and that they lived within a 100 metres or so of a set of electric pylons. Subsequent readings of the electromagnetic fields in their property have shown them to be very high indeed, particularly in the area where Simon slept.

Background

The key question for the Studholmes, and for all those concerned with the downside of the use of electricity, is what evidence there is to prove that high levels of electromagnetic fields (EMF) can cause childhood cancers.

In a report in 1992, Britain's National Radiological Protection Board (NRPB) reviewed the studies that had been published up until the beginning of the year and came out with a view that was rather dismissive of the possible link.

The NRPB suggested a whole series of problems with the design of the studies showing the link and further made the point that when the researchers in