



Analysis of EMR Health Complaints Register Data 2006-2007

ARPANSA commenced Australia's first centralised Electromagnetic Radiation (EMR) Health Complaints Register on 4 July 2003. The Register collects reports of health concerns related to possible EMR field exposures in the range of 0-300 GHz. Members of the public who believe they have suffered ill-effects as a result of exposure to EMR can lodge a written complaint to the Register. ARPANSA does not investigate or attempt to resolve individual complaints but a standard reporting form allows people to describe the nature of their exposure and any adverse health effects they claim to have experienced. The Register operates in strict compliance with the Privacy Act 1988 and, as such, personal information on people reporting may not be disclosed.

Reports

Since its commencement the Register has received 37 reports. Of the 37 reports, 24 were received in the period July 2003 – June 2004, 5 between July 2004 – June 2005 and one between July 2005 – June 2006, the analyses of which are available at: <http://www.arpansa.gov.au/RadiationProtection/EMR/index.cfm>.

A total of 7 reports were received in the period July 2006 – June 2007. The following is an analysis of these 7 reports as well as a cumulative analysis of all 37 reports currently in the Register.

EMR sources

The sources of EMR reported, noting that some reports included more than one EMR source, were:

| EMR source | July 2006 – June 2007 | Cumulative |
|---|-----------------------|------------|
| household 50Hz electric and magnetic fields | - | 13 |
| mobile phones | 3 | 11 |
| communications infrastructure | 1 | 6 |
| broadcast towers | 2 | 2 |
| mobile phone base stations | 2 | 6 |
| cordless phones | - | 3 |
| wireless networks | 2 | 2 |
| UHF 2-way radios | - | 1 |
| microwave ovens | 1 | 2 |
| security devices | - | 1 |
| transmission power lines | - | 3 |
| distribution power lines | 2 | 3 |
| transformers | 1 | 1 |
| electricity industry | - | 1 |
| radar | - | 1 |
| welding | - | 1 |
| magnetic resonance imaging (MRI) scan | - | 1 |

Health effects

Health effects reported, noting that the majority of the reports included more than one health effect, were:

| Health effect | July 2006 – June 2007 | Cumulative | Health effect | July 2006 – June 2007 | Cumulative |
|--|-----------------------|------------|-------------------------------|-----------------------|------------|
| anxiety | - | 2 | itchy eyes | 1 | 1 |
| attention deficit hyperactivity disorder | - | 1 | leukaemia | 1 | 1 |
| body pain | 1 | 11 | lethargy | - | 8 |
| bruising | - | 1 | memory loss | - | 5 |
| burning sensation | 1 | 6 | miscarriage | - | 1 |
| cognitive problems | - | 2 | muscle spasms | - | 2 |
| conception problems | - | 1 | muscle stiffness | - | 2 |
| co-ordination problems | - | 1 | nausea | 1 | 4 |
| cyst above ear | - | 1 | nervous tension | - | 1 |
| depression | - | 5 | non-Hodgkin's lymphoma | 1 | 2 |
| digestive problems | - | 1 | numbness | - | 2 |
| disorientation | 2 | 2 | obsessive compulsive disorder | - | 1 |
| disturbed sleep | - | 5 | perceived noise | 2 | 4 |
| dizziness | 2 | 10 | phosphenes | 1 | 1 |
| ear ache | - | 3 | poor concentration | - | 5 |
| eczema | - | 1 | poor vision | - | 2 |
| empty sella syndrome | - | 1 | pressure sensations | 1 | 1 |
| eye strain | - | 1 | profuse sweating | - | 2 |
| glioblastoma | - | 2 | prostate cancer | - | 1 |
| headaches | 3 | 16 | seizure | - | 1 |
| heart arrhythmia | - | 2 | tinnitus | - | 3 |
| inflamed vessels | 1 | 1 | vibrating sensations | 1 | 1 |
| insomnia | - | 5 | vomiting | - | 1 |
| irritability | - | 2 | weight loss | - | 1 |

Demographics

Age (years)

| | Min | Max | Median |
|-----------------------|-----|-----|--------|
| July 2006 – June 2007 | 8 | 63 | 45 |
| Cumulative | 8 | 88 | 53 |

Gender (no. of reports)

| | males | females |
|-----------------------|----------|----------|
| July 2006 – June 2007 | 5 (71%) | 2 (29%) |
| Cumulative | 18 (49%) | 19 (51%) |

State (no. of reports)

| | NSW | Vic | SA | WA | Qld | Tas | ACT | NT |
|-----------------------|---------|--------|-------|--------|--------|-------|-------|----|
| July 2006 – June 2007 | 3(43%) | 2(29%) | - | 1(14%) | 1(14%) | - | - | - |
| Cumulative | 18(49%) | 9(24%) | 3(8%) | 3(8%) | 2(5%) | 1(3%) | 1(3%) | - |

Other

- All people reporting during July 2006 – June 2007 were willing to be contacted (four people in total reporting since the commencement of the register were not willing to be contacted).
- One person reporting had not seen a medical practitioner about their condition during July 2006 – June 2007 (six in total since the commencement of the register).