



mobile inSite

news, issues and science on mobile telecommunications deployment

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Editorial

Welcome to the July 2010 edition of *Mobile InSite*, the Mobile Carriers Forum's newsletter on news, science and policy decisions about mobile telecommunications networks.

Our feature story for this edition reports on the five year review of the code of practice which mobile phone network carriers must abide by when planning to install new mobile phone base stations. The MCF submission in response to the review calls for maintenance of the current Code with some refinements, citing deployment statistics and the continued decline in formal complaints as evidence the Code is achieving its goals.

Since registration of the Code in 2005, network carriers have implemented the Code's notification and consultation processes for more than 10,000 new or upgraded mobile network facilities. The

Code provides essential mandated processes for carriers to follow so the community and other stakeholders have the opportunity to be fully informed about new installations and an opportunity to be involved in the process. However, the MCF acknowledges there are still improvements to be made and we are addressing these on an ongoing basis. We understand that some people are genuinely concerned and we are committed to addressing these concerns responsibly through active community and local government consultation.

Other articles of interest in this edition include reports about the publication of the INTERPHONE study and the response from the World Health Organization and the Australian Government. We also cover the launch of Australia's first energy efficiency training program for the mobile phone industry and report on



the impact of Tasmania's planning rules on the deployment of 3G mobile phone coverage and high speed wireless broadband in the State.

We appreciate your feedback and welcome you to contact us about any of the stories in this edition.

Matt Evans

Program Manager
Mobile Carriers Forum

Network carriers respond to ACIF Code review

Australia's three mobile phone network carriers notified and consulted with almost 10,000 people in 2009 – contacting five times as many people on average than councils – and provided substantial information regarding the installation of mobile phone base stations, according to the Mobile Carriers Forum.

The MCF made the statement in a submission to a review of the code of practice which mobile phone network carriers must abide by when planning to install new mobile phone base stations. The MCF said the Code continues to meet its objectives and remains relevant to both the industry and community.

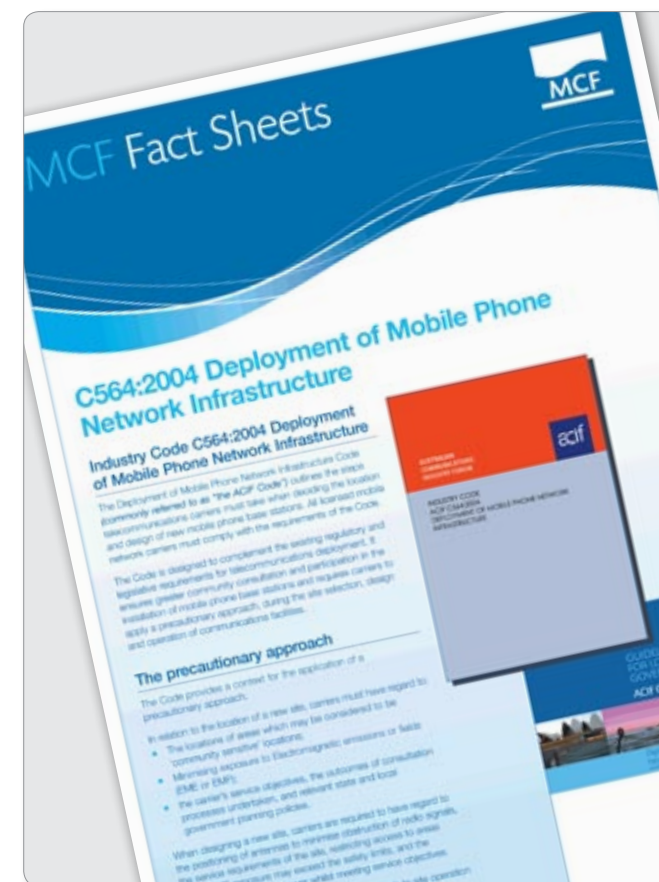
The Communications Alliance, an organisation which represents the communications industry, is conducting the scheduled five year review of ACIF Industry Code C564:2004 'Deployment of Mobile Phone Network Infrastructure' to assess whether the Code is meeting the expectations of both industry and community.

In its submission to the Communications Alliance, the MCF concluded that the Code has successfully achieved its objectives over the past five years and argued for maintenance of the current Code with some refinements.

“Deployment statistics and the continued decline in complaints to the government regarding the industry’s consultation practices show the Code is achieving what it is meant to achieve,” Matt Evans, MCF Program Manager, said.

Mr Evans said statistics collected in 2009 show:

- Carriers’ deployment processes remain sound and provide significant notification and consultation processes and further information to the public when needed.
- Deployment processes are not rushed, in fact, they take longer as a result of requirements which are more responsive to stakeholder views.
- Where appropriate, carriers alter their siting decisions based on council and community feedback.



Network carriers respond to ACIF Code review

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- There is a proper mechanism for handling complaints which has resulted in the rectification of a number of code issues.
- Carriers deployment processes continue to ensure that the precautionary behaviours specified in the code are adopted in day-to-day operations.
- The Code's requirements have resulted in better-considered sites being built.

Since registration of the Code in 2005, network carriers have implemented the Code's notification and consultation processes for more than 10,000 new or upgraded mobile network facilities, Mr Evans said.

The Code requires mobile phone carriers to inform local councils and notify and consult with communities when planning to build new mobile phone base stations. This includes low impact sites, such as panel antennas on road signs, building facades and roof tops, which have not previously required this level of community

consultation by law. Importantly, because of their minimal visual impact and small design, low impact sites do not require formal council approval.

"The policy rationale for treating low impact facilities differently was to achieve a balance between approval of facilities that are essential to maintain telecommunications networks, and to minimise significant planning or environmental issues of concern to the local community. It is only through the consistent application of the Code's consultation processes that this balance has been retained," Mr Evans said.

