Alexandra Basin Redevelopment 2

Bringing Dublin Port To 2040

Environmental Impact Assessment Report

Chapter 19 Population & Human Health

Volume 2



CALAFORT ÁTHA CLIATH
DUBLIN PORT

TETRA TECH

19 Population and Human Health

Chapter Contents

19 Population and Human Health 19-1
19.1 Introduction 19-2
19.2 Assessment Methodology 19-2
19.3 Baseline Environment 19-13
19.4 Description of Likely Significant Effects 19-20
19.5 Inter-relationships 19-22
19.6 Mitigation and Monitoring 19-22
19.7 Potential Cumulative Effects 19-23
19.8 Residual Impacts 19-23
19.9 Summary of Effects and Conclusions 19-23
19.10 Limitations of Assessment 19-26

19.1 Introduction

This Chapter of the Environmental Impact Assessment Report (EIAR) comprises an appraisal of the existing population and human health conditions within the Project study area and addresses the potential effects of the Project on population and human health. The assessment is based on the description of works as noted in **Chapter 5 Project Description**. Where potential adverse impacts are identified, the assessment identifies mitigation measures that will be implemented to prevent, reduce or offset potential adverse effects, or enhance potential beneficial effects where possible.

19.1.1 Scope of the Assessment

The primary purpose of this EIAR chapter is to provide an assessment of the likely effects of the ABR2 Project during the construction and operational phases.

The population and health assessment applies a broad socio-economic model of health that encompasses conventional health impacts such as disease, accidents and risk, along with wider socio-economic health determinants vital to achieving good health and wellbeing. As such, the chapter combines a public health assessment (which focuses on environmental determinants of health), and a socio-economic assessment; providing additional commentary on how changes to some socio-economic factors have the potential to influence health and wellbeing.

The following health determinants have been scoped in for assessment across both phases:

- changes in air quality;
- changes in noise exposure; and
- changes in transport nature and flow rate.

The population and health assessment draws from and builds upon key outputs from the inter-related technical assessments that relate to these health determinants to understand the potential impacts on health and wellbeing.

19.2 Assessment Methodology

This section describes the methodology which has been used in the assessment of population and health, which may impact or be impacted by the ABR2 Project. The methodology and associated impact assessment had regard to the general guidance for the undertaking of an EIA, as presented in **Chapter 1 Introduction**, as well as ISEP's (formerly IEMA) 'Guide to Effective Scoping of Human Health in EIA' and 'Guide to Determining Significance for Human Health in EIA'.

19.2.1 Guidance and Legislation

19.2.1.1 Relevant Guidance

The following guidance and best practice guidance are relevant to the assessment of population and health effects:

- ISEP Guide to Determining Significance for Human Health in EIA (ISEP, 2022); and
- Institute of Public Health Impact Assessment (HIA) Technical Guidance (Institute of Public Health, 2021).

19.2.1.2 National Policy

19.2.1.2.1 National Planning Framework

The National Planning Framework (NPF) (Government of Ireland, 2025) is the strategic plan for Ireland's growth and development until 2040. The NPF comprises 10 National Strategic Outcomes (NSOs) and 108 National Policy Objectives (NPOs), which guide sustainable economic, social and environmental development at both the national and local level. The NSOs include:

- compact growth;
- enhanced regional accessibility;
- strengthened rural economies and communities;
- high-quality international connectivity;
- sustainable mobility;
- a strong economy supported by enterprise, innovation and skills;
- enhanced amenity and heritage;
- transition to a low-carbon and climate-resilient society;
- sustainable management of water, waste and other environmental resources; and
- access to quality childcare, education and health services.

19.2.1.2.2 National Development Plan 2021-2030

The National Development Plan (NDP) (Government of Ireland, 2021) provides the accompanying investment strategy, which aligns with the NPOs outlined in the NPF. The NDP sets out the Government's over-arching investment strategy and budget for the period 2021–2030, with a spending of €165 billion budget focusing on solutions to strengthen housing, climate ambitions, transport, healthcare, and job growth for the decade.

