

PUBLIC COMMENT • OCTOBER 19, 2026

Living With Severe Environmental Intolerance: Two Firsthand Accounts and a Request for Rigorous RF/EMF Research

Submitted to: U.S. Department of Health and Human Services

RFI: Electromagnetic Fields (EMFs), Radiofrequency (RF) Radiation, and Wireless Radiation Exposure | Docket HHS-OASH-2026-0397

Perspectives: Patient; spouse and caregiver; retired psychotherapist. First names only; anonymity requested.

Purpose and RFI alignment

This is one combined public comment from two members of the same household. Jo provides a first-person account of longstanding illness, the progressive loss of independence and our attempts to adapt the home. Robert provides a separate account of what he personally observed, documented and did as her husband and caregiver. We offer our experiences as firsthand information, distinct from cited studies and from questions that require further scientific examination.

We believe electrical and wireless environments may have contributed to Jo's difficulties, and we ask HHS to investigate those possibilities rigorously and impartially. Our household adaptations occurred in stages: in 2018, after learning about Dr. Magda Havas's research, we turned off all household Wi-Fi and began using wired Ethernet connections where needed; on May 22, 2020, we shut off every household circuit breaker and then selectively restored essential circuits; and in 2023, we added wiring-noise filters. Each step has remained part of our continuing effort to reduce Jo's symptoms. We do not attribute every episode to a proven individual source. We ask, above all, that the severity of the illness, the loss of ordinary freedom and the barriers to care be treated as consequential observations in their own right.

Questions addressed: Question 2 (perspective); Question 3 (patient and family experiences, sources, symptoms, adaptations and records); Questions 8 and 11 (real-world assessment and potentially sensitive populations); Questions 12, 13 and 15 (existing evidence, cumulative patterns and infrastructure); and Questions 16 and 18 (research priorities and additional information).

I. Jo's first-person testimony

My difficulties did not begin all at once. Looking back over my life, I believe exposure to certain electrical environments and forms of electromagnetic radiation may have contributed to a long, gradual deterioration in my health. Some of my symptoms became more severe over many years. I have not simply had one illness followed by recovery. Little by little, I have lost the ability to participate in ordinary life.

As a child in Oregon I lived near radio-station antenna towers in the Coquille area. Later, in the North Bend and Coos Bay area, I lived for a time near a military or Coast Guard radar facility. I remember equipment that was visible from our residence. I cannot give investigators measured exposure levels from that period. But I believe the possibility of early and repeated exposure deserves investigation, particularly in light of my lifelong history of health difficulties.

During my later working years I experienced severe reactions to some chemicals and lighting conditions, together with chronic pain and episodes of illness. Chemical sensitivities, including reactions to laundry products, have been present since early life. I have suffered migraine headaches

for most of my life. Headaches also frequently develop when I am in environments that bring on my other symptoms, and overhead lighting is particularly difficult for me to tolerate. On one occasion, Robert took me to a hospital because of a severe migraine, and I was treated with an intravenous solution; we do not know which medication or solution I received. I am asking investigators to consider how different environmental conditions, possibly in combination, might affect a person over time.

In 2018 my husband told me about unusual symptoms he had observed in a fellow worker diagnosed with multiple sclerosis. I recognized similarities with some of my own experiences. This led me, also in 2018, to find Dr. Magda Havas's report and a video presentation about electromagnetic hypersensitivity and what she calls dirty electricity. Her descriptions of severe symptoms and possible ways of changing electrical environments resonated deeply with me. That same year, Robert and I turned off and removed household Wi-Fi and changed to wired Ethernet connections wherever internet access was needed. We did not shut off our household circuit breakers at that time. That separate, extensive step came on May 22, 2020: we turned off every breaker and then restored only the circuits we judged necessary. In 2023, we added electrical-noise filters. All three stages have been important parts of our efforts to make our home more tolerable.

The years in our home in Gilbert were particularly difficult. Large electrical transmission structures were near our residence. Wireless devices also operated near the wall at the head of our bed, including a Wi-Fi unit that my husband estimates was less than three feet from my head when I slept. We believe those circumstances may have contributed to my worsening health. In 2018 we eliminated Wi-Fi from our household and began using wired Ethernet connections instead.

I experience certain symptoms in relation to ordinary electrical environments and other symptoms in relation to wireless or higher-frequency environments. Some overlap, but I have noticed differences. I want researchers to take such patterns seriously enough to investigate them rather than assuming all these exposures are interchangeable.

My health and independence declined in stages. Years ago I could accompany my husband inside grocery stores. Sometimes within five to fifteen minutes, my thinking and ability to function declined dramatically. At times I could not process what was happening or continue shopping, and he would have to guide me outside. I have also experienced episodes when I became unable to speak - mute. This loss of speech is an important symptom in its own right, not simply another way to describe difficulty concentrating.

In 2019 my husband was hospitalized overnight for severe pain associated with his gallbladder and gallstones. I tried to remain with him in the emergency department, but each time I went inside I quickly became intensely ill and had to go back outside. I returned to him and then had to leave again, repeatedly, throughout the evening. Two members of our church came to help and drove me home, since I was unable to drive. Robert has the hospital bills confirming that this occurred in 2019. This experience showed how even an emergency involving someone I love had become difficult for me to participate in.

