

Public Comment: Rising Headache Rates, Wireless Technology and Personal Experiences with Electromagnetic Field Exposure

Submitted in response to HHS-OASH-2026-0397

To the U.S. Department of Health and Human Services,

I am writing to express concern about the substantial increase in headaches and other health complaints among children and young people in Norway during the period of rapid expansion of wireless technology. I urge HHS to investigate whether long-term exposure to radiofrequency (RF) radiation and other electromagnetic fields (EMFs) could be contributing factors.

Rising health complaints in Norway since the introduction of 4G

Telenor in Norway launched 4G in October 2012 and its first commercial 5G network in March 2020. During the same broader period, Norwegian health surveys have documented concerning increases in several health complaints, particularly among young people.

According to Norwegian government report NOU 2024:20, the proportion of lower-secondary-school girls reporting headaches many times or daily during the preceding month increased from approximately 30% in 2014 to nearly 50% in 2024. Among boys, the corresponding proportion increased from 16% to 19%.

This means that nearly half of lower-secondary-school girls reported frequent headaches in 2024. Norwegian youth surveys have also documented increases in physical complaints such as abdominal pain, nausea, and neck and shoulder pain, alongside increasing reports of psychological distress.

Here are additional statistics from Norway showing an increase in health complaints since 2012, including body pain, headaches, sleep problems, nausea, and digestive issues:

<https://www.ssb.no/helse/helsetjenester/artikler/halvparten-av-unge-kvinner-er-plaget-med-hodepine-eller-migrene>

In addition depression and anxiety among young people in Norway have doubled over a ten-year period. (HUNT-study, https://www.nrk.no/trondelag/hunt_-44-prosent-av-tenaringsjenter-i-norge-plages-av-stress_-angst-og-tunge-tanker-1.15993034)

Between 2019 and 2024, the number of medical consultations for memory problems among children and young people in Norway nearly tripled. These figures come from Norway's Syndromic Surveillance System (NorSySS) and were reported in this study [Increasing Numbers of Children Aged 5-19 Years with Memory Problems](#)

in Sweden and Norway

Mona Nilsson BSc1* and Lennart Hardell MD, PhD)

These trends deserve serious attention. Although the expansion of wireless technology does not prove that RF exposure caused these changes, the timing raises questions that should be investigated rather than dismissed.

Other factors, including screen use, sleep, stress and social changes, must also be considered and carefully distinguished from the possible effects of RF exposure itself.

Reference: Norwegian Government, NOU 2024:20, Det digitale (i) livet: <https://www.regjeringen.no/no/dokumenter/nou-2024-20/id3073644/>

My personal experiences

My concerns are also based on personal experiences over many years.

In 2007, while living near large high-voltage power lines, I developed frequent and severe headaches, profound fatigue and concentration problems. Several other people who lived in the same building experienced similar symptoms. After moving out to the country side in 2012, my health improved substantially, and I enjoyed several years with far fewer symptoms.

In March 2018, an Aidon advanced metering infrastructure (AMI) meter was installed in my neighborhood. Already the first night, I developed a persistent, high-pitched ringing or whistling sound, and got sleep problems and frequent headaches. The sound is particularly severe inside my home and has continued since then.

I have also experienced headaches when exposed to Bluetooth in my car, mild dizziness while speaking on a mobile phone, and irritability and fatigue when working on a computer or participating in online meetings.

I understand that these experiences cannot establish causation. However, the timing and persistence of the symptoms have led me to question whether electromagnetic exposure could be a contributing factor in my case.

I am also concerned about a 13-year-old girl in my neighborhood who lives directly opposite a mobile-phone base station. According to the Norwegian Communications Authority's (Nkom) Finn senderen service, the estimated radiation level inside her home is approximately eight times higher than in mine. She has reportedly been ill for a prolonged period and has attended very little school over the past three years. Her mother has also experienced long-term illness with similar symptoms.

I cannot determine whether their health problems are related to their exposure. However, prolonged illness affecting two members of the same household, combined with the circumstances of their living environment, deserves careful and independent investigation.

I have also observed that several people in my neighborhood began hormone treatment after the COVID-19 pandemic, during the broader period of 5G expansion. This is an informal observation, not evidence of a causal relationship, but I believe changes in health and treatment patterns deserve systematic investigation rather than assumptions.

A call for independent research and precaution

I respectfully urge HHS to:

- Investigate long-term trends in headaches, sleep disturbances, fatigue, cognitive difficulties and other health complaints, particularly among children and adolescents.
- Examine whether the introduction and expansion of 3G, 4G and 5G coincide with changes in health outcomes across populations, using reliable historical data and accounting for other possible causes.
- Investigate possible non-thermal biological effects of RF radiation and assess cumulative exposure from mobile phones, Wi-Fi, Bluetooth, wireless infrastructure and AMI meters.
- Support independent research involving people who report symptoms in connection with particular exposure environments, using objective measurements, appropriate controls and transparent methods.
- Examine whether existing exposure guidelines adequately address uncertainties regarding long-term exposure and potentially vulnerable populations.

The rapid increase in headaches among Norwegian girls is particularly troubling. When nearly half of a group of young people report frequent headaches, we should seek a thorough explanation. We should not assume that the cause is wireless technology, but neither should we exclude it without adequate investigation.

Personal experiences cannot replace scientific evidence, but they can help identify questions that research needs to answer. Public health authorities have a responsibility to investigate credible concerns openly, independently and without prematurely dismissing possible explanations.

I urge HHS to take a comprehensive approach to electromagnetic field exposure, rising health complaints and the long-term health of children and young people. Protecting public health requires that we ask difficult questions and follow the evidence wherever it leads.

Thank you for considering this comment