

## **AQS 03 Public Health Wales**

### **Senedd Cymru | Welsh Parliament**

#### **Pwyllgor Newid Hinsawdd, yr Amgylchedd a Seilwaith | Climate Change, Environment, and Infrastructure Committee**

#### **Bil yr Amgylchedd (Ansawdd Aer a Seinweddau) (Cymru) | The Environment (Air Quality and Soundscapes) (Wales) Bill**

#### **Ymateb gan Iechyd Cyhoeddus Cymru | Evidence from Public Health Wales**

1. What are your views on the general principles of the Bill, and is there a need for legislation to deliver the stated policy intention?

Public Health Wales welcomes the publication of this bill. There are no safe levels of air pollution and health is harmed at low concentrations. It is also the case that there is a link between air pollution, deprivation and health, with people who are in the poorest health and living in the most difficult circumstances also exposed to the highest levels of pollution (Brunt et al, 2016).

There is a need for legislation to make progress in this area however, it is important that further developments linked to this legislation progress rapidly. Given that air pollution harms the cardio-respiratory system (so the same part of the body as targeted by COVID-19) it is critical that air pollution is addressed as a wider determinant of health as quickly as possible to support the recovery of health and health services from the burden created by the pandemic.

Brunt H, Barnes J, Jones SJ, Longhurst JWS, Scally G, Hayes E (2016). Air pollution, deprivation and health: Understanding relationships to add value to local air quality management policy and practice in Wales, UK. *Journal of Public Health*, online first.

<https://doi.org/10.1093/pubmed/fdw084>

2. What are your views on the Bill's provisions (set out according to sections below), in particular are they workable and will they deliver the stated policy intention?

2.i) National air quality targets (sections 1 to 7)

Public Health Wales welcomes the provision of powers to set, review and monitor targets. However, it would like to see adoption of the WHO targets, or setting of even more stringent targets, in as short a time as possible. Current targets are too often seen as a "target" for polluting up to, rather than an absolute maximum. But, health effects are known to occur even at low levels of air pollution, that Wales has significant proportions of the population living in deprivation and with ill health, the "triple jeopardy" (Brunt et al, 2016) is an important concern. Targets should be designed to protect everyone and drive population wide

exposure improvements which will include the most disadvantaged by default. Ambitious exposure reduction targets would yield the greatest health benefit and should be considered as an appropriate basis for a metric to reflect health benefits of reductions in long-term exposure. While long-term exposure is most important for public health, any future targets need to consider the effects of short-term (i.e. hourly/daily) exposure.

It is also important to note that setting and monitoring targets will not bring about significant changes in air quality without additional measures to reduce pollution, particularly around car travel and increased provision of public transport and active travel infrastructure. We believe that it is important to manage expectations in terms of what is possible merely from target setting and monitoring.

It is also noted that mention is made of being able to take a more responsive approach to emerging issues. While we welcome this, we also caution against focus on single pollutants such as PM<sub>2.5</sub> and would recommend a more holistic approach. Current concerns over NO<sub>2</sub> are due, in part, to incentives offered to diesel vehicle drivers in the wake of concerns over CO<sub>2</sub> levels. The focus on tackling NO<sub>2</sub> levels by encouraging switches to electric vehicles could well exacerbate PM levels and cause further harms; PM is produced from tyre and brake wear and electric vehicles are heavier than their diesel and petrol equivalents. Policy measures need to address pollution by considering all forms and their reduction together, particularly in terms of reducing car travel and increasing provision of public transport and active travel infrastructure.

Target setting, and action planning and implementation, also needs to be carried out with consideration for inequalities and not exacerbating these.

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## 2.ii) Promoting awareness about air pollution (section 8)

Public Health Wales welcomes the Bill placing a duty on Welsh Ministers to take steps to promote awareness of air pollution, including the health and environmental impacts and actions that may help to reduce or limit air pollution. Public Health Wales also recognises the reference to the Prevention of Future Deaths Report by the Coroner following the inquest into the death of Ella Adoo-Kissi-Debrah.

Public Health Wales agrees that public awareness of websites such as UK-Air (and the Welsh equivalent) is poor and greater awareness may help people to reduce their exposure to air

pollution. But there are still plenty of people in Wales who do not use the internet on a regular basis and / or who do not have the reading ability to act on the information there.

