INTERNATIONAL POLICY BRIEFING
Governments, Health Authorities and Schools
Enacting Policy to Reduce Radiofrequency Radiation Exposures

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Please email info@ehtrust.org for comments/updates as we do our best to ensure accuracy but the policy landscape is always changing. This is a living document. The last update was made 10/2018.

France

2017: Cell Phones are fully banned - in hallways, lunchroom and playgrounds- in schools through 14-15 years old (elementary and middle).

- Mobile phones will be fully banned announced the Minister of National Education Jean-Michel Blanquer according to a news article published in Le Monde. The measure was confirmed by the Minister of Education. While France previously banned cell phones in classrooms, this policy includes all locations in the school and is considered a "full ban".

2017: The Ministry of Ecological and Solidarity Transition: "mobile phone and health" 2017 campaign on 6 Behaviors to reduce exposure to radiofrequency radiation.

Web poster 'Mobile phone. Adopt the 6 good behaviors' Poster for print 'Mobile phone. Adopt the 6 good behaviors'
Web pages 'Mobile Phone and Health' 4 pa**ges print 'Mobile Phone and Health'**
The Ministry of Ecological and Solidarity Transition Webpage "mobile phone and health"

Since 2010 **French Law has Regulations on Cell Phones**

- Retailers must display SAR Radiation levels for different phone models, the specific absorption rate SAR hall be clearly indicated in French.
- All phones must be sold with a headset and mention should also be made of the recommendation to use the accessory to limit the exposure of the head to radio transmissions during communications.
- Article 183: Cell phone advertising aimed at children younger than 14 is banned. In nursery schools, elementary schools and colleges, the use of a mobile telephone during a teaching activity and in the places provided by the rules of procedure, by a pupil is prohibited.
- Cell phones made for children under 6 are banned "to limit exposure to children".
- EWG Blog Post: "French law informs, protects cell phone users"
- Law No. 2010-788, Article 184 2010 Decree No. 2010-1207 relating to the display of the specific absorption rate of radio terminal equipment

2016 Report Cell For Reducing Exposure: French Agency for Food, Environmental and Occupational Health & Safety (ANSES) **2016 Report** "Radiofrequency Exposure and the Health of Children" recommends regulatory changes to ensure "sufficiently large safety margins" to protect the health of young children stating:

"ALL wireless devices, including tablets, cordless phones, remote controlled toys, wireless toys, baby monitors and surveillance bracelets, should be subjected to the same regulatory obligations as cell phones."
Recommendations of the Agency: ANSES recommends to "reconsider the regulatory exposure limits" to ensure "sufficiently large safety margins" to protect the health of young children:

- All wireless devices, including tablets, cordless phones, remote controlled toys, wireless toys, baby monitors and surveillance bracelets, should be subjected to the same regulatory obligations as cell phones.
- Compliance with regulatory exposure limits should be insured for the ways that devices are customarily used, such as positioned in contact with the body.
- Exposure limits for radiofrequency electromagnetic fields should be tightened to ensure sufficiently large safety margins to protect the health and safety of the general population, particularly the health and safety of children.
- Reliance on the specific absorption rate (SAR) to set human exposure limits should be re-evaluated and replaced through the development of an indicator to assess real exposures for mobile phone users that applies to various conditions: signal type, good or bad reception, mode of use (call, data loading, etc.), location device is used on the body.
- ANSES reiterated its recommendation, as previously stated, to reduce exposure to children: minimize use and prefer a hands-free kit. The new report has made headlines across the country.
- ANSES Article: "Radio Frequencies, Mobile Telephony and Wireless Technologies"
- Press Release on Report (translate into English)
- Full 2016 Report (French)
- EHT Press Release on Report

2016 National Decree No. 2016-1074 on the protection of workers against the risks arising from electromagnetic fields

- It is forbidden to place workers under age 18 in posts where EMF is apt to exceed limit values
- each employer has to evaluate EMF risks.
- When exposure exceeding limit values is detected or when an undesirable or unexpected health effect from exposure to EMF is reported, the worker will benefit from a medical visit.
- The employer must provide information and training to his employees regarding the characteristics of EMF emissions, the direct and indirect biophysical effects that could result from exposure to EMF, etc.
- The employer must adapt as much as possible the post in order to limit exposure to EMF.
- Specific precautions will be taken regarding pregnant women.
- News
- Next Inpact News Article: "As early as 2017, employers will have to protect their employees against electromagnetic waves"
    - Inter France News Article: "Companies will have to protect employees from electromagnetic waves"
    - Los Echos France: "Electrosensitivity: A man recognized as victim" 10/10/2018
    - BFM Business: Electromagnetic waves: the very precise work code
- France: Decree No. 2016-1074

2015 National Legislation - "Law on sobriety, transparency, information and consultation for exposure to electromagnetic waves." Original Report

- **WiFi Banned in Nursery Schools:** WIFI and Wireless devices will be banned in "the spaces dedicated to home, to rest and activities of children under 3 years".
- **WiFi on "OFF" as Default to Minimize Exposures in Schools**: In elementary schools,WIFI routers should be turned off when not in use.
- **Schools Will be Informed:** The school board should be informed when new tech equipment is being installed.
- **Cell Tower Emission Compliance Will Be Verified:** A decree will define the limits of emission of equipments for electronic communications or transmission to which the public is exposed. These values can be verified by accredited organizations and results will be made accessible to the public through a National Radiofrequency Agency.
- **Citizens Will Have Access to Environmental/Cell Tower Radiation Measurements** Near homes: Every resident may get access to the results of measurements for their living space.

- **Cell Antennae Maps For the Country**: A description and map of the places with atypical (higher than the limits) places will be conducted at regular intervals with follow up of the actions being taken to limit the exposure. A map of all antennas will be produced for each town.
- **Continued Evaluation of Health Effects:** The National Radiofrequence Agency will be in charge of surveillance and vigilance, evaluating potential risks and setting up scientific research, including information on health effects.
- **SAR Radiation Labeling Mandated:** The SAR of cell phones must be clearly indicated on the package.
- Information on Reducing Exposures Mandatory: Information on ways to reduce exposure will be detailed in the contents of the cell phone package. .
- **WIFI Hotspots will be Labeled:** Places where WIFI is provided should be clearly marked with a pictogram.
- Advertisements Must Recommend Devices That Reduce Radiation Exposure to the Brain: Advertising for cell phones should clearly indicate the recommendation of hand free kits for protection of the head of the user and it will be included in the package. Advertising for cell phone not accompanied by such a kit is forbidden. Companies in violation will be fined 75,000 Euros.
- **Children Must Be Provided Protections:** At the request of the buyer, equipment reducing cell phone radiation exposures to the head for children less than 14 years should be provided.
- **The Public Will Be Informed:** Within a year, a policy of information on awareness and information on a responsible and reasonable use of cell phones and other apparatus emitting radiofrequencies will be set up.
- **Electrohyper-sensitivity Report To Be Submitted:** Within a year, a report on electrohyper-sensitivity must be given to the Parliament *according to the law.*
- Le Monde.fr News Article: "A law to frame exposure to the airwaves"

French Agency for Food, Environmental and Occupational Health & Safety (ANSES) 2013 recommendations for limiting exposure to radio frequencies

- Original opinion and report on the Update of the "Radiofrequencies and health" expert appraisal
- Recommends hands free phones, SAR labeling, and "limiting the population's exposure to radiofrequencies… especially for children and intensive users, and controlling the overall exposure that results from relay antennas."
- ANSES news article: "ANSES issues recommendations for limiting exposure to radiofrequencies"

French National Public Health Website Informs the Public About How To Reduce Exposure

The Website hosts infographics on 8 Ways To Reduce Exposure which include

1. Protect children and youth the most. It is recommended that parents advise their children or teenagers to use their phone only for essential calls. The use of the SMS and the use of the earpiece should also be encouraged by the parents. In addition to these specific tips, other good gestures should also be adopted.

2. Telephone with a headset: By phoning with a headset (wired or bluetooth, wireless), the phone is moved away from the head. It is an effective way of reducing exposure to head waves.

(EHT Note: Bluetooth still exposes the brain to RF so we do not recommend this.)

3. Prefer SMS (Texting): By using SMS to communicate, one reduces the emission of waves of his telephone. Indeed, to send an SMS, the phone "connects" to the nearest relay antenna only the time to send the message. During a conversation, the phone connects to the nearest relay antenna and renews the connection regularly, especially on the go. The level of emission of waves is therefore more important. Also when sending an SMS, the notebook is away from the head.

4. Keep the phone away from electronic implants: If you wear an electronic implant (pacemaker, insulin pump, neurostimulator ...), keep your mobile phone away from the equipped area. It can disrupt the functioning of your medical device.

5. Do not call in areas of poor reception: The less the network coverage is good, the more your phone emits waves to keep the conversation going. It is therefore recommended not to call in areas where reception is not good: underground car parks, elevators, confined spaces ... Check the number of bars on your phone, it indicates the quality of coverage of the network.

It is also generally prohibited to call in hospitals and airplanes because of the presence of radio-frequency devices. Your phone may cause interference and interfere with the operation of electronic devices.

6. Move the phone away just after dialing: To limit exposure to waves at the head, you can get into the habit of not approaching the phone in your ear within seconds of dialing. Indeed, it is during these first seconds that the transmission of waves is strongest to find the nearest relay antenna. The level of wave emission then stabilizes.
7. Avoid calling while traveling at high speeds (car, train, bus). When moving at high speed, the phone must successively connect to different relay antennas to maintain the conversation. With each search for a relay antenna, the telephone transmits at full power, the level of emission of waves is therefore regularly higher. It is therefore recommended to avoid calling by train, for example. Telephoning while driving is also prohibited and liable to a fine. The danger comes more from the distraction created by the conversation than from the immobilization of a hand.
8. Read the information in your cell phone manual: You can find out about the level of exposure to the waves of your mobile phone: this is the DAS, whose display becomes mandatory at the points of sale in April 2011. The DAS (Specific Absorption Rate (SAR)) phones Mobile device quantifies the user's maximum exposure level to electromagnetic waves, for use at the ear. The French regulations require that the DAS does not exceed 2 W / kg. The devices described as "anti-waves" have not proved their effectiveness.
Go to French Government Website which hosts these 8 Ways To Reduce Exposure

French National Agency on Frequencies Maintains Information On Cell Tower Radiation:
The Agence Nationale des Fréquences holds public information on the measurements from base stations. Their website has information on their measurements of electromagnetic fields around base stations and other radio frequency emitters.

Read a 2016 French News Report on ANSES: "Children: their cognitive functions affected by electromagnetic waves"

Over 150 Cities in France have refused Smartmeters

"Circulaire" 2013 from Minister of Ecology, Sustainable Development and Energy (MEDDE) to Prefets of Departements. Asks them to recommend to local municipalities that they should avoid, as much as possible, giving permission for new sensitive use buildings (e.g. hospitals, primary schools, kindergartens) in a "zone de prudence" of 1 µT exposure from high-voltage infrastructure.

Additional Official Recommendations to Reduce Exposure

French Ministry of Solidarity and Health website on electromagnetic waves. Prior to the 2013 and 2016 recommendations, in 2012 a Brochure Téléphones mobiles, santé et sécurité (Official Recommendations to reduce exposure: Mobile phones, health and safety) was created to inform public about how to reduce exposure to cell phone radiation. In 2010 Recommendations were issued on the government website here.

The City of Lyon France's Cell Phone Campaign "Poster: No Cell Phone Before 12 Years old"

Removal of Wifi From French Cities and Buildings

- The Dacsupap Blog Press Release: "BNF Renounces WiFi"
- The French National Library along with other libraries in Paris, and a number of universities have removed all Wi-Fi networks.
- "Removing Wifi from Schools" - Herouville-Saint-Clair has removed all Wi-Fi equipment installed in municipalities.

French Government Resources (PDFS In French)
State Information Resources on radio frequencies, relay antennas mobile phones
The_Obligations_of_Mobile_Telephony_operators-2.pdf
Experimental_workings_information- 2.pdf
Antennas-relais_fiche_web_-3.pdf
Questions_-_replies_on_the_rules_relay_web_-1-2.pdf

Environmental Health Trust http://ehtrust.org/

French Policy, Legislation and Regulatory Texts

Information Posters
Conditions of Installing Cell Phone Towers
Health Effects of Limits
What are Electromagnetic waves?
Relay Antennas: Who Does What?
Relay Antennas: Did You Know
Brochure from 2012 Téléphones mobiles, santé et sécurité (Official Recommendations to reduce exposure: Mobile phones, health and safety)

Websites
Recommendations on cell phone radiation issued on the French government website
The Ministry of Ecological and Solidarity Transition: "mobile phone and health" 2017 campaign.
*Public Health France: Website dedicated to informing the public about cell phone radiation

Belgium

April 2019: Brussels refuses 5G and refuses to raise limit values to allow full 5G deployment.

- HLN News Brussels government refuses 5G: "Brussels residents are not guinea pigs"
- Brussels Times Radiation concerns halt Brussels 5G development, for now

2014: Ghent Belgium bans wi-fi from pre-schools and day care. Read the Flanders Today article: "Ghent bans wi-fi from pre-schools and day care"

2013 Federal Public Health Regulations Bans Cell Phones and Advertising Cell Phones for Young Children

- Original Legislation:"New rules for selling mobile phones: Practical guide for sellers and distributors"
- Phones designed for children under 7 years old are prohibited from sale.
- Total Advertising Ban on cell phones aimed at children under 14.
- Mandatory Radiation SAR levels must be available for consumers at point of sale. Warning label on phones: "Think about your health – use your mobile phone moderately, make your calls wearing an earpiece and choose a set with a lower SAR value."
- Recommendations include use of hands-free methods to keep the phone away from the body such as text messaging and not making calls when the signal is weak, such as in elevator/vehicle.
- Flanders Today News article: "Belgium bans sale of mobile phones designed for children"
- 2014 Presentation on the "Implementation of the Council Recommendations in Belgium" by the Ministry of Public Health of Belgium.
- Belgium Governments frequently asked questions about the new law.
- Press Release by Dr. Moskowitz: "Belgium Adopts New Regulations To Promote Cell Phone Radiation Safety"
- Lower RF Limits are Precautionary in accordance with advice of the Belgium Health Council.

2009 Resolution of the Belgian Parliament - "Introduction of new rules for mobile phone sales"

Belgian Health Food and Safety Brochure on Wireless Devices: This document discusses everything from DECT home phones to baby monitors to Bluetooth to SAR.

> "Considering that baby monitors can differ so greatly, it is advisable to carefully follow the instruction manual, to place the baby set at a sufficient distance from the crib (at least 1 m) and to use the 'voice activation' setting, among

other things."

Flanders Belgium has website information for residents
Flanders Environment Department

- Citizens can request radiation measurements: "Do you live less than 150 meters from a transmitting antenna? Then you can request a radiation measurement free of charge."
- Government website has maps of antennas.

Flanders Belgium Department of the Environment Website Section on "**Radiation: transmitting antennas, WiFi, mobile**

- Radiation is unhealthy or not?
- FAQ on transmitting antennas and health

Belgian Federal Public Service: Health, Food Chain Safety and Environment Recommends Reducing Exposure

- "Wireless Devices" - Document describing regulation for wireless telecommunication equipment, wireless home telephones, baby monitors, wireless on the Internet, bluetooth, and comparison of SAR values
- Specific tips for Wi-Fi installations: "In order to limit the exposure, the following simple measures can be taken: Only switch on your wireless network connection when it is needed. This concerns the wifi adapter in your laptop in particular. Otherwise, your laptop tries to continually connect to the network, and that leads to unnecessary exposure and decreases the life expectancy of the batteries. Place the access point away from places where you spend lots of time."
- Tips for prudents use - "So far, it has not been proven that the radiation from mobile phones is harmful to their users. But on the foundation of current scientific knowledge, health risks relating to long-term, frequent mobile phone use cannot be ruled out. Experts – including those on the Superior Health Council – advise everyone to limit their exposure to mobile phone radiation."
- Mobile phones and children - "The use of the mobile phone by children is a special point of attention. Children may be more sensitive to radio waves. Children absorb twice as much radiation in the brain than adults do, and 10 times more in the bone marrow of the skull. In addition, due to the popularity of the mobile phone, the cumulative exposure of the current generation of children will be much higher by the time they reach their adulthood than that of the current adults."
- Electromagnetic hypersensitivity: This webpage contains information about complaints, the state of affairs of the scientific research and advice about what can be done in this situation.
- Wireless on the Internet "Only switch on your wireless network connection when it is needed. This concerns the wifi adapter in your laptop in particular. Otherwise, your laptop tries to continually connect to the network, and that leads to unnecessary exposure and decreases the life expectancy of the batteries. Place the access point away from places where you spend lots of time."
- Brochure electromagnetic fields in Dutch, French and German

The Belgian Foundation Against Cancer warns that intensive use of a mobile phone can increase the risk of contracting cancer. They suggest that children younger than 12 should not use a mobile phone, and that using a mobile phone as an alarm clock is not desirable because the phone is in close proximity to the head the entire night. The Cancer Foundation also strongly advises people not to use a mobile phone in the car or a train. Read details in the **Mobile Phones Section 7: UK & International regulations** by Alasdair and Jean Philips.

WHO International EMF Project Report on national activities in Belgium for 2010-2016

- Details the research and legislation activities of Belgium

The Government of the Brussels Capital Region Has Maps of Cellular Antennae: A map of all the locations of antennas is accessible online with the technical data of each installation.

Spain

Environmental Health Trust http://ehtrust.org/

Several autonomous parliaments and numerous municipalities have adopted resolutions that urge the application of the precautionary principle in the field of electromagnetic pollution, e.g. by eliminating/ limiting wireless networks for children, conducting health education and public awareness campaigns, avoiding the implementation of smart meters, and claiming support measures for people affected by central sensitization syndromes.

Institutional statements of some regional parliaments of the Autonomous Communities (Basque Country and Navarre) adhering to Council of Europe Parliamentary Assembly Resolution 1815 (PACE) of 2011 to apply the precautionary principle in relation to EMF exposure.

Prohibition of the installation of new high-voltage lines in the vicinity of residential development areas, schools and public places.

More and more Spanish schools requests a cable internet connection, and the case of the School Solokoetxe in Bilbao has been significantly discussed in the Basque Parliament itself in 2015 with scientific advisors provided by the parents' association.

The Basque Parliament

In October 2011, the Basque Parliament in a Non-Law Motion adheres to PACE Resolution 1815 to "act accordingly ... in favor of health protection" in the field of electromagnetic waves, in particular the conducting of information and awareness campaigns “against the immoderate use of mobile phones among children".

In April 2013, a Resolution of the Ombudsman of the Basque Country recommends that the Basque Department of Education implement measures to reduce the levels of radiofrequency emission in schools.

The Parliament of Navarre

In September 2014 the Parliament of Navarre voted to adhere to PACE Resolution 1815 *The potential dangers of electromagnetic fields and their effect on the environment*,with a resolution urging the Spanish Government and the Navarre Autonomous Community Government to implement the recommendations to apply the precautionary principle in relation to EMF exposure. News Article: “The Parliament of Navarre urges to remove the WIFI in schools by precaution”

Since 2012, various institutional declarations have been approved by municipalities and other local entities requesting the implementation of the recommendations of PACE Resolution 1815:

Barakaldo, Errentería, Espartinas, Hospitalet, Jerez de la Frontera, San Sebastián, Vitoria, Villa de Plentzia, Cornellá de Llobregat, Torrox, Mula, Villa de Buenavista del Norte, Poio, Arganda del Rey, Cenizate, Hospitalet, Juntas generales de Guipúzcoa, Villava,

Hospitalet City Council deactivated Wi-Fi:

In April 2014, the Hospitalet City Council deactivated the Wi-Fi network of municipal nursery schools, reducing levels in these centers below the limits required by PACE Resolution 1815. In December 2014, the head of the Hospitalet department of education asked the Department of Education of the Catalonia Autonomous Community to follow the precautionary principle to reduce EMF exposure in Catalan educational establishments.

The Vitoria-Gasteiz City Council at its plenary session in September 2015 unanimously approved a precautionary approach with wireless: Citizens will be informed of the location of wireless transmitters are in civic centers and municipal buildings. It is recommended that children’s spaces such as playgrounds and family libraries, will be free of Wi-Fi or have decreased Wi-Fi and Wi-Fi free zones will be established in playgrounds and building entrances.

- El Mundo News Article: “Victoria ‘cures in health’ against the wifi”

Institutional motions regarding people affected by environmental pathologies

Since 2012, municipal institutional motions have been approved in support of people affected by central sensitization syndromes and / or in favor of prevention and action measures in environmental pathologies: Vitoria-Gasteiz (May 2012), Pinto (January 2014), Jaén (December 2014), Sant Cugat del Vallès (September 2014), Tarragona (November 2015), Barcelona (December 2015), Vilanova i la Geltrú (December 2015), Terrassa (January 2016), Hospitalet de Llobregat (March 2016), Vilassar de Mar (March 2016), Montcada i Reixac (March 2016), Castellbisbal (May 2016), Badia del Vallés (April 2016), Arenys de Munt (June 2016), Durango (February 2017).

The Tarragona City Council (Tarragona is a major city 100 kilometres south of Barcelona) at its plenary session in November 2015 unanimously approved the "Institutional Declaration of support for people with Central Sensitivity Syndromes":

1. Carry out (with a yearly update) a diagnosis and census of those affected by CSS in the City of Tarragona, showing what is the actual situation and the specific needs of these patients and their families.
2. An intervention protocol for the staff of the Area of Services to Citizens of the Tarragona City Government to look after those with CSS- including a list of economic subsidies for food, first necessity elements, reduced water bill, and home help specific to the needs of these patients.
3. Housing protocol for people with CSS, especially those who have MCS and/or EHS, those threatened by eviction or those who are forced to leave their home. This protocol has to include a series of safe social housing (green/white spaces: free of xenobiotics and electromagnetic waves).
4. Create green/white spaces in all municipal buildings (free of xenobiotics and electromagnetic waves).
5. Eliminate, as much as possible, the use of pesticides in the whole of the municipality. In the case when this is not possible, establish a communication protocol to contact those affected and the press regarding the places and dates of the interventions with preventive advice.
6. Training for social workers and educators about CSS, its social, health and economic reality. Elaboration of information and education to increase the knowledge about these illnesses amongst the general population and of the city workers in particular, with the objective of diminishing the stigma that is now present regarding these illnesses.
7. Protocol for adapting working conditions of the municipal workers who have CSS with specific measures of support when having a flare up. These would be the measures: work schedule flexibility, encourage work from home through internet (teleworking), reserved parking spaces and include in the collective agreement not deduct the salary of the first 20 days of sick leave.
8. Read the full article in Catalan, Spanish and English detailing the actions here.
9. Blog Post: "GOOD NEWS: FIRST RESCUE PLAN FOR PEOPLE WITH CSS"

In May 2012, the Galician Association of Biologists asks the government of the Autonomous Community of Galicia to apply the precautionary principle to exposure to electromagnetic fields, specifically to protect children: Information on health EMF risks, the ban of the use of mobile phones and Wi-Fi devices in the schools and mobile phone antennas near the schools.

In May 2016, the Guipuzcoan Association of Pharmacists of (COFG) and the Guipuzcoan Association of Fibromyalgia and Chronic Fatigue Syndrome Bizi Bide signed a collaboration agreement of 284 pharmacies in Guipúzcoa to disseminate information and to raise awareness on Central Sensitization Syndromes (Fibromyalgia, Chronic Fatigue Syndrome, Multiple Chemical Sensitivity and Electrohypersensitivity).

Smartmeters

- During 2016 and 2017 motions were approved at municipal or provincial level, in Catalonia and Andalusia, against the installation of "Smart meters" (1 and 2): Sta. Perpetua de Mogada (June 2016), Diputació de Barcelona (June 2016), Barcelona (July 2016), Masnou (September 2016), Hostalet de Pierola (September 2016), Sta. Coloma de Grallanet (setember 2016), Vallirana (September 2016), Sant Feliu de Guíxols (setember 2016), Celrà (October 2016), Hostalric (October 2016), Sant Adrià de Besòs (October 2016), Cerdanyola del Vallès (October 2016),

Diputació de Girona (November 2016), Torrelles de Llobregat (November 2016), San Cugat del Vallés (November 2016), Hospitalet de Llobregat (November 2016), Cornellà de Llobregat (November 2016), La LLagosta (November 2016), Pallejà (November 2016), Polinyà (November 2016), Monistrol (December 2016), Rupià (December 2016), Balaguer (December 2016), Cervellço (December 2016), Vendrell (December 2016), Esplugues de Llobregat (January 2017), Molins de Rei (January 2017), Cunit (January 2017), Sant Cebrià de Vallata (January 2017), Caldes de Malavella (January 2017), Prat de Llobregat (February 2017), Fuente Vaqueros (Granada, February 2017), Sant Boi de Llobregat (February 2017), Sant Andreu de la Barca (February 2017), Sant Quirze del Vallès (February 2017), Mollet del Vallés (March 2017), Abrera (March de 2017), Diputación de Granada (March 2017)

Since 2011, several court judgments have been approved recognizing the disability to different people affected by electrosensitivity.

- In May 2011, a judgment of the Madrid Labour Court nº 19 to declare permanent incapacity (100% of his base salary) of a worker Complutense University of Madrid who suffered from chronic fatigue and environmental and electromagnetic hypersensitivity (the EHS is mentioned for the first time in Spain as cause of disability).
- In July 2016, a judgment Nº 588/2016 of the High Court of Madrid has recognized for the first time a situation of total permanent disability for the exercise of the profession of a telecommunications engineer as result of "electrosensitivity syndrome (EHS)". For the first time in Spain, the EHS condition is considered as the main cause of disability involved. "This is the first we have achieved total disability due exclusively to this syndrome," says attorney Jaume Cortés, the Col·lectiu Ronda. Lavanguardia News Article: "A 'teleco' with electrosensitivity achieves the inability to work between wifis: The TSJ of Madrid recognizes the right to a benefit denied by the INSS"
- In February 2017, the Social Court, number 4, of Castellón has issued a ruling that recognizes, for the first time, a permanent disability in the degree of great disability to a patient who suffers as a clinical picture residual multiple chemical sensitivity and electrosensitivity.
- During the last decades, Regional and municipal regulations were approved to reduce the legal exposure in their territories. Unfortunately, now, the last General Telecommunications Law (2014) eliminated the regional and municipal competences in that area.
- In November 2017 a court in Murcia acknowledged the permanent incapacity for work due to electromagnetic hypersensitivity and chemical sensitivity to a university employee of a university - by the union STERM Intersindical. Read A judge grants an employee permanent incapacity for work due to electromagnetic hypersensitivity

Canada

Health Canada offers Practical Advice on reducing exposure to wireless radiation

1. Limit the length of cell phone calls
2. Replace cell phone calls with text, use "hands-free" devices
3. Encourage children under the age of 18 to limit their cell phone usage.