The NDP, with the NFP combine to form Project Ireland 2040, which is the long-term strategy to build a resilient and sustainable future for Ireland.

19.2.1.2.3 National Marine Planning Framework

The National Marine Planning Framework (NMPF) (Government of Ireland, 2021a) states that proposals must demonstrate the application of a mitigation hierarchy when addressing the potential for significant adverse impacts. Specifically, proposals are required in order of preference, to avoid, minimise or mitigate significant adverse effects on the subject matter of the relevant policy.

In applying this approach, the NMPF requires that avoidance of significant adverse impacts is treated as the preferred outcome and is considered at the earliest stages of proposal development. Where it is demonstrated that significant adverse impacts cannot reasonably be avoided, proposals must then clearly set out how such impacts have been minimised. Only where significant adverse impacts cannot be avoided or minimised should mitigation measures be relied upon to address residual effects.

19.2.1.3 Local Policy

19.2.1.3.1 Dublin City Development Plan 2022-2028

Healthy placemaking, ensuring quality architecture, urban design and green spaces to facilitate and promote quality of life and good health and wellbeing for all, is outlined as one of seven strategic principles of the Dublin City Development Plan 2022-2028 (Dublin City Council, 2022).

Policy SC5 (Urban Design and Architectural Principles) is to promote the urban design and architectural principles in order to achieve a climate-resilient, quality, compact, well-connected city and to ensure Dublin is a healthy and attractive city to live, work, visit and study in.

Policy SC19 (High Quality Architecture) is to promote development which positively contributes to the city's built and natural environment, promotes healthy placemaking and incorporates exemplar standards of high-quality, sustainable and inclusive urban design and architecture befitting the city's environment and heritage, and its diverse range of locally distinctive neighbourhoods.

Policy QHSN11 (15-Minute City) promotes the delivery of a 15-minute city, which provides for liveable, sustainable urban neighbourhoods and villages throughout the city that deliver healthy placemaking, high-quality housing and well-designed, intergenerational, accessible, safe and inclusive public spaces served by local services, amenities, sports facilities and sustainable modes of public and accessible transport where feasible.

Policy QHSN12 (Neighbourhood Development) is to encourage neighbourhood development which protects and enhances the quality of the built environment and supports public health and community wellbeing. Aspects of the Policy, specifically of relevance to health, include where it:

- promotes the development of healthy, liveable and attractive places through public realm and environmental improvement projects; and
- has regard to the Guiding Principles for 'Healthy Placemaking'.

Policy QHSN13 (Healthy Dublin City Framework and the Healthy Ireland Framework 2019-2025) is to support the Healthy Dublin City Framework and the Healthy Ireland Framework 2019-2025 in promoting a long-term vision of improving the physical and mental health and well-being of the population at all stages of life.

Policy QHSN14 (High Quality Living Environment) is to support the entitlement of all members of the community to enjoy a high-quality living environment and to support local communities, healthcare authorities and other bodies involved in the provision of facilities for groups with specific design/planning needs.

Policy CCUV37 (Plan Active and Healthy Streets) is to promote the development of a network of active, healthy, attractive, high-quality, green, and safe streets and public spaces which are inviting, pedestrian-friendly and easily navigable. The aspiration is to encourage walking as the preferred means of movement between buildings and activities in the city. In the case of pedestrian movement within major developments, the creation of a public street is preferable to an enclosed arcade or other passageway.

Policy CCUV39 (Permeable, Legible and Connected Public Realm) is to deliver a permeable, legible and connected public realm that contributes to the delivery of other key objectives of this development plan, namely active travel and sustainable movement, quality urban design, healthy placemaking and green infrastructure.

Policy GI45 (National Physical Activity Plan 2016) is to improve the health and well-being of communities by increasing access to participation in sports, recreation and healthy activity in line with the National Physical Activity Plan 2016, the Healthy Ireland Framework 2019 – 2025 and the Sport Ireland Participation Plan 2021 – 2024.

