

HEALTH AND SOCIO-ECONOMIC EFFECTS OF MOBILE-PHONES USE

Written by Sani Ahmad Minjibir 20/10/2015



The use of mobile-phones is increasing in the developing countries, Nigeria inclusive. A record from the Nigerian local telecom regulator (NCC) shows that, Nigeria has over 160 million mobile-phone users as at 2014. Similarly, based on the world ranking 2014, Nigeria was the 7th highest mobile-phone user in the world and also has the highest number of dual SIM phone users in the world (68% proportion of users with dual SIM phones).

In spite of the tremendous advantages of mobile phones in information and communication technology, its use is associated with adverse effects on health. Even though, the incidence of

adverse effects could be small and may take several years to manifest, but the cumulative effects may have some public health implications.

The health risk associated with the use of mobile phones is due to the exposure of radiation emitted by the phones. Mobile phones emit non-ionizing radiations in form of radiofrequency field (RF). The RF emitted from mobile phones is 1000 times higher than from the base station, moreover, the emission is higher when the phone is at low battery. Health risk associated with mobile-phone are many, below are some of the health and social-demographic risk associated with the use of mobile phones.

Risk of cancer

Exposure to radiofrequency (RF) a non-ionizing radiation from wireless mobile phones may be associated with head cancers (glioma and acoustic neuroma). The RF has been classified by the International Agency for Research on Cancer as possibly carcinogenic to humans (Group 2B). Even though, there are no epidemiological studies to date to provide evidence that environmental exposure to RF fields, such as from base stations causes cancer. A large Swedish study found more than 25 years' use of mobile phone to be associated with a small risk of head cancer (glioma).

Other health effects

The health effect of mobile phones is associated with the electromagnetic hypersensitivity of the body organs to the radiations emitted by mobile phones. Some organs such as brain, gonads, eyes, skin, heart and so on are more radio sensitive while other organs like bone are less sensitive. There are many reports associated with this effects even though some are immediate while others is after a long period: headache, dizziness, depression, burning and tingling

sensation in the skin of the head and extremities, fatigue, sleep disturbances, loss of mental attention, reaction times, pain in the hand, fingers and waist, memory retentiveness, malaise and tachycardia (heart palpitations).

Genotoxic effect

Studies have shown that RF radiations from mobile phones has a tendency of altering genetic material. More studies are currently going on genotoxic effect of RF. In addition, mobile-phones emits heat, which when they are place on the laps or near the gonads may affect the temperature control of the testes. This may likely cause an adverse effects to the organs.

Adverse effect of mobile-phone base station (the masts)

1. Risk of brain tumors.
2. Risk of lung cancers.
3. Risk of opportunistic diseases from compromised immune system.
4. Alteration of moods/moods disorders-depression, rage or docility.
5. Sleep disturbances.
6. Lack of concentration.
7. Risk of epileptic disorders in children.

Vulnerability of children to the effect of mobile-phone radiation

Young children are more vulnerable to the adverse effects of radiation from mobile-phones due to:

1. Higher risk of cancers than adult because of their growing cells and tissues.
2. Their brain absorbs radiation 50 to 70 times more than the adults because of the brain size and higher absorption power of their growing brain cells.
3. Thinner skulls, making radiation to penetrate through easily.

Socioeconomic effects of mobile-phone use

1. Mobile phone addiction (replacing tobacco): Some mobile-phone users are so addicted to the extent that they cannot do without a mobile phone. They use the phones while driving, before sleep, on the road, eating, crossing roads, in the toilets, in the mosques, class very where.
2. Financial burden- mobile phone recharge or calls and data subscription.
3. Less interpersonal contact with other members of the family (Father, mother, siblings, husband wife etc)
4. Adverse content-pornographic materials leading to immorality.
5. Risk of road traffic accidents.
6. Marital disharmony
7. Fraudsters
8. Failure at school due to distraction by social networking

PRECAUTIONS

Even though, most of the adverse effects on health of mobile-phones, especially in children have not been scientifically proven, however, caution should be taken in their use particularly among children.

Safety and protection in the use of mobile-phones

1. Radiation produces oxides, peroxides and free radicals, which cause cancers. Therefore, the use of antioxidants such as vitamins C and E was found to be helpful, especially among the engineers handling base masts.
2. Keep mobile-phones far away from you. Do not sleep or go toilet with mobile-phones.
3. Always put the WiFi off when not in need.
4. Limit your social networking site as minimum as possible.
5. Keep your phones away from children.
6. Playing Qur'anic recitation, this may prevent you from visiting x rated web sites.
7. Base station antenna should be located far from residential areas because they emit radiation. They should be located at a distance as prescribed by NCC.
8. Base station antenna should be at least 15m above the ground. This is what is recommended by NCC and it is an intermediary accepted standard.

Thank you!

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You can contact us for contributions, suggestions and observations

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