2015 Canadian Parliament Standing Committee on Health of the House of Commons Report: "Radio Frequency Electromagnetic Radiation and the Health of Canadians"

- Original Report
- They made 12 recommendations including an awareness campaign on reducing exposures, improved information collecting and policy measures regarding the marketing of radiation emitting devices to children under the age of 14, "in order to ensure they are aware of the health risks and how they can be avoided."

Toronto " Prudent Avoidance Policy for Cell Towers"

- Toronto's current PA policy was adopted by the Board of Health and City Council in 2008. The Policy was first recommended by the Medical Officer of Health and adopted by the Board of Health in 1999 as a precautionary approach.

Environmental Health Trust http://ehtrust.org/

- This policy recommended that levels of exposures to radiofrequency (RF) for the general public be kept 100 times below Health Canada's guidelines. Read Factsheet on Policy

2015 National Bill C-648 was Introduced into the House Of Commons

- An Act Respecting the Prevention of Potential Health Risks From Radiofrequency Electromagnetic Radiation" would require manufacturers of all wireless devices to place specific health warning labels clearly on packaging, or face daily penalties /fines and/or imprisonment. Although the Bill did *not pass,* it made headlines.
- Bill C-648 Video of Bill Introduced
- Video of Press Conference Featuring Terrence Young and Frank Clegg
- Canadians For Safe Technology Press Section Website

Canadian Pediatric Association issued a Position Statement Recommending no Screen-based Activities for Children under Two

- Original Position Statement: Healthy active living: Physical activity guidelines for children and adolescents
- For healthy growth and development: screen time (eg, TV, computer, electronic games) is not recommended for children under 2 years old. For children 2-4 years, screen time should be limited to <1 h/day; less is better.

July 2008: The first policy of its kind in Canada, the Toronto Public Health Department issues Factsheet on Children and Cell Phone Use. Factsheet PDF Memo Staff Report By Department

> "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"

European Parliament

2011 The Parliamentary Assembly of the Council of Europe - Resolution 1815:

- **Resolution 1815:** "*The Potential Dangers of Electromagnetic Fields and Their Effect on the Environment."*
- A call to European governments to "take all reasonable measures" to reduce exposure to electromagnetic fields "particularly the exposure to children and young people who seem to be most at risk from head tumours." The Resolution calls for member states to:
- Implement "information campaigns about the risk of biological effects on the environment and human health, especially targeting children and young people of reproductive age. "
- "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."
- "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."

2009 European Parliament Resolution: Health concerns associated with electromagnetic fields

- Original Resolution
- Urges the Commission to review the scientific basis and adequacy of the EMF limits as laid down in Recommendation 1999/519/EC and calls for the review to be undertaken by the Scientific Committee on Emerging and Newly Identified Health Risks
- Calls for particular consideration of biological effects when assessing the potential health impact of electromagnetic radiation, especially given that some studies have found the most harmful effects at lowest levels
- Calls for active research to address potential health problems by developing solutions that negate or reduce the pulsating and amplitude modulation of the frequencies used for transmission

Australia

Environmental Health Trust http://ehtrust.org/

Mobile Phones and Health Factsheet Recommends Parents Reduce Exposure to Children

"It is recommended that, due to the lack of sufficient data relating to children and their long term use of mobile phones, parents encourage their children to limit their exposure by reducing call me, by making calls where reception is good, by using hands-free devices or speaker options, or by texting." **Mobile Phones and Health Webpage , Mobile Phones and Health Factsheet**

The Australian Radiation Protection and Nuclear Safety Agency has issued several Factsheet on Wireless over the years and made substantial changes to these factsheets- *downgrading the concern.*
They have an online radiation survey page that summarizes studies and they provide commentary.

Feb 2013 **How To Reduce Wireless Exposure Factsheet 14** ***August 2013*** **How To Reduce Wireless Exposure Factsheet 14**
"How to Reduce exposure from mobile phones and other wireless devices."

- Reduce the risk from WiFi devices by "keeping them at a distance, for example placing the wireless router away from where people spend time", and "reducing the amount of time you use them".
- ARPANSA recommends that parents encourage their children to limit their exposure stating that "It is recommended that, due to the lack of sufficient data relating to children and their long term use of mobile phones, parents encourage their children to limit their exposure."
- by reducing call time, by making calls where reception is good, by using hands-free devices or speaker options, or by texting."

Current March 2015 How To Reduce Exposure Factsheet **** Cautionary advice further minimized. Recommendations to parents minimized***
"There is no established scientific evidence that the use of mobile phones causes any health effects. However the possibility of a small risk cannot be ruled out. There are things one can do to substantially reduce exposure.
Overall, the evidence suggests that the radiofrequency (RF) electromagnetic energy (EME) emissions of mobile phone handsets are not harmful to the user. However, it's impossible to be completely sure there isn't some risk. This is particularly true for children where there is little research evidence. One way to exercise caution is to reduce unnecessary exposure from your handset and to encourage your children to do this. This can be done easily. Remember, it doesn't have to be for every phone call and in an emergency there are better things to worry about."

ARPANSA still recommends that parents encourage their children to limit their exposure stating that "It is recommended that, due to the lack of sufficient data relating to children and their long term use of mobile phones, parents encourage their children to limit their exposure." **March 2015 Factsheet**

Past Factsheets
2008 Mobile Phones and Children FactSheet 11

Queensland Department of Education, Training and Employment - 2015 "Guide to Safe Technology"

- It's not only physical hazards you need to consider when thinking about health and safety issues at work or home — you should also think about how you use technology. When using a computer, you need to think about: ergonomics and posture, radiation, vision impacts and harmful lack of exercise (DVT).
- "Wireless devices — smart/mobile phones, tablets, slates, monitors etc — all emit low levels of electromagnetic radiation and should be used correctly. When using electronic devices, the department recommends you follow WiFi/3G/4G best practice:
- Follow the manufacturer's usage guideline operate from a table or bench — not on your lap
- Use 'hands-free' devices to keep smart/mobile phones away from your head and body during phone calls limit the number and length of calls
- Position the device antenna away from your body
- Do not sit within 0.5 m of a wireless router use smart/mobile phone in areas of good reception to reduce exposure."
- Safe use of technology by WFi in Schools Australia - Video
- **Link for 2015 PDF**

Environmental Health Trust http://ehtrust.org/

ARPANSA Website [Mobile Phones and Health]

Other Factsheets
How to Reduce Exposure from Mobile Phones and Other Wireless Devices March 2015
[Electromagnetic Hypersensitivity] **"**The scientific evidence does not establish that EHS symptoms are caused by exposure to low-level electromagnetic fields."

New Zealand

2016 - [Rotokawa School Takes Steps to Minimize RF Exposure]: After concerns were raised about e-learning by a small group of parents from the school, the principal has put some positive procedures in place as follows:

- Children will use ipads in flight mode
- Children using laptops and Chromebooks will work on the desk top
- Parents may request that their child use an Ethernet cord to access the internet
- Children are taught about the health precautions as part of their cyber citizenship
- Digital learning in the one to one Year 5 & 6 environment is kept to less than 2 hours per school day.
- The principal has also stated there are no plans to increase the existing Wi-Fi coverage at this stage.

Italy

2019: Florence approves precautionary stance on 5G.

- "It is written that as the highest local health authority, Mayor Dario Nardella is officially committed "to elaborate an overall plan, in agreement with the competent authorities, for the installations of the 5G technology before issuing individual authorizations in view of the application of the Precautionary Principle and public health", "carefully evaluating any authorization for 5G installations in the territory of the municipality of Florence". Dr. Lennart Hardells blog April 8, 2019
- "It causes damage to the body!" Florence brakes on 5G and applies the Precautionary Principle. The motion to defend health was approved with (almost) unanimous vote - April 5 2019

2019: XII Municipality of Rome votes against 5G.

*"With 11 votes in favor and 3 abstentions, the **XII Municipality of Roma Capitale has deliberated against the experimentation** . A large slice of the city of Rome therefore wants to avoid fifth generation wireless, creating a '5G free' hole in the Portuense, Gianicolense and Monteverde areas up to Maccarese and Castel di Guido: "We ask the mayor to stop the 5G trial and not to raise the limit values in the threshold of electromagnetic radiation avoiding the positioning of groups of mini-millimeter microwave antennas on homes, schools, day centers, recreation centers, street lamps and more ", is written in the approved text."*

- This action was followed by a National Stop 5G conference n Milan, promoted by the Italian Electrosensitive Association with speakers including Dr. Fiorella Belpoggi of the Ramazzini Institute, Dr. Olle Johansson, neuroscientist at the prestigious Karolinska Institute in Stockholm and Stefano Bertone, one of the lawyers who represented the plaintiff involved in the landmark cell phone case that recognized a causal role between cell phone use and tumor development.
    - Stop 5G Program
    - Watch Video of Conference
- **News articles:**
- **March 219:** A Municipality of Rome votes against 5G: what will the Giunta do?

- March 2019: "Resounding, in Rome and Trento we vote to stop 5G: they don't want it - EXCLUSIVE NEWS OASI SANA"

2019: Italian Court Orders Italian Government to Launch Awareness Campaign on Cell Phone Radiation
An Italian court has ordered the government to launch a campaign to advise the public of the health risks from mobile and cordless phones to begin by July 16. A citizens group called APPLE (Association for the Prevention of and Fight Against Electrosmog) sued to force the government to act.

- The Regional Administrative Court for Lazio decision that Italian government must inform the public of the health risks of mobile phones

Joint press release on Court decision between the Ministry of the Environment, Education and Health, January 16, 2019

- "The Lazio Regional Administrative Court, welcoming the appeal of the Association for the prevention and fight against electrosmog, asks the Ministries of Environment, Health and Education, University and Research to arrange to adopt an information campaign on correct use of mobile phones. The three ministries welcome the judicial decision, convinced of the need to raise awareness on the issue and to promote prevention measures.The ministries are already at work for the establishment of a joint table that will have the purpose of following up what has been decided by the administrative judges."

News coverage on the court decision

- Local news coverage from La Repubblica
- Corriere della Sera news coverage
- AP Daily Journal Court orders Italian govt to publicize cellphone risks
- APPLE's press release

2019: Court orders school in Florence -the Botticelli Comprehensive Institute- to turn off the Wi-Fi to protect health of child. In March 2019 a Court hearing will determine if the Wi-Fi should remain off in the school.

According to IlFattoQuotidianon News "In Florence, the court will turn off the Wifi at school. An extraordinarily innovative act" January 28, 2019

- "There is an unheard-of altera parte - reads the order notified to the school manager - that the Botticelli Comprehensive Institute removes immediately the WiFi systems in the institute ".
- "Internet service can be guaranteed by the institute also through systems that do not produce electrosmog, without the use of wireless Wi-Fi", clearly pointing to the vision of the Decree 11 January 2017 issued by former Minister for the Environment Gian Luca Galletti who, on the subject of indoor pollution for the offices of the public administration, ordered the replacement of Wi-Fi with the safest wiring, ie the cable connection already provided several virtuous schools of Italy (2013 motion of the Regional Council of Piedmont, 2015 motion of the Autonomous Province of Bolzano, while the City of Brescia has then wired those in its municipality as well as, among the controversy of those who diverted the heart of the problem, in a prudential manner the mayor of Borgo Franco d'Ivrea made his classrooms electrosmog free).

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- **APPLE's press release**

2018: The City Council of Bologna unanimously approved an initiative to inform the public about the health risks of cell phone and wireless radiation in light of the NTP and Ramazzini Institute studies. According to news reports the action calls for the Council to:

- Inform the public about the health risks of cell phone and wireless radiation
- Invite mayor Virginio Merola and the junta "to take action, including with the Emilia-Romagna Region, with the Ausl and the competent institutions, through appropriate communication channels, to launch a public information campaign, so that the population citizen is aware of the risks involved in using mobile phones inappropriately. "
- Proposes to the mayor "to request a commitment in this sense also to telephone companies".
- Read June 26, 2018 News Report bologna.repubblica.it "The telephone companies inform about the risks of the mobile phone": the appeal from Bologna"

2018: The Ramazzini Institute of Bologna has developed materials to share to high school students on how to reduce exposure to cell phone radiation. Click here to download PDF.

2017 Decree of the Environment Minister has recommendations on reducing EMF.
Section 2.3.5.4 of the Decree recommends reducing exposure to indoor electromagnetic pollution

- **Reduce low frequency magnetic fields:** "In order to reduce as far as possible the indoor exposure to low frequency magnetic fields (ELFs) induced by electrical panels, uprights, conductor dorsals, etc." the design of the plants must provide that meters and electric panels are outside the building and take measures to reduce levels.
- **Reduce Radio frequency radiation:** Reduce as much as possible the indoor exposure to high-frequency magnetic fields (RF) equip with alternative data transfer systems to wi-fi, eg. cable connection or Powerline communication (PLC) technology.
- This was started by a Communication by ECC (COM(2003) 302), to European Parliament about: Integrated Product Policy: Develop the concept of "environmental lifecycle.
- **Read the 2017 Decree of the Environment Minister page 20-21.**

News on the Directive: "Replace The WiFi Dangerous With Safer Wiring: It Is Law But No One Knows!" Di Maurizio Martucci, July 11, 2017

Italian Decree of 8 July 2003 (electric and magnetic fields of power lines): Intervention level 10 microteslas (μT) for existing installations at playgrounds, flats, schools and areas where people stay 4 hours per day or more. Quality objective = 3 microteslas (μT) for new lines and for plannings. There are more stringent guidelines in three regions: 0,2 microteslas (μT)

Occupational Safety Database: National database of emission levels of equipment funded by Ministry of Health, regarding occupational exposure to physical agents including EMF www.portaleagentifisici.it
The site is managed and upgraded by INAIL, in cooperation with Tuscany regional authority, and local occupational safety and prevention Departments of Siena and Modena cities. The development of the web site is absolutely relevant in the frame of public information activities, specifically designed for occupational safety.

2017: The Italian Court of Ivrea ruling recognizes causal link between cellphone use and brain tumor.

- Italian court is the first in the world to recognize this causal link in an April 11, 2017 ruling which awarded a Telecom employee, Roberto Romeo, lifetime damages of 500 euros a month after he developed a brain tumor from fifteen years of cellphone use.
- Original Ruling
- Press Release EHT
- Cell phones and cancer, court adviser: "Scientific studies Authors work for telephone companies: conflict of interest" by Andrea Tundo (In Italian and can be translated.)
- Documents in Italian: The Court's expert report, the defendant's critics and final reply from the experts: Consulenza Ivrea Tribunale di Ivrea, Sezione Lavoro: Osservazioni CTU Romeo INAIL: Risposta CTU: Tribunale Ordinario di Ivrea:
- The Guardian News Article: "Italian court rules mobile phone use caused brain tumour"
- NY Daily News Article: "Italian Court Finds Link Between Cell Phone Use and Tumor"
- Courthouse News Service Article: "Italian Court Finds Link Between Cell Phone Use and Tumor"

2016: Mayor of Borgofranco d'Ivrea ordered Wi-Fi to be turned off in schools. "Mayor Livio Tola told the town's high school and elementary school to return to using cables to connect to the internet after reading that the electromagnetic waves given off by wireless routers were especially harmful to young children."

- The Local News Article: "Italian town shuts down wifi over health fears."
- Torino News Article: "Ivrea, The Mayor Removes WiFi as it Could Be Dangerous".

2015: State Parliament of South Tyrol voted to reconfirm the precautionary principle: The State Government was mandated:

- To replace existing wireless networks whenever possible with networks that emit less radiation at schools, preschools, hospitals, nursing homes, and other public facilities.
- Establish a working group whose mandate it is to assess these new technologies and their exposure levels. With regard to wireless communication technologies, mobile Internet access, and public health, the working group shall clarify which technologies emit less radiation and provide sustainable technology options and
- To start an education and awareness campaign that informs about possible health risks, especially regarding the unborn, infants, children, and adolescents and that develops guidelines for a safer use of cell phones, smartphones, and Wi-Fi.
- Previous Hearing at the Parliament of South Tyrol, 29 April 2015 - "hearing on the effects of mobile radio"
- Discussion at the Plenary Session: "Mobile Communications, Refugees"
- Kompetenzinitiative News Article: "Parliament of South Tyrol Reconfirms Precautionary Principle"
- Official Resolution - "WLAN, mobile radio, radiation exposure: does the precautionary principle apply"

2012 Italian Supreme Court Ruling: Man's brain tumor was caused by his cell phone use.

- The National Institute for Workmen's Compensation must compensate a worker with head tumor due to cell use.
- Reuters News Article - "Italy court ruling links mobile phone use to tumor"
- RT News Article - "Cancer cells: Italian court rules 'mobile phones can cause brain tumors'"
- Daily Mail News Article - Mobile phones CAN cause brain tumours, court rules in landmark case.

Lecce, Italy, "Istituto Comprensivo Alighieri- Diaz" School banned wifi: Their two resolutions decided:

- To ban wifi in school and install a wired system for the use of internet and reject the request of the local government (Municipality) to install an antenna on the school roof for the wireless signal providing for the "Wireless city" program.
- The resolution also asks the Municipality to install the antenna at a reasonable distance from school.

The Piemonte Region Council adopted a resolution to limit EMF exposure by limiting the use of wifi in schools and be considerate to the problem of EHS people.

- Original Resolution - "Adoption of the Precautionary Principle exposition Installations in Wireless Environments in School"

The Italian Society for Preventive and Social Pediatrics has officially called to prohibit cell phones for children under 10 years old.

- Giuseppe Di Mauro, president of the Italian Society of social and preventive pediatrics [Società italiana di pediatria preventiva e sociale (www.sipps.it)] "We do not know all the consequences associated with cell phone use, but excessive use could can lead to concentration and memory loss, increase in aggressiveness and sleep disturbances." and he cites electromagnetic fields stating"The damage to health are increasingly evident"
- Il Tirreno Tuscany News Article - "Pediatricians: Phone Alarm for Kids"

2016 - Turin Mayor Chiara Appendino laid out plans "to cut back on Wi-Fi in state schools and government buildings over concerns that radiation might damage people's health".

- The Local News Report "Turin could slash Wi-Fi over 'radiation' concerns"

Lithuania:

- **Magnetic field limit in flats:** 0.5 kilovolts per metre (kV/m) and 10 microteslas (μT) that is, 10% of the EU Council Recommendation reference value. Out of flats: 1 kilovolts per metre (kV/m) and 20 microteslas (μT), i. e., 20% of the EU Council Recommendation reference value.

Korea

Mandatory SAR labeling on cell phones and portable devices: According to the 2017 WHO EMF Project update by the Republic of Korea a new regulation mandates that SAR labels be affixed to devices that are used in contact with the ear of the consumer.

> "The regulation for EMF rating and labelling was enforced from August 1, 2014 (MSIP Notification N o. 2015-16). The operators of radio stations should affix the labels for EMF strength rating in an appropriate place. For portable devices used in direct contact with the user's ear, those who manufacture or import such devices should affix the labels for SAR rating, and/or display the highest SAR values appropriately."

Public health recommendations to reduce exposure to cell phone radiation

The Korea government website http://www.rra.go.kr/emf/ has extensive information on what electromagnetic exposures are in the home and how to reduce exposure. Topics include home, school and base stations.
Some examples of statements on the guidelines for cell phones (translated by google translate) include:

Environmental Health Trust http://ehtrust.org/

"Text messaging is safer because it moves farther away from your face than voice calls.
It is safer to use alternating right and left sides of the face rather than talking on one side of the face .
When you are asleep or when you are relaxing, the farther away you are from your body, the safer you are.
If you use handsfree for mobile phone calls, you can reduce the amount of electromagnetic waves absorbed by your head by moving away from your phone"

The Korean government webpage on children and EMF has graphics that illustrate how to use cell phones in "safer ways" and states:

"Children and adolescents are not physically developed yet, and when you use your cell phone as a child , you are exposed to cell phone electromagnetic waves for a very long period of time
and can have more impact than if you were an adult .
Electromagnetic waves generated in daily life are weak and do not affect the human body. However, if exposed for a long time, it could be harmful to the human body
"If you sleep with your mobile phone on your bedside, it may interfere with your sleep by ringtone, text message, beep, etc. , and cause sleep disorder. Especially for children, it is best to keep them as far away as possible because they can not take a good night's sleep due to text phone calls etc.
If the base station is far away, or the environment in which radio waves are received, such as basements, becomes weaker, the intensity of the electromagnetic waves of the mobile phone becomes larger and the number of antenna reception indications of the mobile phone becomes smaller.
In closed spaces such as basements, lifts, and deep mountains, the intensity of electromagnetic waves in mobile phones becomes stronger, so it is advisable to refrain from talking as much as possible ."

An August 2017 Report states "the public concerns about EMF are still very high in Korea. 400-500 public appeals against the radiation of electro-magnetic energy from base stations have been submitted to government offices and operators in a year." EMF web sites for interactive and bilateral communication (www.emf.go.kr, www.emf.or.kr, www.emf60hz.com, home.kepco.co.kr) have been providing EMF related information, including the guidelines for the safe use of home appliances and mobile phones. KEPCO also operates the Public Information Dissemination Center since 2006. From 2004, two kinds of Newsletters, one for EMF measurement standards and the other one for biological effects, exposure limits and policies are published biannually. Every other year, a survey on "perception for EMF exposure and its hazard" for general public or experts is performed.
From 2012, the information on the SAR values of each mobile-phone model was opened to the public through the RRA website (www.rra.go.kr)." This website has a serious of pages dedicated to explaining EMF to the public and puts forward information that seems to minimize health concerns.

China

RF Public Exposure Limit Lower than ICNIRP

- RF 12 V/m 900 MHz RFR V/m electric field limit. The standard also cites the precautionary principle and encourages facility and equipment owners to take effective measures to reduce public exposure.

ELF Regulations to Reduce Human Exposure

500 kV power lines are not allowed over buildings, buildings are removed within 5 m of outer conductors. last update 2/12/10 information on new development supplied by delegation from State Grid Corporation of China.

Digital Devices Limited in Schools

- National education authorities have issued a proposal to prevent teachers from using the popular WeChat or QQ messaging apps for assigning homework.

- The education ministry also called for only paper homework assignments for primary and middle school students "in principle."

Shandong province: Cell Phones banned in primary and middle schools due to increasing myopia among children.

"Primary and middle school students in Shandong province will not be allowed to use cellphones or tablets in classrooms starting from Nov 1, according to a new regulation." Asia One "China bans mobile phones in classrooms" October 10, 2018

Zhejiang province: Drafting regulations to ban teachers from assigning homework on mobile apps as part of an effort to save students' eyesight.

- According to 2019 news reports the Zhejiang regulation would limit the use of electronic devices to 30 percent of total teaching time and instead encourage homework to be completed by hand on paper.
- The regulation would bar primary- and middle-school students from bringing electronic devices into classrooms without permission, restrict the amount of homework assigned and increase the time for breaks, sports and extra-curricular activities.
- It also says no written homework at all should be assigned to children in the first two years of school
- Read The Telegraph (March 2019) "Chinese province bans app-based homework to save students' eyesight"

Netherlands

The Dutch ministry for Infrastructure and the Environment has issued policy advice on overhead power lines for local governments and grid companies.

- The aim of the advice is to prevent new situations where children stay for a long time in the area near overhead power lines where the magnetic field exceeds 0.4 microtesla (annual average). This recommendation was based on RIVM research and on the scientific evaluation conducted by the Health Council of the Netherlands (in Dutch).
- RIVM supports the implementation of this policy advice by calculating the magnetic field zone in a specific situation and a website with a map (in Dutch) showing the width of the magnetic field zone for the Dutch high voltage power grid.
- "The Health Council of the Netherlands (HCN) has published a report on power lines and childhood cancer. The conclusion is, that there still is an association between living near power lines and the concurrent exposure to ELF magnetic fields and childhood leukaemia. The risk estimate has increased slightly to 2.7. There are also some indication for an association with childhood brain cancer, but these are much weaker; the risk estimate is 1.4. Since the indications for the association with magnetic field exposure have become stronger (although there is still no causal relation demonstrated), the HCN recommended to the government to continue the precautionary policy concerning overhead power lines and to extend it to underground high-voltage power cables and other structures from the electricity grid, such as transformer houses. The current policy calls for prevention of the creation of new situations near overhead power lines where children will be long-term exposed to ELF magnetic fields exceeding an annual average of 0.4 μT. The HCN report is currently available in Dutch only (https://www.gezondheidsraad.nl/sites/default/files/grpublication/kernadvies_hoogspanningslijnen_en_gezondheid_deel_i_kanker_bij_kinderen.pdf), with an Executive Summary in English (https://www.gezondheidsraad.nl/en/task-and-procedure/areasof-activity/gezonde-leefomgeving/power-lines-and-health-part-i-childhood-cancer), but a full translation is under way
- They recommend that local authorities should minimize ELF in "sensitive designated uses such as dwellings, crèches and day-care centres." Read this in the WHO Report 2018 Update

Since 2005 recommendation of the "Gezondheitsraad" for newly constructed power lines in sensitive areas: Based on an assumed 30 per cent saturation of a line (annual average), 0.4 microteslas (μT) must not be exceeded. Regarding existing lines: the regulation does not apply (no new line)

According to the Netherland National Institute for Public Health and the Environment, RIVM Report Comparison of international policies on electromagnetic fields (power frequency and radiofrequency fields)

- " For 50-hertz electric and magnetic fields from power lines and associated installations, the reference level in the EU recommendation may not be exceeded. In addition, a precautionary 'attention value' and 'quality goal' apply to 24-hour median exposure in homes, playgrounds, schools and places where people can stay for more than four hours. The 'attention value' of 10% of the EU reference level for magnetic flux density applies to existing situations. The 'quality goal' of 3% of the EU reference level for magnetic flux density applies to new situations. An even stricter limit for magnetic flux density (0.2% of the reference level) was adopted in three regions before the federal law came into force. This too applies to power lines near homes, schools and other places where people may stay for more than 4 hours per day."