19.2.2 Study Area

When setting a study area for population and human health, it is important to recognise the range of health determinants to be considered, and how their hazard, dispersion and exposure characteristics can vary, as can their significance within different communities due to varying circumstances and existing health burdens. It is therefore useful to explain the rationale behind the study area, often separating between environmental and socio-economic health determinants, where the variations are most notable. Please refer to **19-1**, with a summary provided in the paragraphs below.

Environmental health determinants (such as changes to air quality and noise exposure) typically have a local distribution pattern, where potential hazards are limited by their concentration and physical dispersion characteristics. Likewise, changes in transport nature and flow rate have a particular distribution on the local road network, with associated air and noise dispersion and risk of accident again localised to these networks.

As baseline data is limited to administrative boundaries, the Health Study Area defining the collection of health data relevant to environmental health determinants, focuses upon all Electoral Divisions (EDs) that fall within 500m of the ABR2 Project. This comprises:

- North Dock B;
- Pembroke East A; and
- South Dock.

As seen in **Figure 19-1**, the 500m buffer intersects Pembroke West A only to a very limited extent. The overlap is confined to a small peripheral area comprising part of a commercial site and an associated car park with no residential receptors present within the intersecting area. Given the negligible spatial extent of overlap, the absence of permanent residential populations and the predominantly commercial land use character of this portion of Pembroke West A, it is not considered proportionate or meaningful to include this ED within the Health Study Area.

It should be noted that trend data is not readily available at the ED level, and therefore data presented in the population and health baseline may primarily relate to Dublin, where all of the above EDs are located, and is therefore considered to be representative of the communities living in these EDs.

Socio-economic health determinants (such as employment and related income generation) typically have a wider geographic scope of influence than environmental health determinants due to the willingness to commute significant distances to work. The population and human health study area, defining the collection of health data relevant to socio-economic baseline statistics, extends to Dublin.

The relevant sensitive receptors identified for assessment purposes are proposed to remain consistent with the inter-related technical aspects which inform the assessment of population and human health. For example, noise and air quality will assess different receptors due to their different distribution characteristics; the population and health assessment will use key outputs at the receptor level for both noise and air quality to establish the secondary effect on health and wellbeing.

