CITY AIRPORT DEVELOPMENT PROGRAMME
(CADP1) S73 APPLICATION

ENVIRONMENTAL STATEMENT

VOLUME 2: APPENDICES

DECEMBER 2022

Pell Frischmann

City Airport Development Programme (CADP1) S73 Application

Volume 2: Appendices
Appendix 12.3 Health Baseline

December 2022

APPENDIX 12.3 Health Baseline

Existing Baseline

1.1.1 Different communities have varying susceptibilities to health impacts and benefits as a result of social and demographic structure, behaviour and relative economic circumstances. This section sets out relevant health baseline information. **Chapter 7 – Socio-economics, Section 7.4** also includes data on issues such as ethnicity, labour market indicators and deprivation that have been taken into account.

1.1.2 The aim of the following information is primarily to put into context the local health circumstances of the communities within the local study area. Statistics have been analysed for the following sub-set of site-specific wards, selected to reflect a geographic distribution and the areas with the highest deprivation.

- Royal Docks, E05000491 (the Airport site);
- Custom House, E05000479 (an area of higher deprivation to the north and west); and
- Abbey Wood, E05000214 (an area of higher deprivation to the south and east).

1.1.3 Data has also been collected for the Newham, Greenwich and Tower Hamlets local authorities (LAs), which make up the local study area. Where ward level data is not available, data for these local authorities has been collected as a representative alternative geography. Regional (London) and national (England) averages have been used as relevant comparators.

1.1.4 It should be noted that the description of the whole population, and the populations within the site specific and local study area, does not exclude the probability that there will be some individuals or groups of people who do not conform to the overall profile.

Demography and deprivation

1.1.5 As shown in Figure **Error! No text of specified style in document.**.1, the population structure of the local study area (in this case consisting of Newham, Greenwich and Tower Hamlets local authorities) indicates a much higher proportion of 20 – 44 year olds compared to other age groups, and also compared to the England average. There is a lower proportion of those aged 65 and over than the England average, and a higher proportion of young children (0-14 years) than the England average.

