



Analysis of EMR Health Complaints Register Data 2012–2013

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 91 reports. Of the 91 reports, 24 were received in the period July 2003 – June 2004, 5 between July 2004 – June 2005, 1 between July 2005 – June 2006, 7 between July 2006 – June 2007, 3 between July 2007 – June 2008, 9 between July 2008 – June 2010 and 6 between July 2010 – June 2012 the analyses of which are available at: <http://www.arpansa.gov.au/RadiationProtection/EMR/index.cfm>.

A total of 36 reports were received in the period July 2012 – June 2013. The following is an analysis of these 36 reports as well as a cumulative analysis of all 91 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 2012 – June 2013	Cumulative
household 50Hz electric and magnetic fields	5	23
mobile phones	5	19
broadcast towers	-	5
mobile phone base stations	8	23
cordless phones	2	6
wireless networks	4	8
UHF 2 way radios	-	1
airport scanners	1	1
satellite dishes	-	1

EMR source	July 2012 – June 2013	Cumulative
security devices	-	1
transmission power lines	-	4
distribution power lines	2	7
electricity mains box	1	3
smart meter	21	22
smart meter base station	4	4
sub-stations	3	3
transformers	1	2
solar inverters	2	2
radar	-	1
welding	-	1
magnetic resonance imaging (MRI) scan	-	1
compact fluorescent lights (CFLs)	2	4
not specified	1	3

Health effects

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

Health effect	July 2012 – June 2013	Cumulative	Health effect	July 2012 – June 2013	Cumulative
anxiety	6	10	insomnia	13	20
arthritis	1	1	irritability	9	12
attention deficit hyperactivity disorder	-	1	itchy eyes	1	2
body pain	15	32	lethargy	4	16
bruising	-	1	memory loss	3	9
burning sensation	6	16	miscarriage	-	1
cancer	1	5	muscle spasms	1	4
cognitive problems	2	5	muscle stiffness	2	4
conception problems	-	1	nausea	7	15
co-ordination problems	-	3	nervous tension	2	4
cyst	-	1	numbness	5	8

Health effect	July 2012 – June 2013	Cumulative	Health effect	July 2012 – June 2013	Cumulative
dehydration	1	1	obsessive compulsive disorder	-	1
depression	2	7	perceived noise	-	5
digestive problems	1	2	phosphenes	-	1
disorientation	1	7	poor concentration	6	12
disturbed sleep	2	8	poor vision	8	10
dizziness	10	26	pressure sensations	2	5
ear ache	5	9	profuse sweating	-	2
eczema	-	1	renal failure	1	1
empty sella syndrome	-	1	seizure	-	2
eye strain	3	6	stress	1	1
flatulence	1	1	tingling sensation	4	6
hair loss	-	1	tinnitus	9	15
headaches	22	47	vibrating sensations	4	6
hearing loss	1	1	vomiting	2	4
heart arrhythmia	9	14	weight loss	1	2
inflamed vessels	1	2			

Demographics

Age (years)

	Min	Max	Median
July 2012 – June 2013*	13	88	55
Cumulative	8	88	52

*One person during this period did not report their date of birth

Gender (no. of reports)

	males	females
July 2012 – June 2013*	10 (29%)	25 (71%)
Cumulative	36 (40%)	54 (60%)

*One person during this period did not report their gender

State (no. of reports)

	NSW	Vic	SA	WA	Qld	Tas	ACT	NT
July 2012 – June 2013	5(14%)	28(78%)	-	-	-	3(8%)	-	-
Cumulative	33(36%)	42(46%)	3(3%)	4(4%)	4(4%)	7(8%)	1(1%)	-

Other

- Ten people reporting during July 2012 – June 2013 were not willing to be contacted (16 people in total reporting since the commencement of the register were not willing to be contacted).
- Six people reporting had not seen a medical practitioner about their condition during July 2012 – June 2013 (19 in total since the commencement of the register).