**United States Court of Appeals**

**For the District of Columbia Circuit**

|  |  |  |
| --- | --- | --- |
| Children’s Health Defense, Dr. Erica Elliot, Ginger Kesler, Angela Tsiang, and Jonathan Mirin, Petitioners v.Federal Communications Commission and United States of America, Respondents |  | USCA No. 21-1075Petition for Review of Orderby the Federal Communications Commission(FCC 21-10) |

**Affidavit of DAFNA TACHOVER IN SUPPORT OF STAY**

1. My name is Dafna Tachover. I am the Director of the Children’s Health Defense 5G and Wireless Harms Project. I am also a member of Children’s Health Defense.
2. I am a licensed attorney in New York and Israel. I have an MBA and a technology background. I was a telecommunications and computers officer in the Israeli Defense Forces, where I served as the commander of the military headquarters and operations center computer center and was responsible for all the systems and networks. I had a diverse legal and business career thereafter. In the US, I worked in senior executive positions for an international investment company headquartered in New York City.
3. I submit this Affidavit to demonstrate Children’s Health Defense’s organizational and representational standing in this matter. I also provide some background on Radiation Sickness and other illnesses or conditions caused or exacerbated by wireless radiation, and the effect the rule change we are challenging will have if it goes into effect.

**About Children’s Health Defense.**

1. Children’s Health Defense (“CHD”) is a non-profit organization. Its mission is to end the epidemic of children’s chronic health conditions by working to eliminate harmful exposures to toxins, establish substantive and procedural protections for and on behalf of those who have already been injured and those who will be harmed in the future and prevent harm to others. CHD evaluates and educates about the harms of various toxins, provides advice, supports the injured and advocates on their behalf in educational and legal matters and gives referrals to medical and other professionals who may be able to help those who have been injured. We work to defend children’s health, obtain justice for those already injured and ensure accountability. I will return to CHD organizational and representational interests below.

**For Some, RF is a Toxin**

1. Wireless technology uses Radiofrequencies (RFs) to carry wireless data. It is a form of radiation because it “radiates” energy in various ways. To encode the data being transferred over the RF carrier frequency, the signal is pulsed and modulated. This radiation, referred to hereinafter as “wireless radiation,” can and does harm adults and children. Wireless proliferation is significantly contributing to well-recognized but alarming and growing rates of sickness in children.[[1]](#footnote-1) CHD’s mission requires that it address wireless radiation’s contribution to the overall levels of environmentally induced, toxicity-related children’s sicknesses.

**OTARD Rule Change**

1. The OTARD rule was originally adopted to protect individual “viewers” that want to use satellite-based television programming. It was limited to “receiving” devices. It has been expanded over the years to cover “transmitting” devices and to other wireless services, such as “wireless cable” services and then fixed wireless Internet access. The entire rule is about preemption. It overrules all state and local laws that attempt to regulate the placement and use of these devices by customers that desire to obtain the covered services for their own use, on their own property.
2. The OTARD rule limitation to “own use” and “own property” has always excluded from protection arrangements that extended fixed wireless communications to nearby and/or different properties. So, for example, if a fixed wireless provider arranges for one of its fixed-wireless customers to install a “hub” or “relay” and wirelessly extend voice/video/data service to new users over a wide are all local and state regulations (including zoning and permitting) and things like neighborhood association and deed restrictions still apply.
3. Certain Wireless Internet Service Providers petitioned for a further rule change that would, for the first time, bring “hub” and “relay” arrangements that facilitate extension to other properties and users within the OTARD rule’s coverage. The entire purpose was to overrule all, state laws, including zoning and homeowner association protections. The OTARD *Order* granted that request.

**CHD Comments**

1. CHD filed comments in the FCC “OTARD” proceeding.[[2]](#footnote-2) CHD extensively addressed the substantive and procedural problems arising from the adoption of the proposed rule amendment and the devastating effects it will have on the many adults and children who are sick from wireless radiation.[[3]](#footnote-3) CHD observed that the rule would not just eliminate local zoning and preempt deed restrictive covenants: it would also preempt federal and state civil rights laws that protect the disabled and handicapped and eliminate current requirements for accommodations.
2. The FCC was adamant about removing “barriers” and to the FCC it seems, the injured are a barrier that needs to be removed. Otherwise, why preempt disability accommodation rights?
3. CHD understood the implications, so it started a campaign to educate the public. Following a one-month campaign with our limited means, a record 15,090 people (1,988 of them are CHD members) joined CHD’s comments.[[4]](#footnote-4),[[5]](#footnote-5) Of those who joined CHD’s submission. 6,231 (823 of whom are CHD members) declared that they and/or their children have become sick from wireless radiation.[[6]](#footnote-6)  Many added personal short comments explaining their personal experience and position on the issues. In general, they expressly objected to intrusions on their property and consider non-consensual irradiation to be a battery on them and their family and a form of child endangerment.[[7]](#footnote-7)
4. Over 2,500 personal comments were included, many of them substantive. The few lines that were added in those comments often revealed heart-wrenching stories of sickness and death. Many reported that exposure to wireless radiation has cause and/or aggravated their sickness including Radiation Sickness, neurodevelopmental conditions, cancer and epileptic seizures. Some reported the death of family members.

These commentors demanded that they not be subjected to emissions that will make them and/or their children or family members sicker and may even kill them. They expressed a plaintive but eminently reasonable desire to be safe in their homes, their only refuge.

**Rule amendment effect**

1. The moment the rule change goes into effect, all state and local venues for people to obtain notice of activities that affect them and allow them to participate in any local proceedings and allow them object to the activity or seek an accommodation, will be preempted and must stop. This will remove vested substantive and procedural due process rights that many currently use and eliminate a valuable source of vital information. Mirin@27-39.
2. People will no longer know if their neighbor is about to bathe their property with harmful radiation. They will not be able to seek help and accommodations from local or state authorities. Similarly, those who purposefully bought property they thought would be relatively RF radiation-free or safer, and contracted with their neighbors to include deed restrictions relating to antennas and business activity in residential areas will be stripped of their contractual rights. If someone in a neighborhood has a deed restriction that prohibits commercial activity and wireless systems that provide connectivity to unaffiliated persons on other properties, they will be free to ignore those restrictions, and the restriction is no longer enforceable through an action in local courts. Dr. Elliot and Ginger Kesler both joined in neighborhood associations with such restrictions, they did so on purpose, and now they will lose those rights when the rule amendment takes effect. Elliot@¶¶38-46, Kesler@¶¶6, 8, 43-44.
3. People will not be able to know when one of these new systems is turned on. Until they suddenly get sick again and some, including children, will experience life threatening symptoms. Dr. Elliot@¶23,47,55; Baran@¶ 9,27,34,46; Dr Hoffman@¶22,45,46; Dr. Jelter@¶ 35; Dr. Bray@¶14;. They will have no option: they will be abruptly evicted from their home without notice and have nowhere to go. Mirin@¶7,22,23,26,48; Dr. Elliot 5,19,28,45,48,49,50,52,54; Baran@¶9,43-44,49,50; Kesler@¶48,49; Dr. Hoffman@¶38-41,44,46,48; Tsiang@¶; Hertz@¶39-43; Dr. Jelter@¶35; Dr. Bray@¶22; Dr. Golomb@¶27-28. With the OTARD amendment, people who suffer debilitating conditions and cannot be anywhere in the wireless world, even their home would no longer be a refuge.
4. The Commission summarily rejected CHD’s comments (along with those of all of the people who joined in CHD’s comments) in one brief paragraph that mischaracterized CHD’s positions and failed to meaningfully address the concerns raised by CHD and by those who support its position.[[8]](#footnote-8)

