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Scientists lied about enquired data in largest study on mobile phone brain tumour risks

by Mona Nilsson

The largest research effort so far on brain tumour risks from mobile phone use is the international Interphone study, coordinated by the WHO's Cancer Research Institute, IARC. The study has been severely criticized for ignoring common sources of exposure to radio frequency radiation, other than the mobile phones. Obtained copies of the questionnaire used in the study reveal that the scientists had in fact enquired about exposure to the widely used cordless phones, which they had previously claimed they didn't. The results of these data are still kept in the dark.

The Interphone, involving research groups from 13 countries, was launched already in 2000 and the collection of data was finished by 2004. The study was mainly funded by the mobile phone industry (GSM Association and Mobile Manufacturers Forum) and by the EU.

The participating Nordic research groups (Finland, Sweden, Denmark, Norway and Great Britain) cooperated closely during the project and published their Nordic results on malignant brain tumours in 2007. The summed up results from all the 13 countries on malignant brain tumours were published only 3 years later in 2010, much delayed.

The lie about the cordless phones

Many scientists have [criticized](#) the Interphone study for several biases that lead to an underestimation of the risk in the results. For instance users of cordless phones (also called DECT-phones) were considered as unexposed in spite of the fact that these very commonly used phones emit the same kind of radiation as a mobile phone. During the studied period (mainly 1990's) the wireless phones were generally used more since they were much cheaper: The tariffs were identical to fixed lines', while the mobile phones were still considerably more expensive to use.

In the study protocol made by the coordinator at the IARC it was clarified that the investigation should include questions about "other communications devices (including ham/CB radios, two-way portable radios, satellite telephones) other than mobile telephones". Moreover, the Interphone researchers asked questions about additional exposure in work. The IARC also sent out a questionnaire to all participating groups, so that the questions would be the same in all countries.

The Nordic Interphone scientists asked questions according to the original plan. The problem is that they claimed in the published article on the results about malignant brain tumour that they didn't. [In 2007](#), they wrote the following:

*"The DECT-phones or other cordless phones **were not enquired about** because they were not regarded as potential material exposure sources".*

"DECT phones were not enquired"

In 2010 I asked Anna Lahkola, first author of the Nordic paper, in an email if they analysed the risk with use of DECT-phones:

" The DECT phones were not enquired in the interview because they were not regarded as potential exposure sources", the Finnish researcher replied.

How do you know that there are no risks with DECT-phones?

"I don't know anything, but at the time of the study planning, we did not have knowledge of the possible effects at such a low level of exposure", she replied and confirmed that everybody in the Nordic group asked the same questions:

" All the study centres used the same, shared study protocol".

The questionnaire

But what Lahkola replied in 2010 and what they wrote in the published article in 2007 was not true. The Finnish group did ask about cordless (DECT) phones in accordance with the questions sent out to all Interphone scientists from the coordinator at the IARC. This is shown by the Finnish questionnaire, of which I received a copy of during the autumn of 2011.

Questions were asked about how much DECT-phones/cordless phones, walkie-talkie, satellite telephones and ham radios were used, in hours or minutes per day, per week, month or the whole period. The scientists also asked about how many years the radio frequency -emitting devices were used, start date and stop date.

Later in November 2011 as I met the leading scientist of the Finnish Interphone group, Professor Anssi Auvinen, in Brussels at the EMF conference, I asked the same question as I posed to his colleague Anna Lahkola one year earlier:

"Yes we asked about the cordless phones", he replied.

When I asked why they have not published that data yet, he answered that they *had not had enough time to do it.*

Auvinen was the second author of the 2007 article claiming that cordless phones were not enquired about. He is now employed at the IARC where his main task is to evaluate data from Interphone that are still not published. He is also an expert to the EU as a member of the SCENIHR.

