

# **Worldwide Cell Phone Safety Recommendations and Policies**

October 2011

On May 31, 2011 the World Health Organization/International Agency for Research on Cancer classified the electromagnetic radiation from cell phones as possibly carcinogenic to humans based on an increased risk for glioma, a malignant type of brain cancer, associated with use of mobile phones.

http://www.thelancet.com/journals/lanonc/article/PIIS1470-2045(11)70147-4/fulltext http://www.iarc.fr/en/media-centre/pr/2011/pdfs/pr208 E.pdf

# LAWS, RULES, AND ADVISORIES PASSED

## IN THE UNITED STATES:

SAN FRANCISCO, CALIFORNIA was the first city and county in the nation to pass cell phone safety legislation in July 2011. The "Right to Know" ordinance passed the Board of Supervisors unanimously and was signed by Mayor Lee on August 2, 2011. The ordinance requires cell phone retailers to distribute an educational sheet created by the San Francisco Department of Environment that explains radiofrequency emissions from cell phones and how consumers can minimize their exposure. This informational sheet will be given to purchasers at the point of sale. Each retailer must also display a poster (also created by the SFDOE) that states that cell phones emit radiofrequency energy that is absorbed by the head and body.

http://www.sfbos.org/ftp/uploadedfiles/bdsupvrs/bosagendas/materials/bag072611 110656.pdf

<u>BERKELEY, CALIFORNIA</u>: In December 2010, Berkeley city council passed a resolution directing their city manager to draft a cell phone ordinance modeled on San Francisco's ordinance. The legislation is currently being drafted by the City Manager with assistance from Environmental Health Trust. The Berkeley Health Commission has added precautions to their website.

BURLINGAME, CALIFORNIA: On August 15, 2011, Burlingame city council voted to include cell phone guidelines as part of their Healthy Living in Burlingame initiative. The guidelines will be distributed to residents and will include the WHO classification and precautions a consumer can take if concerned. The CTIA-Wireless Association presented to Burlingame City Council in September 2010. The Council then determined to include guidelines in their initiative.

#### NEW MEXICO: 2011

http://www.nmlegis.gov/lcs/\_session.aspx?Chamber=H&LegType=M&LegNo=32&year=11
State Rep. Brian F. Egolf (D-Santa Fe) sponsored HM 32, which directs the state government to "study available literature and reports on the effects of cell phone radiation on human health." Also, by November 11, 2011, the Department of Health and the Department of the Environment must prepare a report with "recommendations on how to alleviate any dangerous effects that cell phone radiation has on human health."

<u>PORTLAND</u>, <u>MAINE</u>: Mayor Nicholas M. Mavodenes, Jr. declared October 2010 "Cell Phone Awareness Month" and will do so again in 2011.

## JACKSON, WYOMING: 2010

Mayor Barron and the town council declared a "Cell Phone Awareness Month" and issued a cell phone safety awareness proclamation <a href="http://www.ci.jackson.wy.us/resources/files//Government/F">http://www.ci.jackson.wy.us/resources/files//Government/F</a>. Meeting Agendas/Council Packets/2010/092010/Opening/Cell phone awareness.pdf

## **INTERNATIONAL:**

CANADA: 2011

http://www.hc-sc.gc.ca/ahc-asc/media/advisories-avis/ 2011/2011 131-eng.php

"Health Canada reminds cell phone users that they can take practical measures to reduce RF exposure. The department also encourages parents to reduce their children's RF exposure from cell phones since children are typically more sensitive to a variety of environmental agents. As well, there is currently a lack of scientific information regarding the potential health impacts of cell phones on children."

"Health Canada scientists continually review scientific studies in this area to ensure safety guidelines are sufficient for the protection of the health and safety of Canadians. The guidelines were updated in 2009, and the next update is planned for 2012."

AUSTRALIA: 2010

http://www.arpansa.gov.au/mobilephones/index.cfm

An official caution for children to text rather than talk on their cell phones was issued in June 2010 by the Australian Radiation Protection and Nuclear Safety Agency. The agency said children must take precautions to protect themselves from exposure to radiation because health risks from their long-term mobile phone use are unknown: "Children should be encouraged to limit exposure from mobile phones to their heads by reducing call time, by making calls where reception is good, by using hands-free devices or speaker options, or by texting."