**What is Radiation Sickness?**

1. Radiation Sickness (also called Microwave Sickness; Electro-Sensitivity, Electro Hypersensitivity or EHS), is likely the most widespread sickness associated with exposure to wireless radiation. It describes a constellation of symptoms, mainly neurological (but not exclusively), that manifest with exposure to wireless radiation. Diagnosis guidelines exist.[[9]](#footnote-9), [[10]](#footnote-10), [[11]](#footnote-11)
2. Radiation Sickness is a spectrum condition. People who develop the condition become intolerant and react to levels of wireless radiation they previously could tolerate. As with other toxins or allergens, eliminating exposure is the only way to avoid symptoms. The condition is progressive, so symptoms reappear with exposure.
3. Following reports of soldiers of symptoms from wireless systems, the US Navy studies the issue and in 1971 published a report referencing 2,311 studies showing RF radiation harms. It took 5 pages to list the various effects and symptoms associated with exposure.[[12]](#footnote-12) Other US military agencies also reported the sickness including the US Air Force,[[13]](#footnote-13) and NASA.[[14]](#footnote-14),[[15]](#footnote-15)
4. In December 2020, the National Academy of Sciences, Engineering and Medicine (NAS) studied effects from pulsed RF (wireless radiation). Following the request of the US Department of State to advise them on the “mystery” sickness of the US diplomats, the NAS published a report “An Assessment of Illness in U.S. Government Employees and Their Families at Overseas Embassies.”[[16]](#footnote-16) The report concluded that many of the observed symptoms, including brain damage, are consistent with the biological effects of pulsed RF exposure, and that it is likely the cause of the diplomats’ sickness. In other words, the diplomats suffer from Radiation Sickness, the same condition now experienced by a large and rapidly growing number of people.
5. The typical symptoms indicate severe physiological injuries associated with exposure to wireless radiation including damage to the Blood Brain Barrier (BBB), impaired brain blood flow (BBF) and adverse effects on the immune and hormonal systems.[[17]](#footnote-17), [[18]](#footnote-18), [[19]](#footnote-19) There may be genetic predispositions.[[20]](#footnote-20) A 2015 study on 675 subjects who suffer from Radiation Sickness[[21]](#footnote-21) found that 13-28% had Blood Brain Barrier (BBB) leakage. 40% had chronic inflammation. 23% had autoimmune antibodies and 100% had reduced levels of melatonin (the sleep hormone).
6. A study on 10 people who suffer from Radiation Sickness using functional MRI brain imaging, showed traumatic brain injury,[[22]](#footnote-22) similar to what was discovered in several of the diplomats. The fMRI images below compare brain images of people with Radiation Sickness (right) to “normal” people (left).[[23]](#footnote-23) The white areas represent impaired blood flow.
7. A causal mechanism of harm associated with many of the injuries suffered by people with Radiation Sickness is Oxidative Stress. Over 200 studies[[24]](#footnote-24) showed that wireless radiation causes oxidative stress. For example, oxidative stress was found in Affiant Jennifer Baran’s children’s blood tests. Baran@¶30. Oxidative stress blood tests are used as biomarker for the diagnosis of Radiation Sickness.
8. In January 2021, the Swiss government expert advisory group on electromagnetic fields and non-ionizing radiation, BERENIS, published an extensive evaluation of the scientific literature on non-thermal RF/EMFs.[[25]](#footnote-25) It concluded that exposure could cause or worsen several chronic illnesses, and that children and people with immune deficiencies or diseases are especially at risk. It acknowledged that oxidative stress from the chronic exposure is the underlying mechanism.
9. These findings explain why for example, in addition to Radiation Sickness Movant Ginger Kesler and I both developed a thyroid autoimmune (and hormonal) condition – Hashimoto, and Affiant Michele Hertz developed Graves’ Disease following intense exposure to wireless radiation.[[26]](#footnote-26), [[27]](#footnote-27), [[28]](#footnote-28)

**Radiation Sickness Accommodation**

1. Various government agencies have recognized Radiation Sickness as a disability and have required accommodation. In 2002, the “Access Board,” the federal agency responsible for publishing ADA Accessibility Guidelines used by the Justice Department to enforce the ADA, recognized that “electromagnetic sensitivities may be considered disabilities under the ADA.”[[29]](#footnote-29) The National Institute of Building Sciences (NIBS) was contracted by the Access Board to provide recommendations on how to accommodate people with Radiation Sickness. Their 2005 report [[30]](#footnote-30) concluded that wireless radiation is an “access barrier” and can render buildings “inaccessible” to those with Radiation Sickness:

 People with electromagnetic sensitivities can experience debilitating reactions… from electromagnetic fields emitted by computers, cell phones… The severity of sensitivities varies among people...

… public and commercial buildings are required to provide reasonable accommodations for those disabled by electromagnetic sensitivities.

1. The US. Department of Labor's Office of Disability Employment Policy issued guidelines for accommodations in 2015. Tachover Attachment 1. The guidelines state:

…the nature of electromagnetic sensitivity is such that even levels that are deemed safe for the general public can cause trigger symptoms for individuals who are hypersensitive...and therefore may need accommodation.

…

Individuals with electromagnetic sensitivity may experience … fatigue, weakness, neurological issues, immunological issues, gastrointestinal issues, increased irritability, lack of ability to think clearly and quickly, sleep disturbance, overall malaise, and anxiety…Common workplace issues involve exposure to Wi-Fi, cell phones.”

General considerations include: ...Relocate workplace away from areas where symptoms are triggered…limiting certain types of devices in the vicinity of the employee’s workstation... Provide wired telephones and network connections.

1. The US Department of Education (“DOE”) has recognized that people with other conditions may also develop Radiation Sickness**.** In 2011, DOE issued a memorandum regarding accommodation of people with Multiple Chemical Sensitivities (“MCS”), including minimizing exposure to electromagnetic fields and radiation because it may trigger their symptoms. Tachover Attachment 2. The memo acknowledges the impact that Radiation Sickness can have on some people and the importance of their home as a refuge.

[I]ndividuals affected by MCS have created "sanctuaries" relatively free from chemical emissions and electromagnetic fields in their homes. Because of the serious impact of even an accidental unavoidable exposure, people often spend as much time at home as possible and often cannot participate fully in society. As a result, they may experience intense isolation, loss of self-esteem, and depression from not being able to have an active work, family, or social life. Supportive professional and peer counseling can help if available.

1. In 2019, the New-Hampshire legislature voted unanimously to establish a committee to learn the effects of 5G and wireless radiation. The committee was comprised of scientists, public representatives, and representatives of the wireless industry (through the CTIA, the wireless industry lobby association). The committee’s majority report published in October 2020 concluded that wireless radiation can be harmful. The New Hampshire committee report acknowledged Radiation Sickness and the need to accommodate those who suffer from the condition.[[31]](#footnote-31)
2. Almost 200 physicians participated in a recent medical conference about health effects associated with wireless radiation (January 2021).