Sri Lanka

Recommendations to reduce exposure: The Ministry of Health press release signed by Dr. Paba Palihawadana, Director of Health Education and Communication (dated October 5, 2018) informs people of the "serious risks" to the brain and the rest of nervous system in particular. The press release advises people not to keep mobile phones and electronic communication devices in the sleeping areas and to minimize their use.

> According to coverage by the Daily Mirror, Dr. Ayesha Lokubalasooriya of the Sri Lankan Family Health Bureau said in a press conference that, " long term exposure to electromagnetic waves regularly could create severe health issues" and she advised to use hands free devices (headsets, earphones) as much as possible to minimize the health issues from mobile devices.
> Daily Mirror, "Switch off mobile devices at night" 10/7/2018
> Hiru News, "Risk of Cancer by Keeping Mobile Phones Near Bed" 10/6/2018

Finland

2015 - Radiation and Nuclear Safety Authority (STUK) recommend reduced exposure to children

- "Exposure can be reduced by simple means" webpage recommends:
- Use a hands free device, don't use phones reception is poor, the phone should be kept on a table or similar location instead of in the user's pocket.
- "STUK recommends that unnecessary exposure to radiation from mobile phones be avoided. In particular, children's unnecessary exposure should be avoided as their life-long exposure will be longer than that of those who begin using mobile phone as adults and as only scant research exists on health effects to children."
- "Mobile phones are a major source of radio frequency radiation" webpage states:
- "The level of exposure to radiation from a mobile phone held next to user's ear can approach the exposure limits. *Never before have humans been exposed to equally strong sources of radiation in their living environments.* Identifying any health impacts is highly important because practically everybody uses a mobile phone today."

The Radiation Safety authority (STUK) recommends avoiding the construction of permanent residences and day care

Environmental Health Trust http://ehtrust.org/

facilities in areas where the magnetic flux density continuously exceeds the level of approximately 0.4 microtesla.

2009 - Radiation and Nuclear Safety Authority (STUK) initially issued recommendations to reduce exposure with more explicit cautionary language.

- Information posted on the STUK website in 2009, now removed. - "Radiation and Nuclear Safety Authority: Children's mobile phone use should be limited"
- 2009 Policy position paper by STUK detailing why "It would be good to restrict children's use of mobile phones." - "Statement of Finnish Radiation and Nuclear Safety Authority (STUK) concerning mobile phones and health on 7th January 2009"
- 2009 Yle Uutiset News article - "Authority Recommends Restricting Childrens' Use of Mobiles"

Finland Schools

- 2012 Kivioja primary school in Ylivieska Finland bans phones and minimizes Wireless.
- 2017: Wi-fi OFF Switches Installed in the Fiskars primary school. Read press release.

Israel

2017: Ministry of Education banned personal use of cell phones for teaching and educational staff during teaching hours. Read english translated memorandum. Read original Memo in Hebrew

2018 Note* Newspaper article states " Offer Rimon, Head of the Technology administration in the Israeli Ministry of Education, said that soon, the ban on smart phones' use in schools will be removed." Details at No Rad For You. EHT will update.

2016: Ministry of Education banned cell phones during the school day.

- Original Summary of the Directive
- A computer or tablet are approved for Pedagogical activities and smartphones are not approved until examination of the issue by the Ministry with published Instructions.
- CH10 News Report - "NEW CEO memorandum - No use of cellphones for learning in class"

Since 2013 - Israeli Ministry Of Education has issued guidelines limiting WiFi radiation in schools.

- Wireless networks banned in preschool and kindergartens.
- 1st. & 2nd. grade internet is limited to max. 3 hr. per week of internet.
- 3rd grade maximum 8 hours a week.
- A hard wired direct cable connection is required if the teacher has a computer in the class.
- Recommendations for reducing magnetic fields to below 4 mG for children under 15 in schools representing the government's position that international guidelines are NOT protective of children.
- **Israeli Ministry Of Education has issued guidelines limiting WiFi radiation in schools.**

Note: Despite the precautionary recommendations of the Health Ministry and the statements in Education Ministry regulations for the preference of wired (not wireless) networks- the reality is that wireless is still being deployed in schools. ICNIRP limits are presented as the limit for comparison at the same time that it is stated that non-thermal effects and effects from long term exposure are possible. The *actual practice* in Israel is different than t*he official stance* and this has prompted strong outcry from doctors, parents and citizens for the government to be accountable to children's health.

- A 2016 News Report shows the complex picture whereby no agency is assuming responsibility for ensuring protections. Although smartphones are banned as an educational classroom tool, the Education Ministry is still promoting the use of digital tools that are used for Smartphones, such as Kahoot.

2016: The Mayor of Haifa calls for the removal of Wi-fi from all schools. Haifa Mayor Yona Yahav, said that "When there is a doubt, when it comes to our children, there is no doubt".

- "The roots of the decision go back to a 2013 petition by parents in four schools who claim that such networks are harmful. The case eventually made its way to the High Court, which has postponed a final decision on the matter...The movement has spread from Haifa to other cities as well, and petitions have been signed by parents in dozens of cities

demanding the removal of the networks. Haifa is the first city to take action on the matter.Haifa Mayor Yona Yahav said that the city would replace the wireless network with a wired connection that will provide safer options to students."

- The school system has developed in house ability to ethernet connect computers in schools, however *in practice,* a few schools are choosing to continue to use wireless despite the ability to be fully hardwired but access is limited.
- **Video of Lecture by Reuven Kurman, BSc, MBA,** Chief Information Officer, Education Department of Haifa, Israel *"What Can be Done" - Reducing Exposure to Children in Schools and at City Level* PDF of Kurman January 2017 IIAS Presentation
- Haifa & Haifa News Report - "The Wi-Fi in kindergartens and schools in Haifa severed.".
- Hamodia News Report - "Haifa to Shut School Wireless Networks."

Government radiation monitoring system from broadcasting facilities

- The Ministry of Environmental Protection operates a radiation monitoring system. The system consists of 17 permanent monitoring stations deployed throughout the country. The monitoring stations were deployed near cellular broadcasting stations, radio and television broadcasting stations, and some were also deployed in areas far away from broadcasting facilities (above 300m from base stations and above 5km from radio and television broadcasting stations). This information is distributed on the Ministry of Environmental Protection website. In 2017, the monitoring system indicated that the levels did not exceed the recommended thresholds for exposure to radiation. An analysis of the data from the monitoring system shows that exposure to radiation in 2017 increased by about 10% compared to 2016.

2016 Israel National Activity Report on EMF's

- The Ministries of Health and Environmental Protection **advise to use, where possible, wired internet** and smart meter monitors connections and to present the consumers with information as to the pros and cons for the chosen technology.
- In 2016, the Ministry of Environmental Protection and Hadassah Academic College conducted research work based on field measurements regarding how to adequate measure Wi-Fi exposures. The main conclusion was that it is advisable to measure both the peak and the average exposure and to use a high rate response measuring probe. Determination of guidelines concerning Wi-Fi measurement is in process.
- A report on Non-Ionizing Electromagnetic Radiation (EMF) was published by the Israel Institute for Occupational Safety and Health in 2016. The report mapped occupational exposures to EMF and suggested regulations to minimize the risk in workplaces.

2015 Israel National Activity Report details actions being taken to reduce ELF and RF EMF.

- Cellular operators must inform consumers about radiation safety instructions.
- According to a settlement agreement accepted by the Tel Aviv-Yafo District Court in February 2014, cellular operators have to inform buyers of new mobile phone about the radiation safety instructions, including the minimum distances from the head and the body. Hand-free kits must be provided with every new mobile phone and each cellular operator has to provide information on the safe use of mobile phones on its website.

The Ministry of Health - "Environmental Health in Israel 2014" details EMF Policy, Science and Need For More Protections. Original Publication

- "Precautions should be strictly enforced with regard to children, who are more sensitive to developing cancer." and that "wireless communication networks in schools be reduced." The Health Ministry recommends "sensible use of cellular and wireless technology, including: considering alternatives like landline telephones, use of a speaker while talking on a cellphone, and refraining from installing the base of wireless phones in a bedroom, work room, or children's room." The Report states that "Findings in Israel clearly indicated a link between cellphone use for more than 10 years and the development of tumors in the salivary glands, particularly among people who held the telephone on the same side where the tumor developed and individuals in the highest category of exposure (heavy use in rural areas)."
- Linda S. Birnbaum, Director, USA National Institute of Environmental Health Sciences and National Toxicology

Program wrote in the Israeli Report final chapter that, " *If some of the studies turn out to be harbingers of things to come, we may have major health consequences from the nearly ubiquitous presence of wireless equipment."*

2013 Ministry of Environmental Protection Publication on recommendations for ELF-EMF: The recommendations of the Ministry of Environment and the Ministry of Health maximum permissible level of exposure to ELF in places of prolonged chronic exposure such as schools and residences is 4 mG. This is signed by Prof. Stelian Galberg and states that this protection should apply to those under 15 years old.

Israeli Ministry of Health Recommends Reducing Exposure to Cell Phone Radiation

- "These expert committees determined that there are indeed gaps in the knowledge concerning the implications of exposure to this radiation, and therefore they called for further studies on the subjects and recommended to adopt the **"precautionary principle"**. This principle adopts simple and relatively cheap means to reduce exposure to the minimum radiation levels possible with existing technology."
- "In particular, it is recommended to follow precautionary rules in the children population who are typically more sensitive to cancer development due to exposure to cancerous agents...the Ministry of Health advises parents to reduce children's exposure to mobile phones as much as possible, consider the age they start using them, reduce the amount of time mobile phones are used, and in any event, make sure they use earphones (not wireless) or a speaker when using the mobile phone."
- TNUDA - "Recommendations for prudents use of cellphones in Israel" Include:
- Using the speakerphone/headset during conversation.
- Keep the phone away from the body.
- Reduce the amount and duration of calls made on a cell phone.
- Areas of low reception equals higher radiation (low cell tower reception, elevator, car, train) Reduce call time in these low reception areas.
- While driving, it is best to talk as little as possible on the mobile phone, and follow the law which bans handheld phones. Inside vehicles, it is advisable to install an antenna outside the vehicle and not inside it, and to prefer wire connections between the phone and the speaker- rather than bluetooth.

2002 Israel Consumer Protection Regulations (information on non-ionizing radiation from a mobile phone)

- Compulsory cell phone labeling, radiation information provided to consumers. A mobile phone may not be sold unless they comply with the following:
- A clearly visible sticker on cell phone packaging that says, ""This mobile phone emits non-ionizing radiation; details and information about the radiation levels of this mobile phone model and the maximum permissible level of radiation are included in the attached leaflet."
- The packaging must include an information leaflet in Hebrew, Arabic and Russian with SAR information.
- The information must be clearly displayed to the public at points of sale of mobile phones, service provision centers, websites of manufacturers, suppliers and service providers of mobile phones.
- Israel Environment and Health Fund - "Non-Ionizing Radiation"
- TNUDA - Compulsory Marking/Provision of Information on Non-Ionizing Radiation
- Israel Ministry of Environmental Protection - "Radiation from Cellphones" Webpage

Notable Israeli News Stories/Videos

- 2016: TV CH 2 Documentary – "HOW WE ARE KILLING OURSELVES – WIRELESS RADIATION"
- 2016 TV Report on Israeli government on WiFi Health Concerns: For english subtitles click CC.
- "Health Ministry: Limit Kids' Use of Cell Phones" - 2009 News article on cell phone guidelines in Israel

Notable History

- 2010 Position Paper on Wireless in Schools by The Cancer & Radiation Epidemiology Unit of the Gertner Institute for Epidemiology & Health Policy Research: "It was agreed by all, that the precautionary principle should be applied in the education arena as was recommended by the Health Ministry...Since there are alternative ways to establish

computer networks which are safer and do not require exposure to RF, such as the use of wired technology by connecting directly to a internet-allocated socket, there is no reason to use wireless technologies such as WLAN and Wi-Fi for computer networks in schools...The education system should be instructed, as a matter of principle, to give preference to existing technologies that are relatively safe and simple, such as the use of wired systems instead of using WLAN and WiFi."

- "Stop Wi-Fi in schools, deputy health minister implores" - In 2012 Israel's deputy Minister of Health Rabi Litzman stated that he supports a ban on Wi-Fi in schools. Currently the Health Minister is relying on scientific recommendations of Dr. Sadetsky.
- "2012 Israeli National Activity Report" - States that a joint ministerial committee of the Education & Health & Environmental Protection Ministries gave advice to the Education Minister for ethernet connections in schools- not wireless. The Environmental Protection Ministry asked to limit the use of cell phones in buses and to prohibit the use of cell phones in elevators.
- "The Israeli Supreme Court Ordered the Israeli Government to Investigate the Number of Children Currently Suffering From EHS." - In 2013 a court case moved through the the Israeli Supreme Court on Wi-Fi radiation in classrooms. The 2015 Israeli Supreme court decision was that that the court sees no reason to intervene with the (Israeli) Education Ministry deployments of wireless network at schools.

Israeli Government Links
Ministry of Environmental Protection Webpage on Non-ionizing Radiation, Interactive Map of Cell Tower Locations
Israeli National Information Center for Non-Ionizing Radiation TNUDA
Ministry of Health Webpage on Cell Phone Radiation

Croatia

According to the Netherland National Institute for Public Health and the Environment, RIVM Report Comparison of international policies on electromagnetic fields (power frequency and radiofrequency fields)
"For public spaces in general, limits for the electric and magnetic field identical to the reference levels in the EU recommendation may not be exceeded.
For 'sensitive areas' (homes, offices, schools, playgrounds, kindergartens, maternity wards, hospitals, homes for the elderly and disabled and tourist accommodations), the limits for the electric and magnetic field are 40% of the reference levels in the EU recommendation."

Liechtenstein:

Installation reference value: 1 microtesla (10 milligauss)

- Environmental Protection Act of 29 May 2008 (version amended in 2010) A distinction is made between old installations (built before 2010) and new ones. Installation reference value: 1 microtesla (μT); to be exceeded by not more than 1.5 times on a maximum of five days a year; systematic and periodic exceedances are not permitted. Sensitive areas must be declared separately . Old installations also have to comply with reference values or be refurbished within five years.

Switzerland

The Switzerland Federal Office for the Environment Webpage Informs Public about EMF and how to reduce exposure.

- "Mobile as an electrosmog source"
- "How strong is mobile radiation?" - Webpage that contains a PDF of tips for mobile phone use from the Federal Office of Public Health and which states "caution should be exercised primarily when using devices held close to the body, such as laptops, PDAs and Internet telephones.." and gives recommendations on how to reduce exposure including turning the Wi-Fi off when not in use, installing the access point one metre away from places where you work, sit or rest for long periods of time and keeping laptops off laps.
- Factsheets on Electromagnetic Radiation. Includes cell phones, baby monitors and WiFi.

Environmental Health Trust http://ehtrust.org/

- Place the babyphone at least one meter away from the cot. Do not use devices that send continuously. Set the baby unit to "automatic voice control" or "VOX" mode. If you are using the baby monitor with an AC adapter, make sure there is a distance of 50 cm between the adapter and the cot.
-

- March 15, 2015 Saved Mobile Phone Page: Can be translated to English via google.
- Cordless Phones , WLAN
  - Use a wireless hands-free system (headphone, headset) to reduce radiation to the head.
  - When buying a mobile phone, make sure it has a low SAR
  - Never use a phone while you are a driving a vehicle, not even with a hands-free kit.
  - Be wary of radiation shields and other such protective devices that are claimed to limit exposure to radiation. They may reduce the connection quality and therefore force the phone to transmit at a higher output power.
  - People with active medical implants should keep their mobile phone at least 30 cm away from the implant at all times.
  - Ensure that DECT base units are placed at least 50 cm away from relaxation places or work stations occupied for long periods.
  - For longer calls, use a corded phone instead, or use a headset. Remember that some corded phones also operate according to the DECT standard and thus produce emissions.
  - Low radiation DECT telephones are available in specialised shops. There are models where the base station does not emit radiation when the headset is in place and models where the headset reduces radiation if there is a good connection with the base station. More information about this is available in specialised shops or via the following web page:
  - Only switch your WLAN on when you need it. With laptops, in particular, it is a good idea to switch the WLAN off as otherwise the device will repeatedly try to connect to a network, leading to unnecessary radiation and a shorter battery life.
  - Don’t hold your laptop close to your body while it is connected to a WLAN.
  - Wherever possible, install the access point one metre away from places where you work, sit or rest for long periods of time.
  - Position the access point centrally so that all the devices in the network have good reception.
  - Choose the WLAN g standard in preference to the b standard. Exposure to radiation is lower with this standard because it transmits data more efficiently.
  - If it is possible to adjust the power of the network, the transmission power should be optimised at the access point for the area that needs to be supplied.
  - A WLAN transmitter must only be used with an antenna provided for this purpose by the manufacturer. If an unsuitable antenna with an excessive antenna gain is used, the maximum permitted transmission power may be exceeded.
  - The measures recommended by the FOPH for reducing radiation exposure when using mobile phones apply to WLAN-enabled mobile phones that are used for Internet telephony.

- Publications on Electrosmog in the environment - Precautionary protection provided by the installation limit values is limited to locations where people regularly spend lengthy periods of time. Here, long-term exposure shall be kept as low as possible. Places of sensitive use include apart- ments, schools, hospitals, offices and playgrounds, but do not include balconies and roof terraces, stairways, garages, storage and archive rooms, temporary workplaces, churches, concert halls and theatres, camp sites, sports and leisure-time facilities, passenger areas in railways, observation decks.
- 2015 Environmental Report - Chapter 17 on Electrosmog states "Effects can also be detected for weak radiation intensity. For example, weak high-frequency radiation can alter electric brain activity and influence brain metabolism and blood flow. Whether these effects have an impact on health is still unclear" and recommends the precautionary principle to reduce risk "Because major gaps still exist in our knowledge about the health impacts of long-term exposure to weak non-ionising radiation, the adopted protective strategy should be pursued consistently."
- 2012 Radiation of radio transmitters and Health - "*In view of the fact that there are gaps in the available data, the absence of proof of health risks does not automatically also mean proof of their absence. From the scientific point of view, a cautious approach in dealing with non-ionising radiation is still called for. There remains a need for extensive research into the potential long-term effects"*

2017 Letter Issued by the Child and Youth Health Service of Geneva Switzerland on the Health Risks of Use of Digital Technology

July 2017, the Child and Youth Service of the Department of Public Instruction of Geneva issued a letter on the risks of digital technology to health to be transmitted to all teachers at the start of the school year. The letter reminds us that screens also affect sleep and eyesight, and favor the development of diseases such as type 2 diabetes, cardiovascular disease, and obesity. The letter mentions electromagnetic radiation in the context of cancer risk and the precautionary recommendations by the Federal Office for Public Health regarding use of Wi-Fi- WLAN. The letter includes the recommendations to "Only switch your WLAN on when you need it. With laptops, in particular, it is a good idea to switch the WLAN off as otherwise the device will repeatedly try to connect to a network, leading to unnecessary radiation and a shorter battery life" and "Don't hold your laptop close to your body while it is connected to a WLAN."

Read the translated letter here.

Swiss expert group on electromagnetic fields and non-ionising radiation (BERENIS)

- In Switzerland, the Federal Office for the Environment (FOEN) is the responsible government body for monitoring and assessing research on health effects of non-ionising radiation (NIR) from stationary sources in the environment. The FOEN has nominated *BERENIS - Swiss expert group on electromagnetic fields and non-ionising radiation-* a consultative group of Swiss experts from various disciplines with scientific expertise regarding electromagnetic fields. The BERENIS experts regularly screen the scientific literature, and assess the publications which they consider relevant for the protection of humans from potentially adverse effects. Regular BERENIS Newsletter and Scientific Updates

Precautionary magnetic field limits

- Act on Non-Ionizing Radiation Protection Act (NISV) (1 February 2000) Precautionary limit values. Distinction between new and old installations: Installations built after 1 February are termed "new" and have precautionary emission limits (installation limits). installation limit for magnetic fields: 1 microtesla (µT) electric field strength

2008 - The Governing Council of Thurgau Canton Recommends Hard-Wired Schools

- "Parliamentary Inquiry on Wireless LAN at Elementary, Junior and Secondary High Schools"
- "The Governing Council recommends for schools to forgo the use of wireless networks when the structural makeup of a given school building allows for a wired network."

Swiss Physicians Association of Doctors for Environmental Protection

- 2012 Swiss Physicians Letter stating, "the risk of cancer for this type of [wireless] radiation is similar to that of the insecticide DDT, rightfully banned... From the medical point of view, it is urgent to apply the precautionary principle for mobile telephony, WiFi, power lines, etc."

Environmental Health Trust http://ehtrust.org/

- 2014: Preliminary draft for a federal law on the protection against dangers: Non-ionizing radiation (NIS) is growing steadily. Especially the everyday stress in the area of low-frequency and high-frequency.
- 2016: Press Release on the NTP Study and Policy Implications: "There are increasingly clear indications that mobile radio is a health hazard. From a medical point of view it is clear: the scientific results so far show it is clear that prudent avoidance of unnecessary exposures is necessary."
- Report on Smartphones- (OEKOSKOP 1/16)
- AefU-News about Electrosmog

Germany

The Federal Office for Radiation Protection (FORP) Website provides precautionary advice and tips for reducing radiation exposure to smartphones, tablets and wireless devices stating, "Since long term effects could not be sufficiently examined up to now the Federal Office for Radiation Protection (BfS) recommends to keep exposures to these fields as low as reasonably achievable."

- "Electromagnetic Fields" FORP Website "
- "There are uncertainties in the risk assessment that the German mobile communications research programme has not been able to remove completely. These include in particular: possible health risks of the long-term exposure of adults to high frequency electromagnetic fields when making mobile telephone calls (intensive mobile use over more than 10 years) & the question of whether the use of mobile phones by children could have an effect on health. For these reasons, the BfS continues to consider that precautionary measures are necessary: exposure to electromagnetic fields should be as low as possible."
- "Smartphones and tablets – tips to reduce radiation exposure" Website - which recommends: "It is particularly important to minimise children's exposure to radiation. They are still developing and could therefore react more sensitively in terms of health."
- "Bundesamt warns schools against WLAN networks" - The FORP recommends landline phone instead of mobile phone base stations and that schools should not connect wirelessly to the internet.
- FORP Public Education Poster "Less radiation when Telephoning"

The German Federal Ministry for Radiation Protection: Read the German Parliament 2007 document which states,"supplementary precautionary measures such as wired cable alternatives are to be preferred to the WLAN system."

ELF should be minimized

The 26th Ordinance for the implementation of the Federal Immission Protection Act applies (reference values according to EU Council Recommendation).

- For certain power supply and railway installations, it applies that Reference values must not be exceeded under maximum load, short-term (5 per cent of the day) and small-scale exceedances by twice the reference value, remain out of consideration
- **Precautionary measures: Emissions are to be minimised.**
- No exceedance of reference values in the vicinity of flats, hospitals, schools, kindergartens, day nurseries, playgrounds or similar institutions. When constructing new maximum voltage transmission lines (>220 kV, 50 Hz): no construction of power lines over buildings and parts of buildings designed for permanent stay.
- Ordinance on Electromagnetic Fields (Verordnung über elektromagnetische Felder – 26. BImSchV) of 14 August 2013

Bavaria - The State Ministry of Education and Cultural Affairs

- 2007 Decision of the Bavarian Parliament - Protecting Children at School from Radiation Exposures Final Report

- "For precautionary reasons the Federal Office for Radiation Protection recommends for schools that if a wireless network is used to place its components in suitable locations and to prefer the use of wired network solutions whenever possible." In 2007 Parliament recommendation to all schools to not install wireless LAN networks.

Frankfurt's Schools Banish Wireless Networks

- The Local Education Authority did not wish to conduct a "large scale human experiment," said Michael Damian, spokesperson of the Head of the School Department Jutta Ebeling. "In Frankfurt's schools there will be no wireless networks in the short or mid term.
- Omega News Article - "WLAN is to be banished from the school sphere"

2013: Four German Federal Agencies issued a guidebook recommending reducing cell phones and Wi-Fi to young children

- "Parenting Guide: Environmental and Child Health" by the Federal Office for Radiation Protection (BfS), the Federal Institute for Risk Assessment (BfR), the Robert Koch Institute (RKI) and the Federal Environmental Agency (UBA). It contains practical information including reducing electromagnetic radiation from baby monitors and telephones: Baby monitors should be as far as possible away from the crib. Phones should be banished from the nursery. They are not suitable toys for infants and toddlers. Use of cabled landline phones is preferable. Wi-Fi routers are are not suitable in children's bedrooms, and should be switched off when not in use, especially at night.
- Umwelt Bundesamt News Article - "Nothing for children's sorts: Thick air in school and home: Federal authorities publish comprehensive advice on children's health"

Austria

Information on How to Reduce Exposure Health Effects of Electromagnetic Fields at the Homepage of the Federal Ministry of Health and Women's Affairs.

