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Public Perceptions and Concerns

- 3.1** When the Minister for Public Health announced the formation of the Independent Expert Group on Mobile Phones (IEGMP) she stated:

“In recent years research interest in the effects of mobile phones has increased. To date there has been no consistent evidence suggesting risk to health, but there is continuing public concern about the possibility. It would be wrong to ignore that concern.”

- 3.2** As part of our inquiry we sought information on the specific aspects of mobile phone technology that worry the public, and on the information that is available to them about this issue from different sources. We examined the role of politicians, the media, specific interest groups, the telecommunications industry and the National Radiological Protection Board (NRPB).

The Public

- 3.3** In order to obtain input from the public we placed advertisements in the press, solicited information from various groups and held open public meetings in Belfast, Cardiff, Edinburgh, Liverpool and London. The Secretariat of the Group issued press releases in August and September 1999 explaining the role of the Group and inviting oral and written submissions. It also gave notice of dates and times of the public meetings and all information was featured on the Expert Group web site (www.iegmp.org.uk).
- 3.4** It is unlikely that those who attended the meetings or submitted evidence can be considered representative of the public at large, and it should be recognised that many members of the public are satisfied with all or most aspects of mobile phone technology. However, the relative frequency with which specific concerns were raised at the meetings provides an indication of those aspects of the technology that the concerned public finds most worrying.
- 3.5** People who attended the meetings described various symptoms which they attributed to base stations. Those mentioned most commonly were headaches, sleep disturbance, depression, stress and tiredness.
- 3.6** There was concern about the siting of base stations on or near schools, hospitals and residential areas; current planning processes; and particularly the fact that base stations less than 15 m do not have to follow the normal planning process in full. With regard to the siting of base stations, Orange, in particular, was criticised for inadequate public consultation. Operational practices such as erecting base stations in the middle of the night were an understandable cause for complaint. Other concerns related to possible reductions in the value of property caused by the proximity of base stations to residences, the negative visual impact of base stations, and possible health risks to farm animals.

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- 3.7** The health problems most commonly attributed to the use of mobile phone handsets were impairment of short-term memory, headaches, brain tumours, other cancers, sleep disturbance, depression and tiredness.

Politicians

- 3.8** The Chairman of the Expert Group wrote to all Members of both Chambers of the Westminster Parliament. Out of 659 Members of the House of Commons, 11 acknowledged receipt of the communication and 6 responded in writing highlighting the concerns of their constituents, which related mainly to base stations.
- 3.9** No Member of the House of Lords replied to the letter.
- 3.10** The Chairman also wrote to Members of the Scottish Parliament (129), Members of the Welsh Assembly (60) and Members of the Northern Ireland Assembly (108). Responses were received from four Members of the Scottish Parliament and five Members of the Welsh Assembly. Two Members of the Northern Ireland Assembly acknowledged receipt of the letter, and a further three gave more detailed responses. One member of the Expert Group met four MPs to discuss the issues that concerned their constituents.
- 3.11** Regulatory powers in relation to telecommunications are reserved in the UK Parliament at Westminster. Therefore, although planning is seen as a local authority responsibility and, as a result of devolution, the Scottish Parliament now has a greater say in planning, contentious issues such as the General Permitted Development Order rights, which fall under the Telecommunications Act 1984, have not been devolved.
- 3.12** Devolved political power provides an opportunity for a less centralised approach to planning issues, and this may allow more areas of local and regional concern to be addressed in legislation and guidance. Already the devolved Assemblies and Parliaments have played a key role in raising public awareness regarding the potential health impact of mobile phone technology. In particular, we note with interest the work of the Scottish Parliament's Transport and Environment Committee, whose report on planning issues (see paragraphs 6.112–6.114) was published in March 2000 (Scottish Parliament, 2000).
- 3.13** In the past year UK Ministers received almost 600 letters from members of the public on health issues relating to mobile phone technology, and particularly base stations. In the House of Commons, the Health Ministers answered 85 letters on the same topic from MPs writing on behalf of constituents. There have also been parliamentary questions about possible health effects of mobile phones and base stations.
- 3.14** Of the 80 letters sent directly to the Department of Health by members of the public, 50 concerned base stations and 30 handsets. The Department of the Environment, Transport and the Regions received 350 letters relating to planning and environmental aspects of mobile phone technology, while the Department for Education and Employment received 157 letters about the location of base stations in or around schools.
- 3.15** Parliamentary debates on mobile phone technology have also centred on health and planning issues. An Early Day Motion on the subject of mobile phone masts calls for a more coherent planning policy and for the precautionary principle to be employed in relation to possible health risks. This is the most popular Early Day Motion currently tabled in the House.