**Radiation Sickness prevalence**

1. Radiation Sickness is widespread and the OTARD amendment rule will lead to nationwide crisis. The exact rate of people who have developed the sickness is unknown. Various studies that conducted in European countries up to 2005, indicate a 10% rate.[[32]](#footnote-32), [[33]](#footnote-33)
2. The only available data from the US is a 2002 survey by the State of California’s Department of Health Services.[[34]](#footnote-34) The study reported an incidence of 3.2%. In California that would mean 1.2 million people and in the US 10.8 million. This is far more than people who use wheelchairs or other walking assisting devices.[[35]](#footnote-35)
3. However, these studies were done before the exponential increase in wireless radiation exposure. The current rates are likely higher. Further, as stated by Affiant Dr. Toril Jelter, and by Movant Dr. Erica Elliot, the lack of awareness among doctors leads to misdiagnosis. They attest that they are seeing an increase in the number of patients with the condition. A European Parliament resolution from 2012 stated that the problem is growing “exponentially.”[[36]](#footnote-36)

**CHD’s evidence on prevalence and effect of the rule amendment.**

1. CHD’s comments indicate the sickness is indeed now widespread, and the effects of the rule will be devastating to individuals across the country. CHD’s campaign to inform the public about the amended OTARD rule to get people to join our submission to the FCC lasted only about a month. We sent a few emails about it and posted on social media. As a result of this short campaign with limited reach and resources, 15,090 people joined our submission. From these, a disturbing number of 6,231 reported that they and/or their children have been injured by exposure.
2. The affidavits included with the Motion also give a glimpse into the huge scale of those who will be affected by the order. Prof. Golomb reports being in touch with scores of hundreds of individuals who suffer from Radiation Sickness. Prof. Bray reports diagnosing 400 patients, including children, and a having a long waiting list. Her affidavit helps show the extent of the problem. Dr. Jelter is in north California has 100 patients including 20 children. Dr. Elliot resides in Santa-Fe, New-Mexico and has 50 patients. Michele Hertz founded an advocacy non-profit in New-York to help those suffer from Radiation Sickness and is in touch with hundreds of sufferers from New York. Dr. Hoffman reports that many of his patients suffer from Radiation Sickness symptoms. Jonathan Mirin reports personally knowing 15 people with radiation sickness who reside in his small rural area. I also know hundreds of adults and children who suffer from the condition and I am contacted by more and more every day.
3. According to a 2011 study funded by the Department of Health and Human Services (“DHHS”),[[37]](#footnote-37) an estimated 43% of US children (32 million) currently have at least 1 of 20 chronic health conditions. Sickness has become the new normal.
4. The January 2021 Swiss government appointed expert committee report concluded that wireless radiation exposure can cause or worsen several chronic illnesses, and that children, especially those with immune deficiencies, or diseases are especially at risk.
5. ADHD rates have increased significantly both in children and adults over the last two decades.[[38]](#footnote-38) A 2018 study shows that ADHD in U.S. children and adolescents has gone up from 6.1% in 1997 to 10.2% in 2016.[[39]](#footnote-39) The evidence that exposure to wireless radiation prenatal and postnatal can lead to ADHD and behavioral problems was established in both animals and human studies.[[40]](#footnote-40),[[41]](#footnote-41),[[42]](#footnote-42),[[43]](#footnote-43) If the amended rule goes into effect, many families like Jennifer Baran’s family will be forced in their homes with radiation that is toxic for them.
6. Affiant Jennifer Baran’s two sons were diagnosed with various neurodevelopmental problems including ADHD. Her younger son was also diagnosed with Autism and seizures. After she and her husband removed all wireless exposure, inside and outside their home, the doctor who initially diagnosed both her sons with ADHD removed the diagnosis a year later. Her younger son’s Autism was improved as well as his seizures.
7. According to the Centers for Disease Control and Prevention (“CDC”), the rates of Autism increased 2-fold in 10 years, and the current rate is 1 in 54 children, 1 in 40 in boys. Two studies from 2018, including a government funded study, indicate a higher rate of 1 in 40. [[44]](#footnote-44) There is evidence of a possible association with increased exposure to RF/EMFs.[[45]](#footnote-45),[[46]](#footnote-46)
8. While a direct causal link between wireless radiation and Autism has not been established, clinical evidence shows that limiting exposure can lead to dramatic improvement. Affiant Dr. Jelter is a pediatrician with 40 years of clinical experience. She provided 5 case studies showing the effects of removing exposure to wireless radiation have had on children with neurodevelopmental conditions. She reported that a non-verbal 10-year-old said his first sentence 3 days after the parents turned off all wireless devices at night. His violent behavior that led the parents to consider institutionalizing him, stopped as well.
9. The following comment was written by a parent who filed below with CHD:

I have children with Autism, we have had to implement a lot of safety precautions regarding emfs in our home. Since we have, our children are finally sleeping through the night and my non-verbal child has begun speaking.[[47]](#footnote-47)

1. Youth anxiety is widespread. According to the National Institutes of Health (“NIH”), nearly [1 in 3](https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder.shtml#part_155096)of all adolescents ages 13 to 18 experience an anxiety disorder. These numbers have been rising steadily; between 2007 and 2012, in 5 years, anxiety disorders in children and teens went up 20%.[[48]](#footnote-48) Interestingly, 2007 is the year that home Wi-Fi started to be widely available. Furthermore, typical anxiety symptoms (agitation, rapid heartbeat and/or heart palpitations, shortness of breath, chest pain, nausea, dizziness and tingling sensations) are similar to many of the physiological responses people with Radiation Sickness report when they are exposed to wireless radiation. The diplomats experienced “anxiety” as well.[[49]](#footnote-49) Several experts believe many of these children are being misdiagnosed and in fact they suffer from Radiation Sickness?[[50]](#footnote-50) Adults and parents of children with “anxiety” report significant improvement of their anxiety symptoms when they remove exposure to wireless.[[51]](#footnote-51), [[52]](#footnote-52), [[53]](#footnote-53)
2. RF affects sleep. According to a CDC report from 2011, 50-70 million US adults (20%) have a sleep disorder.[[54]](#footnote-54) EEG studies in humans[[55]](#footnote-55), [[56]](#footnote-56) show effects of wireless radiation on sleep. Studies on the effects of cell towers show that one of the most common symptoms is sleep disturbances.[[57]](#footnote-57) A 2015 study showed that 100% of 675 subjects who suffer from Radiation Sickness had decreased levels of melatonin, the sleep hormone.[[58]](#footnote-58)
3. Suicides and ideation. According to the CDC, there has been a 57% increase in suicides among children and young people aged 10 to 24 between 2007 and 2018. Studies including US government reports acknowledge that RF/EMFs exposure can lead to depression and suicidal tendencies.[[59]](#footnote-59), [[60]](#footnote-60)Dr. Elliot’s patient’s depression and suicidal tendencies stopped when she removed wireless exposure (Dr. Elliot@¶18).
4. Doctors Golomb, Bray and Jelter all note that Radiation Sufferers begin to lose hope that they can ever find relief, and more people are contemplating suicide. These people do not suffer from a mental condition. It is just they cannot deal with the impossibility of their existence. The life of many who are sick from wireless radiation, has become a living hell and long ago stopped making any sense. The impending OTARD amendment has already made many people feel even more desperate.
5. Numerous people filed comments through CHD’s submission below[[61]](#footnote-61) about their children’s suffering from wireless radiation and the devastating effects OTARD amendment will have on them.

