Response to HHS Request for Information on EMFs, RF Radiation, and Wireless Radiation Exposure

Docket HHS-OASH-2026-0397

Submitted anonymously

Question 2 – Perspective

I am responding as an educator. I have worked as a teacher for many years and hold a master's degree in ICT-Supported Learning, with a professional focus on how digital technology affects students' learning. I am a teacher in Europe, and my comment concerns children and school environments generally. I limit this response to education and children's cognitive development, which is my area of expertise.

Why this response is submitted anonymously. I am submitting this response anonymously. I am a professional educator and have also been involved in research. Under current circumstances, RF/EMF health effects are a highly controversial field, and I do not wish to be personally associated with that controversy in my professional life. At the same time, I find the research and information I have come across deeply concerning. As an educator committed to students' learning and health, I believe I have a duty to speak up now that HHS has opened this opportunity. My anonymity does not reflect any lack of seriousness about the substance of this response. Should HHS wish to contact me, I can be reached at seo1989@proton.me.

Question 4 – Observations from practice

Source: personal professional observation, not systematic research.

Over many years in the classroom, I have observed what I perceive as a gradual decline in students' capacity for sustained concentration and working memory. I want to be clear that this is an informal observation and that many factors may contribute, including screen use, sleep habits, and changes in teaching practice. However, it led me to examine the research literature on whether RF exposure in schools could be one contributing factor. I found indications that it may be, and very little research designed to answer the question directly.

Questions 11(a) and 15(a) – Children and proximity of infrastructure to schools

Source: peer-reviewed research.

I believe risk evaluation should treat school-age children as a distinct group. Children spend around six hours a day, over many years, in school buildings they cannot choose, during a period when their brains are still developing. Proximity of wireless infrastructure to schools should therefore be a specific consideration.

The most directly relevant study I am aware of is Meo et al. (2018), *American Journal of Men's Health*, https://doi.org/10.1177/1557988318816914. It compared 217 students aged 13–16 at two schools located within 200 m of mobile phone base stations, with classroom RF levels measured directly. After two years of exposure, students at the school with higher measured exposure (about 10 µW/cm² versus 2 µW/cm² at 925 MHz) performed significantly worse on standardized tests of

motor response and spatial working memory (CANTAB). The effect sizes were small, and the study is cross-sectional. Even so, working memory and attention are central to learning, and small effects across a whole student population may add up to meaningful educational consequences.

A 2026 cross-sectional study in *Scientific Reports* (https://pubmed.ncbi.nlm.nih.gov/42426191/) measured RF levels at eight schools at varying distances from base stations and examined micronucleus frequency, a biomarker of genomic instability, in 200 primary school children. It concerns biological markers rather than cognition, but it shows that school-based exposure in children is an active area of scientific concern.

A 2025 study from Mizoram, India (https://pubmed.ncbi.nlm.nih.gov/40485071/) compared 183 highly exposed residents living near base stations with 126 matched reference residents. It reported a greater prevalence of symptoms among the more exposed group, including cognitive-sensory symptoms.

These studies are observational and cannot establish causation on their own. My point is that they indicate a plausible concern in a setting that affects nearly all children, while research designed specifically for this question remains scarce.

Question 9 – Disclosure to schools

Schools and parents currently have little practical information about RF exposure levels in and around school buildings. I recommend that measured exposure levels at schools, and the location of nearby transmitters, be made available to school administrators, parents, and local governments.

Questions 10(d) and 16 – Research priorities

I consider the relationship between long-term RF exposure in school environments and children's cognitive function and learning outcomes a high-priority research gap. I recommend:

- longitudinal cohort studies following children over several school years, with exposure measured directly in classrooms;
- study designs that control for screen time, sleep, and socioeconomic factors, so that the effect of RF exposure can be separated from the effect of device use itself;
- use of standardized cognitive measures (such as CANTAB) together with educational outcome data;
- involvement of educators in designing such studies, so that outcomes relevant to learning are measured.

Question 18 – Summary

Based on my experience as a teacher and my background in technology-supported learning, I believe the possible effects of RF exposure on children's cognition and learning represent a serious knowledge gap. The research cited above does not settle the question, but it provides sufficient grounds to take it seriously. I ask HHS to treat school-age children as a distinct population in its evaluation, to prioritize research on RF exposure and learning, and to consider precautionary guidance on siting wireless infrastructure near schools while that research is carried out.