

U.S. cell tower & cell phone radiation policy fails public health, new paper finds

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A new review paper published in [Frontiers in Public Health](#) details the outdated policies and gaps in oversight and enforcement that characterize the U.S.' regulatory framework for cell towers, cell phones, Wi-Fi and wireless radiation. The author, Theodora Scarato, is the director of Environmental Health Sciences' [Wireless & EMF program](#).

In short:

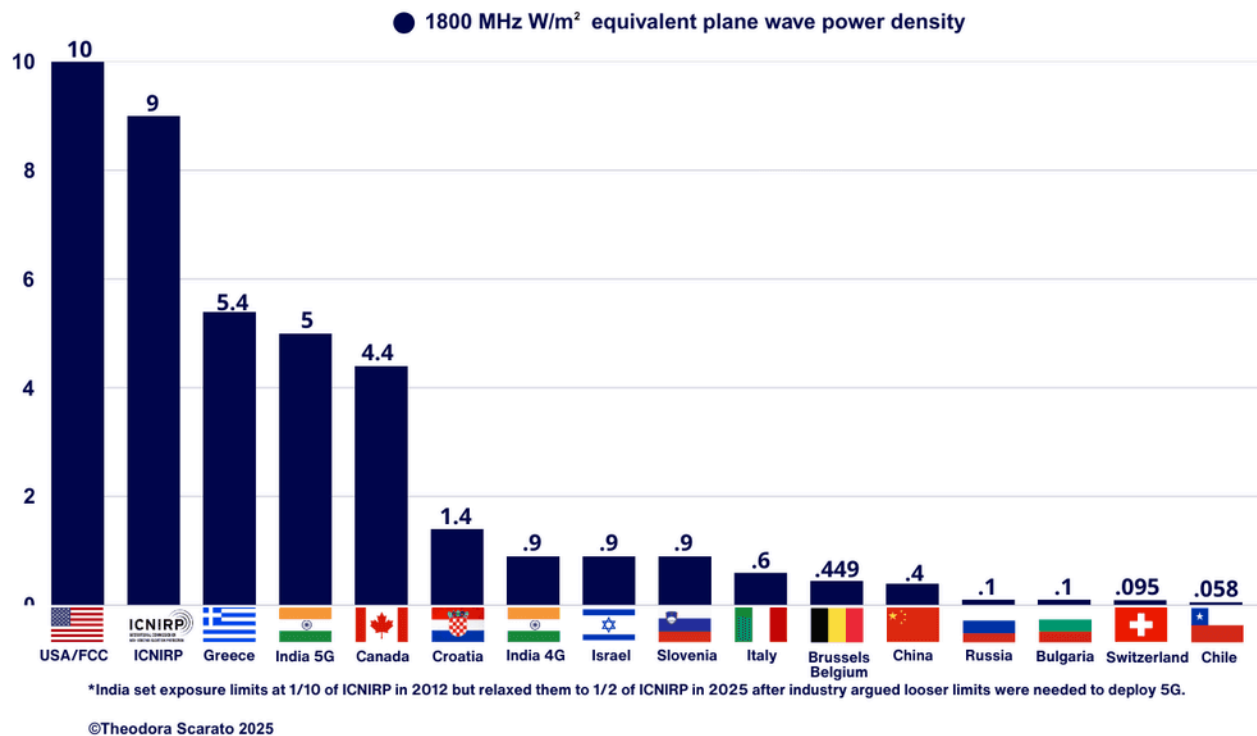
- **The FCC has regulatory authority over cell tower and wireless radiation limits in the U.S., but lacks in-house expertise on health** and states it defers to other agencies such as the FDA, CDC, NIH or EPA. However, none of these agencies have reviewed the full body of scientific evidence and have conducted little to no meaningful oversight or health-risk evaluation.
- **Human exposure limits for wireless radiation have not changed since 1996** and protect only against short-term heating effects, not the health impacts of long-term exposure.
- **The FCC exemplifies regulatory capture through undue industry influence**, with a decades-long revolving door between the agency and industry leadership. This paper documents how industry-funded research more often reports no effects from exposure.
- **The U.S. lacks premarket safety testing, post-market health surveillance**, compliance audits, exposure measurement and monitoring programs, and has no occupational health program in place to monitor modern workplace exposure and mitigate risk.

- **U.S. limits for cell tower radiation are among the highest (most lenient) in the world**, while many other countries have more robust measuring and oversight programs as well as specific safeguards for children, such as banning cell towers at schools.

