

Public Comment on EMF Exposure and Health

HHS-OASH-2026-0397 | Kaily Ball | October 15, 2026

I submit this comment as a rural Oklahoma resident and independent civic and policy researcher whose work spans healthcare, family agriculture and infrastructure oversight. For Question 2, I represent an individual and community perspective. My concern is whether patients, farms and local governments can obtain reliable information and a qualified response as electrical, wireless and industrial infrastructure expands.

I ask HHS to use this RFI on electromagnetic fields and radiofrequency (RF) exposure to strengthen the connection between scientific assessment and practical protection. The most useful improvements would make exposure information available before consequential decisions, connect patients to appropriate expertise and give communities the capacity to respond to findings. The following five requests build on existing programs and distinguish actions supported now from questions requiring further research.

1 Assess exposure before expansion

Questions 5, 7–9, 13 and 15

Establish a common exposure-assessment and reporting framework with the responsible agencies and standards bodies. It should identify relevant sources, operating conditions, methods, uncertainty and applicable comparison criteria. Where source screening warrants it, obtain a baseline before construction, verify conditions during commissioning and reassess after material changes or credible reports. Evaluate feasible design alternatives while placement, routing and operating practices can still change.

Measure the exposure relevant to the decision. European research shows that lower environmental RF in villages can coexist with higher readings during maximum handset uploading; temporal monitoring also documents changing conditions. [1, 2] Power-frequency fields, RF and agricultural contact currents need distinct methods. Related projects should provide compatible information about existing and proposed sources, with locations reflecting residential and farm use. A public summary should explain the findings and identify who can act. Noise, water, air emissions and ionizing radiation should retain their own assessment pathways.

2 Coordinate clinical care

Questions 3, 10, 11 and 17

Evaluate and address gaps in the route from a patient's concern to qualified clinical review. My experience with conflicting clinical recommendations makes continuity of care particularly important. Support a common approach to documenting the actual intervention, timing, symptoms, daily function and concurrent treatment, together with the clinician's reasoning and follow-up.

Maintain a distinct pathway for suspected implant interference, connecting the treating clinic, manufacturer and suitable exposure expertise. FDA already provides electromagnetic-compatibility and wireless-coexistence guidance. The needed improvement is accessible, coordinated advice when device instructions do not resolve a particular environment or combination of implants. Environmental compliance alone does not provide individualized device clearance. [3, 4]

For other symptoms, build on ATSDR's exposure-history resources and evaluate approaches such as Dutch guidance supporting medical assessment and discussion of modest adjustments with uncertain health benefit. [5, 6] Care should continue while causes are investigated. Services should accommodate disability, fatigue and communication or sensory needs, including those of autistic people, without presuming RF susceptibility. Measure completed referrals, time to useful advice, patient function and household costs.

3 Maintain current evidence assessments

Questions 5, 6, 12 and 16

Publish a maintained assessment by frequency, exposure and health outcome, with search dates, correction handling and clear reasons for retaining or revising guidance. FDA's 2020 cancer report is bounded by its scope and evidence cutoff. BERENIS offers a precedent for continuing appraisal with explicit selection criteria. [7, 8] Compare FCC requirements, ICNIRP guidance and Safety Code 6 using their actual metrics, populations and averaging assumptions. [9, 10, 11]

The assessment should integrate findings that point in different directions. The 2024 human cancer review and COSMOS cohort provide substantial reassuring evidence for several studied tumors. [12, 13] The corrected animal review retains male-rat tumor findings, while newer Japanese and Korean bioassays found no significant cancer increase under their protocols. Their designs and sensitivity remain subjects of published debate. [14, 15, 16, 17] HHS should identify which conclusions depend on disputed methods or extrapolation between exposure conditions.

Clinical questions require their own assessment. The experimental symptom review generally found no acute effect below regulatory limits, while noting that available information could not evaluate longer exposures or effects in elderly or chronically ill people. [18] State those findings and limitations together, and define what evidence would change a recommendation.

4 Evaluate practical interventions

Questions 5, 8, 10, 11 and 14–16

Prioritize studies according to the uncertainty they resolve and the decision a result could change. Improve exposure characterization for longitudinal research, address unresolved device configurations and test practical exposure-reduction techniques. Reproductive, developmental, neurological and ecological questions should be assessed on their own evidence. Include relevant populations adequately and select outcomes that matter to patients, including sleep, daily function and the ability to work or provide care.