- Brochure on How to Reduce Exposure
- Report and Recommendations of the Supreme Medical Council

Federal Law Gazette No. BGBl. II No. 179/2016 on EMFs: "Ordinance of the Federal Minister of Labor, Social Affairs and Consumer Protection, which enacts the Ordinance on the Protection of Workers against the Effects of Electromagnetic Fields (Electromagnetic Fields Regulation - VEMF) and with which the Ordinance on Health and Safety at Work 2014 and the regulation on employment prohibitions and restrictions on juveniles is amended"

- Employers must identify and assess worker exposure to electromagnetic fields with professional assessment and measurements. The evaluation should include the nature, extent, duration and frequency or wavelength spectrum of exposure to electromagnetic fields, taking into account multiple sources of electromagnetic fields with multiple frequencies, the action values for particularly vulnerable workers, and the information provided by manufacturers, distributors or the operating instructions (in particular information on the correct use, maintenance and marking of work equipment) and published information such as scientific findings.
- Measures must be adapted to the needs of particularly vulnerable workers, such as when an employee has a medical implant or a body-worn medical device.
- Hazards of electromagnetic fields must be minimized to to the extent possible. In order to keep electromagnetic fields as low as possible, employers must comply with the principles of hazard prevention. When developing measures to address EMFs particularly vulnerable workers shall be considered.
- Work equipment and work processes that cause electromagnetic fields at workplaces shall be designed or performed in such a way that the level of exposure is reduced as much as possible.
- The workplace evaluation must be updated regularly.
- At the request of the employer, the employee must provide evidence of EMF measurement documentation.

- AUVA EMF Brochure for Evaluating Worker/Office Spaces

Austria's Highest Health Council of the Ministry of Health Advices to Reduce Exposure to Cell Phone Radiation:
Brochure states that since the long term research is still not completed, it is advisable to take simple precautions to reduce exposure.

- Original Brochure
- WHO Report on Austria's EMF activities and research studies

Austrian Workers Compensation Board
The Austrian workers compensation board (AUVA) recommends reducing exposure to EMF and cell phone radiation. AUVA provides support for employers to adequately implement the requirements of legislation on EMFs. In addition, information is provided on the website along with reports and brochures.

- AUVA Homepage on EMFs
- 10 Tips to Reduce Exposure to Cell Phone Radiation (AUVA)
- Reports on Electromagnetic Radiation by AUVA
- EMF Brochure for Evaluating Worker/Office Spaces

Salzberg Public Health Department Advises Against Wi-Fi in Schools

- Original Letter
- "The official advice of the Public Health Department of the Salzburg Region is not to use WLAN and DECT in Schools or Kindergartens." - Gerd Oberfeld, MD.
- The public health department of Salzburg (Landessanitätsdirektion) also recommends to evaluate mobile phone base station exposures based on the EUROPAEM EMF Guideline 2016
- Lists Electrosmog studies highlighting the EUROPAEM EMF guideline 2016 as representing the current state of medical science that it is used by the Landessanitätsdirektion Salzburg for the health assessment of EMF.

Salzberg Department of Health Publications

- Salzburg ElectroSmog Report (German)
- Salzburg ElectroSmog Report "Suggestions for minimization - What everyone can do for themselves Electrostress in everyday life Make good use of technology"
- electromagnetic pollution reduction
- Guide Elektrostress in everyday life
- Digital media in the classroom
- New media and health
- Media consumption and mobile radio radiation

Salzburg Department of Health developed a School Curicullum Kit for elementary school children.

"The School Kit (Schulkoffer) was developed by the public health office of the land Salzburg under the direction of Dr. Gerd Oberfeld and in collaboration with educators. It aims to help educators work on the subject with students through games and experiences that make the invisible electrosmog visible, audible and liveable. Possible effects on health and how to maintain a healthy environment should also be discussed. The Target group consists of educators and children and adolescents from 3TH TO 6th year.**"** Regionnews.at news report on the curriculum "Salzburg: -Schulkoffer Elektrosmog- clarifies"

The Vienna Medical Association issued cell phone safety guidelines

- Guidelines state that cell phones should be used for as short of a time as possible and that children under 16 should not use cell phones at all. They also state that "wireless LAN leads to high microwave exposure".
- Ten Cell Phone Guidelines:

1. Make calls as short and little as possible - use a landline or write SMS. Children and teenagers under 16 years old should carry cell phones *only for emergencies!*
2. Distance is your friend- Keep the phone away from body during connection of Phone. Pay attention to the manufacturer's safer distance recommendation in the manual, keep a distance during the call set-up from the head and body. Take advantage of the built-in speakerphone or a headset!

Environmental Health Trust http://ehtrust.org/

3. When using headsets or integrated hands-free, do not position mobile phones directly on the body - special caution applies here for pregnant women. For men, mobile phones are a risk to fertility if Mobile is stowed in Trouser pockets. Persons with electronic implants (pacemakers, insulin pumps et cetera) must pay attention to distance. Unless otherwise possible, use coat pocket, backpack or purse.
4. Not in vehicles (car, bus, train) calls - without an external antenna, the radiation in the vehicle is higher. In addition, you will be distracted and you bother in public transport the other passengers!
5. During the car when driving should be an absolute ban on SMS and internetworking - the distraction leads to self-endangerment and endangering other road users!
6. Make calls at home and at work via the fixed corded (not wireless) network - Internet access via LAN cable (eg via ADSL, VDSL, fiber optic) no Radiation, is fast and secure data transfer. Constant radiation emitters like DECT cordless telephones, WLAN access points, data sticks and LTE Home base stations (Box, Cube etc.) should be avoided!
7. Go offline more often or use Airplane mode - Remember that for functions such as listening to music, camera, alarm clock, calculator or offline games an internet connection is not always required!
8. Fewer apps means less radiation - Minimize the number of apps and disable the most unnecessary background services on your smartphone. Disabling "Mobile services" / "data network mode" turns the smartphone again into a cell phone. You can still be reached, but avoid a lot of unnecessary radiation by background traffic!
9. Avoid Mobile phone calls in places with poor reception (basement, elevator etc) as it increases transmission power. Use in poor reception Area a headset or the speakerphone!
10. For buyers of mobile phones, Look out for a very low SAR value and an external antenna connection!

- Press Release - "EMF guideline propagates precautionary principle for electromagnetic fields"
- Translated Poster with Tips

Guideline of the Austrian Medical Association for the diagnosis and treatment of EMF related health problems and illnesses (EMF syndrome)

- Original Guidelines
- The Austrian Medical Association has developed a guideline for differential diagnosis and treatment of health problems associated with outdoor and indoor electrosmog.

India

2012 - The Ministry of Communications and Information Technology issued new EMF guidelines with new Exposure Limits *lowered to 1/10 of the ICNIRP level, and* SAR labeling on phones.

"Keeping the precautionary EMF safe exposure limits for the Radio Frequency Field (Base Station Emissions) as 1/10th of the safe limits prescribed by ICNIRP for all areas in India, eliminates the need for fixing lower limits for specific areas like schools, hospitals, residential premises, children playgrounds; a segregation of which is impractical in densely populated localities." http://www.dot.gov.in/journey-emf

- Official Guidelines
- India Government Precautionary Guidelines for mobile users:
    1. Keep distance – Hold the cell phone away from body to the extent possible.
    2. Use a headset (wired or Bluetooth) to keep the handset away from your head.
    3. Do not press the phone handset against your head. Radio Frequency (RF) energy is inversely proportional to the square of the distance from the source -- being very close increases energy absorption much more.
    4. Limit the length of mobile calls.
    5. Use text as compared to voice wherever possible.
    6. Put the cell phone on speaker mode.
    7. If the radio signal is weak, a mobile phone will increase its transmission power. Find a strong signal and

avoid movement – Use your phone where reception is good. 8. Metal & water are good conductors of radio waves so avoid using a mobile phone while wearing metal-framed glasses or having wet hair.
9. Let the call connect before putting the handset on your ear or start speaking and listening – A mobile phone first makes the communication at higher power and then reduces power to an adequate level. More power is radiated during call connecting time.
10. If you have a choice, use a landline (wired) phone, not a mobile phone.
11. When your phone is ON, don't carry it in chest/breast or pants pocket. When a mobile phone is ON, it automatically transmits at high power every one or two minutes to check (poll) the network.
12. Reduce mobile phone use by children as a younger person will likely have a longer lifetime exposure to radiation from cell phones.
13. People having active medical implants should preferably keep the cell phone at least 15 cm away from the implant.

The India Ministry of Communications and Information Technology has an EMF webpage with EMF information.

Public Information on Environmental Levels from Base Stations: The India Department of Telecom has a web portal for mobile tower compliance called Tarang Sanchar.

- The site contains data from 12.5 lakh base transceiver stations (BTS), and allows users to view tower-specific details such as the operator, the supporting technology (2G/3G/4G) and radiation compliance.
- Tarang Sanchar website

Cell Towers Removed Near Schools in India Localities

2018: State of Karnataka drafts policy to limit cell towers near schools and homes and hospitals. Read news article "Mangaluru: Actress Juhi Chawla appreciates state's new mobile tower policy" and TV debate on the new policy Are cell phone towers safe? | The Urban Debate With Faye D'Souza.

- "These towers should be at a minimum distance of 50 meters from schools, hospitals and places of worship. Silent generator needs to be installed. The towers which are already existing also have to implement all the rules mentioned in the policy. Before installing these towers on the house or buildings a certificate needs to be issued by the structural engineer with regards to the strength of that particular building."

2016: Brihanmumbai Municipal Corporation bans mobile towers at parks, playgrounds
"The Brihanmumbai Municipal Corporation (BMC) in its new policy on regularising mobile towers, has said such towers won't be allowed on plots reserved for playgrounds, recreational grounds, gardens and parks." Hindustan Times News Article - "Brihanmumbai Municipal Corporation (BMC) bans mobile towers at parks, playgrounds"

2015: Zilla Parishad orders removal of all cellphone towers within a 50-metre radius to schools citing exposure to "harmful radiation". Kantilal Umap, chief executive officer of Pune Zilla Parishad, said, "We will survey the cellphone towers in all the grampanchayat limits in the district. Notices will be sent to unauthorised towers and those falling within a 50-metre radius from a school's premises. They will have to be moved to another location." Read Times of India News January 6 2015 article Zilla Parishad orders removal of cellphone towers near schools in district

2013: State of Rajasthan: Supreme Court of India upheld the 2012 High Court of the State of Rajasthan decision to remove all cell towers from the vicinity of schools, hospitals and playgrounds because of radiation "hazardous to life."

- Two hundred and four mobile towers installed on the school premises of Rajasthan have been removed in compliance.
- Economic Times News Article - "Rajasthan HC orders relocation of mobile towers from schools, hospitals"

2013 Mumbai Policy to Prohibit Mobile Towers in Educational Institutions

In August 2013 the city of Mumbai, prohibited cell towers within 100 meters of schools, colleges, orphanages, child rehabilitation centers, and old age homes. It ordered that existing antennas on schools, colleges and hospitals be removed. It also prohibited the installation of antennas on residential rooftops without the consent of every person on the top floor, as well as the consent of 70% of the people in the rest of the building. And it began the process of dismantling 3,200 illegal rooftop towers.
Policy: REVISED DRAFT POLICY GUIDELINES FOR INSTALLATION OF MOBILE TOWERS IN THE CITY OF MUMBAI first developed in January 2013.
Read the Indian Express article "State approves policy ban on installation near schools"

Indian Council of Medical Research Continues research on EMFs:

"Short Report on the Indian Studies" - Document prepared by Dr. Sharma, Sr. Deputy Director of the Indian Council of Medical Research on Indian Research Studies.

2014 Report : Information paper On Effects of Electromagnetic Field Radiation from Mobile Towers and Handsets 30th by the Telecom Regulatory Authority of India.

- This paper contains a write-up on sources of exposure, effects of Electro-magnetic (EM) exposure on humans, absorption of energy from EM fields and International Commission on Non-Ionizing Radiation Protection (ICNIRP) Guidelines, information on various studies published on effects of EMF radiations and stands taken by various individuals/ bodies.

Department of Telecom, Government of India

- "Ensuring Safety from Radiations: Mobile Towers and Handsets" - Graphic including precautionary guidelines for mobile phones In English In Hindi

2011 Ministry of Environment and Forest Study on the Impact of Communication Towers

- "Report on Possible Impacts of Communication Towers on Wildlife Including Birds and Bees"
- "*The review of existing literature shows that the Electro Magnetic Radiations (EMRs) are interfering with the biological systems in more ways than one. There had already been some warning bells sounded in the case of bees and birds, which probably heralds the seriousness of this issue and indicates the vulnerability of other species as well."*

Celebrity Advocates Raising Awareness

- Juhi Chawla - who has won multiple awards for her work has taken on the issue of EMF's and recieved the Indira Gandhi Award for her efforts in raising awareness: Global Awards 2016, Indira Gandhi Memorial Awards, Full Speech at Gandhi Awards, 2011 Lecture, Do's and don'ts for using cellphone safely by Juhi Chawla

Video Lecture: A Review of epidemiology and toxicology: Dr. R.S Sharma, Dr. Devra Davis and special guest Dr. George Carlo at George Washington University – The Milken Institute School of Public Health

In a 2015 lecture at George Washington University, Dr. R.S. Sharma, Indian government Senior Deputy Director General & Scientist of the Indian Council of Medical Research, reviewed the research showing genetic damage and health effects from wireless exposures which are informing India's new telecommunications policy. He describes how the government is supporting efforts to reduce exposures.
Slides from Dr Sharma's presentation can be found here.

News Stories

Government sets up laboratory at TEC for testing radiation level of mobile phone
Youtube Video on India Government Changes on Cell Towers and Cell Phones

French Polynesia

2016 Legislation To Protect The Public and Reduce Exposure

Legislation the country adopted in 2016 prohibits advertising of cell phones to children under 14, prohibits advertising cell phones without showing how to minimize radiation exposure to the head, prohibits wireless in nursery schools, limits wireless in primary schools and reduces exposures to workers.

Summary of the Law 2016-41 / APF December 8, 2016 on Electromagnetic Radiation

- Prohibition of advertising that promotes the sale or use of a cell phone to children under fourteen years old. Advertising should clearly and legibly show the limiting of exposure to the head. An offender is liable to a fine not exceeding 8,900,000 F CFP.
- Cell phones may not be marketed without an accessory that limits exposure to the head.
- Recommendations to limit head exposure and SAR levels should be readable and intelligible.
- Wireless is prohibited in nursery schools and spaces dedicated to "reception, rest and activities of children under three years of age."
- Wireless should be turned to OFF in primary school unless specifically in use for digital activities.
- The government is implementing measurement and monitoring of levels of public exposure to electromagnetic fields throughout the country of French Polynesia.

2017 Public Awareness Campaign

French Polynesia has launched a major public awareness campaign to raise awareness about how to reduce exposure to the electromagnetic radiation from electronics, cell phones, and wireless devices as part of the country's new law to reduce citizens' exposures to electromagnetic radiation exposure.

The multimedia campaign of the French Polynesia Directorate-General for the Digital Economy (DGEN) includes video and graphics promoted on television, radio, and social networking platforms.

A "Best Practices Guide" provides specific recommendations to reduce electromagnetic radiation in order to "protect children and youth."

Summary of Recommendations to Reduce Wireless Radiofrequency Electromagnetic Radiation (Best Practices Guide**)**

- Children under 15 are advised to not use cell phones.
- Distance the phone away from the head.
- Make voice calls with a headset to reduce exposure to the brain.
- Move the mobile device away from electronic implants (pacemaker, Insulin pump, neuro-stimulator, etc.). A mobile device near the implantation area may interfere with the operation of a medical device.
- Do not call in areas of bad reception.
- Avoid carrying your phone in your pants pocket.
- Prefer texting SMS instead of voice calls.
- The base of the home cordless phone emits radiation constantly, so keep it at a distance and use loudspeaker.
- When indoors, prefer to connect to networks outside the building by using your device near a window.
- Distance the phone away from the head after dialing, as wave emission can be the strongest at that time.
- Avoid calling during high-speed travel (in cars or other vehicles) as the phone must emit at full-power to connect successively with different antennas to maintain the connection.
- Place yourself at least 1.50 m from your Wi-Fi box or router, and turn it off overnight. If you are ready to part with it, opt for cable (ethernet) connections (with Wi-Fi capability turned off) or very high-speed fiber optic if possible.

Summary of French Polynesia Recommendations to Reduce ELF Electromagnetic Radiation

Environmental Health Trust http://ehtrust.org/

- Do not charge your mobile phone near the bed, distance it as far away as possible.
- Maximize distance from the front of the television or computer monitor.
- Have a professional check home electrical wiring.
- Turn off electricity where no device or appliance is in use.
- Place the wireless baby monitor at least 2 meters (about 6.5 feet) distance from the baby and never in the crib or bed.
- Buy a new microwave oven every five years. Always distance yourself and others at least 1 meter away from the oven and unplug the oven when not using it.
- Distance yourself and others at least 1 to 1.5 meters (3 to 4.5 feet) away from induction stovetop or any appliance capable of generating electromagnetic waves such as your refrigerator.
- Install the electrical panel and large electrical equipment away from rooms and living areas.
- Turn off electrical appliances (by switching off power) when they are not in use, rather than putting them to sleep. This is also a gesture in favor of the environment and your budget.

Workplace Environment

- Suppression or reduction of risk:
  Select equipment or processes that emit less intense electromagnetic fields, taking account of the work to be carried out. Use other working methods leading to less exposure to electromagnetic fields.
- Collective protection:
  Establish technical or organizational measures to reduce the emission of electromagnetic fields (shielding, distance, locking, etc.).
- Access control:
  Places where the electromagnetic field exceeds regulatory thresholds must be marked, labeled, barred, or marked on the ground in order to limit or control access.

DGEN's video "Electromagnetic Waves: Good Practices" visually depicts how common household electronics – such as a Wi-Fi router, video game console, and wireless baby monitor – emit microwave electromagnetic radiation like cell phone emissions. The campaign also addresses the electromagnetic radiation from electricity-powered alarm clocks and appliances. All multimedia resources are officially provided in both French and Tahitian.

Public Education Video "Good Practices with Electromagnetic Waves"
DGEN Website on Best Practices For Electromagnetic Waves French
DGEN Website on Best Practices For Electromagnetic Wave Tahitian

Watch Public Education Video in French
Watch Public Education Video in Tahitian
Watch Public Education Video English Translated by Environmental Health Trust

Download Best Practices Brochure in French.pdf
Download Best Practices Brochure in Tahitian Te rárá 'ume uira, nāhea e ārai.pdf
Download the Campaign Poster in French.pdf
Download the Campaign Poster in Tahitian.pdf
Download the Law of Country 2016-41 / APF of December 8, 2016 on Electromagnetic Radiation.pdf

News Articles on French Polynesia Law on Electromagnetic Radiation
"Government puts electromagnetic waves under control" Tahiti Infos, August 3, 2017
"Electromagnetic waves: the CESC supports the precautionary principle" Tahiti Infos, July 19, 2016

Environmental Health Trust http://ehtrust.org/

"Antonio Perez: "Protection of the population and digital development must be compatible" Tahiti Infos July 5, 2016

Slovenia

Slovenia has public exposure limits much stricter than ICNIRP.
Government RF Measurement Campaign informs Public on Radiation Levels
The Government RF Measurement Campaign informs Public on Radiation Levels:

Advisory Group:
In response to health concerns, Slovenia created an advisory group with representatives of the Ministry of the Economy, the Ministry of Health, the Ministry of the Environment and Spatial Planning, NGOs in the Republic of Slovenia and local communities in the Republic of Slovenia to inform the public about this issue.

Slovenia Institute for Non-ionizing Radiation webpage:
Electromagnetic radiation, MOBILE PHONES, AND HEALTH Brochure: Although this brochure states that evidence does not conclude a proven health risk , it does recommend the prudent use of cell phones and provides a long list of measures to reduce radiation exposure including:

- Limit the number and duration of calls.
- Choose a low-SAR mobile phone. Recommendation is that SAR
  Less than 0,6 W / kg. Data on SAR values of mobile phones are collected
  At www.inis.si.
- If possible, use a handsfree kit
- Avoid conversation when the signal is weak (in basements, garages, elevators ...). Move to a place where the signal is strong.

Webpage with Government Brochures on various issues related to EMFs such as Metal Implants, Base Stations and more

- Brochure on Electromagnetic radiation 2014
- This is a report that reviews the issue, shows how Slovenia has RF public exposure limits much stricter than ICNIRP.
- Brochure on WiMAX
- Brochure on Cell Phones
- 3819. Regulation on electromagnetic radiation in the natural and living environment, page 5925.

ELF Limits: New and modified installations in the vicinity of flats, schools, kindergartens, hospitals, sanatoriums, playgrounds, parks, areas for recreation, public buildings and places of excursions:

0.5 kilovolts per metre (kV/m) and
10 microteslas (μT) that is, 10% of the EU Council Recommendation reference value

Russia

Russian National Committee on Non-Ionizing Radiation Protection Issued Resolutions to Protect Individuals from Wireless Radiation

- 2011 Original Resolution - "ELECTROMAGNETIC FIELDS FROM MOBILE PHONES: HEALTH EFFECT ON CHILDREN AND TEENAGERS"
- Official Recommendations: The Russian Federation specifically advises that those under the age of 18 should not use a mobile phone at all, recommends low- emission phones; and requires the following: on-device labelling notifying users that it is a source of RF-EMF, user guide information advising that ''it is a source of harmful RF-EMF

Environmental Health Trust http://ehtrust.org/

exposure'' and the inclusion of courses in schools regarding mobile phones use and RF-EMF exposure issues. "Thus, for the first time in the human history, children using mobile telecommunications along with the adult population are included into the health risk group due to the RF EMF exposure….In children, the amount of so-called stem cells is larger than in adults and the stem cells were shown to be the most sensitive to RF EMF exposure….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."

- 2008 Original Decision - "Children and Mobile Phones: The Health of the Following Generations is in Danger"
- 2012 - Video of Russian National Committee Meeting in which they repeatedly warn about electromagnetic radiation impacts on children and recommended WiFi not be used in schools.
- 2010 - Video of Yuri Grigoriev, President of the Russian National Committee, giving a lecture

European Environment Agency

2013 - EEA Issues *"Late Lessons From Early Warnings: Chapter 12: Mobile phone use and brain tumour risk: early warnings, early actions?"*

- The chapter concludes that " Precautionary actions now to reduce head exposures, as pointed out by the EEA in 2007, and many others since, would limit the size and seriousness of any brain tumour risk that may exist. Reducing exposures may also help to reduce the other possible harms..."

2011 - Precautions Recommended by David Gee, EEA Senior Advisor on Science, Policy and Emerging Issues

- Original document - "Health risks from mobile phone radiation – why the experts disagree"
- Gee stated in a press release that "We recommend using the precautionary principle to guide policy decisions in cases like this. This means that although our understanding is incomplete, this should not prevent policymakers from taking preventative action.**"**

2009 - EEA Issues Recommendations Based on Current Evidence

- Original Statement
- "The evidence is now strong enough, using the precautionary principle, to justify the following steps: 1. For governments, the mobile phone industry, and the public to take all reasonable measures to reduce exposures to EMF, especially to radio frequencies from mobile phones, and particularly the exposures to children and young adults who seem to be most at risk from head tumours."

2007 - Professor Jacqueline McGlade, the EEA's executive director issued recommendations

- McGlade stated that "Recent research and reviews on the long-term effects of radiations from mobile telecommunications suggest that it would be prudent for health authorities to recommend actions to reduce exposures, especially to vulnerable groups, such as children."
- Independent News Article - "EU watchdog calls for urgent action on Wi-Fi radiation"

Singapore

2018: The National Environment Agency (NEA) has commissioned a radiofrequency (RF) radiation baseline study to measure the background RF levels in Singapore. 2018 Singapore WHO Report

Singapore's National Environmental Agency posted then removed recommendations to reduce exposure.

"Frequently asked Questions About Radiation Protection" were removed by 2018 but previously stated the following:

- NEA's advice to the public on cell phone use on their webpage on radiation protection: "While further research is being carried out to study the long-term health effects of RF field, individuals could take precautionary measures to reduce RF exposure to themselves or their children by limiting the length of calls, or using 'hands-free' devices to keep the mobile phones away from the head and body."

Singapore's Nanyang Technological University **Advice to Limit Cell Phone radiation**
The University website page called "Mobile Phone and Health" which states:
Cell phones do have effects on people. Some people feel headache after talking too long and some hypersensitive people fell sick when the cellphone is turned on. These effects are mainly non-thermal effects and we do have a new explanation. We believe that non-thermal effects are due to the waveforms (causing mechanical vibration) that are determined by the frequency of carrier wave and the modulation that is way to put the information riding on the carrier wave. The principle and effect of modulation may be explained using a very close example, music or sound. Different music and sound have different waveforms, assuming the same small volume one may feel comfortable when listening some music or sound but felt uncomfortable or even sick when listening to some other music or (noise) sound (like scratching glass using something). It has been reported that certain waveforms can be used to cure some mental illnesses such as depression, sleepless, etc. This shows that the nerve system of people could be affected by the waveforms.

"Suggestions" include:

- Shorter conversations.
- Avoid speaking for long periods on the cell phone. Try to plan your calls in such a way that you use ordinary phones for long conversations.
- Speak as little as possible inside the car:
- because the reflection from the car cavity may amplifies the radiation. If you have to speak a lot from the car - get a roof antenna.
- To use plug-in earpiece:
- Plug-in earpiece will separate the antenna further away from your head/body.
- Try a CDMA phone if you are hypersensitive to a GSM one:
- If you fell headache or uncomfortable when using a GSM phone, you may be hypersensitive to the modulation of electromagnetic waves. People are less sensitive to CDMA phones.
- Newer CDMA system works differently than GSM system and doesn't emit the sharp-edged lower frequency pulses. The digital RF signal more resembles a noisy analogue signal and is also likely to be less bio-active. This may also be one reason to push industry to replace GSM systems with CDMA systems.
- Read Singapore's Nanyang Technological University Webpage on Cell Phones here

Poland

In April 2016, the Polish government announced they were preparing an Act on protection of the population from the radiation emitted by mobile base stations.
According to the Telecom News article:

> "The Polish Ministry of Digitalisation has announced its preparation of an act on the control of the effects of electromagnetic radiation from radiocommunications devices on human life and health, reports Telko.in. The first consultations are planned for the beginning of May. Discussions on public concerns related to electromagnetic radiation are conducted under the patronage of the President's Office.
> After the first round of the discussions, the ministry decided to withdraw the controversial provision on facilitating the placement of radiocommunications devices from the draft amendment of the act to support telecommunications services and network development.
> The task of the new consultation group will be discussing the assumptions of the draft act with experts and the public and subsequent preparation of the draft. The group will include representatives of the public sector, the public, telecommunications operators and experts in the field of radio-communications and medicine, namely the Institute of Communications and Collegium Medicum of the University Jagiellonski.
> The new acts will enforce supervision of emissions standards, tightening sanctions and increase the influence of the local community on the process of placing new radio communications devices."
> Read the April 2016 Telecom Article on Poland's Developing Action

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On December 2016, a conference was organized by the National Institute of Telecommunications on "Medical, Biological, Technical and Legal Aspects of Electromagnetic Field Influence on Environment" (see warsaw-conference-on-emf) and speakers from Poland, Finland and Japan presented the latest research and opinions about EMF technology and health.
Video's of the lectures are available at the Polish Government website here
Slides from Dariusz Leszczynski's lecture "Cell Phone Radiation, Health Hazard and Precaution" are available on his blog.