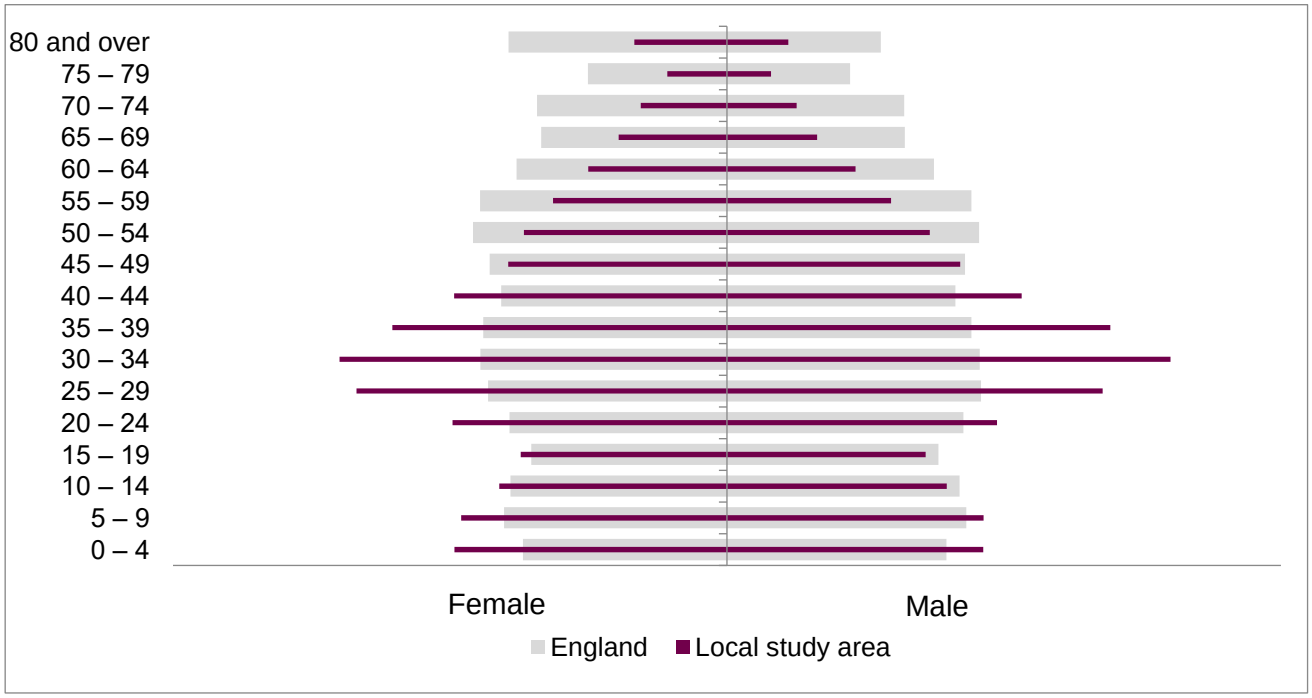

Figure Error! No text of specified style in document..**1: Population Structure for Local Study Area compared to England**

Source: ONS Population Estimates (Office for National Statistics, 2020)

1.1.6 Overall deprivation levels are relatively high within each of the local authorities that make up the local study area, with pockets of 20% most deprived areas nationally, and some smaller pockets of 10% most deprived areas in England (Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government, 2019). However, this is driven by the "barriers to housing and services" deprivation domain, while other domains such as health and education show low levels of deprivation.

Life Expectancy and Physical Health

1.1.7 As shown in Table **Error! No text of specified style in document.**-1, life expectancy within the local study group is generally not significantly different to the national average, with the exception of Custom House ward where male and female life expectancy is significantly worse than the national average. Healthy life expectancy (HLE), i.e. the number of years spent in good health, is also not significantly different to the national average, except female HLE which is significantly better in Greenwich and significantly worse in Tower Hamlets, compared to the national average.

1.1.8 Physical health indicators show a mixed picture within the local study area. Emergency hospital admissions for several causes perform significantly worse than the national average in many local authorities and wards making up the local study area, notably Newham where admissions statistics are all significantly worse compared to England. However, hospital admissions for all causes, coronary heart disease and myocardial infarction (heart attack) perform significantly better in Royal Docks ward compared to the national average. Mortality statistics are generally not significantly different to the national average, however, within Custom House ward, mortality from all causes, cancer, circulatory disease, stroke and causes considered preventable are all significantly worse than the national average. Mortality from all causes and cancer do perform better than the national average within Royal Docks, Newham and Tower Hamlets.

1.1.7 Newham and Tower Hamlets have particularly high rates of mortality attributable to particulate air pollution, and killed or seriously injured (KSI) casualties within the local study area are significantly worse than the national average.

Table Error! No text of specified style in document.**-1: Life Expectancy and Physical Health Baseline Statistics**