FRANCE: 2010

http://www.legifrance.gouv.fr/affichTexteArticle.do;jsessionid=1E9805FB777CC9228F41FE523855508 D.tpdjo14v\_1?idArticle=JORFARTI000022471515&cidTexte=JORFTEXT000022470434&dateTexte=2 9990101&categorieLien=id

The new French cell phone statute, part of a sweeping legislative package called the "National Engagement for the Environment" was approved by French parliament July 12, 2010 and is set to take effect in April 2011. France's law requires SAR posting, headsets, and protects kids. It requires French electronics stores and other cell phone vendors to post each device's Specific Absorption Rate (SAR)—the standard measure of radiofrequency energy absorbed by the human body.

France's statute requires merchants to display SAR numbers in legible French to give consumers easy access to radiation information for different models. It will allow cell phone shoppers looking for a low-SAR model to make on-the-spot comparisons in stores. The French law also requires that all cell phones be sold with a headset, bans cell phone ads aimed at children and adolescents younger than 14, and bars the sale of phones specifically made for kids younger than 6.

ISRAEL: 2008, 2011

The Ministry published a set of guidelines that called for limiting children's use of cell phones, avoiding cellular communication in enclosed places such as elevators and trains, and using wired, not wireless, earpieces (Azoulay 2008), and limits use of cell phones in schools.

# **EXPERT ADVISORIES**

## COUNCIL OF EUROPE:

# http://assembly.coe.int/Mainf.asp?link=/Documents/AdoptedText/ta11/ERES1815.htm

"The Assembly regrets that, despite calls for the respect of the precautionary principle and despite all the recommendations, declarations and a number of statutory and legislative advances, there is still a lack of reaction to known or emerging environmental and health risks and virtually systematic delays in adopting and implementing effective preventive measures. Waiting for high levels of scientific and clinical proof before taking action to prevent well-known risks can lead to very high health and economic costs, as was the case with asbestos, leaded petrol and tobacco." Parliamentary Assembly, Council of Europe, May 2011, Resolution 1815 (excerpt):

- "8. In light of the above considerations, the Assembly recommends that the member states of the Council of Europe: 8.1. in general terms:
- 8.1.1. take all reasonable measures to reduce exposure to electromagnetic fields, especially to radio frequencies from mobile phones, and particularly the exposure to children and young people who seem to be most at risk from head tumours:
- 8.1.2. reconsider the scientific basis for the present standards on exposure to electromagnetic fields set by the International Commission on Non-Ionising Radiation Protection, which have serious limitations, and apply ALARA principles, covering both thermal effects and the athermic or biological effects of electromagnetic emissions or radiation:
- 8.1.3. put in place information and awareness-raising campaigns on the risks of potentially harmful long-term biological effects on the environment and on human health, especially targeting children, teenagers and young people of reproductive age;
- 8.1.4. pay particular attention to "electrosensitive" people who suffer from a syndrome of intolerance to electromagnetic fields and introduce special measures to protect them, including the creation of wave-free areas not covered by the wireless network;
- 8.1.5. in order to reduce costs, save energy, and protect the environment and human health, step up research on new types of antenna, mobile phone and DECT-type device, and encourage research to develop telecommunication based on other technologies which are just as efficient but whose effects are less negative on the environment and health;
- 8.2. concerning the private use of mobile phones, DECT wireless phones, WiFi, WLAN and WIMAX for computers and other wireless devices such as baby monitors:
- 8.2.1. set preventive thresholds for levels of long-term exposure to microwaves in all indoor areas, in accordance with the precautionary principle, not exceeding 0.6 volts per metre, and in the medium term to reduce it to 0.2 volts per metre;
- 8.2.2. undertake appropriate risk-assessment procedures for all new types of device prior to licensing;
- 8.2.3. introduce clear labelling indicating the presence of microwaves or electromagnetic fields, the transmitting power or the specific absorption rate (SAR) of the device and any health risks connected with its use;
- 8.2.4. raise awareness on potential health risks of DECT wireless telephones, baby monitors and other domestic appliances which emit continuous pulse waves, if all electrical equipment is left permanently on standby, and recommend the use of wired, fixed telephones at home or, failing that, models which do not permanently emit pulse waves;
- 8.3. concerning the protection of children:
- 8.3.1. develop within different ministries (education, environment and health) targeted information campaigns aimed at teachers, parents and children to alert them to the specific risks of early, ill-considered and prolonged use of mobiles and other devices emitting microwaves;
- 8.3.2. for children in general, and particularly in schools and classrooms, give preference to wired Internet connections, and strictly regulate the use of mobile phones by schoolchildren on school premises;
- 8.4. concerning the planning of electric power lines and relay antenna base stations:
- 8.4.1. introduce town planning measures to keep high-voltage power lines and other electric installations at a safe distance from dwellings;
- 8.4.2. apply strict safety standards for the health impact of electrical systems in new dwellings;
- 8.4.3. reduce threshold values for relay antennae in accordance with the ALARA principle and install systems for comprehensive and continuous monitoring of all antennae;
- 8.4.4. determine the sites of any new GSM, UMTS, WiFi or WIMAX antennae not solely according to the