"The Code provides essential mandated processes for carriers to follow so that community and other stakeholders have the opportunity to be fully informed about low impact mobile network infrastructure. The federal government's watchdog, the Australian

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Network carriers respond to ACIF Code review

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Communications and Media Authority (ACMA), has the power to intervene if industry self-regulation is not working effectively in specific instances.”

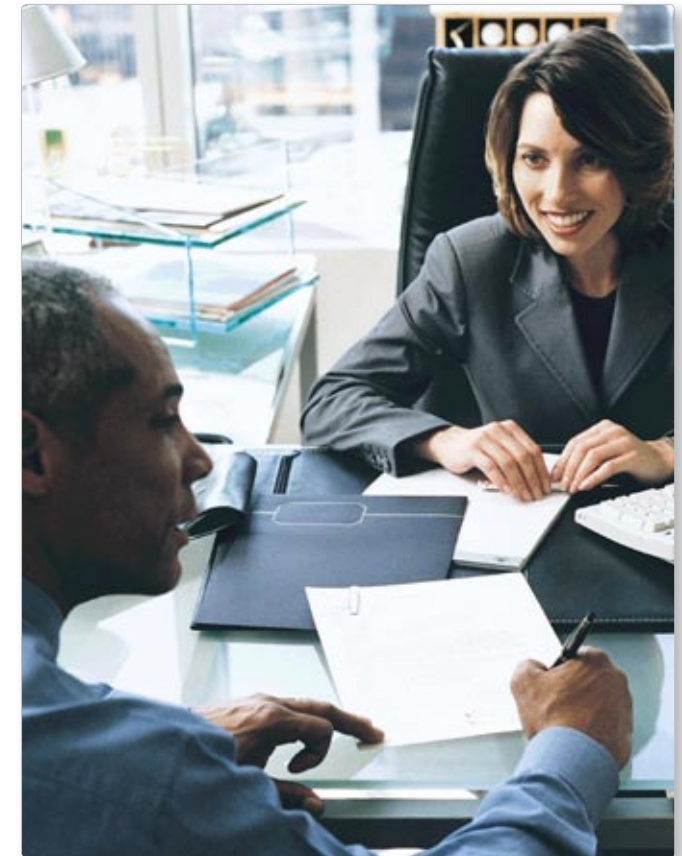
However, Mr Evans highlighted the fact that ACMA only received eight formal complaints in 2008/09 as evidence of the Code’s effectiveness. This compares to 137 complaints in 2002/03, which was before the Code was established.

Mr Evans added that in 2009 almost 10,000 consultation letters were sent or hand-delivered in relation to 112 new low impact sites, which equates to an average of 89 notifications for each consultation process.

“We send consultation notification to an average of 89 parties during each notification process, which usually exceeds the notification and consultation requirements that would be applied by a council if the facility required council development approval. Typically, councils only

require immediate and adjacent neighbours to a property to be notified which is extended in some jurisdictions at the discretion of the council. In fact, the ACIF code provides for notification and consultation that is conservatively estimated by the MCF to be more than five times the average number that would have been notified during a council development application process,” Mr Evans said.

“However, we are aware that there are still improvements to be made and we are addressing these on an ongoing basis. The mobile phone industry acknowledges that not all members of the community will feel satisfied by the consultation provided by the Code and some sites may remain controversial for some people. We understand that some people are genuinely concerned and we are committed to addressing these concerns responsibly through active community and local government consultation.”



Largest study on mobiles and brain cancer finds no link

The results from the ten-year, 13 nation **INTERPHONE** study, published online in the *International Journal of Epidemiology* on 17 May, show no overall evidence mobile phone use is associated with an increased risk of brain cancer.

The multi national population-based case-control study of glioma and meningioma, the most common types of brain tumour, is the largest of its kind.

Despite no overall link to brain cancer, the [INTERPHONE researchers](#) say uncertainty still remains about the possible effects of long-term heavy use.

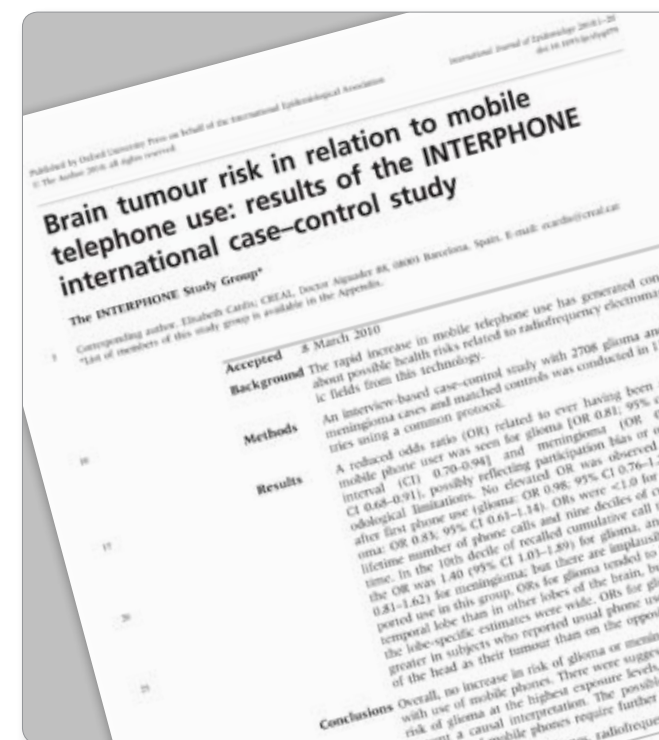
“Overall, no increase in risk of glioma or meningioma was observed with use of mobile

phones. There were suggestions of an increased risk of glioma at the highest exposure levels, but biases and error prevent a causal interpretation. The possible effects of long-term heavy use of mobile phones require further investigation,” The [INTERPHONE](#) researchers concluded.

