MAYOR OF LONDON

# Heathrow Expansion DCO Consultation Response
# Health

**September 2019**

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## 1. Overview

1.1 This paper sets out the Mayor's response on health to the statutory consultation by Heathrow Airport Limited (HAL) on its expansion proposals.

1.2 The Health chapter of the Preliminary Environmental Information Report (PEIR) acknowledges that many of the topics assessed within it are likely to have an impact on health. However, the chapter is inadequate and does not present the overall impact on health in a comprehensive and coherent manner. It should include details of all the impacts of expansion on health so that the Secretary of State and other stakeholders are fully aware of the cumulative impacts on mental and physical health and wellbeing rather than relying on the assessments scattered through the rest of the PEIR.

1.3 The PEIR presents health and wellbeing data at local authority level which does not give a detailed understanding of the current health inequalities in the relevant local planning authorities or the wider study area. Nor does it provide a detailed understanding of the impact of expansion on health inequalities.

1.4 This response is framed in terms of the five main impacts of transport on health and wellbeing: physical activity; air quality; injury; noise and severance. Other indirect impacts on health such as those that occur as a result of impacts on employment, training and the economy are addressed in the relevant responses on those topic areas.

## 2. Policy Context

2.1 The Mayor of London has a statutory duty to promote improvements in the health of Londoners and reductions in health inequalities; and to mitigate any detrimental effects of proposed strategies on the health of Londoners and mitigate any increase in health inequalities. In view of this statutory duty the Mayor has stated in the draft new London plan that:

*"The Mayor will oppose the expansion of Heathrow Airport unless it can be shown that no additional noise or air quality harm would result, and that the benefits of future regulatory and technology improvements would be fairly shared with affected communities".*

2.2 The Mayor also has a statutory duty to publish a Health Inequalities Strategy for London. The PEIR does not make reference to the London Health Inequalities Strategy which was published in September 2018. The strategy sets out five key aims to tackle

health inequalities in London:

1) Healthy children: every London child has a healthy start in life
2) Healthy minds: all Londoners share in a city with the best mental health in the world
3) Healthy places: all Londoners benefit from an environment and economy that promote good mental and physical health
4) Healthy communities: London's diverse communities are healthy and thriving
5) Healthy living: the healthy choice is the easy choice for all Londoners.

2.3 The Mayor also published the Mayor's Transport Strategy (MTS) in 2018, however the PEIR only makes a minor reference to it in appendix 2.1. The MTS sets out his ambition to deliver the affordable, reliable and safe service Londoners deserve and to unlock the power of transport to improve people's lives. The strategy uses the Healthy Streets Approach as the framework for putting human health and experience at the heart of planning the city, covering the following three areas:

- Healthy streets and healthy people (including active, inclusive and safe travel, and improving air quality and the environment)
- A good public transport experience
- New homes and jobs

2.4 It is expected that any new transport infrastructure for London should be aligned with the vision and approach of the MTS. The GLA notes that HAL has accepted these are important and relevant policies and would expect HAL to comply with them.

2.5 The Mayor's response on health to the statutory consultation by Heathrow Airport Limited is therefore framed in terms of the consultation documents' alignment with the MTS's strategic position on the main impacts of transport on health and wellbeing: physical activity; air quality; injury; noise and severance.

## 3. Key impacts of Heathrow expansion on health

### *Active travel*

3.1 People who are physically active every day reduce their risk of many illnesses, including heart disease, stroke, depression, type 2 diabetes and some cancers. The MTS ambition is that by 2041 all Londoners should be walking or cycling for at least 20 minutes every day and that 80% of trips in London are made by walking, cycling or using public transport. These support a key ambition in the London Health Inequalities Strategy for all Londoners to be doing the physical activity they need on a daily basis to stay healthy, with efforts focused on supporting the most inactive. All new infrastructure projects should seek to maximise opportunities for active and sustainable travel during

the construction and operation phase of the project. This must include paying particular attention to preventing any temporary barriers to active travel as well as seeking opportunities to increase levels of active travel amongst groups who are not currently sufficiently physically active.

3.2 In London, 50% of walking is done as part of public transport trips and therefore use of public transport is a key way to increase levels of active travel.

3.3 While HAL's ambition to increase the walking, cycling and public transport mode share to the airport is welcome, it has failed to set out a credible surface access strategy to achieve this. The lack of rail access from the south and west fundamentally undermines HAL's ability to secure mode shift from these directions. The proposed parking strategy makes accessing the airport by car significantly more attractive to passengers than today, completely at odds with the sustainable mode share objectives. There are multiple concerns regarding the proposals and assumptions made by HAL to shift staff to sustainable modes. Transport for London's detailed paper on Surface Access outlines these concerns in further detail.

