

Introduction

I am submitting this comment to the "Request for Information on Electromagnetic Fields (EMFs), Radiofrequency (RF) Radiation, and Wireless Radiation Exposure", Docket HHS-OASH-2026-0397.

My comment is grounded in my personal experience of major adverse health impacts from wireless exposure and my foray into the knowledge aspect of this topic. I hope my experience can help HHS prioritize and fund independent, ongoing research into the health impacts of wireless exposure with the necessary breadth and depth, given the extreme complexity of the subject. I further hope it will emphasize that many Americans are suffering from exposure-related illnesses today, that delays in research and updates to FCC guidelines will only prolong and intensify that suffering. Finally, I hope that HHS can spur the development of the tools, technology, and methodologies needed to continuously monitor and assess health impacts as the wireless landscape continues to rapidly evolve.

Background

My comment will focus primarily on the "Public Experiences and Reported Potential Adverse Health Effects" question from the RFI.

I am a male in my mid-40s: a father, daily meditator, non-smoker, with a good diet, and generally healthy. I live and work in New York City, and have done so for 15+ years. I experience wireless exposure and major symptoms due to this exposure at home, out and about in the city, during my commute, and occupationally in the workplace. I work as a software engineer for a major technology company, where the office connectivity infrastructure is a dense network of ceiling-mounted WiFi routers, and the majority of employee devices connect via wireless.

I started noticing sensitivity to wireless radiation around 2013. I would feel uncomfortable buzzing and tingling in my fingers and hands when using my smart phone, or when using a bluetooth keyboard. I started using "grounding" products such as grounded mats to manage my discomfort at home and at work. I purchased my first EMF measurement device (by Cornet) in 2015. I joined the Environmental Health Trust (ehtrust.org) mailing list and read updates from Dr. Devra Davis with concern.

Symptoms both broadened and intensified by 2018. I felt buzzing in many parts of my body, muscle palpitations, and cognitive impairment. By then I had switched to using wired (ethernet) connections for the majority of my internet usage, using long cables to connect to my laptop around my apartment. I switched to using a router with custom firmware allowing me to limit the WiFi transmission power and easily disable WiFi completely, which I did at night. I used a wired keyboard and mouse, and wired headphones. I was routinely disabling the data connection on my cell phone or keeping it in airplane mode when not in direct, active use. I was feeling increasingly besieged by exposure in the workplace; I always scanned the ceiling for WiFi router placement when deciding where to sit, and used EMF meters to check ambient levels when I

began to feel ill. I noticed the onset of debilitating brain fog and memory issues whenever I sat under or near such routers for more than a few moments. The brain fog could last for hours or even overnight.

In late 2021, I began to notice a dramatic worsening of my symptoms while in my NYC apartment. Around that time, I noticed that two light pole-mounted wireless antennas had been installed, without warning, kitty-corner at the intersection right in front of our building. This was in addition to the many existing roof-mounted installations on many buildings in the vicinity, and many increasingly highly-powered WiFi networks I could see from neighbors in the building. Such antennas were cropping up everywhere across the city, as well as even larger and uglier cell mast antennas. Around this time Con Edison conducted a very aggressive, misguided campaign to replace residential gas meters with smart meters. I declined to have one installed in our apartment, however I believe most neighbors acquiesced. I pay an extra monthly "meter read" fee for the privilege of not having wireless exposure from my gas meter.

My apartment began to feel uninhabitable by me. I was feeling fatigue and trouble with concentration and remembering things all the time. I started taking even more protective measures, such as painting walls with EMF shielding paint (YShield), installing RF shielding films on windows and shielding fabric drapes around them, installing Stetzer filters, and using a grounded bed canopy. I realized that exposure during sleeping hours was robbing my body of its restorative state, causing symptoms to accumulate from day to day. These measures all helped somewhat, but were only partial solutions. I even started wearing an ugly and uncomfortable headache hat called a "Soothie" at home, to protect my brain and quell debilitating inflammation to some degree. All of these attempted mitigations clearly underscored the fact that I had been made a kind of sad refugee in my own city and in my own home. I started viewing other apartments on the housing market, with EMF meter in hand, and found that many units also had shockingly high levels of wireless exposure.