After some outings, the worst symptoms were delayed. Often a day or two later, I could become very ill, with vomiting and a need to remain in bed for a day or two; recovery might take roughly another two to five days. We suspected that something about the environment contributed to those episodes. What exactly it was remains a question for investigation.

By 2021, I no longer went inside grocery stores. But I still went along with my husband and waited in the car. I wanted the simple pleasure of being away from home and sharing part of an outing with him, even if I could not enter the store.

At the end of January 2025, I went with him as a passenger on a trip to a pet store in Mesa to obtain rats. Our rats are companion animals and an important part of my life. That trip mattered because it involved something dear to me and because it meant I could still participate, in a limited way, in the world beyond our home. Along the route were buildings, homes, vehicles and people using a variety of transmitting wireless technologies. Those sources exist, but their precise contribution to my illness during that trip has not been established.

After the Mesa outing, I also tried accompanying my husband on trips to Fry's, Safeway and the pharmacy. The pharmacy visit in March 2025 was my final outing with him. He went inside for approximately ten to fifteen minutes and I waited in our vehicle. I became ill in the familiar way. I suspected several possible contributors, including mobile phones in nearby cars, wireless equipment built into modern vehicles, and systems operating inside the pharmacy. What I know is that these trips became increasingly difficult and were followed by periods of suffering.

Since that pharmacy trip, I have stayed at home. I no longer believe that leaving is safe for me, given the symptoms that have followed attempts to travel. Whatever their ultimate cause, my illness and the resulting loss of freedom are real. Homebound life has been profoundly isolating. I have lost not merely the convenience of shopping but much of the independence, spontaneity, participation, companionship and pleasure that ordinary outings provide.

Even being homebound does not mean I can necessarily use remote health care. For a time I saw my psychologist by telehealth, but I can no longer comfortably participate that way. I experience intensified burning pain, headache, difficulty thinking and dizziness in connection with the equipment and sessions, followed sometimes a day or two later by vomiting. We suspect an environmental contribution but do not have measurements establishing a specific source. Losing telehealth has closed another route to care that once remained available when traveling became difficult.

My husband and I have attempted many adaptations. In 2018 we turned off all household Wi-Fi and began using Ethernet cords for connections we still needed. We keep phones away from me, use DC-powered lighting in place of much of the built-in lighting, and have adapted our cooking and sleeping arrangements. Our next major electrical change came on May 22, 2020, when we turned off every circuit breaker at the outdoor panel near the garage and reconsidered each circuit one by one. Many remain switched off, and only those we judged essential or occasionally necessary were restored. Later, in 2023, we added electrical-noise filters as another measure; the filters did not mark the beginning of our efforts. Overhead lighting can trigger headaches and other symptoms for me. We also arranged removal of an RF-enabled utility meter in favor of a manually read meter. These decisions require effort, money and continuing sacrifice. Some measures have helped me more consistently than others, and some approaches that once helped have stopped being reliable.

Living with so many circuits turned off affects almost everything I do. There are no powered outlets in some of the areas where I spend my time. We often live in dimness or darkness because ordinary lights are unavailable, and in winter the long evenings can feel especially bleak. We sometimes cover the windows of our upstairs living area to reduce relentless outside noise, sacrificing still more daylight. The difference between turning on a light and deciding whether it is worth turning on a circuit has become part of ordinary life. We have accepted one inconvenience after another in the hope of avoiding more severe symptoms.

The kitchen remains especially difficult for me. I describe feeling as though unidentified frequencies are knocking me around; my headaches can worsen, I become dizzy and unsteady, and nausea may follow. Sometimes I cook a meal for the two of us and then feel too ill to eat it. We have four electrical-

noise filters in the kitchen and believe they help somewhat, but that room continues to be a serious problem despite our other efforts to reduce powered circuits throughout the house.

My efforts are not confined to electrical changes. I have experimented with nutrition, supplements, homemade household and body-care products, hydrotherapy, movement and stretching, art, gardening and caring for our companion animals. These routines can require much of my limited energy. Some provide comfort or meaning; I do not suggest that every intervention has been scientifically shown to help my condition.

Electrical-noise filtering was the third major stage of changes that began when we eliminated household Wi-Fi and switched to wired Ethernet in 2018. On May 22, 2020, we turned off every household circuit breaker before selectively reactivating essential circuits. In 2023, building on those earlier measures, we installed Greenwave dirty-electricity filters. We began with one Greenwave Spectrum 2500i filter and a Broadband EMI Meter in a test kit. In May 2023 we also ordered a four-bedroom filter kit. Greenwave's published 2022 product summary lists twenty filters in that kit, which would mean twenty-one filters acquired in all. Robert physically located nineteen in our home in October 2026; the location of the other two is presently unknown. Using the Greenwave Broadband EMI Meter, we measured very high electrical-noise readings on our wiring before filtering and substantial reductions afterward. These were meter readings, not simply impressions. We also observed practical, enduring changes. Before filtering, our crockpot ran too hot and frequently burned food; after filtering, it cooked much more consistently and continues to operate today, unlike the previous model that had failed. We had also replaced about three countertop cooktops and a space heater following premature failures. Four filters are now in the kitchen, yet I continue to experience pronounced difficulty there. We believe both the reduced number of powered circuits and the filtering measures have helped in some respects; neither has restored the ordinary use of our home.