- 3.16** In September 1999, the House of Commons Science and Technology Committee produced a report on “The Scientific Advisory System: Mobile Phones and Health”. The Recommendations of this report were noted with interest by the Expert Group.
- 3.17** From the totality of evidence we received, it is clear that the role of politicians in this area extends further than legislation, and that their inputs have helped to inform the public.

The Media

- 3.18** The Expert Group reviewed 641 press cuttings published in the UK between January 1999 and February 2000 and 76 TV and radio programmes broadcast over the same period. In general, the same issues were covered as those cited above (paragraphs 3.3–3.7). Seventy-nine per cent of the media reports alleged adverse health effects from mobile phones and base stations, whereas nine per cent concluded that there was too little rigorous scientific evidence to arrive at a conclusion, or reported no adverse effect. Overall, the safety of mobile phone handsets achieved more coverage than the safety of base stations, although local newspapers tended to report more on issues relating to base stations. Other aspects of safety that were covered included concerns that driving while using a hand-held mobile phone was dangerous.
- 3.19** The adverse health effects most often linked with mobile phones in media reports were brain tumours, other cancers, headaches, and brain damage. However, possible positive effects were also reported (see also the Expert Group web site).
- 3.20** Most media reporting did not refer to specific scientific studies or discuss the biological mechanisms by which RF radiation from mobile phones might cause adverse effects.
- 3.21** Specific precautionary measures were suggested in the media including hands-free operation of mobile phones, use of shields, limiting the duration of mobile phone usage and choosing a mobile phone that emits a lower level of RF radiation.
- 3.22** The main concerns reported in the media about base stations were uncertainties about the distance at which they were “safe”, and about their proximity to schools, homes, hospitals and residential accommodation for the elderly. Adverse aesthetic impacts were also noted. The health effects most often alleged were sleep disorders, fatigue, anxiety, stress, epileptic fits, burning sensations and shaking.
- 3.23** The media particularly targeted operators for ignoring medical evidence of adverse biological effects and for being irresponsible when choosing where to site base stations. Financial gain was sometimes alleged by the media to be more important to operators than the safety of people, particularly children. Operators were encouraged to remove base stations from populated areas. The reported responses from operators noted that the exposures from base stations were within NRPB guidelines.

Specific Interest Groups

- 3.24** About 175 specific interest groups declare an interest in the issue of mobile phone technology. Amongst these, three who have widely publicised their concerns are: Powerwatch, Friends of the Earth Scotland and NIFATT (Northern Ireland Families Against Telecommunications Transmitter Towers). Most of the other specific interest groups have been involved at a more local level.

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- 3.25** Much helpful evidence was submitted to us by these interest groups – in writing, orally and through contributions to public meetings. It focussed mainly on possible adverse biological effects of mobile phone technology and the need for a precautionary approach.
- 3.26** There was criticism of the NRPB exposure guidelines for failing to take adequate account of uncertainties in current scientific knowledge, and the groups called for NRPB to be more open and proactive in communicating with scientists and the public.