My special needs daughter is sensitive to this and it will directly effect her! We don't even have Wi-Fi in our home because of the health implications![[62]](#footnote-62)

My six year old gets migraine headaches from wireless radiation exposure please don't force this killing technology into our neighborhoods against our will and put my son in endless agony.[[63]](#footnote-63)

Our daughter was having seizures while the smart meter was in use, but not anymore. God knows what 5G would do to her.[[64]](#footnote-64)

My daughter is 100% disabled because of radio frequency radiation and it is life threatening. My daughter cannot go anywhere... With 5G she will not survive.[[65]](#footnote-65)

1. Adults who have already been injured begged not to have more radiation forced on them and described their severe and even life-threatening symptoms.

My wife is 100% disabled from radio frequency radiation. It is life threatening for my wife she will die.[[66]](#footnote-66)

My nervous system is already sensitive to EMF! I am living with constant tinnitus, headaches, palpitation, anxiety…I cannot be subjected to anymore![[67]](#footnote-67)

I'm already feeling the ill effects of the 5G box that was just installed on a pole on my property.[[68]](#footnote-68)

1. Many others filed comments directly to the FCC record reporting their sickness and describing the impact OTARD rule amendment will have on them.

Electro-sensitive people like myself, who are already unable to live near existing cell towers and antennas because of debilitating physical impacts, will have nowhere to go. Even if we find what we think is a safe place to live, we will not be able to control whether a neighbor installs a 5G antenna right next door. Possibly we will not know it has happened until we become sick. You must not take away community control…[[69]](#footnote-69)

I already live like a hermit avoiding cell towers and meters and humans. I’ve spent most of the past 7 years sick and in bed 1/2 half of the time. It is hard enough to go to the food store and not be sick, the last thing I need is to have 5G on every street pole.[[70]](#footnote-70)

I am microwave radiation sensitive, it gives me Ocular (eye) migraines where I lose sight then get a horrible migraine. Life was unbearable living across the street from a cell tower and I had to move.[[71]](#footnote-71)

1. Some reported suffering from both brain tumors and Radiation Sickness:

My wife is chronically ill, dealing with disabling effects of brain tumors and autoimmunity, and she is especially sensitive to EMF emissions. Your proposal could very likely cause severe health consequences for my wife and many others, and it is at odds with our Constitutionally protected rights to Life, Liberty and the pursuit of Happiness.[[72]](#footnote-72)

I am a resident of Elburn with multiple brain tumors, severe migraine disorder, and vertigo. These symptoms are exacerbated greatly by EMF emissions from wireless devices to the point of being quite debilitating**.** The proposed rules would allow the proliferation of EMF-emitting wireless antennas without regulation, blocking the assertion of my rights and my due process. The installation of 5G on my property or in my town without my or my town's consent would be disabling to my health and infringes upon my rights as well as state's and town's rights.[[73]](#footnote-73)

1. Given the prevalence of Radiation Sickness, the OTARD amendment will have vast implications on large and segments of the population and will certainly exacerbate this rapidly growing but outrageously ignored public health problem.

**CHD’s organizational standing**.

1. I know first-hand about the torturing pain, the disabling symptoms, and the harsh reality of suffering sickness from wireless radiation. In 2009, like many others, I too developed Radiation Sickness. I was evaluated and diagnosed by three doctors. Professor William Meggs, MD, PhD, a Prof. of Emergency Medicine and Toxicology who blind tested me. I could reliably detect EMFs. The blinded test also showed that my heart rate increased whenever I was exposed. Like many who suffer severe symptoms, it is increasingly challenging for me to spend time “in the world.” After one year of intense exposure to Wi-Fi from neighbors, because I could not find a safe house, I developed daily headaches, difficulty sleeping and heart palpitations and cognitive issues. I had blood tests done and they were shocking. My thyroid hormones are out of balance and in dangerous levels; the inflammation in the high-risk zone including for a heart attack. My sugar levels were diabetes borderline. I had gained a lot of weight but not due to diet. I was losing my sense of touch, a sign that my nervous system is shutting down.
2. I had to leave and eventually found a safer home. I now live in a rural area with barely tolerable RF levels but that could quickly change. Like many others who have Radiation Sickness, OTARD will have immediate and irreparable impact on my life. In fact, it already has. I have 4 neighbors who are about 150 feet away from me. If a hub/relay is installed by one of them or nearby, with no notice, I will learn about it by getting sick. I will have to leave and go back to living in my car. I live in daily fear of that happening. In anticipation of that day, knowing I will have to leave fast, I keep my possessions to a minimum, only what I can fit in my car. Of course, if I have nowhere to live, there is also a real likelihood that I will not be able to keep my job nor will I be able to find a new one. After being sick for already 10 years, I do not have financial resources and if I lose my job, I cannot support myself financially. I do not know where to go from here and how I will be able to even just survived. I survived many years of inhumane existence with Radiation Sickness because I am practical and strong, But OTARD leaves me and many others with no way to exist.
3. I also experience the consequences of the constant increase in exposure every day in my work. I am contacted daily by people who became sick after antennas were installed near their homes or by those who realize that their illness is caused by their wireless devices. I am contacted by parents whose children are severely sick because of cell towers in or near their children’s school. I am contacted by doctors who are becoming aware of the significant role wireless radiation has in the sicknesses they see in their clinics. I am contacted by parents who are looking for a doctor who is aware of the health effects of wireless technology in order to diagnose their child so they can ask for accommodation.
4. I am also contacted daily by people who are sick from wireless radiation, and the increased exposure is making it is impossible for them to continue to stay in their homes. Despite their efforts, they cannot find a safe place to live where they will not suffer every minute of their existence so they can sleep, think, and function. Very few such places now exist, mainly in rural areas. Some found a place. Others are on the roads looking, some for many months and even years. Others just live in their cars, constantly. The rule amendment will cause more to be in this desperate situation.
5. For the past 4 years, I have been traveling around the country to educate federal, state and local public officials, doctors and communities. I have given many dozens of public lectures. I have presented to hundreds of elected officials to educate them on the impact of uncontrolled deployment of wireless on many of their constituents and help the injured in their efforts to get accommodation.
6. The motivation behind my work in the past 9 years has always been protecting children and those who have become sick by wireless radiation. Therefore, I was grateful when CHD decided to address this grave public health issue. CHD has provided a good platform to work for recognition, change and a way to help those who suffer from radiation.

