

# Wireless devices in nurseries and primary schools

Y Pwyllgor Deisebau | 3 Tachwedd 2020  
Petitions Committee | 3 November 2020

Reference: RS20/14079-1

**Petition P-05-1030** Preventive measures on wireless devices in nurseries and primary schools.

**Text of petition:**

We call for the National Assembly of Wales to urge the Welsh Government to adopt a more stringent limit on the use of wireless devices in nurseries and primary schools.

Established health risks must be known to parents/carers.

Parents/carers consent must be ensured in advance before Wi-Fi devices are installed/used.

The percentage results must be transparent to all parents/carers and those with a duty of care.



# 1. Summary

Local authorities are responsible for IT infrastructure in maintained schools. The Welsh Government has issued guidance on:

- Education Digital Standards
- Education Digital Guidance Schools; and
- Device Management

The Education Digital Standards include Wireless Networking Standards and these state::

All schools should ensure they have considered how and why they wish to use wireless networking within their school. Visit the Public Health Wales website for the latest advice on potential health considerations.

This Public Health Wales Guidance includes a section on the ‘evidence summary of the health risks’. It advises that Public Health Wales is advised by Public Health England on radiation-related matters.

The PHW ‘evidence summary of health risks’ states ‘**there is no reason why Wi-Fi should not be used in schools and in other public places**’. The full text states:

Research has been carried out by The International Agency for Research on Cancer (IARC) to look at the impact of radio waves on health. It has been stated that radio waves are ‘possibly carcinogenic’ (possible cause of cancer). This does not mean that there is a definite direct link between radio waves from mobile phones and cancer; rather, that the evidence from studies that examined whether radio waves can cause cancer in humans was considered limited. The evidence from experimental studies involving exposed animals was also considered limited. Other examples of chemicals or substances that are considered possibly carcinogenic include eating pickled vegetables (Asian-type) or using talc-based body powder.

Sometimes, people are concerned about exposures and impacts, but radio wave exposures and risks are assessed against agreed health-based standards which have been set to protect individual and population health. According to Public Health England, the UK expert advisors on radiation, public exposure to radio waves from 2G, 3G and 4G technology mobile telecommunications base stations is well within the

guideline levels set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). These guidelines are internationally accepted and used in many countries including the UK. The recent roll-out of 5G technology across the UK may possibly lead to an increase in overall exposure to radio waves. However, it is not expected that exposure will exceed the health-based guidelines.

Similarly, Wi-Fi technology - as used in wireless local area networks where devices and computers communicate through radio waves instead of connecting cables - is not expected to negatively affect the health of the general population. The signals are very low power in Wi-Fi network computers and routers and exposure levels are lower than those from mobile phones held to the head during calls. Research shows that an individual's exposure to radio waves from Wi-Fi will also be well within the ICNIRP internationally-accepted guidelines. As such, there is no reason why Wi-Fi should not be used in schools and in other public places.

## 2. The Welsh Government's response to the petition

The Welsh Government has responded to a request for information from the Chair of the Petitions Committee. The letter includes the following points.

- 'On the basis of several published studies and those carried out in-house, PHE has concluded that there are no special steps required to reduce exposure to the low levels of radio waves from Wi-Fi networks, nor any current reason why Wi-Fi should not continue to be used in schools and in other places.'
- 'PHE carried out a systematic programme of research into wireless networks and their use in schools, including measurements of exposures from networks. The results of the research support PHE's view that exposures from Wi-Fi are low in relation to the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines and when compared to similar exposure from mobile phones.'

### 3. Other positions

There has been coverage and scrutiny of this issue from several sources including the [Council for Europe \(2011\)](#). In 2015, the [French National Assembly](#) introduced [legislation](#) to reduce exposures to wireless radiation electromagnetic fields including in schools and nurseries. It was based on a precautionary approach to addressing potential health risks of radio frequency.

Every effort is made to ensure that the information contained in this briefing is correct at the time of publication. Readers should be aware that these briefings are not necessarily updated or otherwise amended to reflect subsequent changes.