operators' interests but in consultation with local and regional government authorities, local residents and associations of concerned citizens;

- 8.5. concerning risk assessment and precautions:
- 8.5.1. make risk assessment more prevention oriented;
- 8.5.2. improve risk-assessment standards and quality by creating a standard risk scale, making the indication of the risk level mandatory, commissioning several risk hypotheses to be studied and considering compatibility with real-life conditions:
- 8.5.3. pay heed to and protect "early warning" scientists;
- 8.5.4. formulate a human-rights-oriented definition of the precautionary and ALARA principles;
- 8.5.5. increase public funding of independent research, in particular through grants from industry and taxation of products that are the subject of public research studies to evaluate health risks;
- 8.5.6. create independent commissions for the allocation of public funds;
- 8.5.7. make the transparency of lobby groups mandatory;
- 8.5.8. promote pluralist and contradictory debates between all stakeholders, including civil society (Århus Convention)."

## RUSSIA: 2011

http://www.who.int/peh-emf/project/mapnatreps/RUSSIA%20report%202008.pdf

## http://iemfa.org/images/pdf/RNCNIRP Resolution 2011.pdf

The Russian National Committee on Non-Ionizing Radiation Protection has expressed concern at the marketing of mobile phones to children and teenagers and has stated that it believes that the risk to children from mobile phones is not much lower than the risk to children's health from tobacco or alcohol. The Committee explains this high potential risk as follows:

- "The absorbtion of electro-magnetic energy in a child's head is considerable higher than that in the head of an adult
- Children are more sensitive to electromagnetic fields than adults
- Childrens' brains have higher sensitivity to the accumulation of the adverse effects from chronic exposure to the electromagnetic fields
- Today's children will spend a longer time using phones than today's adults.

Of particular concern is the morbidity increase among young people aged 15 to 19 years (it is very likely that most of them are mobile phone users for a long period of time). Compared to 2009, the number of CNS disorders among 15 to 17 year-old has grown by 85%, the number of individuals with epilepsy or epileptic syndrome has grown by 36%, the number of "mental retardation" cases has grown by 11%, and the number of blood disorders and immune status disorders has grown by 82%. In group of children aged less than 14 years there was a 64% growth in the number of blood disorders and immune status disorders, and 58% growth in nervous disorders risk assessment for EMF exposure.

Taking into account the RNCNIRP position and the precautionary measures suggested by WHO, the Committee considers that urgent measures must be taken because of the inability of children to recognize the harm from the mobile phone use and that a mobile phone itself can be considered as an uncontrolled source of harmful exposure.