**CHD’s organizational standing and irreparable harm**

1. Children’s Health Defense has Article III standing to bring and prosecute this case and motion on behalf of its members.
2. The decision under review has directly injured our members who developed Radiation Sickness or other sickness associated with wireless exposure or a condition which is aggravated by wireless exposure. 823 of our members filed to the docket together with CHD and declared that they and or their children are sick from wireless radiation. Without a stay immediate and irreparable harm will be caused to them.
3. Children Health Defense participated below.[[74]](#footnote-74), [[75]](#footnote-75) CHD has Hobbs Act and Article III standing and grounds to pursue this matter on its own behalf and in a representative capacity for its members.
4. CHD is essential to the many more adults and children who are suffering as we speak, feeling anxious and hopeless. They are afraid of the devastating effects on their health and lives that no doubt will follow if the rule goes into effect.
5. The OTARD rule amendment will cause immediate and irreparable harm to CHD’s ability to achieve our mission and our ability to assist our members and the public. These harms go far beyond, and are in addition to, the time and significant resources dedicated to prosecution of this petition for review and motion for stay.
6. A central part of our work is supporting those who need accommodation because of their wireless radiation related sickness. For example, we recently assisted Affiant Michele Hertz when she needed accommodation from exposure caused by a private company.
7. CHD has had to allocate substantial human and financial resources to address and mitigate the societal harms created or maintained by the FCC’s rule amendment. CHD has already had to divert resources from other projects unrelated to wireless matters. For example, a paid legal intern was relocated from another project to assist.
8. The FCC rule amendment will require that CHD invest additional resources toward advocacy, counseling, referrals, education, and other legal actions related to its Wireless Harms Project. CHD has had to increase the amount of work hours of its managerial, professional, and other personnel to help maintain and update its website with campaigns, articles and answering a growing number of emails, phone calls and other requests for assistance. The additional workload has already required that I hire additional professionals that the organization did not budget.
9. To address the overwhelming implications of the OTARD amendment, we will have to intensify our efforts to educate the public about the harms that these hubs/relays may cause their sick neighbors. Hopefully, as a result, people will refuse to enter contracts with fixed wireless companies to install these devices on their homes. I have approached a graphic designer to help us create memes (images) for that effort.
10. The OTARD amendment will increase radiation levels in homes. As a result, it will increase the number of people who will approach us for advice on how to shield their homes. We can refer people to EMF mitigation specialists. However, hiring an expert can be expensive and those who are sick many times cannot work and have no financial means so we must find alternatives. We will have to create more webinars, write more articles to provide people with advice and guidance on things they can do themselves.
11. To support our many members who are injured by the new rule, if a stay is not granted, we will try and budget to pay an attorney to help people file lawsuits and seek damages under the Tucker Act, the only recourse that will stay available to the injured.
12. The FCC’s OTARD rule amendment will lead to increased and unnecessary wireless exposure and will imposes more, higher, and even impossible hurdles to those who have already become sick. In turn, these people are coming to us for help in ever-growing numbers. We will have more demand for referrals, more demand for information, more demand for participation in educational events and more requests for mitigation advice. The rule amendment will exponentially increase these demands.
13. We get more desperate calls from people who are sick and feeling increasingly worse from growing radiation levels. They ask for advice as to where they can go and who can help them. OTARD will make this problem exponentially worse as many people will be forced out of their homes.
14. As part of our efforts to address the harms that will be created by the amended OTARD, we have been working with a group of other organizations to educate the public about the effects that will be caused by SpaceX deployment of 42,000 satellites and 1,000,000 on the ground antennas to offer a competitor service to existing internet providers. The OTARD rule amendment facilitates this massive satellite ground infrastructure. We have supported efforts for a protest, participated in a nationwide letter campaign, gave interviews on TV and radios and wrote articles on the subject. We will have to expand these efforts.
15. CHD’s EMF Child Ambassador Project aims to encourage and support children to get involved and educate their peers about the science and how to reduce exposure. For example, we support children who decided to conduct their science projects on wireless harms. We provide them information, RF meters to measure exposure levels and offer access to experts who can assist them. We publish their work on our social media platforms. Through this project we also support those children whose parents are sick or who they are sick themselves.
16. The sick children, as the affidavits indicate, are experiencing severe pain and physiological injuries. In addition, they encounter an abusive system that denies and/or disregards their condition and rights. Just as in the case of Ginger Kessler and Angela Tsiang’s children, many of these children are forced out of school, into isolation and lose social connections. Their home has become their whole world and the only place they can exist with fewer symptoms scary pains. Their future looks rather bleak. Our Child Ambassador Project supports and aims to empower the sick children to speak up about their experience, have a voice and encourages them to act and work towards change. The OTARD amendment will require us to expand that program.
17. Youth suicidal ideation is increasing. OTARD will aggravate the psychological damage caused to the sick children from being ignored, dismissed, ridiculed, being regarded as an ‘obstacle” by their government that now forces them out of their homes. More children will contemplate committing suicide. CHD will have to invest more efforts to support these children.
18. A decision by this Court to stay the FCC order would provide meaningful relief. It would give some small hope to all those who suffer every day, will allow them for now to stay in their homes and not lose their health and livelihood. It would allow them to maintain their status quo which is indeed dire but exponentially better than with OTARD amendment in effect. A stay will maintain some chance of recovery of and some hope for a tolerable existence. It would also validate their condition and remove the stigma flowing from the FCC’s disregard of their sickness and existence. It will give them some little hope there is and will always be a place for them in society. It may well prevent scores of suicides.

**CHD in representative capacity**

1. Several of the affidavits (Michele Hertz, Dr. David Hoffman’s wife and daughter, Jennifer Baran and her two sons) included in the Motion are from CHD members who suffer from Radiation Sickness or have family members with the affliction. Two of them participated below. Michele Hertz filed independently to the record below and Dr. David Hoffman, joined CHD’s filing. They describe their injuries in their affidavits. CHD is representing their interests, and the hundreds of others that also have the condition.
2. Our sick members and their children need to be protected. Instead, the OTARD rule amendment removes what little protection they presently have. It will require us to expend more resources trying to identify some means to help those who come to us and then taking what few avenues remain. We will have more to do, but fewer options, and those that still exist will cost more. Actions against governmental bodies and large private companies are complex and expensive.