Specifically on meningioma, a benign tumour that grows out of the membranes that cover the brain, the researchers found no signs of an increased risk among mobile phone users.

They added that evidence for an increased risk of glioma, a malignant tumour of the brain’s glial cells, was inconclusive, as the increase could be due to one or more of the possible sources of error.

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Largest study on mobiles and brain cancer finds no link

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The researchers said “there is evidence that cases [subjects with brain tumours] tended to overestimate their past exposure more than controls [healthy subjects] did”.

The results also show that subjects with brain tumours tended to associate their use of mobile phones with the side of the head where their tumour was diagnosed, suggesting the findings might be due to bias in recalling the side of the head on which the mobile phone was generally used.

Because of such errors, the researchers warned that “rather than focus on the most extreme values, the interpretation should rest on the overall balance of evidence”.

“Our results are consistent with most of the research published to date,” the researchers said.

International Agency for Research on Cancer



“Much biological research has been done in recent years on possible biological effects of RF fields. This work covers in vitro [test tube] and in vivo [live animal] exposure, alone and in combination with other physical or chemical agents, and has found no evidence that RF fields are carcinogenic in laboratory rodents or cause DNA damage in cells in culture.”

“By analogy with known carcinogens, the lack of a consistently increasing risk with dose, duration of exposure and time since first exposure weigh against cause and effect. Nevertheless, given the uncertainty surrounding possible effects of RF on the brain, no strong case can be made for the plausibility or implausibility of any observed exposure response pattern,” the researchers concluded.

Australia's first energy efficiency training program for mobile industry launched



The NSW Government's Energy Efficiency Training Program has provided \$96,000 for the MCF's online program.

Australia's three mobile network carriers have launched an online training program for industry employees in a bid to reduce the carbon footprint and electricity costs of mobile networks, which typically account for 93 percent of operators' energy consumption.

The online energy efficiency training program and best practice guide is being led by the [Mobile Carriers Forum](#) (MCF) in partnership with national climate change consultancy Energetics and the NSW Department of Environment, Climate Change and Water.

The [NSW Government's Energy Efficiency Training Program](#) has provided \$96,000 for the project, which is being supplemented with

support from network carriers Optus, Telstra and Vodafone Hutchison Australia (VHA).

The training will be provided to project managers, design engineers and life cycle managers to increase their awareness and knowledge around energy use.

It will focus on changing work practices of technical staff in Radio Access Networks, which can contribute up to 93 percent of some mobile carriers' total energy consumption.

Around 250 employees from Optus, Telstra and VHA based in NSW, where more than 30 per cent of Australia's 17,000 mobile telecommunications

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Australia's first energy efficiency training program for mobile industry launched

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network facilities are located, will be among the first to benefit from the training resource.

MCF Project Manager Matt Evans said the training program will be piloted in NSW later this year and will become a vital resource for all mobile network carriers across Australia, if energy efficiency measures are to be incorporated into universal management systems.

“We are focused on developing an industry approach to address the significant amount of total network operator energy use for mobile network carriers, contributing to a sustainable and environmentally responsible industry,” Mr Evans said.

“Following the pilot, the NSW-initiated program is expected to be delivered to mobile network

deployment teams across Australia through an online training tool. The best practice guide will be developed for energy efficiency in design, procurement and maintenance activities such as free cooling capabilities, efficiency improvements of air conditioning systems, hardware and planning options, and alternative energy sources.”

“Our members have shown great commitment to working together to create the first training based initiative for the mobile telecommunications industry for energy efficient network design,” Mr Evans said.

“We thank the Department for its support through the \$150 million [Energy Efficiency Strategy](#).”

“We are focused on developing an industry approach to address the significant amount of total network operator energy use for mobile network carriers, contributing to a sustainable and environmentally responsible industry”

UK scientists find no link between base stations and childhood cancers

A new study looking at the patterns of early childhood cancers across Great Britain has found no association between a mother living near to a mobile phone base station during her pregnancy and the risk of her child developing cancer before reaching the age of five.

The study, published in the *British Medical Journal* and conducted by scientists at [Imperial College London](#), is the largest of its kind and should help to dispel concerns about the potential health risks of living close to a mobile phone base station.

“In summary, we found no association between risk of childhood cancers and mobile phone base station exposures during pregnancy. The results of our study should help to place any future reports of cancer clusters near mobile phone

base stations in a wider public health context,” lead author [Professor Paul Elliott](#) said.

The scientists used complex transmitter data to estimate the signal exposure levels that almost 1,400 children with childhood cancers had experienced before birth, comparing them to the exposure levels of approximately 5,600 children not affected by cancer.

They specifically looked at three different measures of exposure – distance to nearest base station, total power output from nearby base stations, and estimated power density from nearby base stations. None of these measures suggested any association with the likelihood of cancer.

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UK scientists find no link between base stations and childhood cancers

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Although there is a large amount of laboratory research on the potential health effects of the weak radio signals used by mobile phones and their base stations, little environmental or population research has been conducted on the proximity of towers to people because of the difficulty in obtaining accurate exposure information.

However, the patterns identified by the study reveal the children with cancer are no more likely to have a birth address near a base station than those who do not have cancer.

“To date, there is no convincing or consistent evidence from cellular or animal studies to suggest that exposure to radiofrequency electromagnetic fields is associated with brain tumours or risk of other cancers. Furthermore, uptake of mobile telephony has not been mirrored



Oxford University statistics specialist Dr John Bithell said clinicians should reassure patients not to worry about proximity to mobile phone masts.

by trends in the incidence of brain tumours or acoustic neuromas,” the researchers said.

“Radiofrequency exposures in the general population from mobile phone base stations are extremely low, in the order 1000 to 10 000 times lower than values in the guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP).”