The Telecommunications Industry

Mobile phone manufacturers

- 3.27** The Group received helpful inputs from mobile phone manufacturers in the UK and elsewhere and from the Federation of the Electronics Industry (FEI), an umbrella organisation.
- 3.28** The information provided by the FEI includes the following:
- general safety advice is provided with mobile phone handsets, usually in the accompanying operating guide or manual,
 - the advice notes that all phones comply with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines (ICNIRP 1998a, see paragraphs 6.27–6.31),
 - all manufacturers emphasise their commitment to safety and report that there is no scientific evidence to show adverse health effects,
 - in general, advice is provided that the mobile phone should be switched off when the user is in an aircraft, in a hospital, in the vicinity of medical equipment, or in hazardous environments such as petrol stations,
 - there is support for the use of hands-free sets when in control of a car, and some manufacturers recommend that a hand-held phone should not be used when driving,
 - all but one manufacturer warn that mobile phones may interfere with the functioning of pacemakers,
 - most manufacturers advise that the antenna of the phone should not be in contact with the user when the phone is operating.
- 3.29** Information relating to the operation of mobile phones can be obtained on request from all the manufacturers. The Carphone Warehouse, an independent retailer, provides an important example of good practice in the way it makes information readily available at mobile phone outlets.

Network operators

- 3.30** The lines of communication between network operators and the general public do not appear to us to be as clear as those between mobile phone manufacturers and consumers. Each operator has opportunities for contact with its customers when they are billed or pay for calls in advance. However, communication with those who might be affected by the placement of base stations is less straightforward.
- 3.31** Overall, we conclude that more could be done in this area. In particular, there is substantial scope for the sharing of best practice in approaches to communication with the general public regarding the placement of base stations, as the public continues to distrust the operators in the area of public health.

National Radiological Protection Board

3.32 NRPB was given a range of responsibilities and powers under the Radiological Protection Act 1970. Amongst these was the responsibility:

“To provide information and advice to persons, including Government Departments, with responsibilities in the United Kingdom in relation to the protection of the community as a whole or of particular sections of the community from radiation hazards.”

3.33 NRPB as a recipient of taxpayers’ monies should play a key role in informing the public. We were told by the Director of NRPB that it receives about 40,000 enquiries per year on a range of questions, and data provided by NRPB indicate that, during the period between August and October 1999, about a quarter of the enquiries related to mobile phones and base stations.

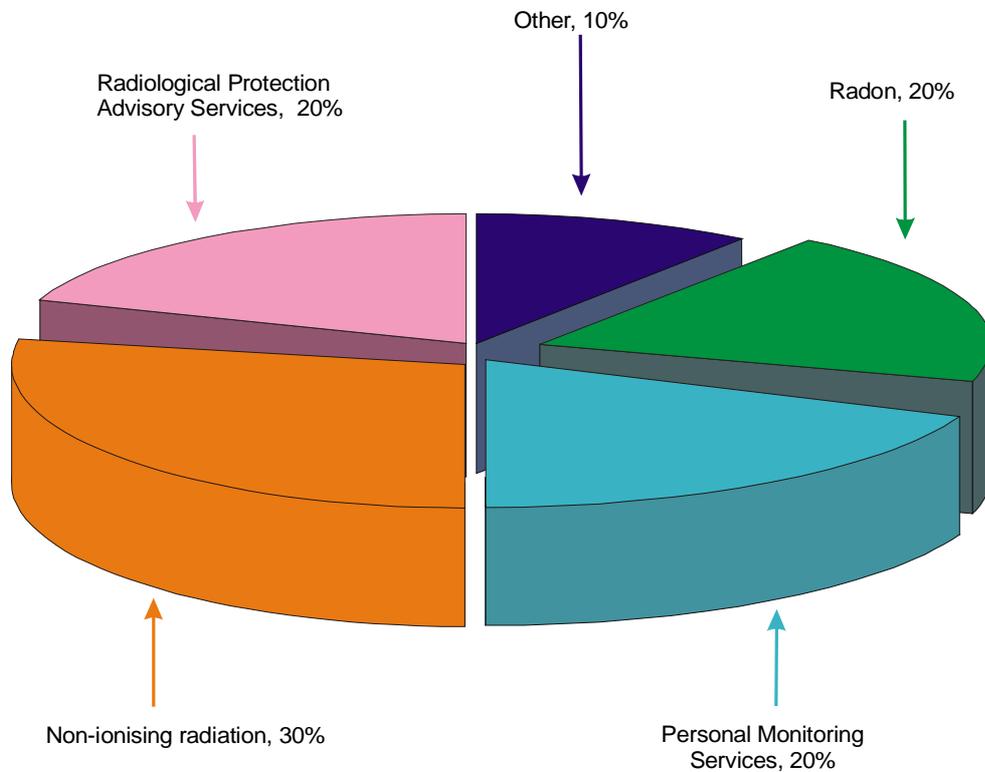


Figure 3.1 Enquiries received by NRPB on radiological protection matters by subject area (data are broad estimates for 1999 based on around 40,000 enquiries)