For years, we searched for a mattress I could tolerate, trying approximately six different types. Two stacked cotton mattresses were among the arrangements I could use, but they were hard and uncomfortable against my sore body. The latex mattress we purchased in 2022 did not work for me at the time, and other purchases did not solve the problem. Long ago, in the early 2000s, we purchased a California king foam-and-memory-foam mattress at Costco. We had loved it and kept it even after it grew worn. I later cut that mattress in half so it could be used in our upstairs living and sleeping room. Robert found that one half, positioned sideways, was unusually comfortable and supportive for him. In October 2026 I tried the other half. It was softer against my body while still supporting my lower back. After so many difficult experiments, I am finally comfortable on a familiar mattress we already owned. I do not know why this particular arrangement is working now, but the change matters enormously to my everyday comfort.

The weather has been part of my experience for much of my life. I grew up on the Oregon coast, where wind was common, and I remember becoming physically worse in windy conditions even then. Windy days, nearby storms and electrical thunderstorms continue to affect me, sometimes quite severely. The wind around October 15–16, 2026, was another difficult period. I also notice pronounced worsening at times of heightened solar activity, sunspots and solar maximum. Robert and I are beginning to assemble dates of major symptom episodes so we can compare them with historical solar activity. I want this longstanding pattern to be among the subjects examined seriously, along with the electrical and wireless environmental conditions that we have investigated.

I use the words "Itchy, bitchy, and twitchy" to describe a warning pattern I have come to recognize. When it happens, I believe an RF source may be close and I need to find a way to leave or otherwise manage the situation. I want these exact words retained because others who live with similar

experiences may recognize what I am trying to describe. This is how I experience and name the warning, not a laboratory identification of the source.

At times the physical effects are overwhelming. In late September and early October 2026 I went through a particularly severe episode. For two or three days I could eat nothing at all; nothing would stay down, and I managed only occasional sips of water. For another two or three days I could consume only small amounts of applesauce, saltine crackers and ginger ale. I lost approximately ten pounds over five days. I experienced repeated throat irritation, coughing, sneezing, gagging and vomiting, dizziness, tremors, profound weakness and extreme tiredness. I remain profoundly fatigued and have not yet fully recovered my energy. For days I spent extraordinary amounts of time in a bathtub or shower because steady water pressure and movement between cooler and warmer water could provide some temporary relief. I became bruised and developed sore areas of skin from so much time against hard surfaces.

As the vomiting and dizziness gradually eased, another problem intensified: searing, hot burning pain throughout my head - experienced even as burning in my brain - and in my back and feet. It became completely unbearable. Years ago, when pain became intolerable, I would tear at a particular spot on my upper back near my neck, and I sometimes wanted to pull at my hair. I have not acted on those behaviors for years and did not do so during this episode, although I felt those urges again. I had already been unable to inhale cannabis because inhalation set off coughing and vomiting. I decided to see how I would do without it. When the burning grew more severe, my husband encouraged me to reconsider. I reluctantly tried cannabis-infused chocolate. I reported a remarkably quick cessation of the burning, first in my feet and then elsewhere, and returned to the approach that I believe helps me. The experience was extraordinary to me. I am describing the relief as I experienced it, without claiming that its immediate timing has been pharmacologically explained.

My husband has also seen violent tremors subside within minutes after I was able to take a few inhalations of cannabis during earlier episodes. Those observed changes belong in my history, even though exactly how and why they occurred remains a question. For me, access to measures that bring relief has been a significant part of living with this illness.

The reactions do not all begin and end at the same time. Sometimes I experience symptoms quickly. At other times I deteriorate over the next day or several days, and the effects can disrupt a substantial portion of my life before I recover. I have tried hard to understand these patterns, manage my environment and preserve my independence, but my world has grown smaller.

I want investigators to examine the explanations that Robert and I believe may be important, including early exposure near radio and radar installations, sustained exposure to wireless devices, and different characteristics of electrical and higher-frequency environments. We also ask whether repeated, lower-intensity exposures over many years or a lifetime, perhaps alongside chemical exposures, could contribute to serious neurological injury. Our interest in this question was reinforced by a reported antenna-worker accident followed by medically documented demyelinating disease. We welcome impartial scientific investigation, including work capable of disproving our hypotheses. Please prove us wrong if the evidence does so. But please do not treat uncertainty about the cause as uncertainty about the illness or the profound decline in my ability to live my life.

II. Robert's separate eyewitness statement

I am a retired psychotherapist. I have personally witnessed Jo's progressive loss of independence and daily functioning over many years. When she could still enter grocery stores, I saw her ability to think and navigate the environment sometimes deteriorate within approximately five to fifteen minutes, and

I had to guide her outside. Jo has also experienced episodes of becoming mute; this deserves to be documented separately from difficulty concentrating or thinking, without assuming the speech episodes necessarily occurred during the store visits.