In commenting on the study, Oxford University statistics specialist [Dr John Bithell](#) warned “clinicians should reassure patients not to worry about proximity to mobile phone masts” because such fears “cannot be justified on health grounds in the light of current evidence”.

In an associated [editorial](#) published in the same *British Medical Journal* issue as the study, Dr Bithell said “the epidemiological evidence is also supported by experimental evidence, which has so far failed to show any biological effects - in vivo or in vitro - that might lead us to worry about the impact on health”.

“Radiofrequency fields are now ubiquitous, and several studies have assessed their potential health effects, with predominantly negative results,” Dr Bithell said.

WHO overall position not changed by INTERPHONE

The **World Health Organization (WHO)** did not change its overall position on mobile phones and health after the publication of the long awaited **INTERPHONE** study results on the two most common types of brain cancer – glioma and meningioma.

The WHO immediately responded to the release of the INTERPHONE results and updated their [fact sheet on mobile phones and health](#) online. The fact sheet reconfirmed the existing scientific view that no solid effects on mobile phone user's health have been found.

“A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established for mobile phone use,” the updated fact sheet 193 said.

The lack of a dose response relationship and biases in the **INTERPHONE** study prevented a solid link being made the WHO said:

“A retrospective case-control study on adults, INTERPHONE, coordinated by the International Agency for Research on Cancer (IARC), was designed to determine whether there are links between use of mobile phones and head and neck cancers in adults. The international pooled analysis of data gathered from 13 participating countries found no increased risk of glioma or meningioma with mobile phone use of more than 10 years.”

“There are some indications of an increased risk of glioma for those who reported the highest 10% of cumulative hours of cell phone use, although

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WHO overall position not changed by INTERPHONE

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**World Health
Organization**

there was no consistent trend of increasing risk with greater duration of use. Researchers concluded that biases and errors limit the strength of these conclusions and prevent a causal interpretation.”

However the WHO did not completely rule out the possibility of a link because of the limitation of this type of population study.

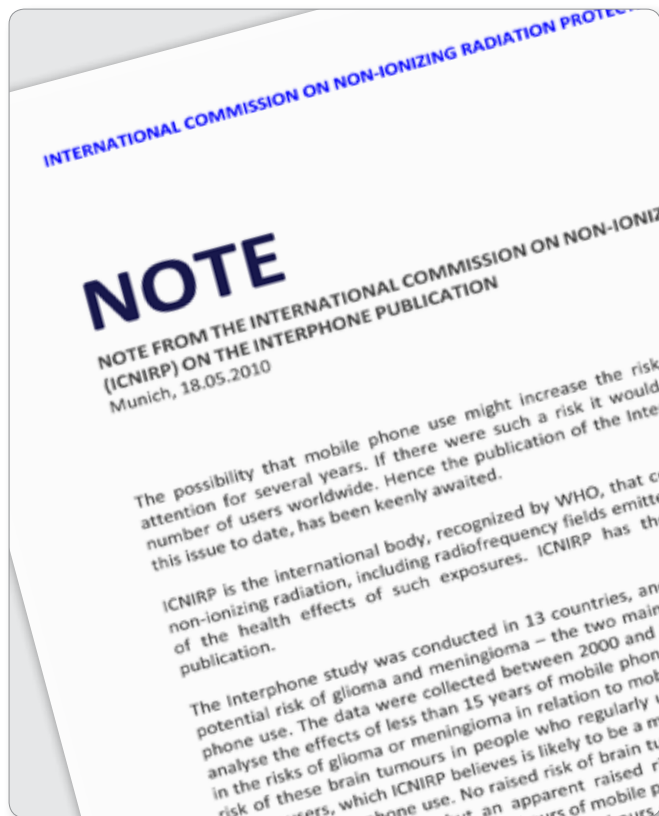
“To date, results of epidemiological studies provide no consistent evidence of a causal relationship between radiofrequency exposure and any adverse health effect. Yet, these studies have too many limitations to completely rule out an association.”

Although fact sheet 193 focuses on mobile phone handsets, the [WHO's fact sheet 304](#) on wireless networks addresses concerns about base stations.

“From all evidence accumulated so far, no adverse short-or long-term health effects have been shown to occur from the RF signals produced by base stations,” the WHO said.

“Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects.”

No reason to change mobile phone safety guidelines due to INTERPHONE



The international body which developed the scientific guidelines used to set the safe level of exposure to mobile phone emissions in Australia says publication of the INTERPHONE study results does not require any change to our safety standards.

The International Commission on Non-Ionizing Radiation Protection ([ICNIRP](#)) published a [note](#) online soon after the INTERPHONE results were released, which provided their preliminary review of the study.

“The possibility that mobile phone use might increase the risk of brain tumours has received public attention for several years. If there were such a risk it would be of great importance given the vast number of users worldwide. Hence the publication of the Interphone study, by far the largest study of this issue to date, has been keenly awaited,” the commissioners said.

No reason to change guidelines

“ICNIRP recently published a review of the scientific evidence on the health effects of radiofrequency exposure from mobile phones. We found the existing evidence did not support an increased risk of brain tumours in mobile phone users within the duration of use yet investigated. The subsequent publication of the Interphone study has added greatly to the volume of evidence available. ICNIRP believes on preliminary review of the results, however, that they do not change the overall conclusions. ICNIRP therefore considers that the results of the Interphone study give no reason for alteration of the current guidelines.”

Furthermore, ICNIRP agreed with the researchers that the INTERPHONE results did not indicate

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No reason to change mobile phone safety guidelines due to INTERPHONE

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any solid link with mobile phone use and brain cancer.

“Overall, the study did not find an increase in the risks of glioma or meningioma in relation to mobile phone use,” the commissioners said.