### *Air quality*

3.4 A key ambition in the London Health Inequalities Strategy is for London to have the best air quality of any global city, with progress fastest in the most polluted areas, benefitting people most vulnerable to the effects of air pollution.

3.5 Road vehicles currently cause around half of London's air pollution. The choices people make about how they travel, such as walking, cycling or using public transport affect the safety of the air we all breathe. The trips generated by the current airport combined with local traffic already place considerable strain on the roads and railways serving the airport and contribute to levels of $NO_2$ that are well in exceedance of legal limits. As a result of the additional flights and associated vehicular traffic, any expansion at Heathrow would significantly impair London's ability to meet international air quality obligations in the shortest possible timescale and would contribute to an overall worsening of air quality relative to the situation without expansion.

3.6 All new infrastructure projects should seek to maximise opportunities for people to shift from polluting to non-polluting modes of travel and minimise any temporary or permanent increase in motorised road transport. A shift to active and sustainable travel should be prioritised over a shift to low emission vehicles, because even vehicles with zero tailpipe emissions will still be contributing to particulate air pollution as a result of tyre and brake wear. In cases where active or sustainable travel is not possible, such as the case of construction traffic, then low emission or zero emission vehicles should be prioritised.

3.7 The air quality impacts arising from the proposals are to a large extent dependent on the road traffic impacts modelled by the applicant. There are concerns about the robustness of the road traffic modelling and the consequences this has for the air quality modelling. There are also concerns regarding the air quality model verification

process, and lack of clarity around key dispersion model input data, which raises concerns regarding the validity of the presented air quality impacts. These issues are discussed in more detail in TfL's detailed papers on Surface Access and Air Quality.

3.8 There are also a number of concerns regarding the methodology used to calculate the health outcomes attributable to expansion in table 12.14. For example:

1. It is not clear why the study area for the health effects of air quality includes Greater London local authorities outside the fully modelled area, as the impact on air quality in these areas has not been modelled. Including these areas in the health impact assessment would be expected to reduce the population weighted change in concentrations, as impacts would be diluted across a greater population by including areas outside of the air quality model where no air quality impacts have been determined. Using such an approach is likely to have underestimated the health associated air quality effects.

2. Respiratory hospital admissions attributable to $PM_{10}$ with expansion are compared to **total hospital admissions** without expansion. This is an inappropriate denominator to use. The appropriate denominator would be respiratory hospital admissions attributable to $PM_{10}$ without expansion. The current calculation grossly underestimates the increase in respiratory hospital admissions attributable to $PM_{10}$ expected to result from expansion.

3. Likewise, cardiovascular hospital admissions attributable to $PM_{10}$ with expansion are compared to **total hospital admissions** without expansion. This is an inappropriate denominator to use. The appropriate denominator would be cardiovascular hospital admissions attributable to $PM_{10}$ without expansion. The current calculation grossly underestimates the increase in cardiovascular hospital admissions attributable to $PM_{10}$ expected to result from expansion.

4. It is not clear why the PEIR does not report the increase in respiratory and cardiovascular hospital admissions attributable to $NO_2$ and $PM_{2.5}$.

5. Mortality attributable to air pollution with expansion is compared to non-accidental mortality for people >30yrs of age without expansion. This is an inappropriate denominator to use. The appropriate denominator would be mortality attributable to air pollution without expansion.

3.9 Chapter 12 only considers the impact of air pollution on mortality and the impact of $PM_{10}$ on cardiovascular and respiratory hospital admissions. It does not consider or quantify the number of years of life lost due to the increase in emissions. Nor does it consider the impacts of worsening air quality on morbidity and quality of life, including prevalence of respiratory conditions (such as asthma, acute bronchitis or COPD) and the incidence of restricted activity days.[1] It is therefore likely that this will further underestimate the overall health impacts attributable to the increased emissions

[1] A restricted activity day (RAD) is defined as a day when individuals reduce their normal activities, including days of missed work, absences from school and other more minor reductions in daily activity.

resulting from expansion.

3.10 It is recognised that air pollution contributes to widening health inequalities as levels of particulate matter and $NO_2$ are higher on the most heavily trafficked roads which are used more by disadvantaged people as places where they live, work and shop.[2] It is likely that worsening air quality resulting from the project will increase health inequalities. Further analysis of the impact of expansion on vulnerable groups, including people on low incomes and the unemployed in addition to the groups mentioned in paragraph 12.10.490, should be undertaken.