One episode I remember vividly occurred during my 2019 emergency hospital stay for a gallbladder/gallstone-related problem. Jo repeatedly entered the emergency department to be with me, became ill, went outside, and then tried again. Eventually friends from church had to take her home. The 2019 date is confirmed by my hospital billing records, not reconstructed from memory. It remains a particularly powerful example of how these limitations affect access to medical settings and our life together.

I witnessed patterns in which she became ill after outings, at times with substantial vomiting, bed rest and recovery lasting days. I cannot identify a particular electromagnetic source as the cause of any individual episode. I can identify the sequence we lived through and the growing practical consequences.

Jo confirmed that by 2021 she had stopped entering grocery stores, though she still accompanied me and waited in the car. She wanted to be out of our home and take part in an ordinary outing in whatever way she could. At the end of January 2025 we drove to Mesa to obtain rats for us. These are not incidental animals to her: they are important companion pets, and that errand was personally meaningful.

After the Mesa trip, Jo tried accompanying me to Fry's, Safeway and the pharmacy. The pharmacy visit, in March 2025, was the last time she left home with me. She remained in the car for approximately ten to fifteen minutes while I went inside. These outings were followed by severe burning pain, dizziness, nausea and illness lasting for days - at times two or three days, and following some attempts about four days. I also witnessed a sudden, intense anger that seemed to overtake her without an argument, conflict or other evident situational trigger. Following these experiences, she stopped accompanying me outside our home. This is an extraordinary hardship: she has lost the simple freedom of riding in the car, visiting a store or enjoying a shared errand. Her isolation is a major consequence in its own right.

We used to go everywhere together and enjoyed it enormously - errands, outings and travel to Los Angeles, Disneyland, Chicago, and the historical towns and caves of southern Arizona. I miss those experiences with my wife deeply. Losing that time together has been heartbreaking. We have continued to work actively and persistently to make our home livable and to preserve a meaningful life together, but the restrictions have made that extraordinarily difficult.

Modern cars, mobile phones, buildings and retail premises can contain RF transmitters and ordinary electrical equipment. The existence of these sources is not in dispute. The question is what Jo was actually exposed to at relevant times and whether any source or combination contributed to her symptoms. Based on repeated observations we have strong working beliefs, not proof of every mechanism. We expressly invite unbiased investigation.

During the recent episode, I repeatedly witnessed a sequence beginning with a throat tickle and progressing through coughing, sneezing, gagging and vomiting, over roughly three or four days. I observed her prolonged attempts to gain relief in the bathtub and shower, together with bruising and early pressure-related skin injury. As the respiratory and gastrointestinal symptoms lessened, she described worsening searing burning pain in her head, back and feet. For days she could take only sips of water and then very limited bland food. She lost approximately ten pounds in five days, and her exhaustion has continued beyond the acute episode. I saw how extreme her need for relief remained.

She did not tear at the painful spot on her upper back or pull at her hair, as she had felt driven to do in years past, but she told me the urges had returned.

I have witnessed prior episodes in which violent tremors stopped within a few minutes of Jo inhaling a small amount of cannabis. During this latest illness, inhalation was intolerable, because it precipitated coughing and vomiting. After several days without cannabis and intensifying burning pain, she consumed a cannabis-infused chocolate and reported very rapid relief. I can attest to her report and to the broader sequence; I cannot establish the pharmaceutical mechanism or exact onset of absorption.

I welcome the federal government's growing recognition that medical cannabis merits serious research, including evidence from patients who find meaningful relief. President Trump's December 18, 2025 executive order, "Increasing Medical Marijuana and Cannabidiol Research," called for stronger research and the use of real-world evidence. On April 23, 2026, the Justice Department and DEA announced that qualifying state-licensed medical marijuana products and FDA-approved products containing marijuana were being placed into Schedule III, while a separate process continued for broader rescheduling. Jo has repeatedly experienced significant relief from cannabis during otherwise intolerable episodes. I hope HHS will take such patient experiences seriously as evidence worth studying.

We have changed the operation of our home in extensive ways, and the chronology matters. In 2018 I spoke with Jo about a fellow worker diagnosed with multiple sclerosis whose unusual symptoms I had observed. Jo then accessed Dr. Magda Havas's report and a related video presentation that same year. Following that discovery, in 2018 we shut down all Wi-Fi in our home and substituted wired Ethernet connections as needed. Only on May 22, 2020, did we take the different step of going outside to the breaker panel near our garage and turning off every household electrical circuit. We then considered each breaker and the outlets, lighting and appliances it served, selectively restoring what we judged necessary. Many breakers have stayed off since that day. In 2023 we added Greenwave filtering: a Spectrum 2500i filter and meter test kit ordered May 1, followed by a four-bedroom kit in a completed May 31 order. The 2022 Greenwave catalog specifies twenty filters for a four-bedroom kit at the same \$620 list price recorded on our invoice, indicating twenty-one purchased filters including the first kit; I physically located nineteen on October 16, 2026. Two are not currently accounted for in my inventory. We used the Greenwave Broadband EMI Meter to measure very high readings before filtering and marked reductions afterward. Equally tangible were changes in the kitchen: the crockpot stopped scorching our food and has continued operating for years, unlike its predecessor. Another documentable event was the replacement of an RF-enabled utility meter by a manual-read mechanical meter in 2025. After that change, Jo reported significant improvement, and I also experienced a marked improvement in our household environment. We have photographs, utility communications, equipment records and some field measurements to accompany these accounts.