- It is required that the information that a mobile phone is a source of RF EMF is clearly shown on the phone's body (or any other telecommunication device).
- It is required that the "User's Guide" contains information that a mobile phone (personal wireless communication tool using electromagnetic communication method, etc.) is a source of harmful RF EMF exposure. Usage of a mobile phone by children and adolescents under 18 years old is not recommended. Mobile phone use by pregnant women is not recommended in order to prevent risk for a fetus.
- The easiest way to reduce RF EMF exposure is to move the mobile phone away from one's head during the phone call which may be achieved by using the hands-free sets (protection by distance). Shortening the call duration is another way to reduce the exposure (protection by time).

- The RNCNIRP considers it is reasonable to develop mobile phones with reduced EMF exposure (with hands-free sets, included limitation functions, such as limitation of the number of daily phone calls, possibility of forced limitation of phone call duration, etc.).
- It is required to include courses on mobile phones use and issues concerning EMF exposure in the educational program in schools.
- It is reasonable to set limits on mobile telecommunications use by children and adolescents, including ban on all types of advertisement of mobile telecommunications for children (teenagers) and with their participation.
- The RNCNIRP is ready to assist the mass-media in their awareness-raising work and educational activities in the area of EMF and, in particular, to provide information about the newest research of the impact of EMF on human health and the measures to curb the negative impact of this physical agent.
- Better safety criteria for children and teenagers are required in the nearest term. Features of the developing organism should be taken into account, as well as the significance of bioelectric processes for human life and activities, present and future conditions of EMF, prospects of technological and technical development should be addressed in a document of legal status.
- Development of a funded national program for studying possible health effects from chronic EMF exposure of the developing brain is necessary.

# OTHER PENDING ACTIVITY

## U.S. FEDERAL COMMUNICATIONS COMMISSION

Regulatory powers of developing safety standards of cellular phones was given by the FDA to the FCC. The FCC and FDA have not updated their consumer information subsequent to the WHO classification in May 2011. Unbeknownst to most consumers, the FCC requires that every cellular phone manual include a safe distance warning because when the phone is held to the body the user may be exposed to microwave radiation that could exceed the federal safety limit for exposure. This requirement is due to the way in which the FCC has the devices tested. Unfortunately, this information is hidden in fine print in cellular phone manuals most users never read.

#### <u>MAINE</u>

## http://www.mainelegislature.org/LawMakerWeb/summary.asp?ID=280040439

The first cell phone warning labels legislation in the world was introduced in Maine in the Spring of 2010, by representative Andrea Boland (D-142) that would require manufacturers of cell phones to include legible prominent on both cellular telephones and their packaging. The warning would read: "WARNING: THIS DEVICE EMITS ELECTROMAGNETIC RADIATION, EXPOSURE TO WHICH MAY CAUSE BRAIN CANCER. USERS, ESPECIALLY CHILDREN AND PREGNANT WOMEN, SHOULD KEEP AWAY FROM THE HEAD AND BODY." It would also have included a graphic of the radiation penetration into a 5 year old child's brain based on the model created by professor Om P. Gandhi. The legislation did not pass but the legislature voted to have the Maine Center for Disease Control to disseminate information regarding the issue, the studies and ways to reduce exposure through their network and on their website. In May of 2011 Representative Boland introduced a new version of the label that aimed to make consumers aware of the warnings within cell phone manuals themselves. "Our cell phone warning label bill passed the Maine House of Representatives. The bill would have required whatever warnings were in the manual to be placed on the package OR a label on the package directing users to check the manual for safe usage guidance, and at what pages that appeared. In the Senate all the Democrats present except one, and two Republicans, voted in favor of the bill. The Senate Majority Leader worked aggressively to defeat it, and succeeded. The vote was 20-13, with two Democrats excused. Clearly the choice was whether to protect the industry or the consumers because the wording in our proposed warning label legislation was carefully chosen to use only the manufacturers' own words." July 4, 2011 Andrea Boland, Maine state legislator.

## CALIFORNIA:

http://info.sen.ca.gov/cgi-bin/postquery?bill\_number=sb\_932&sess=CUR&house=B&site=sen\_sp\_932&sess=SUR&house=B&site=sen\_sp\_932&sess=S

SB 932: Senator Mark Leno introduced legislation which calls for posting language at the point of sale advising consumers to read the safe use instructions in their cell phone user manual. This passed the Senate Environmental Quality committee May 9, 2011. The full Senate vote has been postponed until next session.