Build on existing exposure-science and engineering work, including NIEHS priorities and ETAIN methods. [19, 20] Pilots should assess exposure alongside connectivity, essential medical monitoring, costs and unintended consequences. Data centers and associated electrical facilities may offer useful engineering demonstrations where access and phased commissioning allow meaningful comparisons; select sites for scientific value. Farm and ecological studies need species-relevant outcomes and appropriate comparison conditions.

Require prespecified methods, transparent interests and publication of negative and inconclusive findings. Human studies need applicable ethics review, consent and privacy protection. [21] Residents must retain ordinary assessment and existing protections regardless of research enrollment. Evaluate benefits before claiming a financial return or scaling a program.

5 Fund local response capacity

Questions 9–11, 17 and 18

Connect existing agency responsibilities through a clear intake, accepting referral and written response process. Oklahoma DEQ's data-center guide illustrates how permitting, water quantity, utility rates, siting and noise fall under different responsibilities. [22] Fund shared technical assistance that rural counties and health services can use, with telephone and offline access. Families should not have to purchase essential testing or supply unpaid investigative labor to obtain a qualified response.

France's public measurement process and defined mayoral information functions offer implementation examples. [23, 24] Where a state identifies a specific county-authority gap, recommend targeted clarification or expansion with funding, training, legal support and appeal procedures. Respect applicable federal wireless-siting restrictions and state, municipal and tribal responsibilities. [25] A state or regional hub should connect records to an accountable service, with a custodian and continuing resources.

Evaluate delivery as well as research. MedNIS's report documents workforce difficulties and incomplete outcome evaluation alongside service activity. [26] Track time to qualified response, completed referrals, unresolved jurisdictional disputes, household costs and justified corrective action. Examine access across rural locations, income and disability. Where industry funding is lawful, protect independence in investigator selection, methods, analysis and publication.

I ask HHS to publish an initial implementation schedule identifying the responsible lead, authority, resource needs and measurable deliverable for each priority. Exposure evaluation, reduction techniques and coordination already have a statutory foundation in the electronic-product radiation program. [27] Start with existing capabilities, identify demonstrated gaps and explain which improvements require another authority's action. The intended result is timely, usable scientific information and a dependable response for the people living with infrastructure change.

Kaily Ball
Independent Civic and Policy Researcher
Kingfisher County, Oklahoma

References

Selected sources support the claims and examples cited above. The broader library contains 248 indexed records with differing review depths; it is not an exhaustive systematic review. International examples demonstrate available approaches, not proven superiority. Numbered citations link to the entries below.

1. Fernandes Veludo A et al. Assessing radiofrequency electromagnetic field exposure in multiple microenvironments across ten European countries with a focus on 5G. *Environment International*. 2025;200:109540. DOI 10.1016/j.envint.2025.109540.
<https://pubmed.ncbi.nlm.nih.gov/40414185/>
2. Van Bladel H et al. Temporal 2G–5G RF-EMF exposure assessment in ten European countries during one year. *Science of the Total Environment*. 2026;1047:182037. DOI 10.1016/j.scitotenv.2026.182037.
<https://pubmed.ncbi.nlm.nih.gov/42447532/>
3. FDA. Electromagnetic Compatibility (EMC) of Medical Devices. Guidance for Industry and Food and Drug Administration Staff. June 2022.
<https://www.fda.gov/media/94758/download>
4. FDA. Wireless Medical Devices. Coexistence, risk management and related resources.
<https://www.fda.gov/medical-devices/digital-health-center-excellence/wireless-medical-devices>
5. ATSDR. Taking an Exposure History. Environmental Health and Medicine Education. September 9, 2026.
<https://www.atsdr.cdc.gov/environmental-medicine/hcp/csemtakinganexposurehistory/index.html>
6. RIVM. GGD-richtlijn medische milieukunde — Elektromagnetische velden en gezondheid. 2024. Dutch public-health practice guidance.
<https://www.rivm.nl/ggd-richtlijn-medische-milieukunde-emv-en-gezondheid>
7. FDA. Review of Published Literature between 2008 and 2018 of Relevance to Radiofrequency Radiation and Cancer. February 2020.
<https://www.fda.gov/media/135043/download>
8. Swiss Federal Office for the Environment. Following scientific knowledge — BERENIS. Program remit and study-selection criteria.
<https://www.bafu.admin.ch/de/weiterverfolgung-wissensstand-berenis>
9. FCC. 47 CFR 1.1310. Radiofrequency radiation exposure limits. Electronic Code of Federal Regulations.
<https://www.ecfr.gov/current/title-47/chapter-I/subchapter-A/part-1/subpart-I/section-1.1310>
10. ICNIRP. Guidelines for limiting exposure to electromagnetic fields (100 kHz to 300 GHz). *Health Physics*. 2020;118:483–524. DOI 10.1097/HP.0000000000001210.
<https://pubmed.ncbi.nlm.nih.gov/32167495/>
11. Health Canada. Understanding Safety Code 6 — Health Canada’s radiofrequency exposure guidelines, including localized-exposure supplement information.
<https://www.canada.ca/en/health-canada/services/health-risks-safety/radiation/occupational-exposure-regulations/safety-code-6-radiofrequency-exposure-guidelines.html>
12. Karipidis K et al. The effect of exposure to radiofrequency fields on cancer risk in the general and working population: A systematic review of human observational studies — Part I: Most researched outcomes. *Environment International*. 2024;191:108983. DOI 10.1016/j.envint.2024.108983.
<https://pubmed.ncbi.nlm.nih.gov/39241333/>
13. Feychting M et al. Mobile phone use and brain tumour risk — COSMOS, a prospective cohort study. *Environment International*. 2024;185:108552. DOI 10.1016/j.envint.2024.108552.
<https://pubmed.ncbi.nlm.nih.gov/38458118/>

