RF and Health: A WHO Perspective

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Health:
is a state of complete physical, mental and social well-being, not just the absence of disease or infirmity

is the fundamental right of every human being, everywhere
is crucial to peace and security
depends on the cooperation of all individuals and States
should be shared: extending knowledge to all peoples is essential
The Present EMF Context

- Increasing EMF human exposure due to electricity use, wireless devices and medical technologies
- Increasing concern from the public
"Using EMF to achieve the smartest sustainable city"
Mobiles ‘boost cancer’
Radiation may make tumours grow faster.

Use are still unclear. The biggest British study, led by Sir William Stewart two years ago, could find no evidence of a risk to health. But Sir William still recommended a precautionary approach, particularly in children.

The World Health Organisation has called for more research and has urged people to limit mobile use.

Now Italian scientists believe they could be closer to the truth.

Dr Fiorenzo Marinelli, of the National Research Council in Cancer develops when control signals in a normal cell go wrong and an abnormal cell results. Instead of destroying itself the mutant cell keeps on dividing and forms a lump or tumour.

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Dr Fiorenzo Marinelli, of the National Research Council in

Stop Smart Meters!
Fighting for health, privacy, and safety

We have a right to our health. No smart meters.
The Present
Scientific Knowledge

Large and increasingly sophisticated database

Known mechanisms

Health effects not established below international guidelines

Scientific uncertainty
WHO International EMF Project

- Established in 1996
- Coordinated by WHO HQ
- A multinational, multidisciplinary effort to create and disseminate information on human health risk from EMF
WHO Partners in Radiation

International Organizations

National Authorities

NGOs

Collaborating Centres

Public Health England

Australian Government
Australian Radiation Protection and Nuclear Safety Agency

World Health Organization
Do EMFs pose a health risk?

Risk Assessment
The Evidence

Risk Perception
The Public Concern

Risk Management
The Policies
OUTLINE

- Introduction
- Assessing the health risk
What do we know?

50 Hz … 100 kHz 300 MHz 10 GHz

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World Health Organization
What do we know?
Mechanisms of interaction

- Induced currents
- Induced currents and heating
- Surface heating
- Non-thermal effects??

Frequency:
- 50 Hz ...
- 100 kHz
- 300 MHz
- 10 GHz