# NATIONAL ASSEMBLY

**FOR WRITTEN REPLY**

**QUESTION NO. 143**

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**(INTERNAL QUESTION PAPER NO. 3)**

**Ms M D Hlengwa (IFP) to ask the Minister of Health:**

(1) Whether, with reference to the current and future plans to roll out 5G, a term used to reference the next generation of high speed mobile network, he and/or his department conducted any research that suggests any possible long or short term human health risks posed by 5G technology; if not, why not; if so, what are the relevant details of associated risks;

(2) whether he has found that there are potential risks and/or consequences to the mental and physical health of persons, particularly in a situation where the skin and sweat ducts absorb the higher millimetre frequencies intended for 5G; if not, what is the position in this regard; if so, what are the relevant details of the findings;

(3) whether, in view of the findings of the USNational Toxicology Program which found clear evidence of cancer due to cell phone radiation, he has any plans in place to protect the citizens from the (a) identified potential health risks and/or consequence and (b) the added cell tower frequencies needed for 5G linked to the damage of human blood; if not, why not; if so, what are the relevant details of the plan?

###### NW1101E

**REPLY:**

1. The Directorate Radiation control (formerly part of the Department of Health, now transferred to the South African Health Products Regulatory Authority – SAHPRA) has the mandate in terms of the Hazardous Substances Act (Act 15 of 1973) to exercise regulatory control over devices and installations that have been declared Group III hazardous substances, i.e. all devices and installations covered by the Schedule of listed Electronic Products (Reg R1302, 14 June 1991).

The Directorate Radiation Control does not have the mandate, resources or infrastructure to engage in or support research with respect to the health effects of any such listed electronic product. Instead, the Directorate (in performing its regulatory responsibility with regard to listed electronic products that purposely produce non-ionising electromagnetic fields) has opted since 1998 to follow the recommendations and guidelines of the WHO International Electromagnetic fields Project ([www.who.int/peh-emf](http://www.who.int/peh-emf)).

Since the publication of exposure guidelines by the International Commission on Non-Ionising Radiation Protection (ICNIRP) in 1998, the WHO International Electromagnetic Fields Project has constantly been recommending the use of these guidelines (updated periodically) as the science-based way to deal with any situation where a person might be exposed to non-ionising electromagnetic fields. Compliance with the applicable ICNIRP limit will afford protection against the known adverse health effects of any such electromagnetic fields.

Surveys conducted around the world and also in South Africa have consistently indicated that the levels, to which the general population is exposed as a result of various wireless technologies, invariably are orders of magnitude below the applicable ICNIRP limit.

The WHO International Electromagnetic Fields Project has not published any report or statement to the effect that 5G technology would have any deleterious effect on the health of either the users of this technology or the population in general.

1. See (1) above.

(3) The methodology in the US National Toxicology Program involved exposing rats for long period of time to levels of microwave radiation well above the applicable ICNIRP limit for humans.

Compliance with the applicable ICNIRP limit is expressly aimed at avoiding any significant heating of the body or part of the body. Given these high levels of microwave radiation, it would not be unreasonable to suspect that the effects that were noticed in some rat populations were indeed mainly or exclusively due to excessive heatingcaused by the exposure to microwave radiation.

Although no human subject would knowingly be exposed to the high levels of microwave radiation to which the rats are exposed, this study does serve as confirmation of (a) the fact that the ICNIRP limits would have to be exceeded significantly before any health effects would become apparent, and (b) that compliance with the applicable ICNIRP limit will indeed protect against significant heating and hence the health effects that could be associated with heating.

In making policy recommendations to the Department of Health on the health effects on non-ionising electromagnetic fields, the Directorate Radiation Control does not consider it appropriate to even attempt to look at the results of any single study in isolation. The WHO International Electromagnetic Fields Project has rigorously been reminding member countries that a single study on its own could never by an adequate basis for setting or changing policy, no matter how significant or even ground breaking it may seem. Only in the event that other researchers independently make the effort to replicate a single study under the same conditions and their results turn out similar to those yielded by the initial study, could the process even of looking closer at the results of that initial study start. In all of this the implicit assumption would be that the initial study had been properly designed in the first instance, and carried out according to a scientifically justified methodology, and that the statistical analysis had been executed properly. The guidance and recommendations of the WHO International Electromagnetic Fields Project have therefore always been based on reviews which were conducted by multi-disciplinary panels of scientists employing a health-oriented, science-based weight-of-evidence approach involving all of the available scientific evidence.

The US National Toxicology Program has as yet not been replicated independently. The Japanese and Korean Ministries of Health announced in April 2019 that they were embarking on a five-year joint research effort aimed at verification of the results of the US National Toxicology Program. Regardless of the outcome, any replication/verification of these results would then still need to be evaluated in terms of the overall weight of evidence with respect to the health effects of exposure to high frequency electromagnetic fields.

END.