The first mayor of Kraków to be elected by popular ballot, law professor Jacek Majchrowski initiated forums for citizens to discuss the growing 'smog' of electro-magnetic fields.

New Public Education Project of the City of Krakow Poland "Let's Be EcoDigital"

- The 2017 events of the " Let's Be EcoDigital" project included contests for Children and Youth: A Photography Contest "A Day Without My Smartphone" and Literary Contest "A Day Without My Smartphone.
- An eminent Polish artist Paweł Kuczyński created a series of illustrations presenting satirical view of some difficult aspects of digital reality.
- The "International Day of Protection from Electromagnetic Environmental Pollution" includes a "Family Picnic without Smartphone." The City also organized an International Forum on Protection from Electromagnetic Environmental Pollution.

Resources on Krakow's EMF Policy and Educational Program

Protective Policy Webpage:This includes City Council issued resolutions and visual images of radiation from cellular antennas
"Let's be EcoDigital" - a new project of the City of Krakow News Update
Protection against electromagnetic fields webpage: Includes Recommendations and Leaflets.

ELF reference values lower than in EU Council Recommendation:

- electric field 1 kilovolt per metre (kV/m) and
- magnetic field 75 microteslas (μT) for flats and sensitive areas
- http://www.bfs.de/EN/topics/emf/expansion-grid/protection/limit-values-europe/limit-values-europe_node.html

Hungary

Hungary Government Website on "Electrosmog
Nationwide measuring of radiation levels are available to the public on the Hungary Government RFR monitoring website

Tunisia

Although Tunisia has adopted the ICNIRP limits, they define schools, kindergartens, hospitals, and nursery schools as "sensitive institutions" and do not allow antennas within 100m of these "sensitive institutions." See Tunisia WHO Report 2017

Government Website with EMF Measurements

- For every mobile phone base transceiver stations (BTS) antenna in Tunisia, the synthesis of electromagnetic field measurement results and the conclusions (electric field levels compared with limit values), are available on the website http://www.cartoradio.tn.

United Kingdom

The UK National Health Service recommends reducing exposure since 2002.

- 2002 Steward Report commissioned by the UK Government - "Phones and Mobile Health - AUK Perspective". The report found that exposure to RF radiation below guidelines has not been "proven" to cause adverse health effects but it is not possible to say "that exposure to RF radiation, even at levels below national guidelines, is totally without potential adverse health effects" as "there is some scientific evidence which suggests that there may be biological effects and gaps in knowledge justify a precautionary approach to the use of mobile phone technologies until much more detailed and scientifically robust information on any health effects becomes available."
- UK Department of Health - 2005 "Mobile Phones and Health" brochure which reads: *"The expert group has therefore recommended that in line with a precautionary approach, the widespread use of mobile phones by children (under the age of 16) should be discouraged for non-essential calls. In the light of this recommendation the UK Chief Medical Officers strongly advise that where children and young people do use mobile phones, they should be encouraged to: • use mobile phones for essential purposes only • keep all calls short - talking for long periods prolongs exposure and should be discouraged The UK CMOs recommend that if parents want to avoid their children being subject to any possible risk that might be identified in the future, the way to do so is to exercise their choice not to let their children use mobile phones."*
- NHS 2009 slide presentation - "Radio Waves"
- 2015 Webpage "Risks of mobile phone use"' with recommendations that state, *"Children are thought to be at higher risk of health implications from the use of mobile phones. This is because their skulls and cells are still growing and tend to absorb radiation more easily. It is recommended that children use mobile phones only if absolutely necessary."*
- National Health Service - 2011 "Mobile Phones and Base Stations" which reads, *"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. If you are concerned, you can take steps to reduce your exposure such as using hands free kits or texting."*
- 2011 NHS Brochure - "Mobile phones and base stations: Health advice on using mobile phones", which states: "The body and nervous system are still developing into the teenage years. 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."
- Prior to 2015, the NHS also had additional website sections on health effects, including "Mobiles and mums-to-be" web page, which summarized the research showing cell phones had been linked to behavioral issues in children. NHS also had a "Mobile effect on sleep" webpage which detailed research which concluded RF " is associated with adverse effects on sleep quality within certain sleep stages". For the public, the NHS had "recommendations to help lower any potential long-term risks" which included keeping calls short, keeping the phone away from the body on standby mode, only use the phone when the reception is strong and using a phone with an external antenna. These web pages were deleted from the current site.
- In 2011, the National Health Service offered specific recommendations to reduce cell phone radiation exposure to children. Precautions are still recommended, however by 2015 this original advice was no longer present on the site. **The UK National Health service changed the public advice text. Everything noted *above* was reworded. *Now* the website states:**
- 2015 Mobile Phone Safety - Risks Webpage - "If there are any health risks from the use of mobile phones, children might be more vulnerable because their bodies and nervous systems are still developing. Research carried out to date hasn't supported a link between mobile phone use and childhood cancers such as leukaemia. However, if you have any concerns, you can lower your child's exposure to radio waves by only allowing them to use mobile phones for essential purposes and keeping calls short."
- The newly edited section called "Mobile phone safety - FAQs" states: "***Do scientists know everything about mobile phones and health?*** *No, and research is continuing. Mobile phones have only been widely used for about 20 to 30 years, so it's not possible to be so certain about the safety of long-term use. More research on the effects of mobile phones on children is also needed, as they're known to be more sensitive than adults to many environmental agents, such as lead pollution and sunlight. Government advice is to be on the safe side and limit mobile phone use by children."*

- 2015 Webpage "Risks of mobile phone use"' contains recommendations that state,*"Children are thought to be at higher risk of health implications from the use of mobile phones. This is because their skulls and cells are still growing and tend to absorb radiation more easily. It is recommended that children use mobile phones only if absolutely necessary.*"

2016 Regulation No. 588 - "Control of Electromagnetic Fields at Work"

- Original Legislation
- The regulation requires employers to assess the levels of EMFs their employees may be exposed to, ensure compliance, provide information on risks and take action if necessary.
- "*You must ensure you take workers at particular risk, such as expectant mothers and workers with active or passive implanted or body worn medical devices, into account when appropriate, devise and implement an action plan to ensure compliance with the exposure limits."*
- Safety and Health Practitioner News Article - "Explained: CEFAW Regulations, which come into force today"
- Health and Safety Executive: "Electromagnetic fields at work A guide to the Control of Electromagnetic Fields at Work Regulations 2016"
    - This guidance explains an employer's duties under the Control of Electromagnetic Fields at Work Regulations 2016 and will also be useful to others with responsibilities for health and safety such as employee and safety representatives. It explains what an EMF is, what the law says and how to assess employees' potential exposure to EMFs with reference to 'action levels' and 'exposure limit values'.

2012: Marketers are advised not to target mobile phones at children under 16

The Advertising Standards Agency states:

> "Mobile Phones and Children
> In response to the Stewart Report on mobile phones and health, the Government has discouraged children from using mobile phones except for essential purposes. Although the ASA has not ruled on the advertising of mobile phones to children, on the basis of the NRPB's statements, marketers are advised not to target mobile phones at children under 16 by the selection of media, style of presentation, content or context in which they appear unless encouraging vital use only."

Note: The ASA also ruled that ads that suggested other health effects were "both misleading and likely to cause undue alarm about radiation"

Read ASA Webpage on Children and Mobile Phones, Listen to radio interview with Karl Muller who raised the complaint leading to the ban.

Cyprus

2017 Directive of the Minister of Culture and Education to Ban Wi-Fi from kindergartens, Remove Wi-Fi from Elementary Classrooms and Halt Deployment.

- Original Translated Directive from the Cyprus Minister of Culture and Education
- Wireless is recommended only to be used if needed in the administrative areas of elementary schools, not by the students. However, if the use of Wi-Fi is required, " necessary measures to protect children should be taken, and wireless access points should remain inactive when not in use for teaching purposes." Furthermore before installation of any wireless program involving teachers or students "the consent of parents should be ensured in advance" the directive reads stating that the director of the school should send a letter to the parents of children who will participate in programs involving wireless technology informing them for the reason and duration of WiFi usage.
- Read Press release on Cyprus Wi-Fi removal from elementary classrooms

Cyprus National Committee on Environment and Child Health

- "Protecting children from radiation emitted by Wi-Fi, mobile phones and wireless" Webpage
- EMF brochure on reducing the risks to children from exposure to the Non Ionizing Radiation (mobile phones, Wi-Fi,

tablets, etc.).

- The Cyprus National Committee on Environment and Child Health is supported by the Nation of Cyprus and "has as its basic aim the prevention of illnesses, which also are related with the exposure of children in environmental dangers." The activities of the National Committee are supported by the State of Cyprus.
- The National Committee recommends, "Be Precautionary and reduce exposure to phones, Wi-Fi and other wireless devices," states the Cyprus National Committee on Environment and Child Health (ECH). Dr. Stella Michaelidou, President of the ECH, states that society should respond by taking precautions because "Documentation of other potential and more serious biological side effects are on the tip of an emerging iceberg."
- An In-Cyprus news article quoted Michaelidou as saying that "multiple and frequent exposure to this kind of radiation, which falls below the acceptable levels of thermal effects, pose a health risk to a developing embryo." Children who use their mobile phone more frequently face a higher risk at having a weaker memory, attention deficit disorder, and similar issues.
- In-Cyprus News Article - "Mobile devices could harm kids"

Public Awareness Videos on How to Reduce Exposures

- **PSA Video on Children's Health and Wi-Fi:** Original Video in Greek & English
- **PSA Video on Pregnant Women and Wireless:** Original Video in Greek & English
- **PSA Video on Teenagers and Wireless:** Original Video with English subtitles.
- Youtube channel of the Cyprus Committee

Public Awareness Educational Brochures

Brochure on How to Reduce Exposure in English

Brochure on How to Reduce Exposure in Greek

Scientific Presentations:

- 2015 Powerpoint Slide Presentation by the President of the Commission, Dr. Stella Kanna Michaelides on EMFs (in Greek)
- Dr Michalis Tornaritis on media use (in Greek)
- Dr. Michaelidou of the National Committee gives presentation to Ioannina University: "Neurological and behavioral effects of Non Ionizing Radiation emitted from mobile devices on children: Steps to be taken ASAP for the protection of children and future generation
- **Stella Canna-Michaelidou, PhD,** President of the National Committee on Environment and Children's Health of Cyprus, *Multi-Media Public Health Tools to Promote Public and Health Professional Understanding of Wireless Radiation* PDF of January 2017 IIAS Presentation

Cyprus Medical Association:

In 2017 the Cyprus Medical Association signed the Nicosia Declaration ad issued Sixteen recommendations to reduce personal exposure were issued, including that children under age 16 should only use cell phones for emergencies, to use airplane mode and turn off wireless antennas in electronics before handing devices to children, to distance the phone away from the body and use wired connections rather than wireless connections. Read full details at the 2017 press release.

Ne**ws Reports from Cyprus**

- April 2016 - Dr. Michaelidou, President of the Cyprus National Committee, gives presentation: "Environment and Health of the Child", presenting on the issue of Electromagnetic radiation and its effects on children's health.
- Sigma TV News Report - "Children and Wi-fi"
- President of the National Committee "Environment and Child Health" with Professor Loukas Margaritis speaking in a news piece. https://www.youtube.com/watch?v=WumF2qOUKrU
- 2015 In-Cyprus News Report: **Mobile devices could harm kids**
- 9/2015 News Report Cyprus Mail: 'Technology harming our children' MPs say
- Cyprus Medical Association signs the Nicosia Declaration in 2017

Environmental Health Trust http://ehtrust.org/

Argentina

2016 Proposed National Law on Electromagnetic Pollution

- The law proposes a regulatory framework to "radio infrastructure with radiant systems, antennas and all installations capable of generating electromagnetic radiation" in order to "ensure the protection of public health" considering "both thermal effects and biological. " In education and health facilities only wired connections to data networks and Internet access may be used.
- Electrosensibili News Article

Japan

2017: The Japan Pediatric Association and the Japan Medical Association on Feb. 15 unveiled a poster warning against the dangers of the excessive use of smartphones.The poster poses the question, "What do I sacrifice with time spent on my smartphone?" and responds with the six categories of sleep, academic performance, brain function, physical strength, vision, and communication ability. The poster will be sent to approximately 170,000 members of the two associations to be put up at clinics nationwide.

The Japan Pediatric Association had already issued recommendations in 2004 “that time spent watching television, playing mobile phone games, or otherwise using cell phones be limited to a maximum of two hours per day, and that children up to 2 years of age refrain from watching television or videos. The association is calling for smartphone use to be limited accordingly.”
Source: “Medical associations warn against children's excessive use of smartphones” The Mainichi , 2.16.2017

(MEXT). **Taiwan**

2015 - Government Updated their Protection of Children and Youths Welfare and Rights Act to Ban Cell Phones for Young Children.

- Complete ban on children under the age of two from using electronic devices such as iPads, televisions and smartphones.
- Parents can be fined NT$50,000 (about $1600 US Dollars)
- The new law also states that parents must ensure that under-18s only use electronic products for a 'reasonable' length of time.
- Daily Mail News Article - “Taiwan makes it ILLEGAL for parents to let children under two use electronic gadgets... and under-18s must limit use to 'reasonable' lengths”
- Teen Safe News Article - “Fined For NOT Monitoring: Taiwan’s New Parenting Penalty”

Namibia

2011/2012 - Namibia's atomic energy review report states that current so called "safety" standards DO NOT protect citizens from long term health effects.

- Atomic Energy Annual Review
- “ICNIRP guidelines do not guarantee adequate protection against the long term effects of exposure, such as increased risk of cancer. “ - Republic of Namibia:Atomic Energy Board

Turkey

The Ministry of Health has issued public information brochures that recommend limiting exposure especially for pregnant women and children.

- Ministry of Health Brochure Mobile Phones and Health Effects:
- The Brochure starts by saying the research on cell phone radiation shows low levels of electromagnetic frequencies "may cause cancer". 13 Recommendations to Reduce Exposure *which include:* Pregnant women and children (under 16) are more vulnerable and they should use the phone only when necessary, Prefer speaker or headset, Decrease time on phones, Use low SAR phone, Keep phone away from the body, Keep phones out of baby and children's bedroom,Turn phone off when you sleep or keep it one meter away from bedside, using phones in cars increases your EMF exposure so it is not recommended.

Education on Safer Phone Use Project

- The project is mentioned in the following document: "Annual Report from Turkey: National Activities on Health Effects of Electromagnetic Fields."
- Turkey has begun an educational project funded by Ministry of Internal Affairs, accomplished by Temkoder (Prevention, Measurement of Electromagnetic Pollution and Training Organization), which has resulted in secondary school student training in the safer usage of cellular phones.

Development of regulations prohibiting children's cell phone use.

- In 2014, the Ministry of Health started working on new regulations to prohibit cellphone usage for children under 14 year-old children according to the 2014 WHO Report - "Annual Report from Turkey: National Activities on Health Effects of Electromagnetic Fields."
- However by 2016 the proposed regulation was weakened and in 2016 Turkey stated that they are developing regulations that only would pertain to children under 7 years old- a change from 14 years old.
- 2016 WHO EMF Report - "Short Report Related to National Activities on Health Effects of Electromagnetic Fields" states, "Under Preparation and what is new; 4,5 G internet technology has been started to be used in the beginning of the 2016 The Ministry of Health is working on new regulations about;
    - Recommendation of prohibiting the advertisements which help increasing the cell-phone usage under 7 year-old children.
    - Prohibiting mobile phone sellers to make promotions for increasing the usage of cell-phones by children who are<7.
    - Selling mobile phones including SAR values in their boxes and taking the signature of the consumers fort he informed of consent forms(These forms include the information of healthy usage of mobile phones)
    - Prohibiting the sales of the mobile phones which are above the limit SAR values determined by Ministry of Communications and Maritime Affairs"

The Ministry of Communications and Maritime Affairs monitors Electromagnetic fields around the schools and homes.

- Ministry Website
- The EMF in schools is monitored and the public can get measurements on EMF levels from cell towers and schools at a national site.

Hungary

- National website with measurements of radiofrequency radiation
- Information available for the public about the EMF exposure to RF referred to as Electrosmog at the homepage of the National Media and Infocommunications Authority (http://emirpub-prod.nmhh.hu/pubrendszer-web/eszmog/eszmogMeresek.j)

Tunisia

Recommends reducing radiofrequency radiation exposure in "sensitive areas."

- According to the 2017 Government Report Circulars from jointly Ministry of Health, the Ministry of Communication and Technologies and the Ministry of Interior "fixed as per limit 100m between sensitive institutions (schools, kindergartens, hospitals…) and cellular phone BTS antennas, to minimize exposure."

National website to inform citizens of their RF exposures.

- The website http://www.cartoradio.tn/ is available for all citizens to look up their town and find RF measurements.

Norway

Government has an "Investigation level" of 0.4 μT (annual average)-applies to new homes, kindergartens and schools, and new power lines. If exceeded, must evaluate possible methods for reducing exposure, but only required to take those measures if they evaluated as "reasonable."

Ghana

Advice of the Radiation Protection Institute of the Ghana Atomic Energy Commission

Dr. Joseph Kwabena Amoako, Ghana's Deputy Director of the Radiation Protection Institute of the Ghana Atomic Energy Commission (holding a PhD in Physics) is advising that children reduce exposure to cell phone radiation. Read the Business News article "Long use of mobile phones dangerous for kids" 24th May 2018

> "Amoako recommends that if children have to stay on their mobile phones for longer than 40 minutes at a time, it was best to do so using the hands-free kit or break the conversation after 30 minutes and go back to their chat later.
>
> Dr. Amoako explained that children were at risk of cancer and their brain activity affected from the long term use of mobile phones because their immune system was not fully developed.
> He said in an interview that constant use of mobile phones by children could affect their brain activity.
> "Their sleep pattern could be affected because the electromagnetic fields (electrical waves) from the phones will keep interfering with their sleep."

Read the May 23, 2018 Long use of Mobile Phones Dangerous for Kids article that states "Children below 15 years have been advised not to spend more than 30 minutes continuously on mobile phone because exposure to it for a long time could expose them to serious health problems."

Dr. Joseph Kwabena Amoako is also coauthor on several published studies on exposures in Ghana entitled "PUBLIC EXPOSURE TO MULTIPLE RF SOURCES IN GHANA" and "Assessment of radiofrequency radiation within the vicinity of some GSM base stations in Ghana."

Greece

Greek law mandates lower RF exposures near schools, nurseries and hospitals and bans antennas on school grounds.

Environmental Health Trust http://ehtrust.org/

- The exposure limits in Greece are at 70% of the official European limits. In areas less than 300 m from schools, hospitals and nurseries the exposure limit is lower at 60% of the official European limits.
- Installation of mobile phone base stations at the premises of schools, kindergartens, hospitals or eldercare facilities is forbidden.

Government mandates annual measurements in at least 20% of all antenna stations installed in urban areas.

- The results of all measurements performed in the vicinity of antenna stations, are uploaded to EEAE's web site (http://eeae.gr/). Until June 2017, the results of in situ measurements in the vicinity of more than 8300 base stations are uploaded to this webpage

Allowable radiofrequency radiation is set to 70% of the 1999 EU Council's Recommendation basic restrictions and reference levels

The Greek government submission to the WHO EMF project states that, "According also to a new law (Law No 4070, Act. No. 82/A/10.04.2012 entitled: Regulations concerning electronic communications, transport, public works and other provisions), the safety limits for the exposure of the general public in the vicinity of all kinds of antenna stations are set (again, as in the previous legislation) to 70% of the 1999 EU Council's Recommendation basic restrictions and reference levels values in all cases and to 60% of them for stations located closer than 300 meters from the perimeter of schools, kindergartens, hospitals or eldercare facilities. It should also be noted that according to this legislation, the Greek Atomic Energy Commission (GAEC) or other authorized by it laboratories, are monitoring electromagnetic field exposure levels by performing in situ measurements, ex officio or within 20 working days after request of any interested party. These measurements shall be performed every year in the vicinity of at least 20% of all the antenna stations installed in urban areas and their results shall be announced on the web site of GAEC (as it was also provisioned in the previous legislation). Concerning the funding of these activities, the owners of all licensed antenna stations are billed annually the sum of 200€ for each antenna station and everybody asking for measurements in his premises is charged with a fee of 160€. It should also be noted that with the new legislation, installation of mobile phone base stations at the premises of schools, kindergartens, hospitals or eldercare facilities is still forbidden."

2012 - The Greek government website materials recommend reducing cell phone radiation to children under 16 and they inform citizens of non-ionizing radiation power levels in their community.

- The National Observatory of Electromagnetic Fields - Interactive web portal linked to a network of 500 fixed measurement stations throughout Greece that continuously monitor the EMF levels from all kinds of antenna stations in the frequency range 100 kHz – 7 GHz.
- In July 2008, the Ministry of Infrastracture, Transport and Networks held a public consultation about a new legislation that will establish at national level, a network of fixed and mobile measurement stations for continuous monitoring of the EMF levels from all kind of antenna stations. According to the draft text of this legislation, the results of this measurement network will be available via internet to every citizen.
- ELF and EMF Site Measurements can be looked up for various locations at EEAE.
- The Greek government funds research as detailed on the WHO EMF report.
- The Q and A on RF radiation states the following text about children:

> "*Even though it hasn't been proven conclusively that children are more sensitive/reactive than adults to exposure to radiation, nevertheless, the direct/pointed recommendation of international organizations is that children be discouraged from [literally translated, learn not to trust] using cell phones. The above statement is supported by the following:*
>
> *1. Up to about the age of 16, the nervous system of the human body is in the process of development. Consequently, it's totally possible (although not conclusively proven by relevant scientific research) that up until this age, human being are more sensitive to any number of factors/elements/determinants.*
> *2. Younger people have more years ahead of them than older persons during which the long –term effects of mobile phones can be manifested.*
> *3. Environmental factors/elements have a greater general impact on the health of children than on the health of adults."*

Athens Medical Association

2017 the Athens Medical Association voted to issue 16 recommendations to reduce human exposure to wireless radiation. Read the press release here.

16 RULES FOR SAFER USE OF WIRELESS COMMUNICATION

- Use your cell phone with caution and make brief calls as necessary
- Children under the age of 14 should make limited use of cell phones
- Do not put your cell phone in contact with your head
- Do not use your cell phone inside a car, train, aeroplane, or elevator
- Restrict cell phone use when children or pregnant women are near
- Keep mobile phones away from your body
- When using your cell phone keep a safe distance from others
- Do not carry or keep your cell phone inside your pockets
- At bedtime, disable WiFi on your router and switch off your mobile phone
- Do not play games on-line; and if you will, first switch to airplane mode
- Hands-Free option is always preferable though may not be completely safe
- Wireless connections may increase your exposure to microwave radiation
- Limit WiFi connectivity and use hard-wired connection whenever possible
- When signal strength is weak do not attempt to make a call
- If a corded landline is available make use of this as a preferred option
- Disable WiFi, Bluetooth & Data options from your cell phone and other mobile device(s) when not needed.

Athens Medical Association website page on Electromagnetic Radiation and Health Conference whereby doctors voted to issue these recommendations.

PC News Article: Secure Mobile Use Rules and Wi-Fi Connections by the Medical Association of Athens 3/4/2017

Chile

2012 "Antennae Law" prohibiting cell antennae/towers in "sensitive areas"

- International Bar Association Legal Practice Division Newsletter: "New communications antennae law in Chile"
- 'Regulates the installation of antennas used for the emission and transmission of telecommunications services' This law limits the power of antennas, reduces urban impact of towers through 'infrastructure sharing' opens up a process for citizen participation in the approval or denial process, establishes mitigation measures in areas that are saturated with antennas and prohibits towers near "sensitive areas" institutions serving children, the elderly and medically compromised.
- Sensitive areas are those areas that demand special protection due to the presence of educational institutions, nurseries, kindergartens, hospitals, clinics, nursing homes or other institutions of similar nature.
- Chile's Minister of Transportation and Telecommunications Pedro Pablo Errazuriz stated, "*...in addition to protecting the urban landscape and the goodwill of the neighborhoods, the new law takes care of the most important: the health of people in a precautionary manner as recommended by the World Health Organization, setting strict limits on the powers of the antennas. Chile is setting standards in this regard."*
- Press release
- RCRWireless News Article - "Chilean telecom companies need to comply with new antenna law"

Ireland

Department of the Environment, Community and Local Government Gives Advice to Reduce Exposure

The department has a webpage on Electromagnetic fields which directs people to the advice of the Chief Medical Officer.

Environmental Health Trust http://ehtrust.org/

- Advice of the Chief Medical Officer of Ireland.
- "Advice from the Chief Medical Officer on mobile phone use: We may not truly understand the health affects of mobile phones for many years. However, research does show that using mobile phones affects brain activity. There is general consensus that children are more vulnerable to radiation from mobile phones than adults. Therefore the sensible thing to do is to adopt a precautionary approach rather than wait to have the risks confirmed.In the light of these findings, the Chief Medical Officer of the Department of Health and Children strongly advises that children and young people who do use mobile phones, should be encouraged to use mobile phones for "essential purposes only" All calls should be kept short as talking for long periods prolongs exposure to radiofrequency electromagnetic fields.All mobile phone users can reduce their exposure to radiofrequency energy by making fewer calls, reducing the length of calls, sending text messages instead of calling, using cell phones only when landline phones are unavailable, using a wired "hands free" device so that the phone need not be held against the head and refraining from keeping an active phone clipped to the belt or in the pocket".

