

New Hampshire Commission 500M Set-back Summary

The New Hampshire Commission made up of 13 members with expertise in toxicology, physics, electromagnetics, epidemiology, biostatistics, occupational health, medicine, public health policy, business and law. The Commission met over a one year period and submitted its final report in November 2020. The overarching conclusion is that wireless radiation poses a significant threat to human health and the environment on year and published.

Their recommendations are as follows:

Safe set back of cell tower of 500m to provide reasonable protection for most people whilst not impeding the use of wireless communication.

There were 2 approaches to identifying a safe setback:

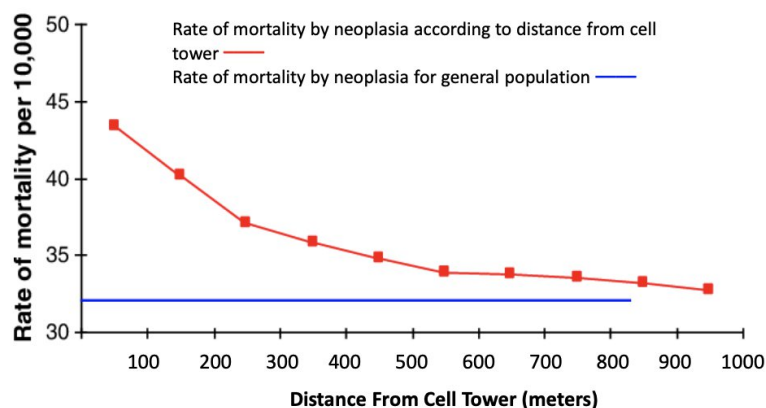
- Looked at disease prevalence as a function of distance people live from a cell tower
- Identified lowest power densities known to cause negative health outcomes and determine the distance from a cell tower where those distances are not exceeded.

These two approaches give very similar results which meant the Commission was confident that the 500m was a good setback to recommendation.

10 studies have been done using the first approach. One was conducted in Brazil over a period of 10 years, 1996 to 2006, covering 856 cell towers and 7,191 cancer/neoplasia deaths. Thus study is important as very few people had cell phones in Brazil at that time (5 years after the study ended, only 28% of the population had cell phones). So the study gives a good indication of effects of cell tower radiation as opposed to effects of radiation from use of personal devices.

Highest level of radiation exposure measured during the study was 407mW/m², which notably is only 5% of the U.S. FCC limit.

Buckus, Raimondas et al. "A Technical Approach to the Evaluation of Radiofrequency Radiation Emissions from



MobileTelephony Base Stations." International journal of environmental research and public health vol. 14,3 244. 1 Mar. 2017, doi:10.3390/ijerph14030244 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5369080/>.

When many studies have been done looking at the same thing, a meta study is done to combine the results to give great greater statistical confidence in the answers. 8 of the 10 studies reported symptoms of adverse neurobehavioural symptoms or cancer in populations living at distances < 500m from base stations. So these studies also identified 500m as break point for exposure risks. None of the studies showed adverse health effects of base stations at exposure levels above accepted international guidelines. This implies that current guidelines/standards are inadequate in protecting people.

The BioInitiative Report which is annually updated looks at data using the second approach. It represents a complete compilation of scientific findings relating to radiation exposure. The figures they reference have are founded on peer-reviewed science. It reports that biological effects begin from 0.03 to 0.5mW/m². It sets 0.5mW/m² as the threshold, it may not protect everyone but will protect most whilst providing wireless services for those that want it. To put this in perspective 0.03mW/m² is 5000 times the signal level required for a good 3-4 bar level of phone conversation. The power level of 0.5mW/m² is reached at about 500m.

Significant Biological effects do not appear to occur at distances greater than 500 meters from a typical cell tower

- The power density at 500 meters from a typical cell tower is near the power density considered not to cause biological effects in the laboratory
- The telecom industry will claim that no setback is necessary because they do not recognize the danger of wireless radiation
- Implementing setbacks will not inhibit robust cellphone coverage, although it may make cell tower siting more expensive
- The setback will require the use of taller towers which will provide more uniform coverage without exposing people to harmful radiation

The conclusions of New Hampshire Commission:

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Background on Attempts at Discrediting the Findings

Dr Kent Chamberlin presented the findings of the NH Commission to a town that was considering adding cell antennas to a water tower. The Brazil study was used to show the dangers of living near such antennas. In the town's next meeting, they brought in a company that the town paid to evaluate the proposed installation:

- As seen in a [recording of their presentation](#), the presenters claimed to be impartial
- The industry has paid consultants to discredit studies such as the New Hampshire Commission Report.
- The second presenter omits that he is being paid by the telecommunications industry, although his work for them is documented [here](#)
- The second presenter He stated that "I'm not presenting my views about this", not mentioning that he submitted [a paper](#) challenging the findings of the Brazil report
- He also did not mention that the authors of the Brazil study published a response to his [criticisms](#)
- He only referenced government agency reports to discredit the paper. This is significant because the Commission found that many of the agencies involved in regulating radiation levels are [captured](#).