#### OREGON: 2010

# http://www.leg.state.or.us/11reg/measpdf/sb0600.dir/sb0679.intro.pdf

Senate Bill 679 sponsored by Oregon Senator Shields would prohibit retailers from selling, leasing, offering for sale or lease or otherwise distributing cellular telephone unless telephone and packaging bear specific label. The proposed label reads:

"WARNING: This is a radio-frequency (RF), radiation- emitting device that has nonthermal biological effects for which no safety guidelines have yet been established. Controversy exists as to whether or not these effects are harmful to humans. Exposure to RF radiation may be reduced by limiting your use of this device and keeping it away from the head and body."

This proposal will be brought to the Senate in 2011.

# STATE OF PENNSYLVANIA: 2011

 $\underline{http://www.legis.state.pa.us/cfdocs/billinfo/BillInfo.cfm?syear=2011\&sind=0\&body=H\&type=B\&bn=14\\08$ 

Representative Vanessa Brown (D-190) and Former House Speaker Dennis O'Brien (R-169) introduced HR 1408 "The Children's Wireless Protection Act" in April 2011. Stores and retailers would be required to display paraphernalia bearing the warning as well. If a cellular telephone does not fall under these provisions, the Attorney General may order its recall or order that it meet these requirements. The bill orders that the Office of Attorney General issue a warning of the effects of cell phone usage to the public on its website. This bill proposes to: "Require manufacturers of cell phones in Pennsylvania to include legible, prominent, non-removable warning labels on both cellular telephones and their packaging. The proposed label would include the following statement:

WARNING: This device emits electromagnetic radiation, exposure to which may cause brain cancer. Users, especially children and pregnant women, should keep this device away from the head and body."

Public hearings are planned September 1, 2011; Environmental Health Trust's Chair of the Board, Ronald B. Herberman, MD, and Environmental Health Trust's Director of Government and Public Affairs, Ellen Marks, will be testifying.

#### PHILADELPHIA. PENNSYLVANIA: 2010

Philadelphia City Councilwoman-at-large Blondell Reynolds Brown developed and passed a strong City Council resolution regarding the issue of cell phone radiation and authorizing the Council's Public Health and Welfare Committee to hold hearings on actions the City can take to promote public awareness of the health risk from cell phone emissions to children and pregnant woman. The Resolution passed unanimously in December 2010. The Councilwoman will be working to schedule the hearing in early Fall.

# IRELAND: 2011

Mobile Phone Radiation Warning Bill 2011

http://www.oireachtas.ie/documents/bills28/bills/2011/2411/b2411s1.pdf

"An Act to provide that a warning label shall be affixed to the exterior casing of mobile phones and on related packaging, which shall state clearly that mobile phones emit electromagnetic radiation. Be it enacted by the Oireachtas as follows:

Every mobile phone and its packaging must have a clearly legible warning affixed to it. Such warning must:

- (a) specify the mobile phone's non-ionising radiation level, and
- (b) the specific absorption (SAR), and
- (c) contain a warning as set out in the Schedule of this Act"

# ISRAEL: 2011

"A new bill tabled by Knesset member Yulia Shmalov Berkovitz has received support of dozens of Knesset. The most prominent demand is to send an SMS every day at 12 o'clock in which it will be written: 'Warning: this mobile phone emits non-ionizing radiation. The WHO has decided that it can cause cancer.' And each time the phone is turned on, a similar warning will appear on the screen. Anyone who purchases a cell phone will have to sign that they understand the risks of use, especially in children. Participation of children in advertisements will be banned. An earpiece will have to be given at each purchase. At least 15% of the company's revenues will go to education to minimize the use of cell phones. Advertisements will include warning such as those found on cigarettes ads. The minister Gilad Arden said that public awareness of cell phone use risk is needed. Although he does not

support all of the clauses of the bill, he considers most of them positively. Over the next few weeks this bill will be brought to Knesset discussion." [Yediot (newspaper) June 23, 2011.]