All Nordic countries asked questions about the cordless phones using the same questions. Sarah J. Hepworth from the British group confirmed that the interviewers also showed pictures to cases and controls of a cordless phones in the computer in order to prevent any misunderstanding of what a DECT-phone or cordless phone is and Lars Klæboe from the Norwegian group confirmed that there would have been no doubt about what a DECT or cordless phone was to the interviewed persons. The Danish and the Norwegian groups however could not send me a copy of the questionnaire: The Norwegians cannot print it from the computer and in Denmark all Interphone documents, including the questionnaire, were destroyed in a flood in Copenhagen in the summer of 2011, according to the Danish lead researcher Christoffer Johansen.

Results are still kept in the dark

The Swedish group is the only Nordic group that has published results on cordless phones. In the Swedish part of the Interphone study on malignant glioma, Feychting and her colleagues wrote: *"In addition to our analysis of mobile phones, we analyzed if the use of European digital enhanced cordless telecommunications (DECT) phones increases the risk of glioma or meningioma."*

But this is only partly true: Only risks of cordless phone use at least once a week during at least 6 months were presented. This is such a low usage that no increased risks are expected to be found.

In comparison, few scientists would dream of finding an increased risk of lung cancer in smokers smoking at least one cigarette a week during six months at least, with the same short latency period as in Interphone. It was in the heavy smoker group that lung cancer risks were first observed. Lennart Hardell's research group at the Örebro University Hospital in Sweden, found increased risks from cordless phone use, but only in the group with *1000 hours of use or more*.¹

Maria Feychting explained that the reason why all the cordless phones results were still unpublished was due to the fact that the study was "ongoing". According to the contract between the Karolinska Institute in Stockholm and the IARC in Lyon, the national results should be issued for publication:

"Upon completion of the national component of the Interphone study, its findings shall be issued for publication by the national study group members".²

In spite of this, many national results were never published, among them the Finnish.

The other sources of exposures to RF-radiation that were also investigated have neither been published in accordance with the contract (walkie-talkie, satellite telephones, ham radios) as well as occupational exposure to EMF and RF. In other words, the national data on whether mobile phone use in combination with additional exposure of the same kind of radiation increase the risk for brain tumours are still kept in the dark.

Increased risks were dismissed

The 13 country results from Interphone were published in May 2010. In Sweden the results were presented by Maria Feychting and her colleague at the Karolinska Institute professor Anders Ahlbom. Within a few months later Ahlbom was about to become the member of the board of his brothers lobbying firm Gunnar Ahlbom AB, with the objective to address its services on regulatory affairs etc. to the telecommunications industry. Both dismissed the observed increased risks for a normal user of today:

"There is nothing in these data or in previous data, really, to indicate that there is any risk involved in this", Ahlbom said to a Chinese television channel."³

One year later the increased risks observed the Interphone study were the main reason, together with the results from the Swedish Hardell group, why a panel of 31 experts classified mobile phone radiation as class 2B carcinogenic.

Cordless phones emit the same radiation

The argument put forward for not enquiring about the cordless phones, in opposition to the original protocol was that the phones "only" emit 10 mW. However the same order of radiation is emitted from a GSM phone in areas with good coverage. Moreover, cordless phones were used during the investigated period, the 1990's, for longer calling times on average. As an example, the cordless phones were used *3 times as much* a mobile phones by the brain tumour cases in the Swedish Hardell study:

"The GSM phones have a median power of 10-20 mwatt, i.e. the same order of magnitude as the cordless phones. With the longer calling time with cordless phones the "dose" for cordless users is then even higher than for that of the GSM users."⁴

¹ Hardell et al.: Pooled analysis of two case-control studies...; Int. Arch. Occup. Environ Health, 2006

² Collaborative research agreement between Karolinska Institute and IARC, KI dnr 2714/07-1

³ <http://www.youtube.com/watch?v=TllmreWZdoA>

⁴ Hardell et al.: Pooled analysis of two case-control studies; Int. Arch. Occup. Environ Health, 2006