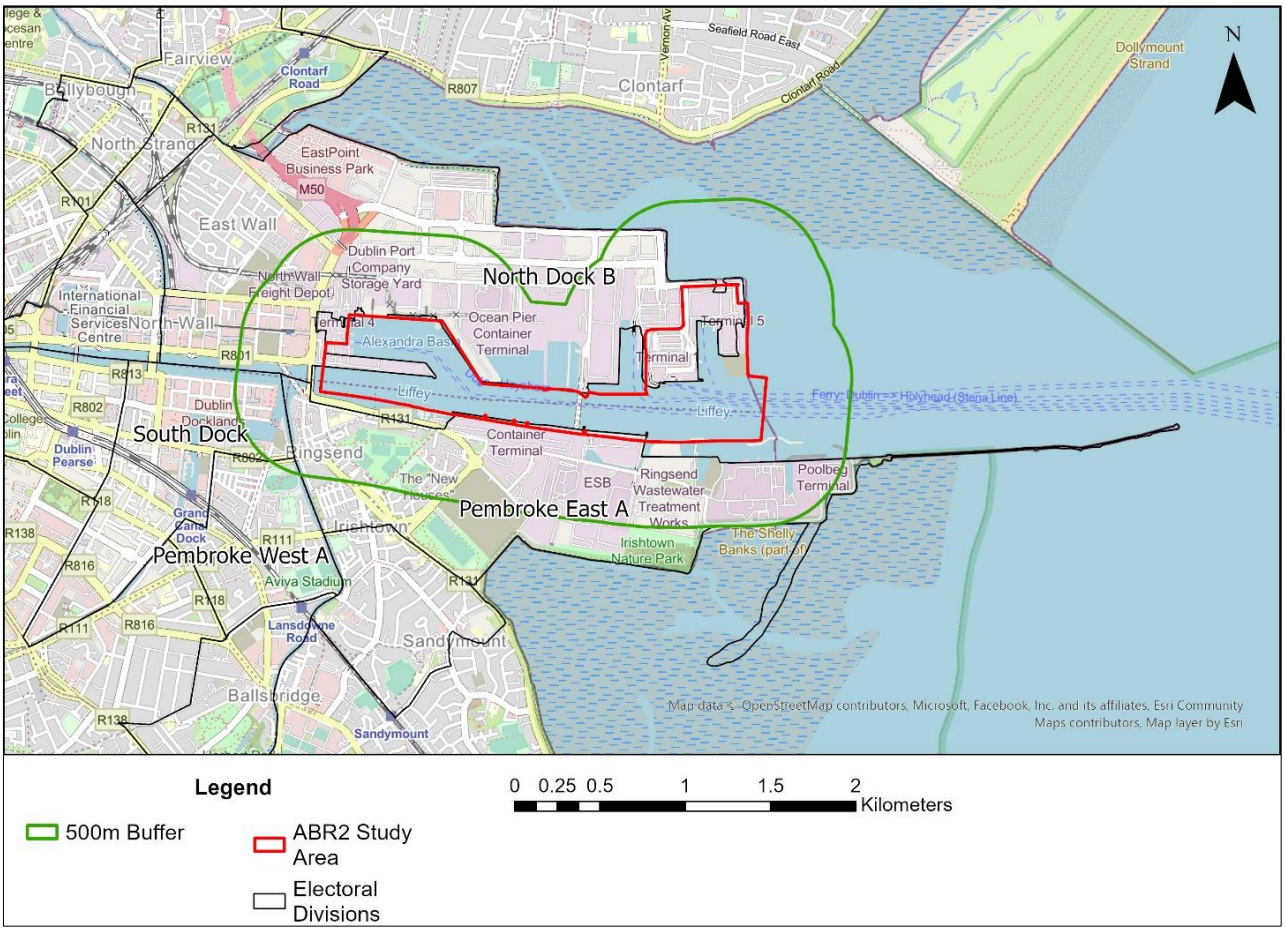


Figure 19-1: Population and Health Study Area

19.2.3 Baseline

Different communities have varying susceptibility to population and human health effects (both adverse and beneficial) as a result of social and demographic structure, behaviour and relative economic circumstance.

As detailed in the Institute of Public Health HIA guidance, building a population profile helps to develop a better understanding of those affected by the proposal, identifying potentially vulnerable groups and establishing a baseline against which possible future health effects can be assessed.

The approach to defining the baseline involves the collation and interpretation of published demographic, socio-economic and existing public health data. From this, potential changes due to the ABR2 Project can be investigated and their significance of effect assessed. While this sets the basis for any assessment, it also provides greater insight into local health priorities and needs, which can further inform healthy urban design and community support initiatives.

Baseline data has been collected to interpret local health and socio-economic circumstances (refer to **Section 19.3**). Overall, it is concluded that the Study Area population is generally characterised by favourable socio-economic conditions, relatively low levels of deprivation, high levels of employment, education and income and comparatively good baseline health outcomes when assessed against Dublin and national averages. When looking at the population in general, the sensitivity of the population is considered to be “low”, reflecting the overall affluence and resilience of the Study Area, notwithstanding the presence of some higher-risk behaviours and specific health outcomes at a wider city level.

19.2.3.1 Desktop Study

Information on the baseline environment was collected through a desktop review of existing studies and datasets.