In 2008, Israel's Ministry of Health published a set of guidelines that called for limiting children's use of cell phones, avoiding cellular communication in enclosed places such as elevators and trains, and using wired, not wireless, earpieces. The Ministry developed these guidelines following a national study that detected an association between cell phone use and the risk for developing tumors of the salivary gland.

## FINLAND: 2009

In January 2009, the Finnish government stated that children's cell phone use should be restricted, for example, by sending text messages instead of talking, making shorter calls, using a hands-free device, and avoiding the use of cell phones when connection is weak. According to the Finnish report, "although research to date has not demonstrated health effects from cell phone's radiation, precaution is recommended for children as all of the effects are not known.... Since it takes years to develop a cancer and cell phones have been in common use only for about ten years, the possibility, that a link between cell phone use and cancer might be found in later population studies, cannot be ruled out." [STUK (Finnish Radiation and Nuclear Safety Authority) 2009.]

## **UNITED KINGDOM: 2011**

http://www.dh.gov.uk/prod\_consum\_dh/groups/dh\_digitalassets/documents/digitalasset/dh\_125388.pdf "Therefore, as a precaution, the UK Chief Medical Officers advise that children and young people under 16 should be encouraged to use mobile phones for essential purposes only, and to keep calls short." (Mobile Phones and Health Leaflet, 2011.)

## JURISDICTIONS THAT ENCOURAGE LIMITING USE OF PHONES BY CHILDREN

# UNITED STATES NOT TAKING ACTION

Be it noted that the United States' FCC's Kid's Zone (not updated since 2009) on the FCC website states: 2011

# "Do cell phones cause brain cancer?

There is no scientific evidence to date that proves that wireless phone usage can lead to cancer or a variety of other health effects, including headaches, dizziness or memory loss. However, studies are ongoing and key government agencies, such as the Food and Drug Administration (FDA) continue to monitor the results of the latest scientific research on this topic. In 1993," the FDA, which has primary jurisdiction for investigating mobile phone safety, stated that it did not have enough information at that time to rule out the possibility of risk, but if such a risk exists, "it is probably small." The FDA concluded that there is no proof that cellular telephones can be harmful, but if individuals remain concerned several precautionary actions could be taken, including limiting conversations on hand-held cellular telephones and making greater use of telephones with vehicle-mounted antennas where there is a greater separation distance between the user and the radiating antennas. The Web site for the FDA's Center for Devices and Radiological Health provides further information on mobile phone safety: www.fda.gov/cdrh/phones/index.html."

http://transition.fcc.gov/cgb/kidszone/faqs\_cellphones.html#docellphonescausebraincancer

## INDIA: 2007

No use in children under 16 years of age <a href="http://www.engadget.com/2007/09/13/karnataka-india-banning-cellphones-for-kids-under-16/">http://www.engadget.com/2007/09/13/karnataka-india-banning-cellphones-for-kids-under-16/</a>

Requests that manufacturers do not create ads with children and pregnant women. <a href="http://ibnlive.in.com/news/no-kids-pregnant-women-in-cellphone-ads-govt/67335-17.html">http://ibnlive.in.com/news/no-kids-pregnant-women-in-cellphone-ads-govt/67335-17.html</a>

## FINLAND: 2009

In 2009, Finnish Radiation and Nuclear Safety Authority (STUK) advised that children's mobile phone use should be restricted. The Authority says that: children will have more time to use a mobile phone for a longer period of time than adults, the long-term risks from the use of mobile phones cannot be assessed before the phones have been in use for several decades, and children's brains are developing up to the age of 20 years. "With children, we have reason to be especially carefully, because there is not enough research on children's mobile phone use. Unfortunately, it will not be easy to obtain this information in the future either, because of ethical considerations, the use of children as research subjects must always be heavily justified," according to STUK research director Sisko Salomaa.

The Authority suggests that children's mobile phone use could be restricted in the following ways:

- favouring the use of text messages rather than calls,
- parents limiting the number of calls and their duration,
- using hands-free devices
- avoid talking in an area with low connectivity or in a moving car or a train.