In addition, the danger of “awareness raising” of this nature is that it pushes responsibility for tackling problems on to those who are least able to change or control situations. For example, people in the most deprived areas already drive less than those in the least deprived areas, but driving is not restricted to the areas in which we all live. So, people in the most deprived areas would also be being asked to change their behaviour to accommodate the actions of those living elsewhere. Awareness raising also needs to be focused at policy makers at both a local and national level.

Public Health Wales has also been exploring the statement that *“The adverse effects of air pollution on health are not being sufficiently communicated to patients and their carers by medical and nursing professionals.”* Public Health Wales is the National Public Health Institute for Wales so has a role in supporting such activity to ensure that information that is being communicated is being done so in an evidence based and equitable manner. It may be that it is difficult for clinicians to find the time to meaningfully explore this with their patients, given the time pressures they already currently face. Public Health Wales is therefore keen to see that awareness raising efforts are evidence based and are not seen as an “instead” of evidence-based policy actions of proven effect of addressing air pollution.

#### 2.iii) National air quality strategy (sections 9 to 11)

Public Health Wales agrees that the publication of a Clean Air Plan or Strategy within 12 months of the Bill being passed and reviewed every 5 years would be of value.

#### 2.iv) Air quality regulations (section 12)

Public Health Wales welcomes the setting out of the duty of consultation before making regulations.

#### 2.v) Local air quality management (sections 13 to 15)

Public Health Wales agrees that local air pollution monitoring processes and the Local Air Quality Management framework needs reform. It is keen to see this progress as quickly as possible and also to see the new process associated with more significant and robust action to address pollution than has been the case to date. It also needs to move away from “hot

spot" management because of the limited potential of such an approach to have any significant effect on either air quality or health.

Considering current LAQM in the context of the Prevention Paradox; if we treat only a small area with high levels of pollution, then the benefit to population health will be less effect than treating a much larger area and bringing about a smaller effect on pollution levels.

[The prevention paradox | Health Knowledge](#)

#### 2.vi) Smoke control (sections 16 to 18)

Public Health Wales agrees that smoke control is important and that domestic burning of solid fuels is a concern. However, we are also mindful of the significant burden of the current costs of energy on people (mentioned in section 3.149) and also then the resulting effects on their physical and mental health. We believe that this could lead people to seek other, cheaper sources of fuel and that domestic burning could become more common. Therefore, smoke control legislation needs to be considered and implemented in the context of reductions in overall energy costs.

Of greatest risk from current energy costs are those people on the lowest incomes, meaning that domestic burning of solid fuels may become more appealing. These people are, of course, also likely to be more vulnerable and susceptible to the harms to their indoor air quality of domestic burning. Punitive approaches (suggested in section 3.152 and section 3.170) to domestic burning are also likely to cause even more hardship. Therefore, Public Health Wales is keen that any smoke control legislation fully considers inequalities and whether these could be exacerbated by any policy that is implemented.

#### 2.vii) Vehicle emissions (sections 19 to 21)

Public Health Wales welcomes efforts to address vehicle emissions but is concerned that approaches such as Clean Air or Low Emission Zones will increase inequalities. The explanatory memorandum describes a CAZ/LEZ as *"incentivising behaviour change, including take-up of cleaner transport modes and active travel alternatives which can also deliver wider health benefits."*

One of the outcomes of COVID-19 is a change in working from home, with many office based staff continuing to work from home 2 to 3 days per week. Generally, people living in the least deprived areas are most able to work from home because of the nature of their employment.

Generally, those people living in the most deprived areas are more likely to have to travel to a place of work to do that job. This means that any CAZ or LEZ will disproportionately harm those who have to travel for their work. It is also difficult to see how those who travel for shifts at anti-social hours are “incentivised” by a CAZ.

Public Health Wales would be keen to see a much greater focus on improving public transport and active travel infrastructure to enable more people to choose not to travel by car, rather than a “zone” based approach such as this.

The issues of “hot spot” approaches are also discussed above in relation to the Prevention Paradox (section 2v). A CAZ/LEZ would generally be expected to cover a larger area than current LAQM but may still have limited benefit.

Finally, newer, less polluting vehicles are often exempt from, or subject to lower charges, than older, more polluting vehicles. We have two points to make about this

- 1) That those in the most deprived areas, as well as likely to be needing to travel for work more, are also least likely to be able to upgrade vehicles to achieve compliance with any CAZ
- 2) That encouraging replacement of operational vehicles is not consistent with the sustainability principles of the climate emergency. While a new car may produce lower emissions once it is on the road, the emissions that are produced in the manufacture of that car displaces the emissions to other parts of the world. This is therefore not an example of Wales being globally responsible, as demanded by WFGA. Production emissions are of a similar magnitude to the lifetime emissions of the car once it is in use.