Our approach has required constant decisions about what electricity to leave available. The air conditioner, refrigeration and freezers, laundry equipment and laundry-room outlets, bathroom lights, upstairs hall lighting, and the lights and outlets in my upstairs office are among the services we have retained. Some circuits, including those serving the dishwasher and garbage disposal, remain powered; the microwave circuit is off. The spare downstairs bedroom, now used to store food and supplies, has no electricity available. Overhead light in Jo's craft room can be switched on, but she generally cannot remain there long with it operating, so she must rely on DC-powered light or leave. Many downstairs entry and living-area lights are ordinarily off. When visitors require lighting, I go outside, turn on two breakers for the relevant areas, and switch them back off afterward. This is an intentional, repeated routine, not a one-time experiment.

Our upstairs living and sleeping area has insufficient powered outlets for ordinary use. The television receives electricity through an extension cord connected in another room; we unplug it whenever it is not being used, including throughout the night. We frequently live with far less light than most households, especially during winter afternoons and evenings. At times, we also cover upstairs windows because of persistent road and aircraft noise, which makes an already dim room darker. These are consequential losses of convenience and comfort, and sometimes of cheerfulness, that we continue to accept because we have repeatedly observed that reduced electrical operation appears to lessen some of Jo's symptoms.

The kitchen remains one of the hardest places for Jo. She describes feeling knocked around by unidentified frequencies there. She becomes dizzy and has difficulty standing and preparing food; headaches intensify and nausea is common. More than once she has expended the effort to prepare a meal and then felt too sick to eat. We have four Greenwave filters in the kitchen, added to the broader program of keeping nonessential circuits off, and both of us believe some aspects have improved. But the kitchen remains an important unresolved problem, and a setting that deserves careful exposure and functional assessment.

Jo has long described distinct bodily worsening during wind and storms, and more recently we have been looking carefully at periods of sunspot and solar activity in relation to particularly serious symptom episodes. We are compiling dates for historical comparison. On October 15–16, 2026, strong wind coincided with another difficult period for her. Her response to wind is a longstanding observation dating to childhood on the Oregon coast, not merely a new explanation proposed after she became homebound.

We have tried an extraordinary range of sleeping arrangements over the years. The old California king memory-foam and foam mattress from Costco, purchased in the early 2000s for roughly \$900, had been moved to the upstairs family room floor after my 2019 overnight hospitalization. It eventually aggravated my lower back after only a few days of use. Jo skillfully cut it into two pieces. A few months ago I substituted one piece for a latex mattress, found it comfortable, and more recently we brought out the second piece for Jo. She now finds it soft against her body yet supportive when used sideways. Several purchased mattresses did not work for her. In particular, a mattress we bought from Sam's Club during the COVID period made her ill. Sam's gave us a full refund but declined to take it back at the store, and we gave the mattress away. Our repeated trials, modifications and reuse of old materials have involved considerable work as well as expense.

Our upstairs family room has become our principal living and sleeping area. We have placed large foam insulation panels along the walls as part of our effort to dampen intrusive sound from heavy local road traffic and aircraft. We maintain special sleeping arrangements, rely heavily on alternative lighting because so many household circuits remain off, and limit the electronics brought into the home. Notices at the entrance ask visitors to switch off or leave electronic devices outside. The garage-door opener offers another illustration of our routine: it is normally unplugged, and I connect it only when I need to take the car out. If I expect to be gone more than about an hour, Jo comes into the garage and unplugs it while I am away, then plugs it back in shortly before I return. A filter is attached at the opener's outlet. An October 2026 photograph records that physical connection, not whether a filtering benefit has been established. These are ordinary chores transformed into a continuous effort to keep our powered environment as limited as practicable.

The materials for our adaptations have also required repeated purchases and improvised construction. A Home Depot receipt dated September 21, 2026 documents four 1½-inch-thick, 4-by-8-foot polystyrene insulation panels at a total of \$92.96, purchased for our sound-dampening arrangements. An earlier

Home Depot order dated May 18, 2026 documents six 1-inch-by-10-foot PVC pipes for \$50.20, which I used to construct a support frame for electromagnetic-shielding fabric. These receipts document what we purchased and built; the household modifications are not presented as independently verified treatments.

Our current private receipt ledger identifies approximately \$4,350 in net expenditures across 25 selected household-adaptation purchases, after documented refunds. This limited figure includes the two additional Home Depot purchases described above. It does not include numerous earlier purchases without receipts, time and labor, lost opportunities, ongoing care supplies, or premiums. The surviving receipts and any identifying details in them are being retained privately rather than submitted wholesale.

Beyond the cost of equipment and changes to our home, Jo's care involves substantial recurring expenses. We devote approximately \$500 each month to cannabis and related products she uses for symptom relief, and another \$400 primarily to supplements and other health-related products. These are not merely hypothetical budget figures: we spend most or all of these amounts in a typical month, sometimes exceeding them. Together they represent about \$900 in ongoing monthly expenditures, or approximately \$10,800 at that monthly rate over a year, separate from the documented costs of equipment and home modifications. I have always tried to keep the things she needs available. If she needs something that may help her, I find a way to finance it, even when doing so requires sacrifice.