Last month (2026), I had a consultation with a neurologist at Weill-Cornell Medicine and related my symptom history specifically related to sensitivity to wireless. The doctor was sympathetic, yet was also unfamiliar with the symptom profile and did not have a diagnosis or relevant literature to offer. I also recently saw a renowned cardiologist and told him my observation that some past heart palpitations were correlated with the presence of wireless frequencies. The cardiologist then revealed that his son was EMF sensitive and had to move to a farm in the countryside to manage his symptoms. I later learned about an organization called "Physicians for Safe Technology" (<https://mdsafetech.org/>) dedicated to increasing awareness of wireless risks among healthcare practitioners. It turns out that Dr. Magda Havas had been warning about wireless exposure dangers since 2011 or earlier (see "WiFi in Schools is Safe. True or False?" <https://www.youtube.com/watch?v=6v75sKAUFdc>).

A colleague at work (software engineer also) told me that they are EMF sensitive. They need to wear a special shielding hood when they drive. I also experience serious issues during driving, such as headaches, fatigue, and other cognitive impacts. I believe these are due to both the inability to disable bluetooth in the vehicle, and the telemetry systems in modern vehicles that

continuously deliver data to car manufacturers via mobile networks, which also cannot be disabled. In public spaces, playgrounds, businesses, hospitals, college campuses such as the Columbia University main campus, and in the NYC subway system, I have both experienced the now-familiar symptoms of exposure, and measured high peak RF power with my meters. At work, I sit apart from the colleagues with whom I work most closely, because they are situated in areas of high exposure. I can feel stabs of pain in my brain when beam-forming access points connect to devices near me that are not under my control. I also notice that many employees look tired, ashen, and sickly after working on their wirelessly connected laptops all day.

Insights and Recommendations

I believe the questions posed by the RFI particularly in the sections "Exposure Standards and Risk Assessment" and "Measuring Human Exposure and Public Health Surveillance" are critically important and are the right questions to be asking. As a non-expert, I can simply discuss how my own experience with the harmful effects of wireless exposure and my own journey to find answers confirms the importance of these inquiries.

Firstly, it is clear that there is high variability in how people experience symptoms from wireless exposure. Some individuals are, for reasons that are not yet well understood, extremely sensitive, while others are hardly sensitive at all. I believe HHS should invest substantial resources in surveying, understanding, and root causing this variation. I believe the highly sensitive cohort is a "canary in the coalmine", telling us about health impacts that may already be at a low burn for the wider population, and which will manifest more as device usage and exposure increases. Wireless sensitivity should be explicitly recognized as a disability with ADA protections and accommodations (note prior art in <https://www.emrsyndrome.org/disability-accommodations>) with concomitant educational outreach.

Second, wireless sensitivity should be acknowledged and regarded as a diagnosable condition, which will require the development of novel testing, validation, and education that does not exist today. A patient visiting a neurologist with headache, brain fog, and body tingling complaints should be able to obtain a well-supported diagnosis of wireless sensitivity when testing deems it appropriate. Some prior studies in this area were not able to ascertain the specific conditions under which sensitivity in individuals would be triggered, and have been portrayed to conclude that sensitivity was a sham and/or psychosomatic in origin. The deficiencies in those studies need to be understood so that new, more comprehensive studies address those gaps.

Third, wireless exposure symptoms should be studied from the perspective of multifactorial causation of disease. Dr. Dietrich Klinghardt has done research that shows molds and other disease cells becoming much more toxic and pathogenic in the presence of wireless radiation. It stands to reason that those more sensitive to wireless may be experiencing an effect that relates to secondary or tertiary factors within the body, such as active infections that are not yet recognized that are somehow exacerbated by the radiation. Lyme disease may be one example, as the Lyme bacteria is known to cause systemic neuron demyelination, which might make the

nerves more sensitive to ambient electrical signals. Other compounds within the body such as heavy metals, calcium channels, or toxins may also be activated by particular and specific wireless frequencies.

Fourth, it is critical to focus on quantifying the effects of non-ionizing radiation. The National Toxicology Program's (NTP) 2018 cell phone radiation study found that 2G and 3G-like wireless exposure at non-ionizing levels caused tumors in male rats and DNA damage in both sexes (<https://www.nih.gov/news-events/news-releases/high-exposure-radio-frequency-radiation-associated-cancer-male-rats>). HHS must achieve a comprehensive understanding of the mechanisms for these adverse outcomes and decisively refute the dogma that only ionizing radiation can cause biological effects, if that is what the evidence shows. The mechanism must be non obvious, and deserve intense study. I believe that it will be imperative to study the effect of the information carrier aspect of wireless radiation, not only the frequencies and power levels, to properly correlate it to biological effects. Recent generations of wireless technologies are exceedingly complex, such that mechanism studies should be designed in close collaboration with experts in radio frequency physics.

