

Consultation on the draft Programme for Government



Submitted to the Northern Ireland Executive Office via online survey
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Q. Please provide more detail on the key issues not included under this outcome that you think should be included?

The British Lung Foundation welcomes the Northern Ireland Government's inclusion of measuring Nitrogen Dioxide (NO₂) at urban roadside locations as an indicator under Outcome 2 of the Programme for Government.

However, based on evidence, we believe this indicator and measurement could be strengthened by including the following changes:

1. Measuring particulate matter, specifically PM10 and PM2.5, against World Health Organisation (WHO) "safe levels".

Along with NO₂, particulate matter (PM) is widely considered to be the most significant pollutant in terms of health impact. Of these, the smallest particles are PM10 and PM2.5. Because they are so small, when people breathe in PM they have a higher chance of penetrating deep into the lungs, causing serious respiratory problems (Europeanlung.org, 2016). There is evidence that PM can have a significant effect on people living with lung conditions, particularly chronic obstructive pulmonary disease (COPD), including earlier death and increased exacerbations. Around 264,000 people in NI are living with a lung condition, and prevalence of COPD in NI has increased by 13% in the last 10 years.

The 'Air Pollution in Northern Ireland 2015' report, published by the Department of Agriculture, Environment and Rural Affairs (DAERA) (November 2016, page 6) states that none of the sites at which PM10 and PM2.5 are monitored in NI exceeded EU limit values. However, the EU legal limits for PM10 and PM2.5 are set at a higher level than the limits that have been defined as "safe" by the WHO. The WHO actually states that *no* level of exposure to PM is "safe" for human health.

The WHO has identified Armagh, Derry-Londonderry and Belfast as having unsafe levels of particle pollution (PM2.5) in particular. DAERA has also listed four Air Quality Management Areas in NI for PM10.

Given the damaging impact on public health, we would ask that the Northern Ireland Government also commits to measuring levels of PM10 and PM2.5 and compare the results against the following levels as deemed "safe" by the WHO:

WHO Guideline values

PM_{2.5}

10 µg/m³ annual mean

25 µg/m³ 24-hour mean

PM₁₀

20 µg/m³ annual mean

50 µg/m³ 24-hour mean

2. Monitoring concentrations of air pollutants around schools in pollution hotspots, as well as urban roadsides.

Children's lungs are particularly placed at risk by air pollution. Air pollution exposure during pregnancy is linked with low birth weight and premature birth, which impacts on children's lungs (Pedersen et al, 2013). Children exposed to severe air pollution are five times more likely to have poor lung development (Anderson et al 2012), and increased infection susceptibility (Macintyre et al, 2014). Children's height negatively affects their roadside NO₂ intake (Kenagy et al, 2016) with everyday pollution linked to increased airway inflammation (Adar et al, 2015). This is particularly concerning considering over 36,000 children in Northern Ireland are living with asthma.

Freedom of information requests, which were sent to all local authorities in the UK in June 2016 by the British Lung Foundation, found that only 3 schools in the whole of Northern Ireland have some form of air pollution monitor within 10 metres of a school.

Considering the disproportionate effect of air pollution on children's health and the current lack of monitoring, we would ask that the Northern Ireland Government work with local authorities to ensure that all schools in pollution hotspots have NO₂ and PM monitors outside them, to ensure that parents and teachers have the information they need to protect children's health.