Indicator	Year	Royal Docks	Custom House	Abbey Wood	Newham	Greenwich	Tower Hamlets	London	England
Life expectancy									
Life expectancy at birth for males	2016-20	78.7	77.4	78.5	79.4	79.2	79.7	n/a	79.5
Life expectancy at birth for females	2016-20	n/a	78.2	82.0	83.3	82.8	83.3	n/a	83.2
Healthy life expectancy for males	2018-20	n/a	n/a	n/a	59.5	60.1	65.3	63.8	63.1
Healthy life expectancy for females	2018-20	n/a	n/a	n/a	64.6	67.2	57.8	65.0	63.9
Hospital admissions									
Emergency hospital admissions for all causes (SAR)[1]	2016/17 – 2020/21	79.0	118.1	119.6	100.7	106.2	91.0	n/a	100
Emergency hospital admissions for coronary heart disease (SAR)	2016/17 – 2020/21	59.9	129.4	112.3	122.6	92.3	100.9	n/a	100
Emergency hospital admissions for stroke (SAR)	2016/17 – 2020/21	101.1	128.3	131.0	111.6	101.0	96.2	n/a	100
Emergency hospital admissions for myocardial infarction (SAR)	2016/17 – 2020/21	51.5	108.7	67.6	124.3	69.2	108.9	n/a	100
Emergency hospital admissions for chronic obstructive pulmonary disease (SAR)	2016/17 – 2020/21	101.5	133.3	126.1	105.8	116.2	166.0	n/a	100
Mortality									
Deaths from all causes (SMR)[2]	2016-20	79.8	136.6	106.1	99.1	100.9	96.8	n/a	100
Deaths from cancer (SMR)	2016-20	79.4	128.6	116.4	90.6	102.9	94.5	n/a	100
Deaths from circulatory disease (SMR)	2016-20	97.6	151.2	115.7	108.3	99.9	100.2	n/a	100

[1] The Standardised Admission Ratio (SAR) is a summary estimate of admission rates relative to the national average and takes into account differences in a population's age, sex and socioeconomic deprivation

[2] The Standardised Mortality Ratio (SMR) is a summary estimate of mortality rates relative to the national average and takes into account differences in a population's age, sex and socioeconomic deprivation

Indicator	Year	Royal Docks	Custom House	Abbey Wood	Newham	Greenwich	Tower Hamlets	London	England
Deaths from coronary heart disease (SMR)	2016-20	99.7	118.5	125.0	112.6	102.1	111.2	n/a	100
Deaths from stroke (SMR)	2016-20	44.6	211.7	105.1	104.6	96.4	100.8	n/a	100
Deaths from respiratory diseases (SMR)	2016-20	109.2	134.5	99.3	101.6	103.8	117.5	n/a	100
Deaths from causes considered preventable (SMR) (under 75yrs)	2016-20	91.4	137.8	104.5	101.7	103.2	102.8	n/a	100
Fraction of mortality attributable to particulate air pollution (%)	2020	n/a	n/a	n/a	7.8	7.2	7.6	7.1	5.6
Killed or seriously injured (KSI[3]) casualties on England's roads	2020	n/a	n/a	n/a	178.4	130.7	213.6	165.8	86.1

Key	
	Significantly better than the England average
	Better than the England average (but not significantly so)
	Worse than the England average (but not significantly so)
	Significantly worse than the England average
	No interpretation of significance provided

Sources: OHID Local Health (OHID, n.d.), Public Health Outcomes Framework (OHID, 2022)

[3] KSI unit is per billion vehicle miles

Mental Health and Lifestyle

1.1.9 As shown in Table **Error! No text of specified style in document.**-2, mental health indicators perform significantly better than or similar to the national average across all localities making up the local study area.

1.1.10 Lifestyle and behavioural risk factors are more mixed. Prevalence of overweight or obese children is significantly higher in the local study area compared to England, while the percentage of overweight or obese adults is lower (both significantly and not significantly) than the England average. Smoking prevalence in adults is worse but not significantly so compared to the national average, and the percentage of physically active adults is significantly higher within Newham and Tower Hamlets (but not significantly lower within Greenwich) compared to the national average. Hospital admissions for alcohol related conditions is significantly lower across the study area compared to the national average.

Table Error! No text of specified style in document.**-2: Mental Health, Lifestyle and Behavioural Risk Factor Baseline Statistics**