Key quote:

“To rectify the current situation, government oversight must balance industry power. A strong regulatory framework must be built that rests on transparency and robust evidence-based evaluation, free of industry influence. Prevention is the cornerstone of public health, and the U.S. needs to move toward a risk mitigation approach.”

Country Comparison: Power Density Limits for Radio Frequency Radiation Government Regulations Applicable to Schools and Homes



Why this matters:

Wireless exposure is increasing due to the rapid expansion of cell towers, 5G, and now 6G networks. Without transparent oversight, independent monitoring, or meaningful public disclosure, communities are unable to assess their real-world exposure or make informed decisions about infrastructure placed near homes, schools, and workplaces.

This paper documents how the issue is not only about the [mounting scientific evidence](#) on health risk, but whether 1996 regulations have kept pace with technological expansion, and how heavily today's policy has been shaped by industry influence. Unlike other environmental pollutants, cell tower radiation is subject to minimal regulatory oversight. With federal proposals moving forward in 2026 to fast-track cell tower deployment, local communities may have little ability to influence where and how wireless infrastructure is built. The U.S. The Department of Health and Human Services stated that it will [launch a study on cellphone radiation](#), building on Secretary Robert F. Kennedy Jr's concerns that cell phone radiation poses health risks such as neurological damage and cancer.

What you can do:

The paper concludes with a set of policy recommendations and [can be downloaded](#) and shared with local, state, and federal officials. The paper, along with [our fact sheets](#), are key resources you can use to advocate for transparent oversight, updated health-based standards, and policies that prioritize public health over industry convenience.



Children & Wireless Radiation

EXPERT RECOMMENDATIONS

Cell phones, cell towers, and Wi-Fi devices emit wireless radiofrequency (RF) radiation. Growing science links RF exposure to cancer and oxidative stress as well as impacts to memory, hormones, the brain and reproductive organs.

Numerous scientific, medical, and public health organizations have issued recommendations to reduce children's exposure to wireless radiation.

The **American Academy of Pediatrics** has repeatedly written the US government calling on them to update their regulations, which have remained unchanged since 1996:

“Current FCC standards do not account for the unique vulnerability and use patterns specific to pregnant women and children.”

CHILDREN ARE UNIQUELY VULNERABLE

- A child's thinner skull, higher brain water content, and smaller head allows wireless RF radiation to penetrate deeper into brain regions critical for learning and memory.
- Their rapidly developing brains are more sensitive.
- They will experience a lifetime of exposure.

HIGHER CELL PHONE RF RADIATION ABSORPTION RATES INTO A CHILD'S HEAD AND EYES

34-YEAR OLD

6-YEAR OLD

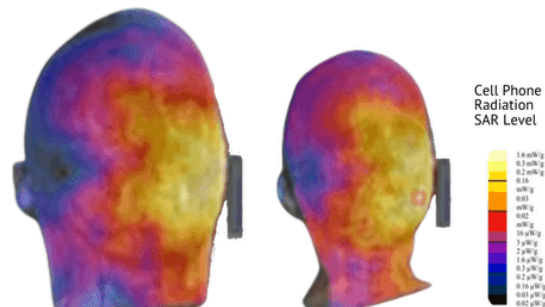


Image: Scientific research by Fernandez et al. (2018) published in *Environmental Research*

This engineering study found wireless absorption psSAR is ~2-fold greater in the cerebellum and ~30-fold greater in the hippocampus of the brain of children as compared to adults. The youngest child model's eyes absorb between 2 to almost 5-fold higher doses.

The average exposure from use of the same mobile phone is higher by a factor of 2 in a child's brain and higher by a factor of 10 in the bone marrow of the skull.

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Related *EHN* coverage:

- [Yale Study: Wireless radiation at Bluetooth exposure levels increased the expression of autism-related genes in laboratory models](#)
- [Wireless radiation exposure linked to DNA damage](#)

- [Cell tower radiation linked to higher reports of health issues, study finds](#)

More resources:

- [Regulatory Gaps in U.S. Wireless Radiation Policy: Public Health Implications and Recommendations for Reform](#)
- [Science on the health effects of wireless radiation](#)
- [Environmental Health Sciences' Wireless & EMF Program Resources](#)

[Scarato, Theodora for *Frontiers in Public Health* vol. 13. Dec 18, 2025](#)