3.11 All of these reasons make it clear HAL has not provided the information reasonably required to allow for meaningful consultation. Londoners should be given the opportunity to formally comment on proposals and impacts that affect their lives once HAL has remedied the defects and produced adequate information.

### *Road traffic collisions*

3.12 Every year in London people are injured and killed by collisions on the road. The MTS ambition is that by 2041, no one should be killed or seriously injured on London's roads. All new infrastructure projects must therefore align with TfL's Vision Zero approach to ensure that construction and operation phases of the project contribute to reduction in road danger by ensuring safe speeds, safe street design, safe vehicles, safe behaviour and post collision safety including timely access for emergency services. Above all, Vision Zero means reducing the dominance of motor vehicles on streets, and then making the remaining essential motorised journeys as safe as possible.

3.13 The Health chapter of the PEIR identifies that, because road traffic incidents are (at least in part) a function of exposure to traffic, a change in vehicle kilometres may result in a change in the number of road traffic incidents. The Preliminary Transport Information Report (PTIR) details the methodology for calculating potential changes in the number of people killed or seriously injured (KSI); Chapter 19 of the PEIR (Transport network Users) provides details on collision clusters.

3.14 Forecasts of vehicle kilometres, on which the PTIR is based, are only produced for local authorities that fall within the fully modelled area of the highway assignment model and therefore there are a number of areas which are excluded from the assessment, namely London Borough of Wandsworth, London Borough of Merton and the Royal Borough of Kensington and Chelsea. As noted earlier, there are multiple concerns over the robustness of this road traffic modelling, which subsequently raises concerns over the outputs for road safety. The assessment undertaken for the Health chapter identifies a maximum likely increase of one KSI incident in any LPA in 2035 as a result of expansion.

### *Noise*

3.15 The World Health Organisation has identified noise as the second greatest

[2] Transport & health: Briefing statement (2013) UK Faculty of Public Health

environmental cause of health problems after poor air quality. Consistently elevated sound levels can cause hearing impairment, hypertension, ischemic heart disease, stress and sleep disturbance and studies have shown the link to aviation noise in particular. Even Heathrow's own assessment points to over a million people adversely affected by aircraft noise following expansion.

3.16 Additionally, road transport is a significant source of noise and vibration in London, and one of the ten Healthy Streets Indicators is that streets are 'not too noisy'. The MTS approach to road noise includes reducing traffic volumes, encouraging quieter vehicles, slower speeds and smoother driving as well as minimising noise from construction, servicing and deliveries.

3.17 All opportunities must be taken to reduce noise pollution and exposure, from aviation as well as associated road and rail transport. As previously noted, it is inappropriate that the health impacts of the increase in noise exposure due to expansion are not detailed in the Health chapter of the PEIR.

3.18 The Mayor has multiple concerns regarding the assessment of noise levels and noise mitigation measures. These are detailed in the Mayor's detailed paper on Noise.

1. HAL should assess noise impacts against a future non-expansion baseline, which incorporates the benefits of noise reductions resulting from new technology, rather than using the 2013 baseline.

2. It is vital that HAL considers the noise impacts from all operational non-aircraft sources including road and rail, ground born noise sources and vibration. More detail is required to understand the likely significant effects and develop appropriate mitigation measures.

3. The cumulative impact of the noise impacts from aircraft and non-aircraft sources should be considered.

4. The spatial extent for construction noise should be extended to more accurately capture sensitive receptors given the very significant amount of construction activity required and given that this will take place 24/7 for a significant time.

5. There is a lack of evidence for sound insulation mitigating harms arising from exposure to noise. In any case, such sound insulation will not mitigate the negative impacts on health and wellbeing resulting from increased noise exposure in the outdoor environment, for example, in green space or public realm around people's homes or in school playgrounds. This should be fully considered in the assessment.

3.19 The Mayor also expects a full assessment to be conducted on the impacts of vibration from both construction and operation of expansion on health and wellbeing.

### *Severance and community cohesion*

3.20 The Healthy Streets Approach does not just benefit health through enabling people to be physically active, improve air quality, reduce road danger and reduce noise, it also

helps to reduce the negative health impacts of social isolation and the 'severance' effects of busy roads. Making our streets more welcoming places to spend time, walk, cycle and access public transport helps to strengthen our communities and reduce unfair health inequalities, including by providing more equitable access to services as well as opportunities for education and employment. All new developments, both in the construction and operation phase should seek to minimise any temporary or permanent severance of communities and ensure continued or enhanced access to social networks, services, education and employment opportunities.

