

INTERPHONE Project Overview

INTERPHONE is a multi-national project testing whether using mobile phones increases the risk of various cancers of the head and neck. The project comprises national epidemiological studies from 13 countries, which are coordinated by the International Agency for Research on Cancer (IARC), an agency of the World Health Organization (WHO).

Background

Prior to the initiation of the INTERPHONE project, the general consensus of expert reviews was that there was no convincing evidence to link mobile phone usage with increased cancer risk. Nonetheless, in view of the growing public use of mobile phones, the shortage of relevant epidemiological data and perceived public concern about possible health risks further research was recommended.

In 1998-1999 the IARC coordinated an international feasibility study resulting in the design of the INTERPHONE project that began in 2000. It was estimated that the study would have sufficient statistical power to detect a 1.5 fold increase in head and neck cancer risk for 5-10 years of mobile phone use by adults.

Children were not included as too few used mobile phones when the study began.

Project Partners

Data was collected by research teams from 13 countries: Australia, Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, New Zealand, Norway, Sweden and the UK. These countries adopted mobile technology early and the spread minimizes regional bias.

Cancer Types Studied in the Project

The project focuses on cancers that occur in the head and neck in areas of relatively high exposure to radio signals during mobile phone usage. These cancers include *gliomas* (tumours arising from glial cells in the brain), *meningiomas* (tumours of the membranes covering the brain), *acoustic neurinomas* (tumours of the acoustic nerve) and tumours of the parotid gland (a salivary gland in the cheek).

Non-Mobile Phone Factors

Some national analyses examined the relation between other possible risk factors (for example: smoking, allergies, environmental and occupational risk factors, loud noise, medical radiation and genes) and the tumours of interest.



Study Protocol

INTERPHONE is based on a common core protocol to enable valid data pooling from each of the 16 study centres in the 13 countries.

INTERPHONE is population-based *case-control* design where persons (mainly 30-59 years old) with the selected cancers (the *cases*) are compared to a group without the disease (the *controls*) for their mobile phone usage patterns. The controls are selected so as to maximise the similarities, age, sex, place of residence, with the cases analysed. Usage patterns were ascertained by face-to-face interviews covering type of phone used (analogue or digital), side of the head where phone is most used (laterality), frequency of use, cumulative calls, hours of use and time since first regular use.

Supporting studies assessed accuracy of subject recall and other factors that could affect exposure estimates.

INTERPHONE includes 6,420 cases and 7,658 controls.

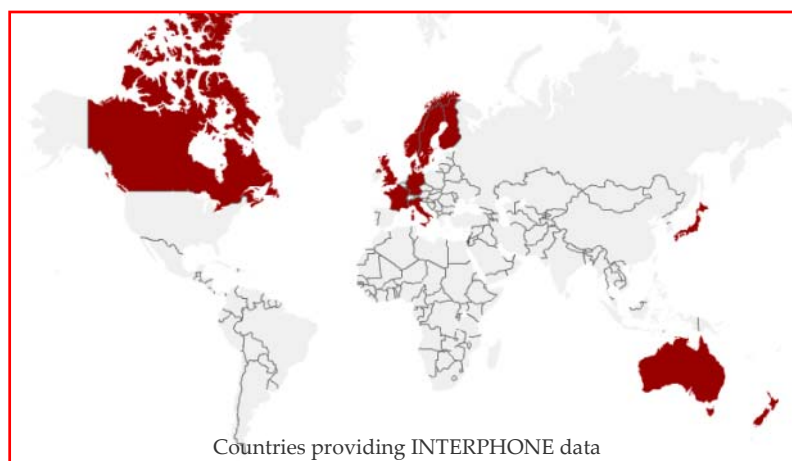
Project Funding and Independence

The coordination of the INTERPHONE project and the national data collection has been funded by the European Union (€3.85M) and by other national authorities (€0.6M+). The GSM Association and the Mobile Manufacturers Forum also provided funds (€3.5M), which were administered by the International Union Against Cancer (IARC) in order to ensure scientific independence. The sponsors of the INTERPHONE project do not have access to any results of the studies before their publication.

Study Conclusions

Overall, publications to date provide no evidence of an increased risk up to 10 years of use. Some analyses based on small numbers of subjects suggest a possible increased risk beyond 10 years but IARC cautions that these findings may be 'causal or artifactual' due to study uncertainties.

Interpretation must wait for publication of the pooled analysis, expected in 2009, and assessment with the full weight of other scientific evidence by public health experts.



Where to go for more information

GSMA: <http://www.gsmworld.com/health>