3.34 The NRPB’s *modus operandi* is broadly as follows: members of the public who contact NRPB are normally sent a standard information pack about the topic on which they are seeking information, but where a more detailed response is required, the enquiry is directed to a member of the scientific staff with specialist knowledge in the relevant area. Members of the public who ask about planning issues are advised to contact their local authority, and for medical queries NRPB advises reference to a general practitioner.

3.35 Despite the fact that the public is currently most concerned about mobile phones and base stations, NRPB resources are largely targeted in other areas. Only about 10% of the total NRPB budget is allocated to non-ionising radiation, which includes work related to mobile phone

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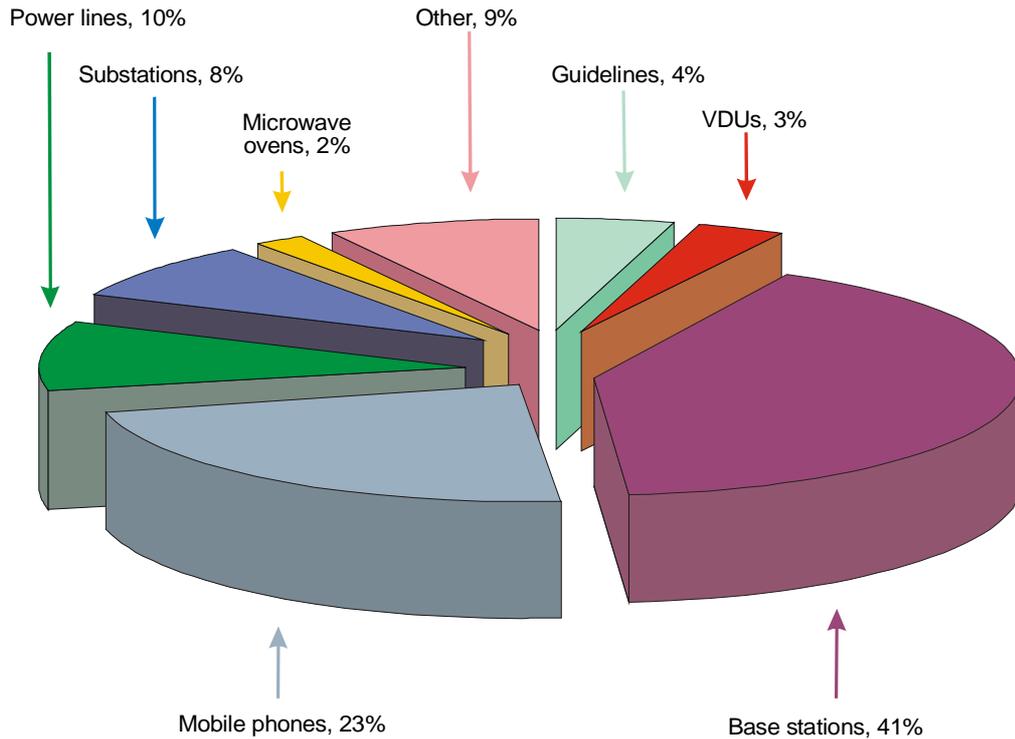


Figure 3.2 Enquiries received by NRPB on non-ionising radiation issues broken down into specific subject areas

technology, and the number of staff who have specialist knowledge in the mobile phone/base station area is in single figures.