At the same time, more than \$200 each month is deducted from Jo's Social Security disability benefits for Medicare. She has not been able to make practical use of that coverage for several years because her condition prevents her from going to ordinary medical appointments, hospitals, and other care settings. The last services for which we used her Medicare coverage were visits with her psychologist, whom she no longer sees; much of her lengthy psychotherapy history was paid for out of pocket. We continue to pay for medical coverage she cannot realistically access in her present circumstances. I would dearly like to have those funds available for the treatments, supplies and accommodations she can actually use. For us, this is not simply a matter of having insurance. It is the painful difference between having coverage on paper and having access to care.

Jo once accessed psychotherapy by telehealth, including appointments with a psychologist, but that solution has also ceased to be workable. She associates remote-session equipment with increased burning, headache, cognitive dysfunction and dizziness; vomiting may follow after a delay of one or two days. We have not established which component of the equipment or environment, if any, causes those reactions. The practical result is nevertheless serious: even a service designed to reach people at home no longer gives her dependable access to professional care. We ask HHS to consider patients who cannot tolerate ordinary in-person care and also cannot reliably use the usual technology-based alternatives.

The lack of access also extends beyond Medicare-covered services. Jo would gladly return to our optometrist, a doctor she genuinely likes, for an updated eyeglass prescription if she could tolerate leaving home and entering his office. She also has dental problems that need attention. Unable to go to a dentist, she has worked proactively on oral hygiene and measures intended to protect and remineralize her teeth. Routine eyeglass refractions and most ordinary dental care are generally not covered by Original Medicare, so I am not suggesting that those particular appointments are covered benefits she has forfeited. I mention them because they illustrate how thoroughly she has lost access to normal health care. I would welcome an investigation of mobile dental and optometric services for severely homebound patients, including, where clinically feasible, practitioners using manual tools and arrangements that do not require electrical equipment plugged into our home.

The central fact I want HHS to grasp is that Jo did not suddenly become homebound. She progressively surrendered ordinary activities as illness and recovery consumed more and more of her life. We believe environmental exposures deserve close attention. We ask investigators to evaluate our beliefs critically, rather than to dismiss the history or assume the answers in advance.

III. Research foundation and questions for HHS

Applicable RFI Questions 8, 11, 12, 13, 15, 16 and 18

Why the research of Dr. Magda Havas matters to us

An especially important influence on our understanding and household choices has been Dr. Magda Havas's 2006 paper, 'Electromagnetic Hypersensitivity: Biological Effects of Dirty Electricity with Emphasis on Diabetes and Multiple Sclerosis.' The paper discusses high-frequency electrical transients on wiring and reports case observations involving fatigue, balance difficulties, tremors and changes after filtering. We recognize similarities to experiences in our home and believe those research leads deserve careful study. Our connection with this research began in 2018: Robert described symptoms he had observed in a fellow worker diagnosed with multiple sclerosis, and Jo then located Havas's report and video presentation, also in 2018. That year we eliminated household Wi-Fi and began using wired Ethernet. Two years later, on May 22, 2020, we switched off every household circuit breaker and selectively restored only those we considered essential. We did not purchase Greenwave filters until 2023. We ask HHS to examine the effects and interactions of these distinct changes, rather than treating wiring-noise filtering as our only measure. We are also interested in Havas's 2025 discussion of possible interacting environmental factors and individual vulnerability. [1, 2]

What we documented at home

Our earliest major wireless-network change was in 2018, when we switched off all household Wi-Fi and used wired Ethernet instead. On May 22, 2020, we shut down every breaker and then selectively restored essential circuits; since then, much of the house has remained deliberately unpowered. Building on those two earlier measures, in May 2023 we purchased a Greenwave Spectrum 2500i filter and Broadband EMI Meter test kit, followed by a four-bedroom kit. The manufacturer's contemporaneous materials identify twenty filters in the larger kit, for twenty-one purchased filters in total; nineteen were physically located in October 2026. Four are situated in the kitchen, which remains difficult for Jo despite our reported improvement from filtering and circuit restrictions. The meter showed marked reductions in its electrical-noise readings after the filters were installed. We also noticed changes in the cooking behavior of a crockpot. These are specific household observations we can report; they are not measurements of an individual's RF dose or a controlled test of medical benefit. Order records, manufacturer information, meter records and household photographs have been retained. [3]

Distinguish exposure categories, measurement and timing

We request research designs that distinguish radiofrequency emissions from wireless devices and infrastructure, power-frequency electric and magnetic fields, wiring-related electrical transients, and other environmental conditions. Modern buildings and vehicles may combine many different sources. Field measurements should specify frequency, waveform or modulation where appropriate, source distance, duty cycle, time profile and other meaningful conditions, rather than using one undifferentiated label for all RF/EMF exposure. Studies of wiring-noise filters should also document wireless-network status, circuit-breaker status and the number and types of energized loads: in our

case, we shut down household Wi-Fi in 2018, intentionally switched off many circuits in 2020 and only then installed filters in 2023. Participants should be followed for immediate symptoms, symptoms emerging one or two days later and prolonged recovery. Independent measures of health and function should accompany careful symptom histories.