#### **EUROPEAN UNION MEMBER STATES: 2008**

European Parliament (2008b, 2009) suggested that current limits are obsolete and do not consider developments in vulnerable groups (e.g., pregnant women, newborns, children). A wide-ranging awareness campaign was suggested to familiarize young Europeans with good mobile phone techniques (e.g., hands-free kit, keep calls short, switch off phones when not in use, use phones in good reception areas).

#### **EUROPEAN ENVIRONMENT AGENCY: 2009**

Director J. McGlade made a policy statement in 2009, advising against regular use of cell phones by children and proposing precautionary actions to reduce the general public's radiation exposures.

RUSSIA: 2011

 $\underline{http://www.scribd.com/doc/55420788/Electromagnetic-Fields-from-Mobile-Phones-Health-Effect-on-Children-and-Teenagers}$ 

In 2011, the Russian National Committee on Non-Ionizing Radiation Protection advised potential risk for children's health is very high. Current safety standards for exposure to microwaves from mobile phones have been developed for adults and do not consider characteristic features of a child's body. RNCNIRP stated ultimate urgency to defend children's health from the influence of the EMF of the mobile communications systems. Usage of a mobile phone by children and adolescents under 18 years old is not recommended and mobile phone use requires implementation of precautionary measures in order to prevent health risks. Mobile phone use by pregnant women is not recommended in order to prevent risk for a fetus.

#### SWITZERLAND:

"Either keep your calls short or send a text message (SMS) instead. This advice applies especially to children and adolescents." (Federal Office of Public Health)

GERMANY: 2008

Federal Office for Radiation Protection (Bundesamt fur Strahlenschutz 2008d) recommends exposure minimization for children.

KOREA: 2009

Seoul Metropolitan Council (2009) bans the use of cell phones at schools.

UNITED KINGDOM: 2005, 2010

http://www.dh.gov.uk/prod\_consum\_dh/groups/dh\_digitalassets/documents/digitalasset/dh\_124899.pdf Chief Medical Officers in the Department of Health strongly advise that where children and young people use mobile phones, encourage: use for essential purposes only and short calls (2005).

FRANCE: 2009

http://www.sante.gouv.fr/affichage-du-debit-d-absorption-specifique-das-des-telephones-mobiles.html
Under the new legislation, "all public communication, whatever the means or support, that aim, directly or indirectly to promote sale, availability or use of cell phones by children younger than 14 years old would be prohibited. Sale or free distribution of products containing radiofrequency devices and aimed specifically for use by children younger than 6 years of age may be forbidden by order of the Health Minister, in order to limit excessive exposure of children."

<u>JAPAN</u>: 2008

http://educationinjapan.wordpress.com/2008/12/04/osaka-prefecture-bans-use-of-cell-phones-in-schools/General limitation under 18 years of age.

## TAJIKISTAN:

http://af.reuters.com/article/oddlyEnoughNews/idAFTRE52A1AF20090311

Tajikistan bans mobile phones from schools and universities to boost education. Anyone caught carrying or talking on a cell phone will be fined.

TORONTO, CANADA: 2008

http://www.toronto.ca/health/hphe/pdf/boh\_children\_safecellphone.pdf

http://www.toronto.ca/health/hphe/pdf/factsheet\_children\_safecellphone.pdf

"Children, especially pre-adolescent children, use landlines whenever possible, keeping the use of cell phones for essential purposes only, limiting the length of cell phone calls and using headsets or hands-free options, whenever possible" (Toronto Public Health 2008a). "Parents who buy cell phones for their children should look for ones with the lowest emissions of RF waves. When cell phone reception is low (this happens when the base station antenna is far away) and when a cell phone is being used during high speed travel (i.e. driving in a car) power being emitted from the cell phone must be increased in order to maintain reception. Cell phone use by children should be limited during these times in order to reduce exposure to RFs" (Toronto Public Health 2008b).

In collaboration with the California Brain Tumor Association & Consumers for Safe Cell Phones