- 3.36** We believe that effective communication on mobile phone technology should be a priority for NRPB and that the organisation should be more proactive in this area. The Director informed us that a new communications strategy is now being set in place by NRPB.
- 3.37** We note with interest that the Department of Trade and Industry has commissioned NRPB to produce an explanatory video on mobile phone technology suitable for the lay person.
- 3.38** As well as producing explanatory leaflets, NRPB publishes material on its web site (www.nrpb.org.uk) which was set up in February 1997. This includes pages giving NRPB views on the alleged health effects of mobile phones and base stations. The quality of the material produced is not universally user-friendly for the public and fails to address all of their current concerns. Nevertheless the site receives about 50,000 “hits” per month.
- 3.39** In summary, while a small minority of highly proactive individuals and groups has led the public debate on possible health hazards from mobile phone technology, NRPB has been mainly reactive. The Expert Group accepts that “scare stories” will always be the most popular focus of many sections of the media, but feels that NRPB should do more to inform the debate.
- 3.40** We note that many of the people who attended the public meetings that we organised expressed dissatisfaction with the advice given by NRPB. Their view was that operators should respond to suggestions of adverse health effects even if the evidence was not conclusive, whereas NRPB advises that current exposure guidelines should not be altered until there is “convincing and consistent” evidence of adverse biological effects at lower levels.

- 3.41** Currently, NRPB does not provide any advice beyond a strict definition of what is and what is not a “safe” level of non-ionising radiation. It has not made recommendations to Government on any need for precautionary policies to reflect uncertainties in current scientific knowledge. It has, however, recommended additional research that may help to resolve some of these uncertainties.
- 3.42** In general, we believe that NRPB has not adopted a sufficiently proactive approach to emerging public concerns about mobile phone technology, and has tended only to be reactive. That the impetus to set up this Expert Group came from Government rather than NRPB is in itself remarkable. NRPB does have its own independent Advisory Group on Non-ionising Radiation although it has not specifically addressed the issue of mobile phones. **We recommend that NRPB makes more use of specialist time-limited *ad-hoc* committees of experts and lay representatives to bring forward broadly based, well-considered advice.**
- 3.43** We further believe that additional resources should be made available within NRPB to address media and communications.
- 3.44** Whilst there is no criticism of its science, **we recommend that NRPB gives greater priority to the execution of a more open approach to issues of public concern such as mobile phone technology and that it is more proactive rather than reactive in its approach.**
- 3.45** **We recommend that public concerns about risk be addressed by NRPB in a more sensitive and informative manner.**
- 3.46** **We recommend that in a rapidly emerging field such as mobile phone technology, where there is little peer-reviewed evidence on which to base advice, the totality of the information available, including non-peer-reviewed data and anecdotal evidence, be taken into account when advice is proffered.**
- 3.47** We note the paucity of resources available at NRPB for work on non-ionising radiation, including work on mobile phones and related research on life sciences. **We recommend that work on non-ionising radiation and related life sciences work be strengthened at NRPB.**

Public Information

- 3.48** We are concerned that too much of the information that is currently presented to the public regarding the health aspects of mobile phone technology is misleading. We therefore believe that it would help if Government provided clear advice on this topic in the form of a leaflet circulated to all households.
- 3.49** **We recommend that Government circulates a leaflet to every household in the UK providing clearly understandable information on mobile phone technology and on health aspects, including the use of mobile phones while driving (see paragraphs 5.201–5.214). This leaflet should additionally be available at the point of sale. The leaflet should be developed in concert with industry, which has already produced some good leaflets.**
- 3.50** It would also help if an Ombudsman were appointed to whom issues relating to the siting of base stations and other aspects of the regulation of mobile phone technology could be referred where there was public dissatisfaction.
- 3.51** **We recommend that an Ombudsman be appointed to provide a focus for decisions on the siting of base stations when agreement cannot be reached locally, and on other relevant issues.**

General Conclusions

- 3.52** The continuing rapid growth in the use of conventional mobile phones, as shown in Figure 2.1, indicates that most people do not consider the possibility of adverse health effects to be a major issue.
- 3.53** Given the much lower exposures to radiation from base stations than from handsets (paragraph 4.32), the greater public concern from the people who gave evidence to the Expert Group about the former is paradoxical. It presumably arises because individuals can choose whether or not to use a mobile phone, whereas they have little control over their exposures from base stations. Furthermore, people derive a personal benefit from the use of a phone, but gain nothing directly from the presence of a base station close to their home or place of work. If anything they may suffer a loss of amenity and perhaps a reduction in the value of their property.