Effects of OTARD on CHD Members

1. Central to the OTARD rule amendment is extension of the communications link afforded by a fixed wireless arrangement to individual user end points using Wi-Fi or a similar wireless local area network topology that can now traverse property lines and irradiate people who have valid reasons to object to exposure and have little or no relationship to the person who sets up the arrangement.
2. A major cause of concern for our members and thousands like them is that OTARD hubs and switches will be located in close proximity to their homes and even their children’s bedroom windows. The radiation will invade people’s homes and the already pervasive radiation will become even more intense.
3. The rule also takes-away what little due process remains for those whose lives are ruined. One of the most concerning aspects is that under OTARD, “hubs” and “relay” antennas can be deployed without any duty to provide notice or duty to consider accommodation requests. This expansion of the preemption of local zoning procedures and homeowner association deed restrictions – in contrast to the situation where those procedures and restrictions still apply for common carrier personal wireless services – will undoubtedly lead to more unconstrained proliferation of wireless networks. Indeed, that is the stated purpose.
4. Planned Communities. Those who moved to a planned community, in order to avoid wireless radiation and to be somewhat protected because of bylaws that restrict antenna deployment especially for commercial purposes, will lose all their rights, and their plans and expectations will be crushed together with their health or the health of their children or spouses.
5. Safe Communities. I am aware of groups of people who are working to establish wireless-free communities. They worked hard to find and purchase or lease homes in these communities. The OTARD amendment will undo all these efforts because homeowners’ association rules, deed restrictions and all state-law based contracts are preempted and rendered unenforceable.
6. Effect on children. The effect the rule amendment will have on children is especially concerning. Growing numbers of children are becoming sickened by radiation sources at or near their schools. One major cause is wireless local area networks – the very thing facilitated by the rule amendment. I cannot keep count of the conversations I had with members’ children and how this condition has impacted them. Many expressed being afraid that their peers will learn about it. Their lives have been ruined and their future have been robbed. They too are desperate and often hopeless. I know of A 15-year-old with Radiation Sickness hanged herself from a tree.
7. Affected parents must remove their children from these schools and provide home schooling, but the growing forced exposure within people’s own home is making it impossible for these children to get better and they are getting worse. Their home is their entire world: as cell towers have been installed in parks, playgrounds and even churches, the increasing levels of radiation outside their homes is intolerable to them. Their lives are very limited and isolated, but this rule amendment will eliminate even the safety within the home.
8. Financial implications. According to a survey conducted by Prof. Golomb, 50% of those who became affected by wireless radiation, had to leave their job. Those who were able to keep their job because of the effects of the OTARD amendment may lose their livelihood and ability to financially sustain themselves. For those whose sickness already made it impossible to have a job, further deterioration to their health caused by wireless expansion that affects their home will put them in an even worse financial situation.
9. No Refuge. Many of those who have been injured will be forced (once again) to leave their homes in search of the next refuge, but there will be no refuge. The *Order* states that the rule change will enable significant deployment and therefore expand wireless broadband, especially in rural areas. I have no doubt this is true. The problem is that it will increase wireless radiation in the few remaining areas where it is still possible to find refuge from such radiation. Even in rural areas, a place that is safe one day could easily become unsafe the next.
10. The OTARD amendment will subject the injured to more radiation and take away the little control and due process rights that they currently have. The plain effect of the rule amendment is that people who are already injured or that will be injured from the new emissions source will suffer further irreparable harm to their health. They will not be able to seek and obtain accommodation under state disabilities laws. Nor – given the scope of claimed preemption of state tort laws – can the injured receive any compensation after the fact. Therefore, the rule amendment will have intolerable and irreparable adverse effect on the health and finances of those who are injured.
11. CHD members and CHD have each and all suffered and will suffer concrete and particularized injuries traceable to the FCC’s decision. These injuries are redressable by a stay from the court, thereby meeting Hobbs Act and Article III standing requirements.

**The balancing of interests undoubtedly and overwhelmingly supports a stay.**

1. Maintaining the status-quo until a final decision in the case is in the public’s interest. Unbearable and irreparable harm will befall the Movants, Affiants, their children and their families. Immense and irreparable harm will also be caused to many all around the country including children. This rule harms those who are the most vulnerable and they are many. For those who suffer from Radiation Sickness and for others whose conditions may be exacerbated by wireless radiation with conditions like ADHD, Autism and seizures among others, the rule amendment takes away their right to exist even in their home.
2. The rule will cause irreparable harm to their health, to some the harm can be life threatening like to Movant Mirin’s wife, Affiant Dr. Hoffman’s wife and Affiant Baran whose son suffers radiation-induced seizures. It will cause emotional damage as was described by Movant Tsiang and her son. They will suffer unrecoverable financial costs for shielding their homes or from having to leave their homes and losing jobs. But the worst, they will have to choose between staying in their homes and being extremely sick or leaving but having nowhere to go.
3. CHD members and CHD have suffered and will suffer concrete and particularized injuries traceable to the FCC’s decision. These injuries are redressable by a stay from the Court, thereby meeting Hobbs Act and Article III standing requirements.
4. Every house in the US currently has access to some kind of broadband internet. No real harm will be caused to people who want it. Those who seek to have broadband internet access and currently do not have DSL, cables, or fiber optic, can still have access to “own property” fixed wireless including point to point wireless and satellite.
5. The only advantage the OTARD amendment will offer to users is competition and therefore possibly cheaper options. But of course, since people are unaware about the harm wireless radiation can cause, they do not take into consideration the potential costs of developing sickness, the burden on society or the tax and personal impacts.
6. The harm to those who are sick, its nature, scale and scope far outweighs any harm that may be caused to the providers of fixed wireless. The rule amendment allows these companies to expand the services they offer, but they do not yet have a vested interest in these services. In fact, a stay is also in their best interest. If Petitioners prevail in the case and the court vacates the amended rule, these companies may incur losses. A stay is in the best interests of all concerned.
7. The harm that will be caused by the FCC’s OTARD amendment is vast, devastating, and irreparable. The rule amendment will immediately and undoubtedly increase the size of an already-enormous though ignored and suppressed problem. The effects of this rule amendment are egregious and morally and legally unconscionable.
8. This concludes my Affidavit.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on March 18, 2021