Earlier exposures, cumulative exposure and neurological questions

Jo recalls childhood proximity to radio antennas and a radar-related installation on the Oregon coast, and later residence near transmission structures and wireless equipment. We ask whether historical records can help reconstruct the equipment, operating conditions and plausible exposure levels, rather than relying on memory alone. We also ask whether repeated lower-intensity or mixed exposures might have effects different from those of acute occupational incidents. A 2020 clinical case report describes delayed demyelinating lesions following a high-dose occupational RF exposure. Its circumstances are very different from Jo's; we cite it as a reason to investigate mechanisms and dose-pattern distinctions, not as evidence that she has the same condition or received the same exposure. [4]

Sensitive subgroups and functional outcomes

Research should not rely exclusively on broad group averages. We urge efforts to identify whether any reproducible subgroups experience severe symptoms, and to assess outcomes such as episodes of speech loss, cognitive difficulty, tremors, severe headaches and migraines, burning pain, vomiting, dizziness, sensory intolerance, fatigue and delayed exacerbations. Functional outcomes should include changes in mobility, independent living, social participation, ability to remain in health-care settings and recovery time. Research protocols should make participation feasible for those who are housebound.

Weather, atmosphere and prospective records

Jo reports physical worsening during wind, electrical storms and at times she associates with heightened solar activity. Because she remembers reactions to wind from childhood, we believe these observations merit being tested rather than dismissed or assumed causal. We propose prospective diaries combined with weather records, atmospheric electrical activity, barometric measurements, available geomagnetic and solar indexes, and simultaneous characterization of other variables. We have begun preserving episode dates for such comparison, but do not yet have a complete dataset.

Practical engineering and health-care access

We ask HHS to encourage independent evaluation of practical exposure-reduction and electrical power-quality methods, including selective circuit de-energization as well as filtering, with proper measurement of both technical performance and patient outcomes. We also ask agencies to consider people who cannot comfortably enter clinics or hospitals: home-based assessment, appropriate mobile dental and vision services, flexible scheduling, lower-stimulation care settings and alternatives to wireless-dependent technologies could be evaluated without assuming any particular cause of symptoms. Jo previously used telehealth, but that route is no longer workable for her because of symptoms she experiences during and after such sessions. Reduced access to care deserves attention even while etiological questions remain open.

We ask HHS to investigate practical accommodations for individuals whose symptoms and functional limitations prevent them from obtaining ordinary medical care. These might include home-based services, individualized accommodations within existing clinics and hospitals, and wired or non-transmitting communication options where feasible, without compromising essential medical safety. We also encourage consideration of a voluntary, privacy-protected patient registry and home-based

research participation, so that individuals who are severely homebound, including those unable to use conventional telehealth, are not excluded from the investigations intended to understand their circumstances.

An open research posture

Arthur Firstenberg's 'The Invisible Rainbow' has also stimulated our interest in cumulative historical exposure hypotheses. We do not ask HHS to accept the book as proof; we ask that specific, testable claims be evaluated against primary-source records and competing explanations. More generally, we welcome research designed to support, revise or refute our beliefs. We hope that any evidence-supported protective measures and useful accommodations can be made available sooner rather than decades from now.

Priority questions for federal investigators

1. What combinations of longitudinal exposure measurements, independently assessed function and prospective symptom reporting are feasible in homes, vehicles, shopping facilities and medical settings?
2. How can studies capture distinct symptoms and delayed responses, including episodes of muteness, cognitive changes, burning pain and gastrointestinal illness, without reducing all experiences to a single summary score?
3. What is the proper way to study individual variability, potentially sensitive subgroups, cumulative exposure and interaction with other environmental conditions?
4. Can the separate and combined effects of turning off nonessential electrical circuits and installing wiring-noise filters be evaluated with reproducible technical measurements and blinded or otherwise well-controlled health outcomes?
5. What records and assessment methods are appropriate when reconstructing historical proximity to antennas, radar facilities, transmission structures and sleeping-area wireless devices?
6. How should severe limitations on travel, social participation and access to medical, dental, vision and telehealth services be assessed and addressed while causes are investigated?
7. What independently verified engineering designs, home-based research methods, privacy-protected registries and practical clinical accommodations could make homes and health-care facilities more accessible to people reporting these reactions?

IV. Selected chronology and documentary record

This chronology is a concise orientation to reported events and retained supporting documents. Dates described as approximate are based on recollection; purchases, hospital billing and utility records provide independent date anchors where available.

Childhood / Oregon coast — Lived in areas with nearby radio antennas and later a radar-related installation; recalls chemical sensitivities, migraines and worsening during windy conditions.

1990s and later — Workplace chemical and lighting intolerance, longstanding migraines and increasingly complex symptoms.

About 2012 — Stopped driving, while still sometimes accompanying Robert as a passenger.

2018 — Robert told Jo about unusual symptoms observed in a fellow worker diagnosed with multiple sclerosis. Jo then accessed Dr. Magda Havas's report and video. The couple switched off all household Wi-Fi and adopted wired Ethernet connections where internet service was needed.

2019 — Repeatedly attempted to remain with Robert during his emergency hospital visit, but became too ill to stay; year supported by billing records.