14. Mevissen M et al. Corrigendum to Effects of radiofrequency electromagnetic field exposure on cancer in laboratory animal studies, a systematic review. *Environment International*. 2026;214:110368. DOI 10.1016/j.envint.2026.110368. Read with the 2025 review, DOI 10.1016/j.envint.2025.109482. <https://pubmed.ncbi.nlm.nih.gov/42442967/>
15. Imaida K et al. The International Collaborative Animal Study of mobile phone radiofrequency radiation carcinogenicity and genotoxicity: the Japanese study. *Toxicological Sciences*. 2026. DOI 10.1093/toxsci/kfag002. <https://ksp.etri.re.kr/ksp/article/file/72435.pdf>
16. Kim HS et al. The International Collaborative Animal Study of the carcinogenicity and genotoxicity of mobile phone radiofrequency radiation: the Korean study. *Toxicological Sciences*. 2026;209(3):kfag001. DOI 10.1093/toxsci/kfag001. <https://pmc.ncbi.nlm.nih.gov/articles/PMC13017829/>
17. Melnick et al. Conflicting views in experimental carcinogenesis: a commentary on design and methodological deficiencies in the follow-up validation studies on radiofrequency radiation. *Environmental Health*. 2026;25:66. DOI 10.1186/s12940-026-01324-5. <https://pmc.ncbi.nlm.nih.gov/articles/PMC13417848/>
18. Bosch-Capblanch X et al. The effects of radiofrequency electromagnetic fields exposure on human self-reported symptoms: A systematic review of human experimental studies. *Environment International*. 2024;187:108612. DOI 10.1016/j.envint.2024.108612. Corrigendum: 190:108892; PMID 39034214. <https://pubmed.ncbi.nlm.nih.gov/38640611/>
19. NIEHS. Strategic Plan — Capacity and Infrastructure, Area 4: Exposure Measurement. Reviewed December 19, 2025. <https://www.niehs.nih.gov/about/strategicplan/capacity/exposure>
20. European Commission CORDIS. ETAIN project 101057216 — Periodic Reporting. Updated November 13, 2025. <https://cordis.europa.eu/project/id/101057216/reporting>
21. HHS Office for Human Research Protections. The Belmont Report. 1979. <https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/read-the-belmont-report/index.html>
22. Oklahoma Department of Environmental Quality. DEQ Information on Data Centers. Current permitting and jurisdiction guide. <https://oklahoma.gov/deq/deq-information-on-data-centers.html>
23. France Service Public. Comment mesurer votre exposition aux ondes électromagnétiques? April 13, 2026. <https://www.service-public.gouv.fr/particuliers/actualites/A18872>
24. ANFR. Rôle des maires. Official information, measurement and mediation functions. <https://www.anfr.fr/maitriser/information-du-public/role-des-maires>
25. U.S. Code. 47 USC 332(c)(7). Preservation of local zoning authority and specified federal limitations. <https://www.law.cornell.edu/uscode/text/47/332>
26. MedNIS. Rapport annuel 2025. November 2025. Commissioned report published by the Swiss Federal Office for the Environment. https://www.bafu.admin.ch/dam/de/sd-web/J970ENwjzeKf/20251030_rapport_annuel_MedNIS_2025.pdf
27. U.S. Code. 21 USC 360ii. Electronic Product Radiation Control — Program of control. 2024 edition. <https://www.govinfo.gov/content/pkg/USCODE-2024-title21/html/USCODE-2024-title21-chap9-subchapV-partC-sec360ii.htm>