Note that the non-ionizing radiation insight suggests that currently available consumer grade devices for measuring wireless exposure may have a misguided pure focus on peak power density exposure. If different frequencies have different impacts, and furthermore if different information carried across a given frequency matters, then high or low peak power do not have a simple correspondence to risk. New tools are needed, and HHS research can be the basis for their design. These are the very tools needed for Americans to themselves be empowered to minimize their exposure risk. Wild idea - could we design and/or require every smart phone sold to have an "exposure monitoring" (passive, non-transmitting) mode to plot exposures over time and support analysis for non-ionizing type risk, so every consumer can choose to self monitor?

Fifth, HHS research must be the forcing function for regulatory responsiveness by the FCC with respect to wireless safety. Today's limits were established by the FCC in 1996. Their failure to update those limits in 2019 were determined to be a breach of their statutory requirements in 2021 ("Environmental Health Trust vs. FCC"), yet here we are in 2026 still with no limits update. Even if new research is funded and prioritized now, it will likely take several years to emerge. The NTP cell phone radiation study alone took 10+ years to complete. Meanwhile, new wireless technologies are being deployed to communities and consumers at breakneck speed by the telecommunications industry, while the FCC is unlikely to put on the brakes. To meet this challenge, HHS must prime and then continually and generously feed the wireless safety research pipeline for the foreseeable future, then distill recommendations to raise to the FCC as quickly as possible.

Relatedly, on the question of "What existing national and international exposure standards, guidelines, or regulatory frameworks should federal health agencies consider when evaluating the potential adverse health effects of human exposure to RF/EMF?", it stands to reason to evaluate the principles and research behind the standards of countries that have substantially more restrictive limits on exposure, including but not limited to Russia, Switzerland, Italy, and

China. How did they arrive at their conclusions? How does their population-level data compare to our own?

Sixth, there appears to be no surveillance system in place to monitor for incidence rates of health impacts from wireless exposure; there is no analog to the VAERS or V-safe systems in the context of vaccine safety monitoring. Yet I have read much anecdotal evidence of sudden spikes in cancers and other pathologies in homes near new cell antenna installations. HHS should design a robust reporting system to ingest, process, and review reports from not only from healthcare providers, but also as a priority from residents in proximity to known wireless infrastructure deployments, past and future, to enable comparative before vs. after assessments. This data can be used to fuel observational studies to answer the RFI question, "What scientific evidence exists about potential adverse health effects caused by current exposure limits?"

Seventh, I believe that existing studies on the health impacts of wireless exposure are deficient in part because they lack realism and cannot provoke an experimental result based on cumulative exposure, that is, "simultaneous exposure to multiple frequencies" from the RFI. More realistic tests would employ dozens or perhaps hundreds of nearby devices simulating active device use, all operating at different and varying frequencies, and connecting to endpoints both far and near, over longer time horizons. All this, designed with reproducibility in mind. Real world exposure sampling in workplaces (in offices such as my own), airplanes, hospitals, and other settings can inform the experimental setup. A comprehensive set of metrics should be collected and analyzed for all subjects, including but not limited to brain waves associated with stress states, real time cognitive / concentration / memory capabilities, oxidative stress, inflammatory markers, and blood flow and viscosity (identifying red blood cell coagulation, i.e. rouleaux).

Conclusion

I shared my personal account of suffering with moderate sensitivity to wireless exposure, which hopefully makes the condition feel real to the reader, and moreover highlights how inescapable exposure is in our modern urban environments and how there is currently no effective countervailing force pushing back against ever increasing exposure. I noted some luminary doctors whom HHS should certainly consider consulting through its EMF/RF exposure health program.

This is a call to action for HHS, as public health is most certainly not being served currently with respect to health impacts of wireless exposure. Concretely and in summary, I recommended the following:

1. Research to understand and catalog the root causes of wireless sensitivity in individuals that experience it. Recognize wireless sensitivity as a disability.
2. Research and formulate effective diagnostic criteria and assessment methods for wireless sensitivity.

3. Research how infections past or present, toxins, and other factors may have an amplifying effect on the health consequences to wireless exposure.
4. Research to develop a clear understanding of whether and how non-ionizing radiation can cause negative health impacts, working closely with experts in RF physics. Develop tools for Americans to effectively identify wireless risks in their environments.
5. Make research into wireless safety an ongoing, high priority focus with the intent to empower FCC to adjust exposure limits according to an evidence-based approach. Evaluate and integrate competing international standards such as from Russia, Switzerland, Italy, and China.
6. Establish a wireless health impact monitoring system, and explicitly prioritize residents living near past and future wireless infrastructure deployment sites. Feed this collected data into urgent research.
7. Design exposure studies to be more realistic, and to collect a wider and more useful array of metrics that may be more likely to quantify health impacts.

Respectfully submitted.