Small data sets biased

The commissioners also confirmed that many of the separate smaller sub-groups of results that indicate a health benefit were not valid due to study limitations, just as are some of the much smaller data sets which suggest a link with brain tumours.

“There was an apparent decreased risk of these brain tumours in people who regularly used mobile phones compared with non – or non-regular users, which ICNIRP believes is likely to be a methodological artefact rather than a real beneficial effect of mobile phone use,” the commissioners said.

“No raised risk of brain tumours was found among people who reported the largest number of calls, but an apparent raised risk was observed in people in the highest of ten categories of reported cumulative hours of mobile phone use. This category included a number of people who were recorded with highly improbable hours of use, presumably reflecting erroneous reports, and there was no general dose-response gradient of increasing risk with increasing amount of use.”

“There are serious methodological limitations inherent in studies of this type, which depend on study participants trying to remember and report their entire lifetime use of mobile phones. Such recall is problematic particularly for brain tumour patients. ICNIRP agrees with the Interphone authors that the biases and errors in the study preclude a causal interpretation of the results.”

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No reason to change mobile phone safety guidelines due to INTERPHONE

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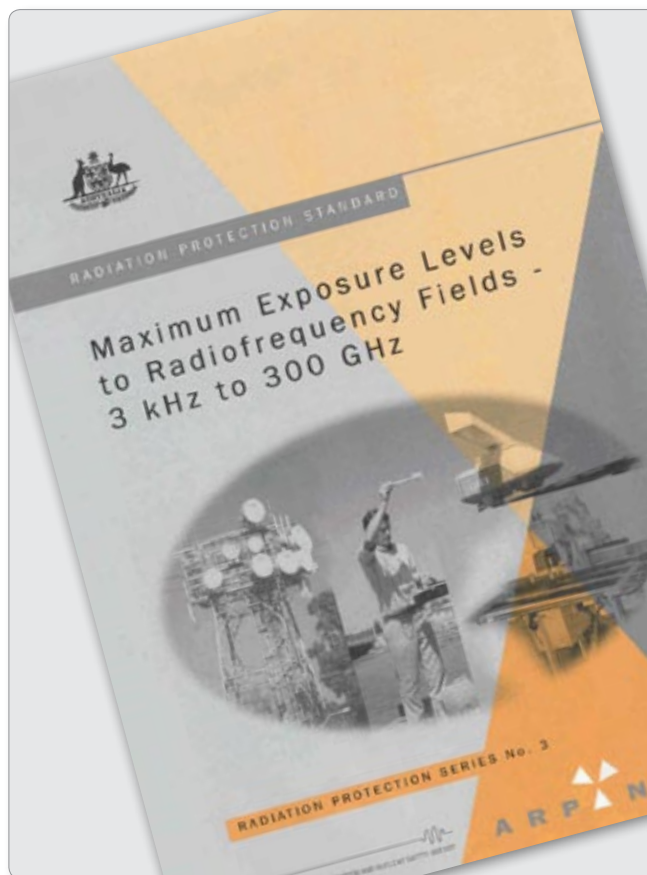
Guideline review

The earlier 300-page [review](#) of the ICNIRP guidelines – which were first published in 1998 – considered all the most recent studies into mobile phones and brain cancer except for INTERPHONE which had not yet been published.

“...it is the opinion of ICNIRP that the scientific literature published since the 1998 guidelines has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields [emitted by mobile phones],” the review said.

Impact on Australian standard

The ICNIRP guidelines form the basis of [World Health Organization](#) (WHO) recommendations to governments and have been widely adopted around the world in national safety standards.



They form the basis of the Australian safety standard which is set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) who also released a [statement](#) confirming the INTERPHONE results.

“ARPANSA notes that the results of the INTERPHONE study do not establish an increased risk of brain cancer related to mobile phone use,” the statement said.

“The current ARPANSA Standard includes a requirement to minimize unnecessary exposure of the public to radiofrequency electromagnetic radiation. ARPANSA, with the help of Australian scientists, will carefully examine the results of the INTERPHONE study. Together with the large amount of scientific research published in the last 10 years, the results published today of the INTERPHONE study will help ARPANSA decide whether a review of its current exposure standard for radiofrequency radiation is warranted.”

BRAG School WiFi report misguided

An activist group has urged the USA regulator to require a setback of 1,500 feet – around 500m – for all wireless infrastructures near schools, following publication of their report which shows how close wireless infrastructure is to schools in each USA state capitol.

The report claims symptoms of electrohypersensitivity, such as fatigue, headaches, difficulty with concentration, and memory loss, can occur at much lower distances than the exposure guidelines set by the Federal Communications Commission (FCC).

The 173-page report by [Dr Magda Havas](#) of Trent University, Canada, titled [BRAG Antenna Ranking of Schools](#), says it was prepared to educate and empower teachers, parents, students, school boards and surrounding communities about the potentially harmful effects of radio frequency and microwave radiation and wireless technology near schools.

“To ensure the safety of students and teachers, radio frequency radiation should be continually monitored at schools, and complaints about electrohypersensitivity should be taken seriously by school nurses and documented for future reference so the problem can be addressed,” the report says.

The document provides grades for schools in the capital city of each US state, as well as the District of Columbia, on school children’s potential exposure to mobile phone antennas.

The ‘BRAG’ acronym refers to the colours used to rank each city – black, red, amber, and green. Cities with black rankings are considered the most potentially harmful, while cities with green rankings are considered the least exposed.

However MCF Program Manager Matt Evans said the report, while good intentioned, had no regard for the way mobile network facilities operated.



“A regulated setback between schools and mobile phone towers is fundamentally flawed. Buffer zone policies are based on the mistaken belief that the further a base station is away from people the less they would be exposed to the radio wave emissions it uses to communicate,” he said.

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BRAG School WiFi report misguided

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However, once a call is connected, both mobile phones and their base stations are designed to operate at the lowest levels to make a quality call, he explained.