Irish Doctors Environmental Association Recommends Wired Connections

- 2013 Letter
- The Irish Doctors Environmental Association wrote a statement in 2013 concerning health concerns with Wi-Fi in school: "We urge you to use wired technologies for your own safety and that of your pupils and staff."

Denmark

Denmark Board of Health Provides Recommendations to Reduce Exposure

- Denmark Board of Health Recommendations on Reducing Cell Phone Radiation
- "As a precautionary measure, the Board of Health recommends a series of simple steps you should follow to reduce exposure from mobile phones:

  Use the headset or handsfree with earbud, conversation, or use the speakerphone feature
  When possible, use text instead of call
  Limit the duration of calls
  Did not sleep with the phone close to the head
  Limit conversations during low reception and while in transport.
  Do not cover the phone with aluminum foil, special covers, etc.
  Compare phones' SAR value. Lower SAR require less exposure

Denmark Schools that have removed or reduced wireless exposure; Bjedstrup elementary School og Børnehus, (school and kindergarten) Student must hand over cell phones before classes + no wifi in school premises; Hammer Free Private School - all internet connections are hard wired; Vejlernes private school - no wifi; Kastanjely kindergarten - no wifi

Danish Health Authority recommends that new homes and new institutions where children stay should not be built close to existing power lines and new power lines should not be built close to existing homes and institutions where children stay.

ELF limits: Annual average is not supposed to exceed 0.4 microteslas

Utilities measure magnetic fields at new installations: The annual average is not supposed to exceed 0.4 microteslas (μT) (.4 microtestas is the same as 4 milligauss) no kindergartens or new buildings in the vicinity of a high-voltage line.

- "In 1993 the Danish health authorities introduced a precautionary approach which stated that new high voltage installations should not be built close to existing dwellings or childcare institutions/schools. Equally the building of new homes close to existing high voltage installations should be avoided. The term "close to" was not defined by a minimum distance or an exposure limit but left to a pragmatic evaluation. The precautionary approach was updated in 2007.
- Autumn 2009: To ensure that the precautionary approach is applied in a uniform manner and to make it more communicable, Danish grid owners and local governments (local planning authorities) have defined an evaluation

value of 0.4 µT. This value is not an exposure limit but rather a value that indicates when various measures to reduce magnetic fields near dwellings and childcare institutions should be evaluated and analysed. The 0.4 microtesla limit should not be considered a limit, which - when reached - dictates that measures must be initiated at any cost. If the magnetic fields are expected to be above than 0.4 microtesla (annual average), it should be examined whether measures to reduce the fields can be implemented at a reasonable cost (cost/benefit, electrical safety, security of supply, human considerations, etc.). Examples of simple measures include e.g. the optimal phasing of new overhead lines. When new dwellings and childcare institutions/schools are being built in the vicinity of power lines, an approach could be to place the rooms/areas in which children spend a considerable amount of time as far away from the power line as reasonably possible to reduce the exposure. "

Tanzania

2014 - Director General of Tanzania Atomic Energy Commission (TAEC), Mr Idy Mkilaha publicly endorses precaution.

- "Mr Mkilaha says that when weighing up this convenient tool with the questionable health impact control, caution and measures must be taken to reduce one's exposure from radio frequency (RF) emissions from the cell phone to prevent health hazards."
- "According to TAEC, we should use hands-free devices or wireless headset to increase the distance between the phone and our heads. This is the best approach because it creates distance between us and the radiating phone… We should also keep phone away from us when dialling. Phones use more radiation during connection time, says TAEC."

News Reports

- AllAfrica News Article: "Tanzania: We Should Manage Our Cell Phones Properly Otherwise…"
- AllAfrica News Article: Tanzania: Need to Protect Oneself When Using Cell Phone

Tanzania Commission for Science and Technology Newsletter Details how to reduce cell phone exposure

- Original Newsletter (pg. 11)
- After complaints were raised by residents about health effects the Commission co-authored a published paper that reviews national RF level profiles of the radiation emitted from base stations.
- Review on Measured and Calculated Radio Frequency Radiation Emission From The Base Stations
- The paper states: *"In 2016, Director General of Tanzania Atomic Energy Commission (TAEC), Mr Idy Mkilaha died under investigated circumstances and at this time EHT is unable to find the Reports or official warnings as mentioned in the news reports on the current Atomic Commission webpage."*

Romania

Recommendations Of The Consumers Protection Association Of Romania On Cell Phones And Wireless

- Recommendations to reduce exposure
- The Association for Consumer Protection in Romania launched a national campaign of information and awareness of consumers entitled "SOS electromagnetic pollution."
- *"Do not allow children younger than 12 years how to use a cell phone, except for emergencies. Developing bodies are more susceptible to negative influences from exposure to electromagnetic fields".*

United States

Legislation has been introduced at the state and national level. Some Communities have issued proclamations, resolutions and and started initiatives to inform the public of wireless health issues.

Environmental Health Trust http://ehtrust.org/

May 12, 2015 Berkeley Adopted the Cell Phone "Right to Know" Ordinance on a Unanimous Vote. Berkeley is the first city in the nation to require cell phone retailers to provide those who purchase a new phone an informational fact sheet which informs buyers to read the user manual to learn the cell phone's minimum separation distance from the body. The text states:

> "The City of Berkeley requires that you be provided the following notice: To assure safety, the Federal Government requires that cell phones meet radio frequency (RF) exposure guidelines. If you carry or use your phone in a pants or shirt pocket or tucked into a bra when the phone is ON and connected to a wireless network, you may exceed the federal guidelines for exposure to RF radiation. Refer to the instructions in your phone or user manual for information about how to use your phone safely."

- "Right to Know" Ordinance Dr. Moskowitz blog on the Ordinance
- Berkeley's Right To Know Ordinance: Environmental Health Trust's Page on the Ordinance
- Video of the historic vote featuring Harvard Law professor Lawrence Lessig.
- Video of testimony to Berkeley from November 8, 2011 on the need for cell phone guidelines.
- Video of the September 2016 Federal Appeals Court Hearing oral arguments CTIA vs. Berkeley as the CTIA tries to strike down the Ordinance. -- This the hearing considering whether to overturn the district court's decision that denied the CTIA's request for an injunction to block Berkeley's cellphone ordinance.
- **October 11, 2017, the 9th U.S. Circuit Court of Appeals denied an *en banc* hearing** to the Wireless Industry's challenge to the Berkeley cellphone right to know act. The CTIA has until January 9, 2018 to petition the Supreme Court for a hearing. The Court's 10/2017 ruling.
    - **Appeals Court Won't Reconsider Challenge To Berkeley Cellphone Warnings Law,** CBS SF Bay Area, October 11, 2017
- Environmental Health Trust's Powerpoint presentation to Berkeley in 2011 for Cell Phone Ordinance.

NEWS RESOURCES

- March 2017 video of CBC's coverage of the Berkeley Ordinance with an investigation finding cell phones tested against the body violate current safety standards.
- News One: Video on Ordinance

2014 - Wireless Router Labeling in all Suffolk, NY Public buildings: Legislation requires all county buildings to post notices that wireless routers are in use such as, "Notice: Wireless technology in use." The resolution, sponsored by Legis. William Spencer (a physician), warns that every wireless device emits radio frequency radiation or microwave radiation. It notes that studies "that have looked at the effects of low-level RFR radiation on human cells and DNA have been inconclusive."

- "Press Release: Suffolk County Passes Legislation to Warn Visitors of Wireless Radiation Exposure"
- Newsday News Article - "Wireless routers to get warning signs at Suffolk county buildings"

2010- A Passed "Right To Know" Ordinance by the City of San Francisco required cell phone retailers to distribute an educational sheet: Educational sheet created by the San Francisco Department of Environment that explains radiofrequency emissions from cell phones and details how consumers can minimize their exposure. However implementation was blocked after a **three year court battle.** The CTIA sued the city and settled with the City to block implementation of the Ordinance in exchange for a waiver of attorney's' fees.

- Although implementation was halted, the City Cell Phone Radiation Webpage remains online.
- Open Letter to San Francisco Mayor and Board of Supervisors
- Press Release: "San Francisco's Cell Phone Fact Sheet is Factual"
- Video from testimony to the City of San Francisco
- Video of San Francisco Supervisor discussing the Ordinance here.
- Press conference with survivors speaking on cellphone health risks at the San Francisco Commonwealth Club. Cellphone cancer victims tell their personal stories and those of their lost loved ones.
- San Francisco developed the following public health information resources:
    - City Webpage - "Cellphones"
    - Answers on How to reduce exposures to cell phone radiation.
    - A Poster on Cell Phones and RF Radiation
    - A Factsheet for the Public
    - Display stickers for Cell Phone packaging.

United States Limits on ELF-EMF
Although the US has no federal limit on ELF, 6 states have ELF exposure limits for various situations - Florida, Minnesota, Montana, New Jersey, New York, Oregon, and several states have a prudent avoidance policy.

Prudent Avoidance

- California: requirement to include EMF reduction measures in new power-line projects up to 5% of project cost, plus specific provisions for schools
- Colorado, Maryland: prudent avoidance decided through a specific siting case which set precedent and was subsequently applied to all new siting applications
- New Jersey: more of a practice than a policy
- Connecticut, Hawaii: formal policy
- Ohio: requires utilities to "prudently address" EMF issues
- Pennsylvania: staff handling siting applications expect evidence of prudent avoidance but has never been set down as formal policy

Note: Information on ELF in US was sourced from emfs.info which is a website of the power companies that tracks policy.

California Regulations to Limit ELF-EMF Near Schools

- The California Department of Education enacted regulations in the California Code of Regulations, Title 5, Section 14010 that require minimum distances between a new school and the edge of a transmission line "right-of-way." The setback distances are 100 feet for 50-133 kV lines, 150 feet for 220-230 kV lines, and 350 feet for 500-550 kV lines.
- Documentation of Municipality Comments on Jefferson Martin 230kv Transmission Line Project addressing EMF concerns
- California Code of Regulations, Title 5, Section 14010

US PUBLIC SCHOOLS

2017 - Maryland State Children's Environmental Health And Protection Advisory Council Recommendations For Wired Internet In Schools and Minimizing RF Classrooms:

- The Maryland State Children's Environmental Health and Protection Advisory Council (CEHPAC) issued a Report advising the Department of Education to recommend local school districts reduce classroom wireless radiation exposures by providing wired—rather than wireless—internet connections.
- The Children's Environmental Health and Protection Advisory Council recommendations:
- "The Maryland State Department of Education should recommend that local school systems consider using wired devices" "WiFi can be turned off" and instead "a wired local area network (LAN) can provide a reliable and secure form of networking...without any microwave electromagnetic field exposure."
- "New school construction and renovations to include wired cabled connections: "If a new classroom is to be built, or electrical work is to be carried out in an existing classroom, network cables can be added at the same time, providing wired (not wireless) network access with minimal extra cost and time."
- "The Maryland State Department of Education should recommend that local school systems use strategies to minimize exposures: "Have children place devices on desks to serve as barrier between the device and children's bodies; Locate laptops in the classroom in a way that keeps pupil heads as far away from the laptop screens (where the antennas are) as practicable; Consider using screens designed to reduce eyestrain; Consider using a switch to shut down the router when it is not in use."
- "The Maryland Department of Health and Mental Hygiene should provide suggestions to the public on ways to reduce exposure: Sit away from WiFi routers, especially when people are using it to access the internet. Turn off the wireless on your laptop when you are not using it. Turn off WiFi on smartphones and tablets when not surfing the web. Switch tablets to airplane mode to play games or watch videos stored on the device."

Environmental Health Trust http://ehtrust.org/

- "The General Assembly should consider funding education and research on electromagnetic radiation and health as schools add WiFi to classrooms."
- The Maryland Department of Health and Mental Hygiene should "ask the United States Department of Health and Human Services to formally petition the FCC to revisit the exposure limit to ensure it is protective of children's health and that it relies on current science."
- "The Report should be shared with the United States Department of Health and Human Services, Federal Communications Commission, Maryland State Department of Education and Maryland General Assembly."
- CEHPAC's health experts include Governor appointed pediatricians, Maryland State House/Senate appointees and representatives of the Department of Education and Department of Health.

LINKS

- Wifi Radiation in Schools in Maryland Final Report
- Letters from Physicians CEHPAC's Public Comments
- Testimony to the Maryland State Children's Environmental Health and Protection Advisory
- Baltimore Sun article by Devra Davis on the Report Recommendations
- Baltimore Sun response by Dr. Cindy Russell
- Public News Service article on CEHPAC Recommendations
- Green Gazette Article on CEHPAC Recommendations

2017/2018 - Montgomery County Maryland

In January 2018, the Chief Technology Officer of Montgomery County Maryland, one of the top School Districts in the country shared information on Digital Device Safety to all staff in a memo. Read the Memo here.

1/12/2018 Memo "Digital Safety At School And At Home"

The MCCPTA Safe Technology Subcommittee would like to share the following recommendations for using technology at school and at home. For Students at School:

- Consider placing Chromebooks/laptops on desks and tables rather than in laps;
- Don't forget to shut down and log off of Chromebooks/laptops when moving from classroom to classroom;
- Consider turning off cell phones and keeping them in backpacks or lockers off when not in use;
- If necessary, take eye breaks, 1-to 2 minutes in length, approximately every 15 minutes;
- Attend to task! Avoid distractions such as reading email, playing games, or browsing the Internet;
- Engage in face-to-face socialization, especially at free time, lunch, and recess;
- Always use the Internet and devices for educational purposes in accordance with MCPS's responsible use policies;
- Use resources that do not infringe on another's copyright or trademark rights.

For Students at Home:

- "Disconnect" at least one hour before bedtime. This includes all forms of media and requires online-based homework to be done well in advance of bedtime;
- Keep electronic devices out of bedrooms for a sounder sleep.

For Teachers:

- Encourage students, when appropriate, to customize their device screens using tools such as ScreenShader designed to reduce potential eye strain and fatigue
- Consider providing students with options for good behavior that include physical activity and social interaction rather than "device time";
- When requested, provide paper alternatives for take-home class work.

Additional Resources:

- Maryland Children's Environmental Health and Protection Advisory Council (CEHPAC):
  - https://phpa.health.maryland.gov/OEHFP/EH/Shared%20Documents/CEHPAC/MD_CEHPAC_SchoolWiFi_022017_final.pdf
- New Jersey Education Association (NJEA):
  - https://www.njea.org/minimize-health-risks-from-electronic-devices/ .

Environmental Health Trust http://ehtrust.org/

- http://pediatrics.aappublications.org/content/140/Supplement_2/S81
- http://www.businessinsider.com/why-its-bad-to-use-your-phone-before-bed-2015-7
- http://pediatrics.aappublications.org/content/140/Supplement_2/S92

2017 The Montgomery County School Chromebook Policy states that laptops should stay on tables and not on laps.

- Montgomery County Maryland ChromeBook Guidelines for students.

2017: Worcester Massachusetts, School Committee voted to approve "precautionary options" to be posted on the Worcester District Website

Read the Document entitled "Radiofrequency Radiation Exposure" now posted on Worcester's School District's website.

"It is the Administration's view that existing government regulating agencies should be setting proper exposure levels and offering best practices, such as the EPA and FCC".

"Based on the guidance from these agencies, the Administration proposes the following:

If you are concerned about radiation or heat from electronic devices, follow these guidelines:

- Consider increasing the distance between electronic devices and your body
- Consider keeping your cellphone, tablet, or laptop in your purse, backpack, or briefcase case instead of keeping it on or close to your body
- If talking on a cellphone, consider using speakerphone or a hands free headset or reduce the number or length of calls
- When not using wireless or Bluetooth, consider shutting off these services on the device or put the device in Airplane mode
- Consider not placing the device directly on your lap. Instead consider placing it on a hard surface such as a desk or bo

Note: This initiative was supported by a local community organization called Worcester Info Team for Health whose Mission Statement was "… to support Worcester decision makers and others in learning about and mitigating the public health risks posed by the rapid roll-out of wireless devices and infrastructure, emphasizing the Precautionary Principle and seeking collaboration on creative solutions."

Watch video testimony with excerpts from Worcester School Committee deliberations and vote here.

Press Release on **Worcester Massachusetts precautionary Options**

News Articles on the Worcester School Committees Actions on Wi-Fi

- "The Education Beat: Cell phones: protecting yourself and your children" Worcester Magazine May 18, 20
- "Worcester school board hesitant but curious about possible WiFi health risk" Telegram.com October 2016
- Monfredo: How Safe are the Electromagnetic Fields Emitted by Wireless Technology? Go Local Worcester, September 3, 2016

2016 - Petaluma Public Schools, California USA: Public school district adopts "Digital Device Practices"

- Digital Device Best Practices PDF
- Parents raised the issue of wireless health risks with the district for years and this new policy was put in place in 2016. However- as this policy still does not protect the students health, parents continue to advocate for a safe school environment and signed a petition which can be found at http://responsibleipad.com/petition.html
- The Petaluma 2016 iPad Best Practices state: "Keep it on the Desk: The best place for your iPad to sit during use is on a desk, table or other flat surface."
- Videos of Parent Testimony to District
- Child Testimony
- Doctors Letters to District

2016 - Onteora School District in New York State Adopts "Best Practices with Wi-Fi

Onteora "**Student** Acceptable Use of District Technology"

Environmental Health Trust http://ehtrust.org/

- The **bottom of page 4** states: "Best Practices For Wi-Fi: Turn off the device when not in use and at the end of each day. If device is to stay on, turn Wi-Fi off when not in use (switch on side, or airplane mode on iPad). Always place the device on a solid surface Viewing distance should be a minimum of 12 inches from the screen."

Onteora **"Employee** Acceptable Use of District Technology"

- The **top of page 4** and **bottom of page 5**" Employees to enforce the "Best Practices For Wi-Fi."
  Meeting Minutes Page 2 (When Best Practices approval discussed at Board meeting)
- "Turn off the device when not in use and at the end of each day. If device is to stay on, turn Wi-Fi off when not in use. Always place device on a solid surface. Viewing distance should be a minimum of 12 inches from the screen. Staff was asked by the Principals to post this in areas that contain computers and devices. They are reminding staff to follow it."

2015 - Ashland Public Schools, Massachusetts Institutes "Best Practices"

- Ashland was the first US School District to institute "Best Practices" to turn the Wi-Fi off when not in use and keep devices away from the body
- Download powerpoint slides used for teacher/staff training.
- PPT of "Annual State and Federal Mandated Training Ashland Public Schools" includes Best Practices on page 75
- Video of parent who initiated this, Video of school board member discussing the process.
- Magazine article on Ashland's Decision Here, Newspaper Coverage
- TV Program of parent advocate CeCe Doucette and Keith Marciniak discussing the policy changes.

Los Angeles, California Public Schools Recommends Cautionary Exposure Levels

- The LA School District Uses a RF-EMF Exposure Threshold 10,000 Less Than the FCC Limits:
  RADIOFREQUENCY (RF) EVALUATION REPORT Use of Wireless Devices in Educational Settings
  Read the LA Schools Office of Environmental Health and Safety Factsheet About Radiofrequency
- 2009 adopted resolution - LA School board wrote a resolution banning cell towers from schools and recommending against WiFi.
- 2009 Resolution *Condemning Cell towers NEAR Schools* as was this T-Mobile Cell Tower across the street from an elementary school.
  Motion by Supervisors Zev Yaroslavsky and Michael Antonovich
- 2000 LA School Board Resolution Opposing Cell Tower Placement on Schools -- Calls for precautions with wireless. 'Whereas, Recent studies suggest there is evidence that radio-frequency radiation may produce "health effects" at "very low field" intensities'

Safety Issues Related to the LAUSD RFR Thresholds : Los Angeles School District states they use precautionary RFR guidelines- however even a threshold at 10,000 times lower than FCC limits is not safe because peer reviewed published scientific research has shown harm at levels *hundreds of thousands times* lower than FCC limits. The school district is in fact increasing wireless exposures with Wi-Fi access points and increasing exposure to students and staff. LAUSD is not ensuring safety with these actions. In addition the LAUSD measures the radiation in the building by averaging the power density which masks areas of high intensity and peak exposures. From a human health standpoint, the RFR measurements need to include peak readings in addition to the cumulative length of time children are exposed to RF radiation in order to fully understand their exposure. Until these measures are taken, one cannot adequately evaluate the EMF environment.

Note on Safety: Digital Device "Best Practices" that still allow Wi-Fi access points in classrooms- *still allow* microwave exposures to the children and such practices are not adequately protective to children. These District actions seem to be *acknowledgment that wireless device expose the body to radiation*. However, such "Best Practices" still allow access points to be powered on and thus are always exposing the students and staff to continuous microwave radiation regardless of the devices being in use or not. In addition, devices are also continuously transmitting during student use of the internet and no procedure is in place to ensure that Best Practices are followed so that the transmissions are turned off when the internet is not needed. Therefore these "Best Practices" *do not* mitigate the risk nor do they protect students from School District created wireless exposures.

US HEALTH ADVICE TO THE PUBLIC

2017 - California Department of Public Health publishes advice on cell phone radiation after withholding the information for almost a decade.

- December 14, 2017: The California Department of Public Health (CDPH) just issued long-awaited recommendations to reduce microwave radiation exposures from cell phones, especially for children. Spurred by a lawsuit and research suggesting that "long-term, high use may impact human health," the CDPH press release includes guidance on why and how to reduce cell phone radiation. The CDPH drafted more than 27 versions of this advice since 2008, but December 13, 2017 was the first time CDPH published it online. The CDPH original 2008 guidance referred to the University of Pittsburgh Cancer Institute 2007 Cell Phone Advice and also included recommendations for state employees to reduce exposures to microwave radiation from cell phones as well as home and office cordless phones. The newly released guidance focuses only on cell phones cautioning that "children may be more at risk" because they will be exposed to cell phone radiation for a "lifetime" and with radiation exposures deeper into their brain.
- "Children's brains develop through the teenage years and may be more affected by cell phone use," said CDPH Director and State Public Health Officer Dr. Karen Smith. The new three-page CDPH guidance includes practical steps to reduce exposure to cell phone radiation, including keeping the phone away from the body, reducing cell phone use when the signal is weak, reducing the use of cell phones to stream videos and not sleeping with your cell phone. The guidance also states:
- "Laboratory experiments and human health studies have suggested the possibility that long-term, high use of cell phones may be linked to certain types of cancer and other health effects, including: brain cancer and tumors of the acoustic nerve and salivary glands, lowered sperm quality and inactive or less mobile sperm, headaches and effects on learning and memory, hearing, behavior and sleep."

Documents From the December 2017 Publishing of the Advice By The Department of Health
Press Release December 14, 2017: *California Department of Health Issues Guidelines on How to Reduce Exposure to Radiofrequency Energy from Cell Phones*

State of California. "How to Reduce Exposure to Radiofrequency Energy from Cell Phones." Division of Environmental and Occupational Disease Control, California Department of Public Health. December 2017.
Year after lawsuit, California health officials release cell phone radiation safety guide, KCRA

December 2017 News Reports After Official Release

- CBS National news featured the California Guidelines on Cell Phone Radiation and featured Dr. Joel Moskowitz and Dr. Stan Glantz.
- CBS News: California Releases Cell Phone Radiation Advice To Reduce Exposure
- Daily Mail: Stop sleeping with your cell phone: Anything closer than arm's length could cause cancer and infertility, health officials warn
- Keep Your Cell Phone Away From Your Body, New State Guidelines Warn, Capital Public Radio,
- California Department of Public Health warns cell phone use can impact health, especially in children, ABC News
- Have a cell phone against your ear? You should consider putting it down, Fresno Bee,
- CNET California issues guidance on cell phones and health: A state agency doesn't take a firm stance on whether cell phones are dangerous, but it offers recommendations on reducing risks.
- New Zealand Herald: Stop sleeping with your cell phone, health officials warn
- Forbes: California Warns About Cell Phone Exposure And Health Risks
- Perez Hilton.com: It's Dangerous To Sleep With Your Cell Phone?!

Read EHT analysis of the published draft December 15, 2017

Documents From the March 2017 Release of the California Public Health Documents After The Court Order
Before the Department officially released them

Guidelines were first drafted starting in 2008 . Please read the 27 Versions of the cell phone radiation safety fact sheet prepared by the California Department of Public Health (CDPH) initially revised multiple times through January, 2015 released by the California Attorney General's Office to Joel M. Moskowitz, Ph.D. of the School of Public Health University of California, Berkeley. Dr. Moskowitz sued the CDPH for the release of these guidelines. Dr. Moskowitz states that California State never adopted this fact sheet nor released it to the public due to what Dr. Moskowitz refers to as suppression by "political appointees".

- The California document recommends people keep the phone away from the brain and body especially for children stating, "EMFs can pass deeper into a child's brain than an adult's. Also, the brain is still developing through the teen years, which may make children and teens more sensitive to EMF exposures."
- 2 page PDF of the final draft from the Moskowitz lawsuit. California Department of Health Cell Phone and Health 2017 Released Document
- 27 Versions of the cell phone radiation safety fact sheet as drafted and edited since 2008
- SUPERIOR COURT OF CALIFORNIA COUNTY OF SACRAMENTO RULING on Petition
- Dr. Moskowitz webpage detailing the release and court case.
- Read Press Release California Department Of Health Releases Cell Phone Warning Same As Issued A Decade Ago
- San Francisco Chronicle News Article - Long-overdue release of information about cell phone risks
- San Francisco Examiner News Article - "California Health Officials release report on cell phone radiation"
- NBC Bay Area News Article - "Cell Phone Cancer Debate Heats up With Document Release"
- San Francisco Chronicle News Article - **"**New records show how state reworked secret cell phone warning" May 19, 2017
- All Guidelines (2009 -2015) and Full Details of CDPH Cell Phone Document

2017: Monterey County California Resolution Proclaiming Electromagnetic Sensitivities Awareness Month. Monterey County BOS September Electrosensitivity Month Resolution, 9-19-17 signed

2016 **- American Academy of Pediatrics Issues Recommendations to Reduce Exposure**

- Healthy Children Webpage on Cell Phones
- The webpage reiterated children's unique vulnerability to cell phone radiation stating, *"Another problem is that the cell phone radiation test used by the FCC is based on the devices' possible effect on large adults—not children. Children's skulls are thinner and can absorb more radiation."*
- The AAP issued the following cell phone safety tips specifically to reduce exposure to wireless radiation:
- Use text messaging when possible, and use cell phones in speaker mode or with the use of hands-free kits.
- When talking on the cell phone, try holding it an inch or more away from your head.
- Make only short or essential calls on cell phones.
- Avoid carrying your phone against the body like in a pocket, sock, or bra. Cell phone manufacturers can't guarantee that the amount of radiation you're absorbing will be at a safe level.
- Do not talk on the phone or text while driving. This increases the risk of automobile crashes.
- Exercise caution when using a phone or texting while walking or performing other activities. "Distracted walking" injuries are also on the rise.
- If you plan to watch a movie on your device, download it first, then switch to airplane mode while you watch in order to avoid unnecessary radiation exposure.
- Keep an eye on your signal strength (i.e. how many bars you have). The weaker your cell signal, the harder your phone has to work and the more radiation it gives off. It's better to wait until you have a stronger signal before using your device.
- Avoid making calls in cars, elevators, trains, and buses. The cell phone works harder to get a signal through metal, so the power level increases.
- Remember that cell phones are not toys or teething items.
- Press Release: The AAP responds to study showing link between cell phone radiation, tumors in rats May 27, 2016

2015 - AAP Healthy Child Web Page on Electromagnetic Fields: A Hazard to Your Health?