[What's the carbon footprint of ... a new car? | Environment | The Guardian](#)

Section 3.187 mentions the provision of the legislation to allow for revenue raised by CAZ/LEZ to be spent on non-transport projects to reduce air pollution. Given the extent to which transport contributes to current air pollution levels it’s difficult to understand the rationale and evidence base for this proposal.

Public Health Wales also welcomes the introduction of anti-idling measures, in relation to both air and noise pollution, and is keen to see these implemented as quickly as possible, particularly around schools. However, it is concerned that section 3.226 makes reference to the promotion of low emission vehicles as an anti-idling measure. As stated above, we are keen that an “all pollutants” approach is adopted in improving air quality in Wales and a focus

on low emission vehicles, especially in the private car fleet, does not do this. The greater weight of electric / low emission cars means that there is a risk that encouraging a car-for-car switch to low emission private cars will just exacerbate PM levels.

2.viii) National soundscapes strategy (sections 22 and 23)

Public Health Wales welcomes the recognition that noise is also a significant health harm and believes that the soundscapes strategy is an important step to addressing this. It also welcomes the stipulation for consulting on the strategy.

2.ix) Strategic noise map and noise action plans (sections 24)

Public Health Wales welcomes the options to alter the intervals between strategic noise mapping.

2.x) General provisions (sections 25 to 28);

Public Health Wales has no further comment on the general provisions.

3. What are the potential barriers to the implementation of the Bill's provisions and how does the Bill take account of them?

As noted above, the key barriers and concerns are that some of the proposed interventions exacerbate, rather than reduce inequalities and therefore do not have the hoped for benefits to health across the population. However, we are also sure that it is possible to implement appropriate measures without exacerbating inequalities and would be more than happy to contribute wherever we are needed to help to support this.

4. How appropriate are the powers in the Bill for Welsh Ministers to make subordinate legislation (as set out in Chapter 5 of Part 1 of the Explanatory Memorandum)?

No further comment here

5. Are any unintended consequences likely to arise from the Bill?

See comments above. Public Health Wales is concerned about the potential for exacerbation of inequalities associated with some of the proposed measures. However, we are also sure that it is possible to implement appropriate measures without exacerbating inequalities and would be more than happy to contribute wherever we are needed to help to support this.

6. What are your views on the Welsh Government's assessment of the financial implications of the Bill as set out in Part 2 of the Explanatory Memorandum?

No further comment here

7. Are there any other issues that you would like to raise about the Bill and the accompanying Explanatory Memorandum or any related matters?

In the explanatory memorandum accompanying the Bill, the following is stated:-

*3.19. Estimating the health impact of air pollution is difficult. The Chemical Hazards and Poisons Report, June 2022, contains a paper on "Updated Mortality burden estimates attributable to air pollution". This estimated the burden range of poor air to be the equivalent of between 29,000 and 43,000 deaths per year in the UK. Public Health Wales estimates the burden of long-term air pollution exposure to be the equivalent of 1,000 to 1,400 deaths (at typical ages) each year in Wales.*

The work that Public Health Wales did on this was before the COVID-19 pandemic. Public Health Wales is not comfortable with the on-going use of, and focus on, these figures to express the burden of air pollution. There is a number of reasons for this. As stated above, the figures are describing "equivalent" deaths, not actual deaths. The "equivalent" deaths figure is the sum of the time lost from all of our lives due to air pollution, currently estimated to be around 6 to 9 months. Of course, many factors affect this figure, including other health problems and deprivation, so some of us may lose more than 6 to 9 months and some less. The equivalent deaths figure adds all of these months and divides the result by life expectancy to give an estimate of "equivalent deaths". So, these are not deaths from air pollution. This is

neither an easy concept to understand not explain and is often mis-interpreted as actual deaths due to air pollution (see for example -

<https://www.actionforcleanair.org.uk/health/knowledge-hub-health>

Impacts of air pollution on patients when you scroll down - at 2.20 s.)

In addition, the more recent figures produced by UKHSA were for 2019. How the pandemic may have affected these estimates is unknown. What the figures mean after the prolonged periods of significant changes to travel behaviour, and therefore pollution, is unknown.

Given these issues, Public Health Wales is not intending to calculate, publish or update these figures in the coming years. That does not mean that other agencies will not publish them, but Public Health Wales will look to explore with partners how other measures can be used to more clearly and effectively express the burden of air pollution on health of people in Wales.