“The further a base station is built from a school for instance, the base station will need to operate at a higher power which could actually increase exposures at the school – the very thing they are trying to avoid.”

The claims about the potential health effects and symptoms are also misguided and are at odds with independent health authority views, Mr Evans said.

For example, an independent review of all the science on base stations and health by the [Irish Government Expert Group](#) found no evidence of health effects from base station regardless of how close adults or children lived to them.

“There is no scientific basis for, or evidence of, adverse health effects affecting either children or

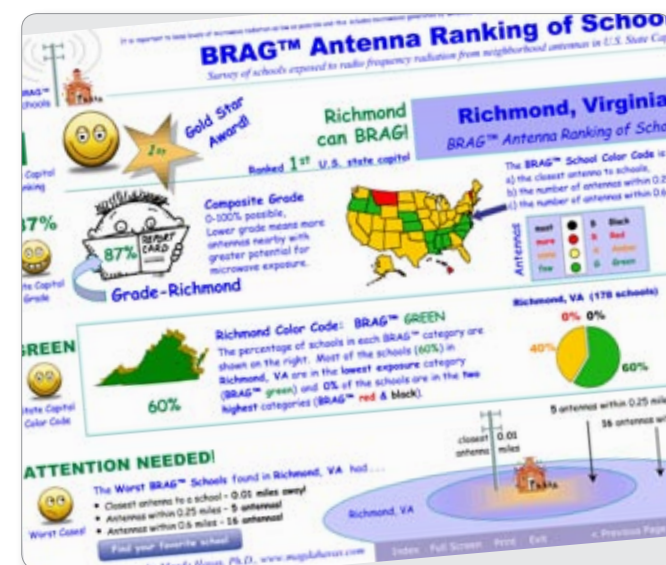
adults as a result of their exposure to RF fields from phone masts. This applies irrespective of the location of the phone mast,” the review concluded.

The expert group also addressed the concerns raised about electro-hypersensitivity.

“Some individuals have reported that they experience nonspecific symptoms upon exposure to RF fields emitted from base stations and other EMF devices. As recognised in a recent WHO fact sheet “[Electromagnetic Hypersensitivity](#)”, EMF has not been shown to cause such symptoms. Nonetheless, it is important to recognise the plight of people suffering from these symptoms,” the review said.

Mr Evans said the [WHO fact sheet on base stations and health](#) confirmed this view.

“Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks



cause adverse health effects,” the WHO fact sheet states.

He noted the MCF [Radio Frequency National Site Archive](#) (RFNSA) provides information on mobile phone base station facilities built or upgraded since April 2003 in Australia which the public can access freely.

Tasmanian planning rules could cost state \$15 million in mobile network upgrades



Parliament House in Hobart, Tasmania

The Mobile Carriers Forum (MCF) has advised the Tasmanian Government its planning rules could see network carriers wind back network upgrade plans, which would severely impede plans to expand mobile phone and wireless broadband coverage across Tasmania.

In September 2009, the Tasmanian Government released a draft planning directive, which included a list of the types of mobile network facilities that would not require a planning permit from Tasmania's local councils.

At that time the MCF welcomed the uniform approach in Tasmania. However, the draft directive did not provide any further exemptions from those already found in most Tasmanian council planning schemes, effectively making Tasmania's rules more restrictive than elsewhere in Australia. Telstra, Optus and Vodafone Hutchison Australia (VHA) between them have plans to add 39 new cell sites in Tasmania on top of the 418 they already have, which represents an investment of more than \$15 million to the state. However, if it is more difficult to get planning permission for new sites this could mean some of these do not get installed, MCF Program Manager Matt Evans said.

"It is critical that Tasmania's planning system strikes an appropriate balance between the need for some certainty by the carriers, and the need to protect visual amenity," Mr Evans said.

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Tasmanian planning rules could cost state \$15 million in mobile network upgrades

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He added that inconsistent planning rules and delays in processing development applications were a problem across Australia.

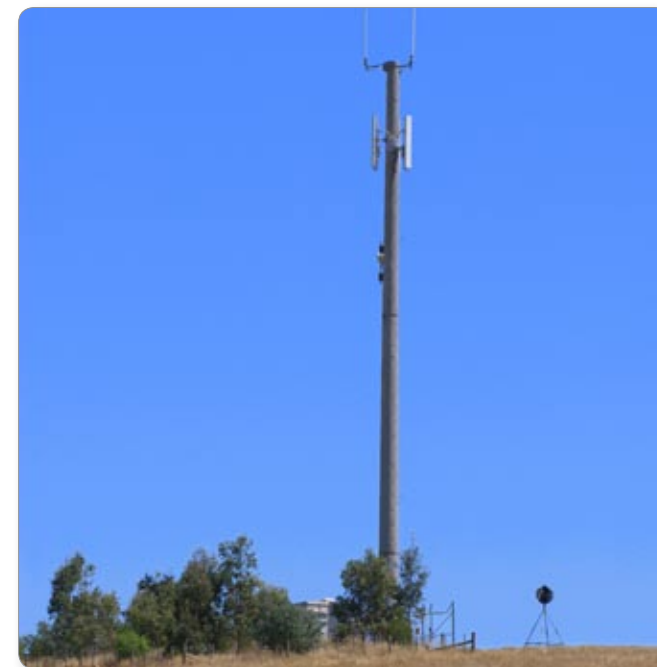
“Mobile phone network carriers have experienced significant difficulties in some localities when trying to provide mobile phone coverage and access to high speed wireless broadband. Inconsistent planning rules between Australia’s states and territories, and between local councils, have caused huge delays for carriers trying to provide the benefits of mobile communications to local communities,” Mr Evans said.

“In some cases, carriers meet all the stated policy requirements in their development application for a new tower, but are still refused a development application by councils.