Environmental Health Trust http://ehtrust.org/

- This webpage states: “Cell Phones: In recent years, concern has increased about exposure to radio frequency electromagnetic radiation emitted from cell phones and phone station antennae. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing: *Headaches, Memory problems, Dizziness, Depression, Sleep problems.”*
- *“*Short-term exposure to these fields in experimental studies have not always shown negative effects, but this does not rule out cumulative damage from these fields, so larger studies over longer periods are needed to help understand who is at risk. In large studies, an association has been observed between symptoms and exposure to these fields in the everyday environment.”

2013- AAP Letter to FCC Commissioner Mignon Clyburn and FDA Commissioner Margaret Hamburg calling for a review of RF guidelines (8/29/2013)

“The AAP urges the FCC to adopt radiation standards that: Protect children’s health and well-being. Children are not little adults and are disproportionately impacted by all environmental exposures, including cell phone radiation. Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children. It is essential that any new standard for cell phones or other wireless devices be based on protecting the youngest and most vulnerable populations to ensure they are safeguarded throughout their lifetimes.”

2012 AAP Letter to FCC calling for the FCC to open Review of Human Exposure Guidelines.

American Academy of Pediatrics Letter to the FCC Chairman calling for the FCC to open up a review of RF guidelines (7/12/2012)

2012 AAP Letter to US Representative Dennis Kucinich in Support of the Cell Phone Right to Know Act

- Original Letter
- Time Magazine News Article - “Pediatricians Say Cell Phone Radiation Standards Need Another Look”

2012 - AAP published Pediatric Environmental Health, Textbook of Children's Environmental Health

- *Chapter 41: Electromagnetic Fields*
- Oxford Medicine Chapter 41

2011 AAP News Article - *More study needed on risk of brain tumors from cell phone use*

2014 - The California Medical Association Passed a Wireless Resolution

- Full CMA Resolution
- “Whereas scientists are increasingly identifying EMF from wireless devices as a new form of environmental pollution … Whereas peer reviewed research has demonstrated adverse biological effects of wireless EMF including single and double stranded DNA breaks, creation of reactive oxygen species, immune dysfunction, cognitive processing effects, stress protein synthesis in the brain, altered brain development, sleep and memory disturbances, ADHD, abnormal behavior, sperm dysfunction, and brain tumors; and...Resolved, That CMA support efforts to implement new safety exposure limits for wireless devices to levels that do not cause human or environmental harm based on scientific research.”
- Santa Clara Medical Bulletin article that explains the CMA resolution and gives recommendations for schools.

2014 - The Connecticut Department of Public Health issued specific recommendations to reduce exposure to cellphone radiation.

- Connecticut Department of Public Health Cell Phone Q and A about Cell phones
- It is notable that the Department has provided information more in depth than the CDC, EPA and FDA in detailing 7 steps on *how* people can reduce exposure. Furthermore, the Department states *“It is wise to reduce your exposure to radiofrequency energy from cell phones whenever possible.”*

2014 - Greenbelt, Maryland City Council voted unanimously for the following policy actions:

- Original Greenbelt City Council letter to the FCC
- Alert citizens about the fine print warnings and possible health risks of cell phones and wireless devices By sharing

the Environmental Health Trusts 10 Steps to Safe Tech and Doctors Advice on Cell Phones Brochure in City health fairs and city centers.

- Send the FCC Chairman a letter urging the adoption of "radiation standards that will protect human health and safety."
- Oppose cell towers on school grounds and write a letter to the local school board and County Executive.
- Press Release - "Maryland City Votes Unanimously to Alert Citizens to the Health Risks of Cell Phone/Wireless Radiation and to Oppose Cell Towers on School Grounds"

2011 - San Francisco, California; Cell Phone Radiation (How to Reduce Exposures) Webpages launched

- Webpage - "Cellphones"
- San Francisco developed the following public health information resources:
  - Answers on How to reduce exposures to cell phone radiation.
  - A Poster on Cell Phones and RF Radiation
  - A Factsheet for the Public
  - Display stickers for Cell Phone packaging.

2012 and 2010 - Jackson Hole, Wyoming issued a Proclamation of Cell Phone Awareness

The proclamation cites concern over long term health effects as well as the increased risk that the radiation poses to children.

- 2012 and 2010 Signed Proclamation
- Watch a video of the Mhttps://ehtrust.org/wp-content/uploads/Jackson-Hole-Proclamation-on-Cell-Phone-Safety-.pdfayor reading the Proclamation and declaring October Cell Phone Radiation Awareness Month

2012 - Pembroke Pines, Florida passed Resolution

- Resolution 3362
- Resolution expresses the City's "Urgent Concerns" about Wireless Radiation and Health and which encourages citizens to read their manuals and presents information on how to reduce exposure by using a headset or speakerphone. Jimmy Gonzalez, an attorney who had developed brain cancer after heavy cell use, initially petitioned the Commission.
- Video of Jimmy Gonzalez's powerful testimony
- **Read full details of Pembroke Pines Resolution**

2011- California: Burlingame California City Council voted to include cell phone safety guidelines in their Healthy Living in Burlingame initiative which gives recommendations on how to reduce exposure and states:

> "The Federal Communications Commission (FCC) mandates that all cell phone manuals caution users to hold the phone a short distance (.6 inch to 1 inch) from the body. (See your manuel's fine print.)
>
> While scientists continue to research and debate this matter, here are some simple things you can do to minimize your exposure to cell phone emissions" Read the Original Guidelines
>
> - Environmental Working Group Press Release Bay Area City Presses Cell Radiation Right-to-Know
> - S.F. cell phone law rings in Burlingame, San Francisco Gate News

2011 - Maine, Portland Mayor Mavodenes, Jr. declared October "Cell Phone Awareness Month"

- **Original Proclamation of Maine: Cell Phone Radiation Awareness Month October 2011**

2010 Philadelphia, Pennsylvania

- On December 2, 2010, the Philadelphia City Council passed a resolution (PDF) that authorized the Committee on Public Health and Human Services "to hold hearings on the potential health risks from cell phone radiation and the actions the city of Philadelphia can take to better educate all cell phone users, particularly children and teens, on ways to reduce radiation exposure by using headsets, speaker phones, and texting."

CNET Article: Cities and states consider cell phone radiation laws, 2011

2009 - Governor of Colorado issued a Proclamation on Electrical Hypersensitivity.

- Original Proclamation
- "*Electromagnetic Sensitivity is a painful chronic illness of hypersensitive reactions to electromagnetic radiations.*
- *WHEREAS, the symptoms of EMS include, dermal changes, acute numbness and tingling, dermatitis, flashing, headaches, arrhythmia, muscular weakness, tinnitus, malaise, gastric problems, nausea, visual disturbances, severe neurological, respiratory, speech problems, and numerous other physiological symptoms.*
- *WHEREAS, Electromagnetic Sensitivity is recognized by the Americans with Disabilities Act, the US Access Board and numerous commissions;"*

2009 - Governor of Connecticut issued a Proclamation on Electrical Hypersensitivity.

- Original Proclamation
- "*WHEREAS, the health of the general population is at risk from electromagnetic exposures that can lead to illness indicted by electromagnetic radiations; and, WHEREAS, this illness may be preventable through the reduction or avoidance of electromagnetic radiations, in both outdoor and indoor environments and by conducting further scientific research..."*

2009 - Broward County, Florida; The Mayor issued a Proclamation on Electrical Hypersensitivity.

- Original Proclamation
- "*WHEREAS, as a result of global electromagnetic pollution, people of all ages in Broward County and throughout the world have developed an illness known as Electromagnetic Sensitivity..."*

US Proposed Legislation

2012 The Cell Phone Right to Know Act H.R. 6358

- The Act was introduced receiving strong **s**upport from many organizations including the American Academy of Pediatrics.This legislation called for labels on mobile devices at point of sale, a comprehensive national research program to study whether exposure to wireless devices causes adverse biological effects directed by NIEHS and the EPA and exposure level regulation.
- Congressional hearings in 2009 provided expert testimony to Congress.
- CSPAN VIDEO.
- **Library of Congress Summary:** Written by the Congressional Research Service
- Cell Phone Right to Know Act - Requires the Director of the National Institute of Environmental Health Sciences and the Administrator of the Environmental Protection Agency (EPA) to:

1. conduct or support a comprehensive research program to determine whether exposure to electromagnetic fields from mobile communication devices causes adverse biological effects in humans, including vulnerable subpopulations such as children, pregnant women, those with compromised immune systems and hypersensitivity reactions, men and women of reproductive age, and the elderly;
2. disseminate research results to the general public; and
3. report findings and conclusions to Congress.

Directives:

- Directs the Federal Communications Commission (FCC) to promulgate regulations to allow a subscriber to access personally or to give consent to allow researchers with institutional review board approval to access specific usage data required to investigate the link between electromagnetic radiation exposure and potential adverse biological effects in humans.
- Directs the EPA to promulgate regulations establishing maximum exposure level goals and maximum exposure levels for exposure to electromagnetic fields generated by mobile communication devices.
- Directs the Commissioner of Food and Drugs (FDA) to promulgate regulations to provide for labeling (including exposure ratings and the maximum allowable exposure levels and goals) on mobile communication devices,

packaging, instruction manuals, and at points of sale in stores and on websites.

- Requires the Secretary of Health and Human Services (HHS) to increase: (1) the number and size of grants to institutions for training scientists in the field of examining the relationship between electromagnetic fields and human health; and (2) the number of career development awards for such training for health professionals pursuing careers in pediatric basic and clinical research, including pediatric pharmacological research.
- Amends the Public Health Service Act to establish a graduate educational loan repayment program and authorize national awards for researchers in such fields.
- Amends the Communications Act of 1934 with respect to the prohibition on state or local government zoning regulation of personal wireless service facilities on the basis of the environmental effects of radiofrequency emissions.
- Excludes from such prohibition state or local regulation based on the adverse human health effects of emissions of radiofrequency electromagnetic fields.

Oregon

- 2017 Legislation about to be introduced.
- 2015 Oregon HB 3350: This proposed legislation directs the Department of Education to prepare statement that discloses potential health risks of wireless technology and requires public and private schools to distribute statement to employees and parents of students. It declares an emergency effective July 1, 2015.
- **2015 Oregon HB 3351:** This proposed legislation states that cell phones must have a visible written label that advises consumers of possible risks and steps that consumers can take to reduce the risk of radiofrequency radiation exposure from cellular telephone use. Read it here.

Massachusetts

Watch Video of 2015 Briefing to Massachusetts Legislators

- 2017/2018: Three Massachusetts Senators and one Representative introduced bills to examine wireless radiation and protect the public. Click here for details.

  S.1268 Resolve creating a special commission to examine the health impacts of electromagnetic fields (Senator Karen E. Spilka).
  S.1864 An Act relative to utilities, smart meters, and ratepayers' rights (gives people the no-fee choice of keeping their non-radiation-emitting water, gas and electrical meters instead of "smart" utility meters; Senator Michael O. Moore).
  S.107 An Act relative to disclosure of radiofrequency notifications (requires warning labels on radiation-emitting products; Senator Julian Cyr).
  S.108 An Act relative to the safe use of hand-held devices by children (requires specific language on packaging as modeled by an ordinance unanimously passed in Berkeley, California; Senator Julian Cyr).
  H.2030 An Act relative to best management practices for wireless in schools and public institutions of higher education (asks the Massachusetts Department of Elementary and Secondary Education to set wi-fi standards for all schools; Representative Carolyn Dykema).
- 2016 Proposed Bill MA 1222 An Act creating a special commission to study the health impacts of electromagnetic fields

- 2015 Bill H2007: An Act relative to a special commission to study electric and magnetic fields. *Bills Still in Process as of August,2015.* Watch a view of the statehouse briefing on RF here.

2015 - Nassau County Proposed a Wireless Router Labeling Act

- The act would place visible warning signs in all county buildings and facilities where a wireless router is located.
- Media coverage of the initiative

2014 - The Maine LD 1013 **"The Wireless Information Act"**

- The act passed the State Senate and House but then failed to pass the second vote. he Bill requires manufacturer's information on radio-frequency exposure be visible on the outside of the cell phone's product packaging.
- Please a video of State Representative Andrea Boland on how the legislation was thwarted.
- News Article - Cell Phone Radiation Label Bill Passes Maine Legislature Before Dying

Environmental Health Trust http://ehtrust.org/

- Maine's 2015 "Cellular Telephone Labeling Act"

2011 - San Francisco Cell Phone Right to Know Ordinance

- 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. The CTIA sued the city and settled with the City to block implementation of the Ordinance in exchange for a waiver of attorney's' fees.
- The City Cell Phone Radiation Webpage.

2014 - Hawaii Senate Bill SB 2571

- Senate bill was introduced calling for a warning label encouraging consumers to follow the enclosed product safety guidelines to reduce exposure to radiation that may be hazardous to their health.

2011 - California Legislation SB 932

- This 2011 legislation would have required retailers to include notices on product packaging that cell phones emit radio frequency (RF) energy. A second notice would be posted at the point of sale when purchasing online or in a physical store.

2011 - New Mexico Proposed Law HM 32

- This 2011 proposed law request the Department of Health and the Department of Environment to study and review all available literature and reports on the effects of cell phone radiation on human health.

2011 - Pennsylvania Proposed Law HB 1408

- This 2011 proposed law would require warning labels on cell phones "to inform all citizens about possible health dangers that have been linked to microwave radiation that is emitted by cellular telephones and the steps that can be taken to mitigate those dangers, especially as they relate to children and pregnant women."
- Dr. Ronald B. Herberman, former director of the University of Pittsburgh Cancer Institute (UPCI) and the UPMC Cancer Center offered testimony at a PA House Democratic Policy Committee hearing.
- CBS Local coverage of hearing
- Philadelphia Tribune News coverage

2011- Oregon Proposed Law SB 679 Oregon

- This 2011 proposed law would require warning labels for all new cell phones and cell phone packaging.
- News video about the law

1999 - Proposed Law H.R. 2835

- In 1999 Congressman Bernie Sanders sponsored H.R. 2835 (106th): To require an assessment of research on effects of radio frequency emissions on human health.

Schools Worldwide Removing the WiFi and Reducing Exposure

2017: The Santa Fe Waldorf in New Mexico: Wi-Fi removed in elementary school classrooms.
2017: Worcester Massachusetts, School Committee voted to approve "precautionary options" to be posted on the Worcester District Website. Read Press Release.
2017: San Diego California USA Waldorf School: Adopted CHPS guidelines wired internet/electronic free zones/and hardwired phones per article published in Renewal Magazine.
2017: Sacramento California USA Waldorf School: WiFi will be turned off when not in use starting in Fall 2017.
2017: Wi-fi OFF Switches Installed in the Fiskars primary school. Read press release.

2017: Cyprus Bans Wi-Fi from kindergartens, removes Wi-Fi from elementary classrooms and halts deployment. Original Translated Directive from the Cyprus Minister of Culture and Education ; Read Press release on Cyprus Wi-Fi removal from elementary classrooms

2016: Haifa, Israel: Haifa Mayor Yona Yahav (of Israel's 3rd largest city) ordered all schools to have wireless removed and replaced with wired connections. Watch Haifa School IT Chief describe how they removed/reduced wireless.

- Read Krayot news article: Haifa Cuts off Wi-Fi in Schools
- Hamodia article: Haifa to Shut School Wireless Networks
- Reshet TV Report
- News Report Israel CH2 Documentary - "How do we kill our self - Radiation" with unofficial English translation
- News Report "Parents Fight Wireless Radiation in Schools" on Supreme Court Case in Israel

2016 Lowell School, Washington DC

- In the kindergarten wing in 2016, the Wi-Fi hotspots were removed and the teachers are given ethernet and adapters so that computers and class technology can be ethernet connected (corded) to reduce RF-EMF exposure.

2016 Italy: Turin Mayor Chiara Appendino laid out plans "to cut back on Wi-Fi in state schools and government buildings over concerns that radiation might damage people's health".

- News Report Turin could slash Wi-Fi over 'radiation' concerns

2016: Onteora School District in New York State USA

- **April 20, 2016 Meeting Minutes Page 2.**
- District adopts "Best Practices with Wi-Fi stating:
- "Turn off the device when not in use and at the end of each day. If device is to stay on, turn Wi-Fi off when not in use. Always place device on a solid surface.Viewing distance should be a minimum of 12 inches from the screen.Staff was asked by the Principals to post this in areas that contain computers and devices. They are reminding staff to follow it."

2016 Italy: Mayor of Borgofranco d'Ivrea (Italy) orders Wi-Fi to be turned off in schools.

- "Mayor Livio Tola told the town's high school and elementary school to return to using cables to connect to the internet after reading that the electromagnetic waves given off by wireless routers were especially harmful to young children."
- The Local Newspaper article - "Italian town shuts down wifi over health fears"
- Torino News Article - "Ivrea, The Mayor Removes WiFi as it Could Be Dangerous".

2016: Rotokawa School New Zealand, implemented steps to minimize RF Exposure

- Children use ipads in flight mode on desk and parents may request that their child use an Ethernet cord. Children are taught about the health precautions as part of their cyber citizenship.

Denmark Schools that have removed or reduced wireless exposure

Bjedstrup elementary School og Børnehus, (school and kindergarten) Student must hand over cell phones before classes + no wifi in school premises
Hammer Free Private School - all internet connections are hard wired
Vejlernes private school - no wifi
Kastanjely kindergarten - no wifi

2016: Istituto Comprensivo Alighieri- Diaz in Lecce Italy Banned Wifi

- Official resolutions number 1 and Resolution 2
- Their two resolutions decided: a) to ban wifi in school and install a wired system for the use of internet and b) Reject the request of the local government (Municipality) to install an antenna on the school roof for the wireless signal providing for the "Wireless city" program. The resolution also asks the Municipality to install the antenna at a reasonable distance from school.

2016: The Piemonte Region has adopted a resolution to limit EMF exposure

- Original Resolution
- Resolution limits the use of wifi in schools and is considerate to the problem of EHS people.

2015: Ashland Public Schools, Mass (USA)

Ashland is the first school district to vote to enact "Best Practices" in classrooms and publicly post these instructions which include turning off Wi-Fi when not in use and keeping devices in a table, not a lap

News article on these "Best Practices" to turn the WiFi off when not in use,

- Download teacher training PPT slides . Video of parent who initiated this
- Video of school board member discussing the process
- Magazine article on Ashland's Decision

2016: Shearwater The Mullumbimby Steiner School, Australia, 100% Wi-Fi Free School
2016: Yallingup Steiner School Australia , WiFi Free Classrooms
2016: Linuwel School , Australia ,WiFi in some classrooms, Can accommodate children with EHS.
2016: Cairns Hinterland Steiner School , Australia, WiFi Free Classrooms (may be available in other areas)
2016: Wild Cherry School, Australia , 100% Wi-Fi Free
2015: St. Cajetanus School, Belgium: Wired Internet installed and wireless removed.
2015: Washington Waldorf School, Maryland, USA: Removed Wi-Fi Routers from Buildings, Ethernet installed. WAMU News Report on Removal of Wi-Fi
2015: Freshwater Creek School, Australia, 100% Wi-Fi Free
2015: London, Acorn School: Screen Free. Read News article
2015: Lorien Novalis School, Australia, 100% Wi-Fi Free School Preschool to 12th grade.
2015: Cairns Hinterland School, Australia, WiFi Free Classrooms for EHS
2014: Acorn Hill School, Maryland: Reducing exposure to Wi-Fi. In process.
2014: Friends Community School: Wi-Fi turned off in wing for lower elementary school students. WiFi routers moved OUT of classrooms into hallways for older grades to reduce EMF exposure. Ethernet wires made available in classrooms for families who want children on corded (not wireless) computers. Unknown if this is still in place.
2014: DearCroft Montessori: Hardwired internet to younger grades, limited Wi-Fi Router exposure to older grades.
2014: Portland Waldorf School, Portland Oregon,USA, WiFi removed from elementary school
2014: Meeting House Montessori, Braintree Massachusetts, USA, WiFi replaced with ethernet.
2014: Ghent, Belgium, Wi-fi banned from pre-schools and day care.
2014: UPPER Sturt Primary School, Australia. Read article. Read "No WIFI" LOW EMF School Policy.
2014: The St. Augustine School in Italy turned off Wifi and goes back to Wires.
2013 Winlaw Elementary School, B.C. Canada turned off WiFi.
2013 Te Horo Primary School New Zealand Replaced WIFI with cable-based internet.
2013 Kootenay Lakes District School Board BC (One school without Wi-Fi)
2013 Blaise-Cendrars High School, Switzerland. Teachers vote to remove WiFi.
2012 Kivioja primary school in Ylivieska Finland bans phones and minimizes Wireless.
2012: Halton Waldorf, in Burlington Vermont: Remaining free of Wireless Radiation
2011 City of Lakes Waldorf School, WiFi taken out. Minneapolis, Minnesota USA
2011 Aurora School in Ontario removed Wifi and replaced with hardwired.
2011 North Cariboo Christian School in Quesnel, B.C., removed Wi-fi .
2011 Pretty River Academy in Ontario no WiFi.
2011 Wayside Academy, Peterborough, Ontario no Wi Fi.
2010 Surrey, BC Roots and Wings Montessori removed Wi-Fi.
2010 Ontario St. Vincent Euphrasia elementary school: Parents voted to turn off Wi-Fi.
2009 HEROUVILLE-SAINT-CLAIR wi-fi networks removed.

School Cell Phone Bans

This list covers bans of cell phones that occurred after the schools found cell phones in classrooms to be distracting and problematic. It is not necessarily because of the radiofrequency and health issues. This is not a complete list but rather a list as stories make the news starting in 2017. Hyperlinks go to news source

France: Cell Phones totally banned in schools for students up to 14 years old. The ban includes hallways, playgrounds and in between classes. Read more about French policy here and read the 2017 news article in Le Monde "No More Phones in Schools and Colleges here" here. The policy will be in place by September 2018.
Israel: Cell Phones were BANNED in Israel School Classrooms in 2016. Read more here.
Victoria Middle School, Canada, May 2017 Cellphone ban at Victoria middle school pushes the wrong buttons

USA
Mansfield City Schools, Ohio, USA, July 2017 News article "Ohio school district bans student cell phone use."

- The first of the two new policies bans use of cell phones or other personal communication devices not only in the classroom but also before and after school, at lunch and in between classes. Unless approved by a teacher or administrator, the devices must be "powered completely off" and stored out of sight.

Portage High in Wisconsin USA: Read the 2017 news article: Portage High bans cellphones | Principal: Policy will be a challenge for everyone and Cellphone ban at Portage High School showing positive impact
Highland Middle School, Illinois USA Middle schools ban smartphones so students build social smarts
Collinsville IL Middle School, Illinois USA: Read "Metro-east middle school bans students from using cellphones"
Paris Maine Schools News article: Local school implements new cell phone ban
Framington Massachusetts, USA Framingham Middle Schools Ban Cell Phones For 2017-18 School Year
Lakeview High School in Battle Creek Michigan. Read the 2016 News article, Michigan high school bans cell phones in class
Lewiston Middle School Maine USA, Read Lewiston Middle School bans student cell phone use and also Lewiston Middle School Principal answers your questions about cell phone ban.
Corona Del Mar Middle School in Newport-Mesa Unified School District California USA 2017 News article, "At Corona del Mar Middle School, kids can't use cellphones at lunch. The result? They talk." **Old Rochester Regional High School**: Massachusetts high school bans cell phones from classrooms
The above US bans are not related to cell phone radiation issues but instead- the way that cell phones disrupt educations.

Teacher Unions and Parent Teacher Organizations

2018: United Educators of San Francisco passes a Resolution on Safer Technology
The Union represents more than 6,000 employees of the San Francisco Unified School District including teachers, nurses, paraeducators, counselors, instructional aides, substitutes, psychologists, therapists, social workers and speech pathologists throughout San Francisco.

The resolution, expected to be on the Labor-Management Health and Safety Committee agenda for review and planning of next steps, calls for:

- A discussion of the CDPH cell phone guidelines
- The development of best practices for mobile devices to reduce RF in San Francisco schools
- Publishing the CDPH cell phone guidelines through various outlets for all San Francisco educators and parents
- Posting RF safety guidelines in every classroom

EHT press Release: United Educators of San Francisco Resolution on Enhancing Technology Safety in San Francisco Unified School District

Environmental Health Trust http://ehtrust.org/

The resolution became official as of May 23rd, 2018 and the "Resolution on Enhancing Technology Safety in San Francisco Unified School District" and press release be found on UESF website.

2017: Hillsmere Elementary School PTA Writes Letter To Anne Arundel County Opposing a Small Cell Near The School and cites the EMF Scientists. Read the letter.

