## Problems with ICNIRP's draft guidelines

- 1. The document considers 'health effects' as those caused by heating of the body by I degree Celsius and does not take into account biological effects.
- ⇒ This is at odds with the WHO's definition of health as a 'state of complete physical, mental, and social wellbeing, and not merely the absence of disease or infirmity'.
- ⇒ The document does not give appropriate consideration to the thousands of studies showing that RF exposure causes harmful biological effects that could lead to disease.
- ⇒ This approach has been strongly criticised by many scientists working in this field. For example, the EMF Scientists Appeal (2016), signed by 220 scientists from 41 nations.
- 2. The document assumes that exposure to radiofrequency radiation can be averaged over a six minute period. In other words, the body can tolerate brief, intense pulses of radiation as long as the pulses on either side of it are much less intense.
- 3. ICNIRP's conclusion that there is no evidence of adverse effects on the body, including cancer, is inconsistent with the IARC's classification of radiofrequency electromagnetic fields as a 2B carcinogen, in the same category as lead.
- 4. ICNIRP's premise that health effects are only caused by heating is inconsistent with a number of mechanisms that have been proposed to account for adverse effects on the body at nonheating levels of exposure, for example:
- ⇒ via oxidative stress, implicated in many health problems, including cancer
- $\Rightarrow$  via activation of calcium ion channels  $\Rightarrow$  via activation of mast cells
- 5. The document does not provide protection for particularly vulnerable populations such as: ⇒ the foetus
- $\Rightarrow$  people with electromagnetic hypersensitivity  $\Rightarrow$  people with cancer because cancer cells absorb more radiation than normal cells.
- 6. The document allows higher levels of exposure than those permitted by standards in countries such as Russia, Switzerland, Austria and Italy, which draw on the same scientific evidence.
- 7. In light of the uncertainty about safe levels of exposure in the scientific literature, the document must recommend a precautionary approach to exposure and include suggestions for reducing exposure.
- 8. The results of the National Toxicology Program, showing increases in cancers at levels similar to the current standards, show that the draft guidelines do not provide the 50-fold reduction factor for general public exposure that it claims to.