3.21 The physical long-term severance associated with the new runway and changes in road layouts are clearly an area over which there is much potential concern; effects are likely to be experienced on the extent to which people walk, cycle and access public transport in the area. Further detail on the potential impacts of severance is required to ensure that all potentially significant effects have been adequately assessed and mitigated against.

3.22 Further information is necessary relating to how people currently travel to work within the affected areas, with access to public transport being a particular component of active travel on which there is little discussion for both construction and operational phases (for example incorporating walking/ cycling to and from bus and train interchanges). The assessment of the 'reversibility' and 'adaptability' of vulnerable populations to deal with changes to active travel opportunities may be underestimated. Further information would also be useful in relation to what impacts there may be on mental well-being as a result of reductions in active travel (or perceptions that active travel is not possible).

3.23 Paragraph 12.10.733 makes an assumption that residents who remain living in the communities near the expanded airport boundary are those people who 'accept the change and are content with their sense of place' and that for new residents who move into the area 'it will be reasonable to assume that they are satisfied that the benefits (for example of affordable housing) outweigh any concerns (for example Airport related disturbance)'. However, this is unlikely to be true for the most vulnerable people on the lowest incomes who may feel forced to accept the airport related disturbance in order to have cheaper housing costs than in areas with less airport related disturbance. This is likely to widen health inequalities.

## 4. Additional impacts of expansion on health

### *Loss or relocation of open space or sports facilities*

4.1 The impact of the loss or relocation of open space or sports facilities on health is underestimated in the PEIR. It is not clear in the PEIR for how long temporary loss of open space or sports facilities would last. Temporary loss of open space or sports facilities lasting any longer than 3 months is likely to lead to negative impacts on mental and physical health and wellbeing. Temporary loss is likely to have a disproportionately greater negative impact on vulnerable groups including children, older people, people on low incomes, unemployed people, people with disabilities and people experiencing

mental or physical illness or reduced mental wellbeing, because they are less likely to have the resources to access facilities outside of the immediate local area. The temporary loss of space is more likely to lead to longer term negative impacts in these vulnerable groups, rather than temporary effects.

### *Access to healthcare services*

4.2 The Health Chapter of the PEIR states that the majority of increase in demand for healthcare will be for unscheduled healthcare appointments. The PEIR does not consider the increase in demand for NHS primary care appointments by Heathrow staff and the construction workforce. Since people are able to choose to register with a GP close to their place of work the large increase in workforce arising from expansion is likely to lead to an increase in demand for primary care appointments in the local area. It is noted that occupational health services will be available for the construction workforce and Heathrow staff and colleagues, however, this does not replace the need for NHS primary care services and therefore the Mayor expects HAL to assess the likely increase in demand. It is noted in Chapter 18 of the PEIR that employment is estimated to increase by the equivalent of 82,000 additional jobs from 2017 to 2040.

4.3 The increased need for emergency care due to the increase in passengers, airport visitors, construction workers and Heathrow colleagues arising from expansion is not within the scope of normal NHS service planning and should be assessed fully. This includes the need for ambulance services and services provided by Urgent Care Centres and Accident and Emergency departments.

4.4 The increase in passengers, construction workers and Heathrow staff arising from expansion is also likely to lead to an increased need for sexual health services in the local area. This should be assessed fully.

4.5 Access to healthcare services and other public services is likely to be negatively impacted by severance due to the land requirements of expansion, diversions, congestion and construction activities. The impact of this on health and wellbeing and health inequalities should be fully assessed.

## 5. In combination and cumulative effects

5.1 It is of serious concern that all developments on the Cumulative Effects Assessment (CEA) 'assessment list' have been screened out following application of the health CEA screening criteria and that paragraph 12.12.13 states that "no developments are considered to result in a likely significant cumulative effect for health". This is inadequate and should be reassessed at the Environmental Statement (ES) stage so that cumulative effects on health are assessed and reported in a comprehensive manner.

5.2 It is noted that, at the PEIR stage, a full in-combination health assessment has not been completed, but that a number of preliminary themes have been highlighted for further analysis, including where noise and air quality effects may create an in-combination health effect. It is expected that a more detailed in-combination health assessment will

be undertaken as part of the ES. In-combination health effects are likely to be one of the more significant impacts of the Project, both during construction and operational phases. As such, there is a need to ensure that this assessment is rigorous and robust, taking into account a full range of potential health effects (not only those arising from noise and air quality outcomes, but incorporating for example mental wellbeing and impacts arising from changes to active travel, severance and road danger).