May 22, 2020 onward — Turned off every household circuit breaker at the outdoor panel; restored only circuits judged essential, leaving many switched off and temporarily reactivating others when needed. This was distinct from the earlier 2018 Wi-Fi removal.

By 2021 — Stopped entering grocery stores but continued riding along and waiting in the vehicle.

May 2022 — Purchased latex mattress as one of many attempts to find tolerable sleeping arrangements; partial refund later obtained.

May–June 2023 — Purchased and installed Greenwave meter and filters as an additional measure after the 2018 Wi-Fi removal and 2020 circuit restrictions; four filters are in the kitchen. Purchase and measurement documentation retained.

Late January 2025 — Passenger trip to Mesa to obtain companion rats.

March 2025 — Last passenger outing, to a pharmacy; subsequently remained homebound. Also replaced wireless-enabled utility meter with a manual-read unit.

May 2026 — PVC pipe purchased to build support frame for electromagnetic-shielding fabric; receipt retained.

September–October 2026 — Severe episode with vomiting, inability to tolerate ordinary food, major fatigue, weight loss and searing pain; adaptations and support continued. Additional polystyrene sound-dampening panels purchased in September; receipt retained.

Selected documented costs and evidence handling

Our private receipt reconciliation currently accounts for about \$4,350 in net spending on twenty-five selected purchase transactions after identified refunds. New supporting purchases include six PVC pipes (\$50.20, May 2026) and four 1½-inch polystyrene sheets (\$92.96, September 2026). This is a partial equipment-and-adaptation ledger, not a complete estimate of illness-related losses. Recurrent cannabis and health-related product spending, and Medicare premiums, are reported separately in Robert's testimony and are not included in the subtotal.

The household retains selected invoices and refund records, Greenwave purchase and kit specifications, utility communications, meter documentation, photographs of adapted rooms and household notices, and records supporting the year of the 2019 hospitalization. The 2018 conversation about Robert's colleague and Jo's discovery of Havas's work, together with the 2018 removal of household Wi-Fi, are reported from household recollection. The May 22, 2020 breaker shutdown, selective return of essential service and ongoing switching routine are likewise described from household recollection and practice, rather than presented as independently audited exposure records. The 2023 filter purchases are supported by retained order documentation. Unredacted receipts and private household photographs have not been attached to this public document because they may include identifiers. This comment does not disclose unrelated individuals' identities or private health histories.

V. Selected sources and supporting publications

Published literature, policy references and manufacturer material are identified separately from our personal testimony. Product records support what was acquired; they do not by themselves establish medical effects. Sources [5] and [6] provide the policy context for the medical-cannabis research discussion in Robert's statement.

- [1] Havas, M. (2006). Electromagnetic hypersensitivity: Biological effects of dirty electricity with emphasis on diabetes and multiple sclerosis. *Electromagnetic Biology and Medicine*, 25(4), 259–268. <https://doi.org/10.1080/15368370601044192>
- [2] Havas, M. (2025). Precursors Need to be Considered to Promote Recovery from Idiopathic Environmental Intolerance—Attributed to Electromagnetic Fields. *Medical Research Archives*, 13(1). <https://doi.org/10.18103/mra.v13i1.6253>
- [3] Greenwave Filters (August 15, 2022). Greenwave Product Summary, p. 3 (four-bedroom kit listing). <https://greenwavefilters.com/wp-content/uploads/2022/08/Greenwave-Product-Summary-8-15-22.pdf>
- [4] Raefsky, S. M., Chaudhari, A., & Sy, M. Y. (2020). Delayed-onset multiphasic demyelinating lesions after high dose radiofrequency electromagnetic field exposure: A multiple sclerosis (MS) mimic. *Multiple Sclerosis and Related Disorders*, 45, 102318. <https://doi.org/10.1016/j.msard.2020.102318>
- [5] The White House (December 18, 2025). Executive Order 14370, Increasing Medical Marijuana and Cannabidiol Research. <https://www.whitehouse.gov/presidential-actions/2025/12/increasing-medical-marijuana-and-cannabidiol-research/>
- [6] U.S. Department of Justice (April 23, 2026). Announcement regarding Schedule III treatment of specified FDA-approved and qualifying state-regulated marijuana products. <https://www.justice.gov/opa/pr/justice-department-places-fda-approved-marijuana-products-and-products-containing-marijuana>
- [7] U.S. Department of Health and Human Services (September 21, 2026). Request for Information on Electromagnetic Fields, Radiofrequency Radiation, and Wireless Radiation Exposure. 91 Fed. Reg. 59792–59794. Docket HHS-OASH-2026-0397. <https://www.federalregister.gov/d/2026-19252>

Closing request

We respectfully ask HHS to give thoughtful consideration to the firsthand experiences presented here; to prioritize rigorous investigations of complex, real-world and cumulative electrical and wireless exposures; and to consider practical accommodations for individuals whose functioning and access to care have become severely restricted. Our household changes were progressive: we eliminated Wi-Fi in 2018, began living with selected household circuit breakers turned off in May 2020, and added electrical-noise filters in 2023. We have continued these sacrifices because we believe they have helped reduce some of Jo's suffering. We welcome fair tests of our beliefs, including findings that contradict them. What we hope will not be overlooked is the profound human cost of the illness we have described.