“In one case, a carrier had been delayed in excess of three and half years and had spent more than \$150,000 without an outcome, due to actions by a council.

“It’s important to find the right balance between creating a favourable regulatory environment for future investment that also preserves local control over zoning and land use policies,” Mr Evans said

“The continued economic development of many communities will be substantially advanced with the provision of reliable wireless broadband services. It is incumbent upon local councils to develop appropriate policies which accelerate these opportunities” Mr Evans said.



Mobiles industry questions governments about arbitrary exposure limits



Governments and health officials around the world have been requested to carefully consider the impact of lowering radiofrequency public exposure limits for mobile phone networks below the level recommended by the World Health Organization (WHO).

A new joint discussion paper, released by the Mobile Manufacturers Forum and the GSM Association in April, comes in response to moves by some governments and health authorities who are considering lowering public exposure limits in response to health concerns without scientific justification.

The two industry associations, who represent the majority of network carriers and handset manufacturers around the world, say that

imposing reduced exposure limits for mobile phone networks will cause huge blackspots in coverage, increase unwarranted health concerns, impact emergency services and increase the number of towers.

“The mobile communications industry encourages governments to adopt radio frequency (RF) exposure limits for mobile communications infrastructure that are based on the recommendations of the International Telecommunications Union (ITU) and the World Health Organization (WHO). Compliance with these recommendations will provide protection for all persons against all established health risks from exposures to RF signals,” the [discussion paper](#) states.

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Mobiles industry questions governments about arbitrary exposure limits

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“Regulatory agencies from several countries have undertaken programs to measure a sample of operating base stations to confirm compliance with the exposure limits. Results from these measurement campaigns consistently show that typical RF exposure levels from base stations, in public areas, are hundreds to thousands of times below the ICNIRP limits [International guidelines],” the discussion paper states.

In April, the Flemish Minister of Environment, Nature, and Culture announced a 3 V/m per-antenna exposure limit has been adopted by the Flanders regional government in Belgium. The limit recommended by the WHO, and supported by many independent health authorities, is 41 V/m.

The discussion paper says retrospectively adopting a 3 V/m limit would cause a huge loss of coverage. A 3 V/m limit requires

Country/agency Year	Service type	Range of typical values measured (% of ICNIRP)	URL/reference
Australia/ARPANSA, 2007-2009	GSM, CDMA, UMTS	0.001% – 1.2%	http://www.arpansa.gov.au/RadiationProtection/BaseStationSurvey/index.cfm
Germany 2007-2008	WiMAX	0.003% – 1.4%	http://www.emf-forschung.sprogramm.de/home/akt_emf_forschung.html/dosi_HF_001.html
United Kingdom/Ofcom, 2009	GSM, UMTS, TETRA	0.0001% – 0.13%	http://www.ofcom.org.uk/sitefinder/audits/
Spain/MITyC, 2007	GSM, UMTS	0.001% – 0.8%	http://www.mityc.es/telecomunicaciones/Espectro/NivelesExposicion/Informes/Informes%20anuales/informe_2007.pdf
Sweden/SSM, 2005-2007	GSM, UMTS, TV, FM radio (and other services)	0.00002% – 4.4% ¹ (mean 0.12%, median 0.004%)	http://www.stralsakerhetsmyndigheten.se/Global/Publikationer/Rapport/Stralskydd/2008/ssi-rapp-2008-13.pdf

Results from measurement surveys of the amount of emissions near typical base stations around the world.

40 percent more base stations to provide the same quality of service.

Other implications include:

- Reducing limits is interpreted by the public as evidence there is something to be concerned about regarding the safety of base stations. Lower limits ignore the overall policy environment that mobile communications networks operate within, which are themselves consistent with a precautionary approach.
- Consistent international experience is that precautionary measures such as reduced limits only increases the level of concern rather than reduce it.
- Compliance distances become too large to be practical, and require substantial network re-design.
- Reductions in network coverage can adversely impact emergency services as well as consumers who are in an emergency situation.
- The resultant need to increase the number of base stations may unnecessarily increase community concern.

Public not easily misled about mobile phone masts risks

The public have relatively balanced and reasonable views about the potential risks associated with mobile phone masts in the community – a study in the United Kingdom has found – and their views are based on a complex mix of both science and social understanding.

Dr [Jeremy Collins](#), a Senior Lecturer in Media Studies at London Metropolitan University, conducted a series of discussion groups – using mobile phone masts as a case study – to understand how the public viewed new technologies and their perceived risks.

“Respondents used a wide range of sources including personal networks of information and contextual knowledges to make sense of the potential and perceived risks of mobile phone

technology. These were not however employed uncritically or in order to entirely replace ‘scientific rationality’, but rather as part of a complex negotiation of understandings within what is perceived as a situation of uncertainty,” Dr Collins concludes.

“Mobile phone risk perceptions should not be characterised as reflecting a public ‘scare’ or panic, but understood as a complex set of responses to a specific risk involving negotiations between both scientific and social rationalities.”

The [study](#) published in *Risk Research*, found although people often got views from their friends and family rather than the media they were well aware that the limitations and context of the advice they got from their personal networks.

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Public not easily misled about mobile phone masts risks

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“While people saw relatives as important (and caring) sources of information, they do not always rate them as trustworthy in the sense of providing accurate or reliable scientific knowledge due to their lack of expertise,” Dr Collins said.

Relatives received a sympathetic hearing about the concerns they expressed, but they were understood in context of the relative’s personal experiences.

“... the mother, she doesn’t allow, she’s [her daughter] not allowed to talk on mobile phone or anything... but then their son did die due to leukaemia,” one of the male research subjects explained.

The public attempt to find a reasonable position on the issue by acknowledging both sides of the argument but still empathise with the friend’s situation, the study found.