To consider an exposed group as unexposed in case control studies, leads to an underestimation of the risk, as pointed out by an Italian group of scientists in a report on the research on brain tumour risks from mobile phone use:

*“The negative results produced by studies funded by the cell-phone companies are affected by many biases and flaws, giving rise to a systematic underestimate of the risk”.*⁵

The mobile phone industry funded the Interphone study by 5.5 million €⁶ and had several loyal scientists within the 13-country teams. One of them who was in the “exposure” working group that had influence over the design of the study and particularly the exposure issue, was Joe Wiart, employed by French mobile phone operator France Telecom. Surprisingly, Paulo Vecchia was positioned in both working groups, the exposure group and the epidemiology group, although he is not an epidemiologist. Vecchia is chairman of ICNIRP, the organization that is behind the massively questioned radiation exposure limits for mobile phone technology, of huge importance to the mobile phone industry. The limits explicitly do not protect against cancer risks.⁷ The ICNIRP limits would be proven inaccurate if a brain tumour risk would be acknowledged. His predecessor at ICNIRP, Michael Repacholi, has admitted receiving payments from the mobile phone industry while he was responsible the mobile phone health issue for a decade at the World Health Organisation.

There is no doubt that there is much at stake in the research on mobile phone radiation and health hazards. A proven brain tumour risk is a catastrophe for this very rich and powerful industry that involves many of the largest companies in the world. It could even bring down the whole world economy: *“A link between this technology and cancer would prove an economic as well as a medical catastrophe.”*⁸

FACTS :

Interphone is the largest interview-based case–control study so far on mobile phone use and risk for brain tumours in head and neck. Research teams from 13 countries participated in the study that collected data during 2000 and 2004 and included 2708 glioma and 2409 meningioma cases using a common protocol.

Results: In 2010 the combined results on malignant brain tumours were published, showing statistically significant increased risks for malignant brain tumours. The odds ratio in the group that used mobile phones for more than a total of 1640 hours was 1.40 (95% CI 1.03–1.89) for glioma, a malignant brain tumour. In 2011 results on risk of a tumour on the acoustic nerve was published showing 2.79 increased risk (95% CI 1.51-5.16) in the group with longest latency period and more than 1640 cumulative call time. 1640 hours correspond to half an hour daily over a ten year period, or slightly more than an hour a day over 4 years. In 2007 the Nordic group (Sweden, Finland, Denmark, Norway and Great Britain) published results showing increased risks for glioma for more than 10 years of mobile phone use reported on the side of the head where the tumour was located, a statistically significant increased odds ratio of 1.39 was reported although the scientists ignored other sources of exposure to radiofrequency radiation exposure, for instance the cordless phones, which they claimed they did not enquire about. However that was not true as they did in fact ask questions about cordless phone use.

Mona Nilsson is a Swedish investigation journalist and author of two books on mobile phones and health. In 2011 she [revealed](#) that the leading expert on mobile phone health risks, professor Anders Ahlbom at the Karolinska Institute was a board member of a lobby firm for the telecom industry, while at the same time

⁵ Levis et al. Environmental Health 2011, 10:59 <http://www.ehjournal.net/content/10/1/59>

⁶ <http://www.uicc.org/general-news/interphone-study-reports-mobile-phone-use-and-brain-cancer-risk>

⁷ <http://www.icnirp.de/documents/emfgdl.pdf>

⁸ <http://www.moneyweek.com/news-and-charts/economics/global/keep-an-eye-on-mobile-phones-54118>

assessing health risks of wireless technologies. She also found that his brother had been a lobbyist for the telecom industry for many years. This non-declared conflict of interest resulted in Ahlbom resigning from two expert panels in 2011 (IARC and SSM). Also in 2011 she revealed that the scientists behind the children brain tumour study [CEFALO, manipulated the study](#) by changing the questions on the cordless phone use.
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