2016: New Jersey Education Association (NJEA) published the article "Minimize health risks from electronic devices" in the September 2016 NJEA Review. Adrienne Markowitz and Eileen Senn detail how to reduce physical health risks from devices including risks from radiation exposure:

- *"Keep devices away from the body and bedroom.*
- *Carry phones in briefcases, etc., not on the body.*
- *Put devices on desks, not laps.*
- *Hard wire all devices that connect to the internet.*
- *Hard wire all fixed devices such as printers, projectors and boards.*
- *Use hard-wired phones instead of cell or cordless phones.*
- *Text rather than call.*
- *Keep conversations short or talk in person.*
- *Put devices in airplane mode, which suspends EMF transmission by the device, thereby disabling Bluetooth, GPS, phone calls, and WiFi.*
- *Use speaker phone or ear buds instead of holding the phone next your head.*
- *Take off Bluetooth devices when not using them."*
- Read the online NJEA article "Minimize health risks from electronic devices"
- PDF of NJEA article Recommendations

2016: Phoenicia Elementary School Onteora School District, New York State
The PTA wrote a letter to the Onteora School District calling for the Wi-Fi to be turned off as a precautionary action

- Watch a video of the School Board Meetings where letter is read here
- Watch videos of parents and students calling for Wi-Fi removal here.
- Read News Report: Some Onteora parents fear Wi-Fi signals in schools are harming their children.

2016: Ontario Secondary School Teachers Federation
The Federation has issued a new call for a moratorium on WIFI and in the Limestone School District and they have taken the issue to the school trustees in that District. "The Teacher Union's president says there is a growing mountain of evidence that WIFI can pose health risks." Andrea Loken/OSSTF District President stated in a 3/2016 news interview that, "There are thousands of published peer reviewed papers that are indicating adverse health effects from WIFI and we are seeing an increased awareness around this issue worldwide."

- Read the Ontario Limestone District Report sent to Board on Wi-Fi.
- Watch the video of the news piece with Union members here .
- Read the National Post article here
- Radio Canada International article here.

2016: Elementary Teachers Federation of Ontario
A 3/2016 News Report states that they are calling for a "WIFI moratorium until further health studies are done, and lawmakers can catch up with new regulations."

- Watch the video of the news piece with Union members here
- Read the National Post article here
- Radio Canada International article here.

2014 United Federation of Teachers (Teachers, nurses and professionals working in New York City).
In 2014 their Wireless Radiation Webpage stated:
"Wireless radiation is emitted by the myriad of wireless devices we encounter every day. It was once thought to be relatively harmless. However, we now know that wireless radiation can cause non-thermal biological effects as well, including damage to

cells and DNA, even at low levels.
Reducing Your Exposure to Wireless Radiation
Some tips to reduce your exposure to wireless radiation.
What You Need to Know About Wireless Radiation and Your Baby
Taking certain precautions around wireless radiation is appropriate for our most vulnerable populations, including pregnant women.

Curiously in March of 2016, *this statement was removed* and replaced with new text mimicking FCC verbiage. However the site *still posts* how to reduce exposure.

- Resources posted on their site still include Dr. Moskowitz' Reducing Your Exposure to Wireless Radiation and the BabySafe Project brochure What You Need to Know About Wireless Radiation and Your Baby. "Taking certain precautions around wireless radiation is appropriate for our most vulnerable populations, including pregnant women."

2014: New York State PTA
Passed Resolution on Cell Towers in 2914

- "CELLULAR PHONE TOWERS – 2014 (R-'07, R-'00); Resolved that the New York State Congress of Parents and Teachers, Inc. support legislation that would encourage local communities, including parents and school officials, to regulate the placement of cell towers and cell tower antennas particularly in schools and areas where children congregate, and be it further Resolved that the New York State PTA support continued research into the long-term effects of radio frequency and microwave frequencies on humans especially as they apply to children, and be it further Resolved that the New York State PTA seek to educate parents and school officials as to the current debate over the placement of cell towers and antennas."- Adopted Resolutions 2014 New York State PTA

2014 New York State Teachers Union NYSUT: A federation of more than 1,200 local unions.
Webinar on WiFi in School and Guidelines
"We have enough evidence to justify taking action and we are not willing to wait until our members, their children and the students suffer health consequences from not doing anything," -Paul Pecorale, Vice President of the New York State United Teachers Union.

- Read the Press Release on Best Practices For Schools prepared for NYSUT
- Download the Guidelines for Safer Use of Wireless Technology in Classrooms Published for NYSUT
- NYSUT hosted a Webinar: Risks of wireless technologies and protecting children and staff in schools.

2014 National Education Association

- **Section C-19 of the NEA 2013-2014 Resolutions**
- "The National Education Association believes that all educational facilities must have healthy indoor air quality, be smoke-free, be safe from environmental and chemical hazards, *and be safe from hazardous electromagnetic fields."*
- "Students and/or their parents/guardians, education employees, and the public should be notified of actual *and potential hazards."*
- "School districts should conduct periodic testing for harmful water *and airborne particles/agents* that are detrimental to the health of students and education employees and shall report the results publicly."
- "The Association also believes in the development and enforcement of health and safety standards specifically for children."

2013 Canadian Teacher Federation's Brief (200,000 elementary and secondary school teachers)

- "CTF is concerned about the lack of definitive research regarding the adverse health effects of Wi-Fi.
- "We propose a prudent approach to the use of Wi-Fi, especially where children are present."
- "We recommend an education program regarding the relative safety of Wi-Fi exposure and that appropriate resources be developed to educate the public regarding ways to avoid potential exposure risks of Wi-Fi access points and devices."
- "Pedagogical needs could be met in schools with an approach that limits exposure to Wi-Fi."
- Read the Briefing The Use of Wi-Fi in Schools - Briefing Document
- 2015: Canadian Teacher's Magazine published *CTF Sounds the Alarm on Wi-Fi*

2013 United Teachers of Los Angeles, representing 40,000 teachers and staff

- Resolution passed: “I move that UTLA will abide by current National NEA Policy for Environmentally Safe Schools which states that all employees and stakeholders should be informed when there are changes in their exposure to environmental hazards including electromagnetic radiation and that all stakeholders and the public should be notified of any actual and potential hazards. UTLA will advocate for technological solutions that maintain technology upgrades while not increasing employees exposure to electromagnetic radiation."
- Health and Human Services Committee 3-6-13 #1: Moved by Kevin Mottus, seconded by John Cabrera.
- **UTLA Newsletter editorial by social worker Kevin Mottus.**

2013 Elementary Teacher's Federation of Ontario Issued a position statement
"There is cause for concern for members' health and safety, especially women," said Sandra Wash, a teacher representing the Peel district when the Federation issued a 2014 position statement supporting an Expert Panel recommendation that Health Canada provide the public with more information about radiofrequency energy, and the safe use of wireless technology.

ETFO voted to:
- Turn cell phones off in classrooms
- Label the location Of Wi-Fi access points.
- Research Radio Frequency radiation.
- Develop a hazard control program related to wireless microwave radiation through JHSC.

2012 The Ontario English Catholic Teachers Association (45,000 Ontario teachers)
- Read the **Ontario English Catholic Teachers Association** Position Statement here.
- The Teacher Association recommends a wired infrastructure as WIFI “may present a potential Health and Safety risk or hazard in the workplace...The safety of this technology has not thoroughly been researched and therefore the precautionary principle and prudent avoidance of exposure should be practiced.”
- “Controls for WiFi would best be guided by the ALARA principle (As Low As Reasonably Achievable), as well as by applying the concept of prudent avoidance (of non-ionizing radiation).”
- Read CBC News article

2013 BC Teachers Federation adopted Wireless Resolutions and Proposed Resolutions
- Wireless Resolutions and Proposed Resolutions
- “The BCTF supports members who are suffering from Electromagnetic Hypersensitivity by ensuring their medical needs are accommodated in the workplace.”
- Proposed Resolutions “the World Health Organization's classification of radiofrequency/electromagnetic fields emitted by wireless devices as a 2B possible cancer risk to humans; that the BCTF ensures all teachers have the right to work in a safe environment, including the right to work in a Wi-Fi/ wireless-free environment.”
- Recommendation to the Ministry of Education that school boards “begin immediate installation of on/off switches for Wi-Fi routers in schools, thereby reducing microwave radiation exposure and reducing health risks to members, and/or provide safer Ethernet cables or fibre optics”.
- Daily News Coverage:Merritt teachers demand protection from wi-fi radiation 'Evidence is piling up that wi-fi radiation may in fact be harmful'
- Vancouver Sun News Report
- Debate about Wi-Fi in B.C. schools heats up, VANCOUVER SUN 05.08.2013

2013 The BC Confederation of Parent Advisory Councils (BCCPAC) of 821 Advisory Councils representing over 500,000 parents in British Columbia passed two resolutions.
- Resolution: On/Off switches for WiFi Routers and Protocol for the Use of Wireless Devices
- Resolution 17 "calls on each Board of Education to have one public school at each education level that is free of Wi-Fi, cordless phones and cell phones. This school will only be equipped with wired computers and wired telephones for personal, educational and administrative purposes."
- Resolution 18 calls on Boards of Education to "cease to install Wi-Fi and other wireless networks in schools where other networking technology is feasible.**"** passed with a clear majority.

2010 UK VOICE ;The Union for Education Professionals- 20,000 members

Environmental Health Trust http://ehtrust.org/

- Read the Position Statement
- "Voice has advocated that new Wi-Fi systems should not be installed in schools, that existing systems should be turned off when not required and that schools should consider whether they really need to use Wi-Fi, which was developed to facilitate Internet access on the move rather than to be used as a convenient alternative to cables in dedicated IT facilities."
- " In the light of what has happened to one of our members *[who has developed sensitivity to electro-magnetic radiation]*, I am concerned that so many wireless networks are being installed in school and colleges without any real understanding of the possible long-term consequences."- Voice General Secretary Philip Parkin
- Voice Blog post.

Los Angeles California Public Schools LAUSD

The LA School District Uses a RF-EMF Exposure Threshold 10,000 Less Than the FCC Limits: The OEHS supported a precautionary threshold level that is 10,000 times lower than the current Federal Communications Commission standard. Read the RF Report the LA School District Used to recommend a cautionary exposure level.

- RADIOFREQUENCY (RF) EVALUATION REPORT Use of Wireless Devices in Educational Settings
- **Read the LA Schools Office of Environmental Health and Safety Factsheet About Radiofrequency**

The LA School District Prohibits Cell Towers on School grounds- as stated in their Standards And Conditions Documents 2009 LA School Board Resolution Banning Cell Towers from schools and recommending against WiFi.

- "The Board supports responsible deployment of fiberoptic broadband technology which is superior to wireless in speed, reliability, security, durability and protections it affords people and the environment from the potential hazards of exposure to radio frequency radiation."
- Adopted Resolution
- Press Release: LOS ANGELES BOARD OF EDUCATION MEMBERS VOTE TO PROHIBIT CELL PHONE TOWERS NEAR SCHOOLS
- 2009 December Resolution *Condemning Cell towers NEAR Schools* as was this T-Mobile Cell Tower across the street from an elementary school.
- Original Resolution
  "*As long as questions exist as to the adequacy of these federal regulations, local governments should have the ability to include consideration of health and environmental effects of these facilities*." (referring to cell towers)
- Read the motion by Supervisors Zev Yaroslavsky and Michael Antonovich

2000 LA School Board Resolution Opposing Cell Tower Placement on Schools

- Original Resolution
- Resolution calls for precautions with wireless. 'Whereas, Recent studies suggest there is evidence that radio-frequency radiation may produce "health effects" at "very low field" intensities'

Safety Issues Related to the LAUSD RFR Thresholds : Los Angeles School District states they use precautionary RFR guidelines- however even a threshold at 10,000 times lower than FCC limits is not safe because peer reviewed published scientific research has shown harm at levels *hundreds of thousands times* lower than FCC limits. The school district is in fact increasing wireless exposures with Wi-Fi access points and increasing exposure to students and staff. LAUSD is not ensuring safety with these actions. In addition the LAUSD measures the radiation in the building by averaging the power density which masks areas of high intensity and peak exposures. From a human health standpoint, the RFR measurements need to include peak readings in addition to the cumulative length of time children are exposed to RF radiation in order to fully understand their exposure. Until these measures are taken, one cannot adequately evaluate the EMF environment.

Note on Safety: Digital Device "Best Practices" that still allow Wi-Fi access points in classrooms- *still allow* microwave exposures to the children and such practices are not adequately protective to children. These District actions seem to be *acknowledgment that wireless device expose the body to radiation*. However, such "Best Practices" still allow access points to be powered on and thus are always exposing the students and staff to continuous microwave radiation regardless of the devices being in use or not. In addition, devices are also continuously transmitting during student use of the internet and no procedure is in place to ensure that Best Practices are followed so that the transmissions are turned off when the internet is not needed. Therefore these "Best Practices" *do not* mitigate the risk nor do they protect students from School District created wireless

exposures.

2010 Greater Victoria Teachers' Association
"The GVTA recommends a precautionary approach to the School District with regard to provision of wireless internet in schools. The precautionary approach comes from the environmental movement and has been adopted as common practice in areas regarding potential environmental, ecological or biodiversity damage. It suggests that the lack of significant evidence is not enough of a reason to be unconcerned. The fact that many other countries have instituted regulations to protect children, seniors, pregnant women and other susceptible populations should be the guide for a District policy on WiFi installation and use in the worksites."

The GVTA Wireless in Schools Webpage states now that:

- Wi-Fi free zones should be available.
- On/Off routers recommended and record any adverse Wi-Fi health effects.
- Minimal or non-use within elementary schools.

2008 Lucerne Elementary Secondary Arrow Lakes District SD 10 New Denver BC, Canada Opts for "No WIFI

2001 Fletcher Hills PTA Resolution submitted to the California State PTA

- "RESOLVED, that the California PTA supports local municipal zoning setback rules of at 1000 feet or more from an operating wireless transmitter and a school or residential area; and be it further
- RESOLVED that the California PTA supports encouraging schools to use cable lines for all communications services on campus and to avoid the endorsement, purchase or use of wireless local area network systems on campus; and be it further
- RESOLVED that the California PTA recommend that teachers and students should limit use of cellular phones or other mobile devices on school property to emergencies and that cellular phones, pagers and other mobile phones be turned off and placed out of sight while the individual is on school property"
- Resolution on Wireless Equipment/Cellular Phones and Antennas Read it here.

DOCTORS AND SCIENTISTS APPEAL FOR STRICTER WIRELESS TECHNOLOGY REGULATION

Vienna Resolution 1998	**Stockacher Appeal 2005**	**British Doctor Initiative 2013**
	Vancouver School Resolution 2005	**BabySafe Project: Joint Statement on Pregnancy and Wireless Radiation 2014**
Salzburg Resolution 2000	**Benevento Resolution 2006**	
Stewart Report, UK 2000	**Allgäuer Appeal 2006**	**Canadian Doctors Declaration to Health Canada 2014**
Declaration of Alcalá 2002	**WiMax Appeal 2006**	
Catania Resolution 2002	**Schlüchterner appeal**	**Scientific Declaration to Health Canada (International Doctors) 2014**
Freiburger Appeal 2002	**Brussels Appeal 2007**	
Bamberger Appeal 2004	**Venice Resolution 2008**	Brussels International Scientific Declaration on Electromagnetic Hypersensitivity and Multiple Chemical Sensitivity **2015**
Maintaler Appeal 2004	**French Doctor Appeal 2008**	
International Association of Fire Fighters Resolution on Cell Towers 2004	**Porto Alegre Resolution 2009**	
	European Parliament	
	EMF Resolution 2009	**International Scientists Appeal to U.N. to Protect Humans and Wildlife from Electromagnetic Fields and Wireless Technology** 2015 Over 200 Scientists
Coburger Appeal 2005	**Dutch Appeal 2009**	
Oberammergauer Appeal 2005	**Int'l Appeal of Würzburg 2010**	
Haibacher Appeal 2005	**Copenhagen Resolution 2010**	
Pfarrkirchener Appeal 2005	**Seletun Consensus Statement 2010**	
Freienbacher Appeal 2005	**Russian National Committee on Non-Ionizing Radiation Protection 2011**	
Lichtenfelser Appeal 2005	**Potenza Picena Resolution 2011**	
Hofer Appeal 2005	**World Health Organization 2011**	Reykjavik Iceland Appeal on Wireless in School, 2017
Helsinki Appeal 2005	**Austrian Medical Association 2012**	
Parish Kirchner Appeal 2005		

Environmental Health Trust http://ehtrust.org/

Saarlander Appeal 2005	**Resolution on Electromagnetic Health 2012**	Scientist 5G Appeal to the EU 2017 Madrid Declaration 2017 Nicosia Declaration 2017 The International Society of Doctors for Environment 5G Appeal 2018

Firefighter Unions Opposing Cell Towers

INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS

- *"The IAFF opposes the use of fire stations as base stations for towers and/or antennas for the conduction of cell phone transmissions until a study with the highest scientific merit and integrity on health effects of exposure to low-intensity RF/MW radiation is conducted and it is proven that such sitings are not hazardous to the health of our members."*
- The IAFF Official Position *Against* Cell Towers on Fire stations passed in 2004 http://www.iaff.org/HS/Resi/CellTowerFinal.htm
- This Position was initiated after increasing complaints among firefighters with cellular antennas on their stations coupled with the California study showing neurological damage in California firefighters conducted by Dr. Gunnar Heuser. The pilot study (2004) of California firefighters showed brain abnormalities, cognitive impairment, delayed reaction time, and lack of impulse control in all 6 firefighters tested (**Read Susan Fosters filed Affidavit to the FCC**, Read the Press Release on the Resolution and Research Study here). This study led to the overwhelming passage of Resolution 15 by the International Association of Firefighters in Boston in August 2004. Res. 15 called for further study and was amended to impose a moratorium on the placement of cell towers on fire stations throughout the US and Canada.

L.A. County Firefighters Local 1014

- Local 1014 has a webpage dedicated to stopping towers because of a plan to install them on over 200 of their stations. http://www.stopcellphonetowers.com/index.html
- "As firefighters and paramedics, we live in these firehouses. What effect will these towers have on us? What are the risks to our neighbors? It's a no-brainer that LA County should at least have done a proper study before before putting 200-foot high-power microwave antennas on top of our heads."

- Dave Gillotte, Active Duty Fire Captain
President, LA County Firefighters Local 1014
Watch him testify on this issue here.

- *The Firefighter's Website in 2015* http://www.stopcellphonetowers.com/index.html

United Firefighters of Los Angeles City Local 112 IAFF-CIO-CLC Opposes Cell Towers on Their Stations.

- " It is inexcusable that once again our firefighters in the field were the last to know about a massive 150 million dollar project that could jeopardize their health and safety. ... nobody talked to us and we have not heard from one single expert who has told us that this project will be safe."
- "UFLAC will strongly oppose the use of Fire Stations as base locations for cell towers and/or antennas "
- DownLoad the letter from this LA Firefighters Union Local 112 asking for an immediate halt to cell towers on fire stations.
- Watch videos the these Firefighter Union Presidents testifying to the LA Board of Supervisors on the Issue here.

See list of Medical Doctor Consensus Statements at this link
http://ehtrust.org/science/medical-doctors-consensus-statements-recommendations-cell-phoneswireless/

Examples of Other Government Advice or Information That Does Not have Precautionary Policy but instead falls under the "If You are Worried" Category or advertises that safety is assured.

Environmental Health Trust http://ehtrust.org/

New Zealand

Cell Phone webpage informs citizens about the cell phone fine print warnings and that children could be more vulnerable but does not decisively recommend citizens take precautions.

"Cellphones sold in New Zealand all comply with the exposure limits in the Radiofrequency field exposure standard. These limits are based on international safety recommendations. However, you should pay attention to any safety instructions in your cellphone user manual. There may be a minimum separation distance to ensure that exposures comply with the limits."

New Zealand Webpage on Cell phones

- "Children and cellphones
- "It's your choice whether to let your children use cell phones.
- There isn't much research on the health effects of radiofrequency radiation on children. The research that has been done hasn't shown any harmful effects at the levels generated by cellphones. Neither has laboratory research on young animals.
- If in the future it is discovered that cellphones can affect your health, children may be more at risk. Their nervous systems are still developing, and they're exposed from earlier in their lives.

Children also tend to have higher exposures in the part of the brain closest to the phone (because their heads are smaller). But they're not exposed to any more radiation overall." - New Zealand Health Ministry

"Safety of WiFi signals: WiFi signals won't harm your health." New Zealand Ministry of Health

Malaysia

http://rfemf.mcmc.gov.my/ituemfguide/overview EMF Overview Guide

Peru

Peru Ministry of Transports and Communications: A Multimedia campaign conducted by the MTC including TV, radio, newspaper, internet and social networks with the slogan "antenas buena onda" (friendly antennas) to promote placement of telecommunications installations in neighborhoods.

- http://antenasbuenaonda.pe/
- Video AntenasTVMotivo01of "Friendly Antennas"
- Las Antenas son Buena Onda

Thailand:

The Telecommunications Commission has set up a website that Advertisements claiming 'mobile towers are not as dangerous as you think' and 'the NBTC will look after the towers'

- Bankock Post 2016 "Waves of fear over phone tower claims While the NBTC is at pains to play down the dangers of radiation from mobile base stations, one of its own members has broken ranks."

Telecommunications Commission Posters and Websites

Website on Mobile Phone Towers

- About the Project
- Q and A about Cell Tower Radiation
- "NBTC" Knowledge of mobile signal towers Poster with child hugging phone
- Facebook page "The waves from the mobile signal towers are not as dangerous as you think"
- Youtube Videos on Cell Phone Towers
- PDFs of brochures on cell tower radiation , More documents "THE WAVES FROM THE MOBILE SIGNAL TOWERS ARE NOT AS DANGEROUS AS YOU THINK"
- On January 19, 2018, the NBTC organized a training program for knowledge on the effects of electromagnetic radiation from the base station of the mobile phone system on human health safety

Environmental Health Trust http://ehtrust.org/

- DISCUSSION ON KNOWLEDGE AND UNDERSTANDING ABOUT THE EFFECTS OF ELECTROMAGNETIC RADIATION FROM THE BASE STATION OF MOBILE PHONE SYSTEMS ON HUMAN HEALTH SAFETY, 5 REGIONS, PHASE 2, NO. 5 IN BANGKOK
    - On July 21, 2017, the Office of the National Broadcasting and Telecommunication Commission organized a discussion on "Radio waves from mobile phone and health systems base stations" at Makwan Rangsan Room, Zone AB, Vibhavadi Military Club, Bangkok With Mr. Pankit Dan Chai Wichit, Deputy Secretary General of the NBTC, presided over the opening of the dialogue With the objective to present facts to the public.

YouTube Videos

- **Facts with mobile towers and health version 30 sec**
- **Facts with mobile towers and health version 60 sec.**
- **Radio waves or electromagnetic waves. Radio frequency from mobile transmission pole affects health or not?**
- **2015 Cell Tower Radiation Information**
- **News Piece on Cell Tower Radiation and Government Response**
- Mobile Towers Meet RF Limits "Ensuring a secure telecommunication pole" December 22 2015
- "The spectrum is not as dangerous as you think" Feb 28, 2017
- "Advantages and convenience with 1800 and 900 MHz frequency bands" Not about RFR but about advantages of RFR

June 2016 Thailand NBTC Website Save "Knowledge of mobile signal towers" a Q and A on cell tower radiation that concludes no proof of harm.

TV Reports and Resources

"Community resolutions not to set up a pole near the community - school"
"Mobile signal transmission pole Really dangerous? | 12-01-59 | Special report | new) Noon news | new) tv"
Example of educational program by companies involved in telecommunications, poster and conference to "educate"
Thai poster on children's greater absorption
Website of concerned citizens

News Stories: "The people of Nakhon Pathom 100 houses in opposition!"

Netherlands

Government has a website at https://www.kennisplatform.nl/hoe-kan-ik-zelf-de-blootstelling-verminderen/ and according to the 2018 Report Industry co-funds this. The government states that "a dedicated foundation has been created that receives the grants from the government and the industry partners. The Platform is financed by the foundation. The activities have been scaled down. Currently reports on 5G, MRI, HVDC and induction cooking are in preparation. The focus has also shifted from informing professionals to informing the public. (www.kennisplatform.nl). -from the 2018 Report
In 2010, the government decided to extend the mandate of the Knowledge Platform Electromagnetic Fields and Health for another 4 years. Collaborating in the Knowledge Platform are the Netherlands Organization for Applied Scientific Research (TNO), the National Institute for Public Health and the Environment (RIVM), the Telecom Agency of the ministry of Economic Affairs, the Organization of Municipal Health Services (GGD), KEMA technical consultancy and ZonMw, the organization that hosts the EMF research program. In collaboration with the EMF Committee of the Health Council of the

Netherlands, reports on scientific issues are written aiming at informing local authorities, health professionals and the general public. There is a website, with information available in Dutch only (www.kennisplatform.nl). Read it in the 2011 WHO Report

Reports and Resources

WHO EMF Project Country

Comparison of international policies on electromagnetic fields (power frequency and radiofrequency fields)

Legislative Status voluntary or mandatory by county: no details

BFS: Comparison of European policies of low frequency (power frequency for high-voltage power lines) electric and magnetic fields

GSMA Embedded Modules: Compliance and Compatibility Global electromagnetic field standards and regulatory requirements December 2011

World Health Organization Map of Countries With EMF Legislation

- Exposure limits for static fields (public)
- Exposure limits for low-frequency fields (public)
- Exposure limits for radio-frequency fields (public)
- Exposure limits for static fields (worker)
- Exposure limits for low-frequency fields (worker)
- Exposure limits for radio-frequency fields (worker)

Published Research on International Policy

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4401037/

https://www.tandfonline.com/doi/abs/10.3109/15368378.2015.1038832

https://www.nature.com/articles/jes201213

http://www.who.int/peh-emf/meetings/Session_4_Discussion_personal_exposures.pdf?ua=1

Scientific basis for the Soviet and Russian radiofrequency standards for the general public

Safe for Generations to Come

Comparison of international policies on electromagnetic fields (power frequency and radiofrequency fields), Rianne Stam, National Institute for Public Health and the Environment, RIVM