“So you know, I can understand where she is coming from, you wouldn’t want that around but then it could have been due to something completely different,” he explained.

Respondents also understood the complexities of explaining scientific information and risks to the public.

“It’s like what the government tried to do with MMR [vaccine], though. They tried to say with every vaccination there’s a risk, which a lot of people took to mean, well, we’re not doing it then. So people can overreact if they’re given that choice. So it’s a difficult one to call, really,” a female respondent said.

This perspective suggests a relatively sophisticated acknowledgement of scientific knowledge as provisional and subject to refutation, said Dr Collins.



In Brief

Australian government first to respond to INTERPHONE

A press release from the Australian government the day before the INTERPHONE results were published made Australia the first government in the world to release a statement in response to the study.

Parliamentary Secretary for Health Mark Butler issued the [press release](#) on the 17 May acknowledging the overall results of the INTERPHONE project.

The government's press release was published a day before the INTERPHONE results were made public as the results were already being widely reported in the media.

Mr Butler said the INTERPHONE results have been reviewed by the federal government's independent radiation authority, the Australian



Parliamentary Secretary for Health Mark Butler

Radiation Protection and Nuclear Safety Agency (ARPANSA).

"I note the [ARPANSA statement](#) is consistent with its existing advice on the use of mobile phones, including by children. I also note that it is consistent with the advice of the [Cancer Council](#) issued in response to the Interphone report. The Australian Government will continue to closely monitor ongoing research in the area," Mr Butler said.

Bangladeshis say benefits of mobiles outweigh any risks

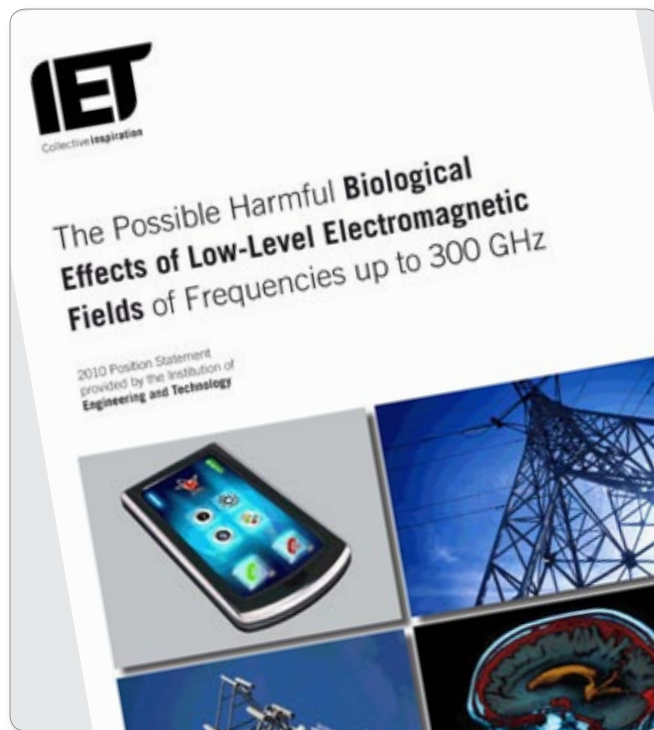
A recent study of risk perception in Bangladesh reveals the benefits of mobile communication far outweigh any thoughts about the potential health risks associated with the technology.

The researchers developed a survey which included 500 people selected to be representative of the Bangladesh population. The participants were asked questions about their thoughts on risks and benefits associated with mobile phone technology, personal use of a mobile phone, and awareness of base stations in their neighborhood.

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The [results](#) showed “base stations were seen as a symbol of societal advantage” and that the benefits of mobile communication quelled any thoughts about potential health risks.

“All participants were extremely positive about the benefits of mobile phone technology for a variety of reasons, for example, the ability to communicate with family and friends anywhere and anytime, and the ability to convey essential emergency news in relation to threatening situations,” the researcher said.

In fact, “most participants found it difficult to describe negative aspects of base stations” and some ranked trust in the mobile phone industry higher than trust in law enforcement agencies or civil societies.

Institution of Engineering and Technology updates its EMF position

The Institution of Engineering and Technology’s (IET) Biological Effects Policy Advisory Group (BEPAG) updated its [position statement](#) on the possible harmful health effects of electromagnetic fields (EMF) in May, concluding that exposure to the low powered radio signals used by mobile phones is not associated with health risks.

“BEPAG has concluded that the balance of scientific evidence to date does not indicate that harmful effects occur in humans due to low-level exposure to EMFs. This conclusion remains the same as that reached in its previous [position statements](#), the last being in May 2008, and our

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findings have not been substantially altered by the peer-reviewed literature published in the past two years,” the IET states.

They also called on scientists to be more accountable for their actions in response to a number of poorly conducted research studies that erroneously claim mobile phones cause health effects.

“BEPAG continues to hold the view that scientists have a responsibility to ensure that their findings are as robust as possible before publication. It remains concerned that pressures on scientists to publish their work may encourage the reporting of apparent effects that have not been adequately investigated. BEPAG regards the independent replication of experimental studies as essential in order to improve the quality of the existing literature and to verify any claimed effect.”

MCF connects with local government at National General Assembly

The Mobile Carriers Forum met with mayors and councillors from more than 560 local governments at the [2010 National General Assembly of Local Government](#), held in Canberra from the 14th – 17th June 2010.

ALGA President Cr Geoff Lake chaired the [Assembly](#) which featured national leaders and experts and included debate on a number of motions submitted by councils.

The Assembly brings together over 700 conference participants representing Australia’s local government organisations.

The MCF provided information to assist local government representatives in understanding how it can contribute to decisions about mobile



The MCF at this year’s National General Assembly of Local Government

base station deployment. “The carriers are continually seeking ways to further improve their community consultation practices through continued engagement with councils,” Mr Evans said.