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Dafna Tachover

**TACHOVER Attachment 1**

**TACHOVER Attachment 2**

1. [https://www.academicpedsjnl.net/article/S1876-2859(10)00250-0/fulltext](https://www.academicpedsjnl.net/article/S1876-2859%2810%2900250-0/fulltext). [↑](#footnote-ref-1)
2. <https://www.fcc.gov/ecfs/filing/104171342025759>. [↑](#footnote-ref-2)
3. <https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20OTARD%20Objectors%20Declaration.pdf>. [↑](#footnote-ref-3)
4. https://www.fcc.gov/ecfs/filing/105191672708448. [↑](#footnote-ref-4)
5. <https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf>. [↑](#footnote-ref-5)
6. <https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20OTARD%20Objectors%20Declaration.pdf>. [↑](#footnote-ref-6)
7. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=690. [↑](#footnote-ref-7)
8. *Order* ¶34, <https://ecfsapi.fcc.gov/file/01072222126137/FCC-21-10A1.pdf#page=19>. [↑](#footnote-ref-8)
9. <https://ecfsapi.fcc.gov/file/10052040910188/EUROPAEM%20EMF%20Guideline%202015-Belyaev%20et%20al%202015.pdf>. [↑](#footnote-ref-9)
10. [https://ecfsapi.fcc.gov/file/1091546800918/Guideline%20of%20the%20Austrian%20Medical%20Association%20for%20the%20diagnosis%20and%20treatment%20of%20EMF%20related%20health%20problems%20and%20illnesses%20(EMF%20syndrome).pdf](https://ecfsapi.fcc.gov/file/1091546800918/Guideline%20of%20the%20Austrian%20Medical%20Association%20for%20the%20diagnosis%20and%20treatment%20of%20EMF%20related%20health%20problems%20and%20illnesses%20%28EMF%20syndrome%29.pdf). [↑](#footnote-ref-10)
11. <https://ecfsapi.fcc.gov/file/109160003723483/Electrohypersensitivity%20as%20a%20Newly%20Identified%20and%20Characterized%20Neurologic%20Pathological%20Disorder%3B%20How%20to%20Diagnose%2C%20Treat%20and%20Prevent%20it-Belpomme%202020.pdf>. [↑](#footnote-ref-11)
12. https://ecfsapi.fcc.gov/file/10914872405454/Naval%20Medical%20Research%20Institute%20Bibliography%20of%20reported%20biological%20effects...1972%20Full%20Report.pdf#page=10. [↑](#footnote-ref-12)
13. [https://ecfsapi.fcc.gov/file/109153103001086/RADIO%20FREQUENCY%20MICROWAVE%20RADIATION%20BIOLOGICAL%20EFFECTS%20AND%20SAFETY%20STANDARDS-A%20REVIEW%20(Air%20Force%201994).pdf](https://ecfsapi.fcc.gov/file/109153103001086/RADIO%20FREQUENCY%20MICROWAVE%20RADIATION%20BIOLOGICAL%20EFFECTS%20AND%20SAFETY%20STANDARDS-A%20REVIEW%20%28Air%20Force%201994%29.pdf). See conclusions on p.18 “Experimental evidence has shown that exposure to low intensity radiation can have a profound effect on biological process.” [↑](#footnote-ref-13)
14. <https://ecfsapi.fcc.gov/file/1007064529654/AFFIDAVIT%20OF%20Susan%20D.%20Foster%2C%20MSW.pdf>. [↑](#footnote-ref-14)
15. https://ecfsapi.fcc.gov/file/100518466598/FCC%20comments%20of%20Deborah%20Kopald%2014-177%2C%2015-256%2C%2010-112%2C%20and%2097-95.pdf. [↑](#footnote-ref-15)
16. <https://www.nap.edu/read/25889/chapter/1>. [↑](#footnote-ref-16)
17. <https://ecfsapi.fcc.gov/file/109160003723483/Electrohypersensitivity%20as%20a%20Newly%20Identified%20and%20Characterized%20Neurologic%20Pathological%20Disorder%3B%20How%20to%20Diagnose%2C%20Treat%20and%20Prevent%20it-Belpomme%202020.pdf>. [↑](#footnote-ref-17)
18. <https://ecfsapi.fcc.gov/file/10912004686552/Reliable%20Disease%20Biomarkers%20Characterizing%20and%20Identifying%20EHS%20%26%20Multiple%20Chemical%20Sensitivity%20as%202%20Etioparthogenic%20Aspects%20of%20a%20Unique%20Pathological%20Disord.pdf>. [↑](#footnote-ref-18)
19. <https://ecfsapi.fcc.gov/file/10052040910188/EUROPAEM%20EMF%20Guideline%202015-Belyaev%20et%20al%202015.pdf>. [↑](#footnote-ref-19)
20. https://ecfsapi.fcc.gov/file/1005862318785/Dr\_Erica\_Mallery-Blythe\_EHS\_A\_Summary\_Working\_Draft\_Version\_1\_Dec\_2014\_for\_EESC\_Brussels\_(3)%20(1).pdf#page=41. [↑](#footnote-ref-20)
21. <https://ecfsapi.fcc.gov/file/10912004686552/Reliable%20Disease%20Biomarkers%20Characterizing%20and%20Identifying%20EHS%20%26%20Multiple%20Chemical%20Sensitivity%20as%202%20Etioparthogenic%20Aspects%20of%20a%20Unique%20Pathological%20Disord.pdf>. [↑](#footnote-ref-21)
22. <https://ecfsapi.fcc.gov/file/10912254241147/Functional%20brain%20MRI%20in%20patients%20complaining%20of%20electrohypersensitivity%20after%20long%20term%20exposure%20to%20electromagnetic%20fields-Heuse-%202017.pdf>. [↑](#footnote-ref-22)
23. Drs. Heuser Publisher a Corrigendum to explain the controls used in the study. <https://www.degruyter.com/document/doi/10.1515/reveh-2017-0027/html>. The controls were a composition fused fMRIs of a normal subjects in the 7 years prior to the 2017 study. Particular attention should be paid to the normal activity demonstrated in the frontal lobe in controls as opposed to the subjects. [↑](#footnote-ref-23)
24. [https://ecfsapi.fcc.gov/file/10908969213114/Abstracts%20of%20research%20publications%20on%20radiofrequency%20radiation%20and%20free%20radical%20(oxidative)%20effects-Henry%20Lai.pdf](https://ecfsapi.fcc.gov/file/10908969213114/Abstracts%20of%20research%20publications%20on%20radiofrequency%20radiation%20and%20free%20radical%20%28oxidative%29%20effects-Henry%20Lai.pdf). [↑](#footnote-ref-24)
25. <https://www.bafu.admin.ch/bafu/en/home/topics/electrosmog/newsletter-of-the-swiss-expert-group-on-electromagnetic-fields-a.html>. [↑](#footnote-ref-25)
26. <https://ecfsapi.fcc.gov/file/10908599004195/Public%20Health%20Implications%20of%20the%20Proposed%20Cell%20Phone%20Transmission%20Tower%20at%20Oakway%20Golf%20Course.pdf>, see pages 4 and 38. [↑](#footnote-ref-26)
27. <https://ecfsapi.fcc.gov/file/109111924311695/How%20does%20long%20term%20exposure%20to%20base%20stations%20and%20mobile%20phones%20affect%20human%20hormone%20profiles-eskander%202012.pdf>. [↑](#footnote-ref-27)
28. <https://ecfsapi.fcc.gov/file/100245258363/RFR%20Research%20Summary%20Henry%20Lai%202017.pdf>. See pages 234, 463, 602, 819. [↑](#footnote-ref-28)
29. See Architectural and Transportation Barriers Compliance Board, ADA Accessibility Guidelines for Recreation Facilities, 68 FR 56351 (Sept. 3, 2002). [↑](#footnote-ref-29)
30. <https://ecfsapi.fcc.gov/file/1006784928637/IEQ%20Indoor%20Environmental%20Quality.pdf>. [↑](#footnote-ref-30)
31. http://www.gencourt.state.nh.us/statstudcomm/committees/1474/reports/5G%20final%20report.pdf [↑](#footnote-ref-31)
32. <https://ecfsapi.fcc.gov/file/109121913528616/Letter%20to%20the%20Editor-%20Will%20We%20All%20Become%20Electrosensitive-Hallberg%2C%20Oberfeld.pdf>. [↑](#footnote-ref-32)
33. [https://ecfsapi.fcc.gov/file/1005862318785/Dr\_Erica\_Mallery-Blythe\_EHS\_A\_Summary\_Working\_Draft\_Version\_1\_Dec\_2014\_for\_EESC\_Brussels\_(3)%20(1).pdf](https://ecfsapi.fcc.gov/file/1005862318785/Dr_Erica_Mallery-Blythe_EHS_A_Summary_Working_Draft_Version_1_Dec_2014_for_EESC_Brussels_%283%29%20%281%29.pdf) pages 3 and 13. [↑](#footnote-ref-33)