Indicator	Year	Royal Docks	Custom House	Abbey Wood	Newham	Greenwich	Tower Hamlets	London	England
Mental health									
Hospital stays for self-harm (SAR)	2015/16 to 2019/20	44.0	41.1	44.6	38.4	39.1	31.7	n/a	100
Suicide rate	2018-20	n/a	n/a	n/a	6.0	8.7	8.1	8.0	10.4
Self reported wellbeing – people with high anxiety score (%)	2020/21	n/a	n/a	n/a	23.2	21.3	26.9	23.8	24.2
Lifestyle and behavioral risk factors									
Percentage of overweight children (including obesity) (Year 6)	2019/20	n/a	n/a	n/a	42.8	42.4	41.8	38.2	35.2
Smoking prevalence in adults (%)	2020	n/a	n/a	n/a	14.4	15.5	13.1	11.1	12.1
Hospital admission episodes for alcohol-related conditions	2020/21	n/a	n/a	n/a	331	399	284	348	456
Percentage of adults classified as overweight or obese	2020/21	n/a	n/a	n/a	61.2	62.2	53.5	56.0	63.5
Percentage of physically active adults	2020/21	n/a	n/a	n/a	59.1	66.4	60.3	64.9	65.9
Key									
	Significantly better than the England average								
	Better than the England average (but not significantly so)								
	Worse than the England average (but not significantly so)								
	Significantly worse than the England average								
	No interpretation of significance provided								

Sources: OHID Local Health (OHID, n.d.), Public Health Outcomes Framework (OHID, 2022)

Wider Determinants of Health

1.1.11 As shown in Table **Error! No text of specified style in document.**-3, wider determinants of health show a mixed picture, largely performing worse than the national average. The percentage of children in low income families across the study area is significantly higher than the London and England averages, however the percentage of 16-17 year olds not in education, employment or training is lower (significantly and not) than the national average.

1.1.12 The percentage of the population exposed to road, rail and air transport noise of 65dB or more during the day, and 55dB or more at night are in the worst quintile within the study area, however fuel poverty performs better than the national average in all LAs except Newham. Utilisation of outdoor space for exercise is not significantly different to the national average, and the percentage of eligible 40-74 year olds who have received an NHS health check is significantly higher in all LAs except Greenwich, where it is significantly lower.

Table Error! No text of specified style in document.**-3: Wider Determinants of Health**

Indicator	Year	Newham	Greenwich	Tower Hamlets	London	England
Children in absolute low income families (under 16yrs) (%)	2020/21	21.1	16.5	21.1	13.8	15.1
Children in relative low income families (under 16yrs)	2020/21	25.1	19.8	25.3	16.6	18.5
16-17 year olds not in education, employment or training (NEET) or whose activity is not known (%)	2020	5.1	4.8	5.0	4.0	5.5
The percentage of the population exposed to road, rail and air transport noise of 65dB(A) or more, during the daytime	2016	11.0	8.9	15.0	12.1	22.1
The percentage of the population exposed to road, rail and air transport noise of 55 dB(A) or more during the night-time	2016	13.3	12.1	18.5	15.9	8.5
Fuel poverty (low income, low energy efficiency methodology) (%)	2020	17.8	12.9	11.0	11.5	13.2
Utilisation of outdoor space for exercise/health reasons (%)	2015-16	18.8	16.4	15.7	18.0	17.9
Cumulative percentage of the eligible population aged 40-74 who received an NHS Health check	2017/18 - 2021/22	65.2	20.1	54.6	33.0	28.4
Key						
Significantly better than the England average						
Better than the England average (but not significantly so)						
Worse than the England average (but not significantly so)						
Significantly worse than the England average						
No interpretation of significance provided						
Quintiles						
Best						Worst

Source: Public Health Outcomes Framework (OHID, 2022)

Future Baseline (DM SCENARIO)

1.1.13 In relation to the future baseline, population health data presents a snapshot at a particular time. It is well recognised that population health is subject to continuing influences, both at the individual and community level. Influences may be environmental, such as seasonal variation in wellbeing and communicable diseases, they may also respond to socio-economic factors, such as migration and the availability of jobs.