34. Levallois P, Neutra R, Lee G, Hristova L. Study of self-reported hypersensitivity to electromagnetic fields in California. Environ Health Perspect 2002;110 (Suppl. 4):619–23. <https://ecfsapi.fcc.gov/file/100518466598/FCC%20comments%20of%20Deborah%20Kopald%2014-177%2C%2015-256%2C%2010-112%2C%20and%2097-95.pdf#page=2>. [↑](#footnote-ref-34)
35. “Just over 6.8 million community-resident Americans use assistive devices to help them with mobility. This group comprises 1.7 million wheelchair or scooter riders and 6.1 million users of other mobility devices, such as canes, crutches, and walkers.” <https://www.disabled-world.com/disability/statistics/mobility-stats.php>. [↑](#footnote-ref-35)
36. <https://ecfsapi.fcc.gov/file/100518466598/FCC%20comments%20of%20Deborah%20Kopald%2014-177%2C%2015-256%2C%2010-112%2C%20and%2097-95.pdf#page=2>. [↑](#footnote-ref-36)
37. [https://www.academicpedsjnl.net/article/S1876-2859(10)00250-0/fulltext](https://www.academicpedsjnl.net/article/S1876-2859%2810%2900250-0/fulltext). [↑](#footnote-ref-37)
38. <http://jamanetwork.com/journals/jamanetworkopen/fullarticle/10.1001/jamanetworkopen.2019.14344?utm_source=For_The_Media&utm_medium=referral&utm_campaign=ftm_links&utm_term=110119>. [↑](#footnote-ref-38)
39. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2698633>. [↑](#footnote-ref-39)
40. <https://ecfsapi.fcc.gov/file/109152869421632/Fetal%20Radiofrequency%20Radiation%20Exposure%20From%20800-1900%20Mhz-Rated%20Cellular%20Telephones%20affect%20neurodevelopment%20and%20behavior%20in%20mice-Aldad2012.pdf>. [↑](#footnote-ref-40)
41. <https://ecfsapi.fcc.gov/file/10911303968358/Cell%20phone%20use%20and%20behavioural%20problems%20in-young%20children-Divan-2010-UCLA%20Study.pdf>. [↑](#footnote-ref-41)
42. <https://ecfsapi.fcc.gov/file/1091233914433/Study%20Questions%20Safety%20Of%20Children%27s%20Exposure%20To%20Cell%20Phones%20During%20Prenatal%20And%20Early%20Childhood%20Period-Jonathan%20and%20Karin%20Fielding%20School%20of%20Public%20Health.pdf>. [↑](#footnote-ref-42)
43. <https://ecfsapi.fcc.gov/file/10911303968358/Cell%20Phone%20Use%20and%20Prenatal%20Exposure%20to%20Cell%20Phone%20Radiation%20May%20Cause%20Headache%20in%20Childre%E2%80%93Smart%26Safe%20EMF%20Solutions.pdf>. [↑](#footnote-ref-43)
44. <https://www.webmd.com/brain/autism/news/20181126/report-autism-rate-rises-to-1-in-40-children>. [↑](#footnote-ref-44)
45. <https://ecfsapi.fcc.gov/file/1002203764328/Autism%20and%20EMF%20Plausibility%20of%20a%20pathophysiological%20link%20%E2%80%93%20Part%20I.pdf>. [↑](#footnote-ref-45)
46. <https://ecfsapi.fcc.gov/file/1002203764328/Autism%20and%20EMF%20Plausibility%20of%20a%20pathophysiological%20link%20%E2%80%93%20Part%20Il.pdf>. [↑](#footnote-ref-46)
47. <https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=318>, line 6808. [↑](#footnote-ref-47)
48. <https://www.childhealthdata.org/learn-about-the-nsch/NSCH>. [↑](#footnote-ref-48)
49. <https://ecfsapi.fcc.gov/file/1091442657471/Cuban%20Embassy-Beatrice%20Golomb%20PhD-Microwave%20Attack.pdf#page=8>. [↑](#footnote-ref-49)
50. [https://ecfsapi.fcc.gov/file/1005862318785/Dr\_Erica\_Mallery-Blythe\_EHS\_A\_Summary\_Working\_Draft\_Version\_1\_Dec\_2014\_for\_EESC\_Brussels\_(3)%20(1).pdf](https://ecfsapi.fcc.gov/file/1005862318785/Dr_Erica_Mallery-Blythe_EHS_A_Summary_Working_Draft_Version_1_Dec_2014_for_EESC_Brussels_%283%29%20%281%29.pdf). [↑](#footnote-ref-50)
51. <https://www.fcc.gov/ecfs/filing/10617257800411>. [↑](#footnote-ref-51)
52. <https://www.fcc.gov/ecfs/filing/10603278568272>. [↑](#footnote-ref-52)
53. <https://www.fcc.gov/ecfs/filing/10618099426968>. [↑](#footnote-ref-53)
54. <https://sleepassociation.org/sleep-disorders/>. [↑](#footnote-ref-54)
55. <https://ecfsapi.fcc.gov/file/109100958802926/Electromagnetic%20fields%2C%20such%20as%20those%20from%20mobile%20phones%2C%20alter%20regional%20cerebral%20blood%20flow%20and%20sleep%20and%20waking%20EEG-Huber%202002.pdf>. [↑](#footnote-ref-55)
56. <https://ecfsapi.fcc.gov/file/10910894904877/Mobile%20phone%20%E2%80%98talk-mode%E2%80%99%20signal%20delays%20EEG-determined%20sleep%20onset-Hung%202007.pdf>. [↑](#footnote-ref-56)
57. [https://ecfsapi.fcc.gov/file/100577665439/12b-%20Cell%20Tower%20Studies%20-%20(Attachment%2012-%20900%2B%20Studies-%20General%20Opposition%20Statement%20-%20File%2013-0953).pdf](https://ecfsapi.fcc.gov/file/100577665439/12b-%20Cell%20Tower%20Studies%20-%20%28Attachment%2012-%20900%2B%20Studies-%20General%20Opposition%20Statement%20-%20File%2013-0953%29.pdf). [↑](#footnote-ref-57)
58. <https://ecfsapi.fcc.gov/file/10912004686552/Reliable%20Disease%20Biomarkers%20Characterizing%20and%20Identifying%20EHS%20%26%20Multiple%20Chemical%20Sensitivity%20as%202%20Etioparthogenic%20Aspects%20of%20a%20Unique%20Pathological%20Disord.pdf>. [↑](#footnote-ref-58)
59. <https://ecfsapi.fcc.gov/file/10914872405454/Naval%20Medical%20Research%20Institute-Bibliography%20of%20reported%20biological%20effects...%201972%20Partial%20Report-Symptom%20List.pdf#page=12>. [↑](#footnote-ref-59)
60. The Defense Intelligence Agency warned its personnel of the risk from low-level microwaves including illnesses ranging from microwave sickness (flu like symptoms, depression, suicidal tendencies) to cancers and leuemia. Biological effects of electromagnetic radiation (radiowaves and microwaves) - Eurasian Communist Countries, Defense Intelligence Agency: DST-1810S-074-76, March (1976) available at <https://www.dia.mil/FOIA/FOIA-Electronic-Reading-Room/FOIA-Reading-Room-Nuclear-Biological-and-Chemical/FileId/39946/>. [↑](#footnote-ref-60)
61. <https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf>. [↑](#footnote-ref-61)
62. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=181. [↑](#footnote-ref-62)
63. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=278. [↑](#footnote-ref-63)
64. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=418. [↑](#footnote-ref-64)
65. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=79. [↑](#footnote-ref-65)
66. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=371. [↑](#footnote-ref-66)
67. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=337. [↑](#footnote-ref-67)
68. https://ecfsapi.fcc.gov/file/105191672708448/Tachover%20Exhibit%202%20List%20of%20Objecting%20Persons.pdf#page=418 [↑](#footnote-ref-68)
69. <https://www.fcc.gov/ecfs/filing/1011037210617>. [↑](#footnote-ref-69)
70. <https://www.fcc.gov/ecfs/filing/10618119639263>. [↑](#footnote-ref-70)
71. <https://www.fcc.gov/ecfs/filing/10618079523172>. [↑](#footnote-ref-71)
72. <https://www.fcc.gov/ecfs/filing/1061795629597>. [↑](#footnote-ref-72)
73. <https://www.fcc.gov/ecfs/filing/10617547901248>. [↑](#footnote-ref-73)
74. <https://www.fcc.gov/ecfs/filing/104171342025759>. [↑](#footnote-ref-74)
75. https://www.fcc.gov/ecfs/filing/105191672708448. [↑](#footnote-ref-75)