1.1.14 Longer term trends and interventions in population health may influence the future baseline. Health and social care, public health initiatives and government policies aim to reduce inequalities and improve quality of life. The historic success of such interventions is increasingly challenged by national trends such as an aging population, rising levels of obesity and the COVID-19 pandemic. The implications of COVID-19 for public health will take years to be reflected within statistical data releases, but it is expected that the pandemic will have exacerbated public health challenges. The pandemic disproportionately affected vulnerable groups, including due to age and ill-health.

1.1.15 Climate change may also exacerbate physical and mental health risk factors, particularly around flooding and extremes of temperature. The baseline indicates that the populations of Newham, Greenwich and Tower Hamlets include both those who are relatively affluent and would therefore be expected to be relatively resilient to climate change stresses; it also includes more deprived communities who would be most sensitive to the adverse health effects of climate change.

1.1.16 The current baseline used in this assessment includes appropriate health indicators to reflect the types of health outcomes that that would also be relevant for the future population (e.g. in relation to age and long-term conditions). The assessment methodology includes a categorisation of vulnerable population groups, which, for example, allows for the effects of 'older people' and 'people with existing poor health' to be distinguished from the general population. The assessment sensitivity score for each vulnerable group is independent of the population size within that group, which would be the main change between the current and future baseline.

1.1.17 To reflect future baseline trends the assessment scores all vulnerable groups as having high sensitivity for all determinants of health. This appropriately captures any increase sensitivity within the future baseline.

1.1.18 It would not be proportionate (or consistent with the qualitative assessment approach taken) to quantitatively model the population's future health. This reflects the complexities of interactions between the wider determinants of health, as well as the potential for macro-economic changes in the next decade that are hard to predict. Any prediction would have such wide error margins that it would greatly limit the value of the exercise.

1.1.19 Annual national population health trend forecasting is undertaken by the UK Government (Health profile for England publications) (Public Health England, 2021) and has been taken into account in assessing the Proposed Amendments.

1.1.20 Key findings of the 2021 national health trends publication are:

"In the decade prior to the pandemic in England, improvements in life expectancy had slowed down. The very high level of excess deaths due to the pandemic caused life expectancy in England to fall in 2020, by 1.3 years for males and 0.9 years for females. This was the lowest life expectancy since 2011 for males and females."

[In 2019] "the risk factors making the biggest contribution to mortality were tobacco, high blood pressure, diet and high blood glucose. These also make a significant contribution to morbidity along with high body mass index (or obesity), alcohol, drug use and occupational risks .... Prevalence of multiple risk factors is higher in men, the White ethnic group, lowest income households, most deprived areas, and people with long term health conditions".

"… the direct impact of COVID-19 pandemic has disproportionally affected people from ethnic minority groups, people living in deprived areas, older people and those with pre-existing health conditions."

“There have been substantial indirect effects on children’s education and mental health, and on employment opportunities across the life course …"

“… access and use of a range of health services has been disrupted during the pandemic and the long-term effects of this is not yet realised …”.

1.1.21 Assessments take account of future baseline conditions as far as is practicable based on current knowledge. This includes taking account for any ‘designed in’ mitigation including those required under extant and/or planning conditions, S106 Agreement obligations made under the CADP1.

References

Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government. (2019). *Indices of Deprivation 2019 explorer*. Retrieved from http://dclgapps.communities.gov.uk/imd/iod_index.html#

Office for National Statistics. (2020). *Mid year population estimates.* Retrieved from https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates

OHID. (2022). *Public Health Outcomes Framework*. Retrieved from https://fingertips.phe.org.uk/static-reports/public-health-outcomes-framework/at-a-glance/E09000025.html?area-name=Newham

OHID. (n.d.). *Local Health Area Profiles*. Retrieved from https://fingertips.phe.org.uk/profile/local-health/data#page/1/gid/1938133180/pat/6/ati/401/are/E09000025/iid/93744/age/28/sex/4/cat/-1/ctp/-1/yrr/1/cid/4/tbm/1

Public Health England. (2021). *Health Profile for England: 2021.* Retrieved from https://www.gov.uk/government/publications/health-profile-for-england-2021