The sources used to inform the baseline environment are provided in **Table 19-1.**

Table 19-1: Summary of Key Desktop Data Sources for Population and Health

Data Title	Source/Author	Year
Census 2022 Small Area Population Statistics (SAPS)	Central Statistics Office	2023
Pobal HP Deprivation Index	Pobal	2022
Mean Gross Household Income by electoral division (GPIIA01)	Central Statistics Office	2022
Healthy life years at birth by sex	Eurostat	2025
Life expectancy at birth by sex	Eurostat	2025
Standardised mortality ratio (MORT03)	Central Statistics Office	2024
Deaths Occurring (VSA106)	Central Statistics Office	2022
Revised Deaths Occurring (VSA35)	Central Statistics Office	2022

Data Title	Source/Author	Year
Mental health status in previous two weeks of all persons aged 15 years and over (IH243)	Central Statistics Office	2019
Mortality: Death Rate per 100,000 Population from Suicide and intentional self harm (DHA12)	Central Statistics Office	2021
Population smoking tobacco products (F4043)	Central Statistics Office	2022
Prevalence of smoking, drinking alcohol and fruit and vegetable consumption of persons aged 15 years and over (IH296, IH298)	Central Statistics Office	2019
Physical activity of persons aged 15 years and over (IH292)	Central Statistics Office	2019

19.2.4 Consultation

Following completion of the EIA Scoping Report, consultation was undertaken to obtain opinions regarding the ABR2 Project and its potential and scope for significant effects. Specific comments relating to population and health are set out in **Table 19-2**, including where additional information in relation to issues can be found in the EIAR.

Table 19-2: ABR2 EIA Scoping Report Comments relating to Population and Health

Organisation	Comment Response/Issue Raised	Response
Dublin City Council	Dublin City Council strongly advise that the EIAR, including the various assessments and studies take into account the policies and objectives of the Dublin City Development Plan 2022-2028.	Relevant parts of the Dublin City Development Plan 2022-2028 are referenced in **Section 19.2.1.3.**

19.2.5 Assessment Criteria and Assessment of Significance

19.2.5.1 Magnitude Criteria

Magnitude of impact, based on the change that the ABR2 Project would have upon the receptor, is considered within the range of high, medium, low and negligible. Consideration is given to scale, duration and frequency of impact, and reversibility with reference to the definitions in **Table 19-3**.

Table 19-3: Magnitude of impact criteria

Magnitude	Description
High	High exposure or scale; long-term duration; continuous frequency; severity predominantly related to mortality or changes in morbidity (physical or mental health) for very severe illness/injury outcomes; majority of population affected; permanent change; substantial service quality implications.
Medium	Low exposure or medium scale; medium-term duration; frequent events; severity predominantly related to moderate changes in morbidity or major change in quality-of-life; large minority of population affected; gradual reversal; small service quality implications.
Low	Very low exposure or small scale; short-term duration; occasional events; severity predominantly related to minor change in morbidity or moderate change in quality-of-life; small minority of population affected; rapid reversal; slight service quality implications
Negligible	Negligible exposure or scale; very short-term duration; one-off frequency; severity predominantly relates to a minor change in quality-of-life; very few people affected; immediate reversal once activity complete; no service quality implication.

Source: ISEP (formerly known as IEMA) Guide to Determining Significance for Human Health in EIA (ISEP, 2022)

19.2.5.2 Sensitivity Criteria

Within a defined population, individuals will range in level of sensitivity due to a series of factors such as age, socio-economic deprivation, and the prevalence of any pre-existing health conditions, which could become exacerbated. Sensitive individuals can be considered particularly vulnerable to changes in environmental and socio-economic factors (both adversely and beneficially), whereby they could experience disproportionate effects when compared to the general population.

As an example, the elderly, young children and individuals with chronic pre-existing respiratory conditions would be more sensitive to adverse changes to air quality, with the potential for emergency admission to hospital more likely. On the other hand, an individual who has been unemployed for a long period would benefit more from employment opportunities and associated effects on their wellbeing in contrast to someone who is already employed. Consideration of varying sensitivity to the individual health pathways is therefore key to the individual assessment protocols applied (informing the relative distribution of effect, and any barriers to benefit uptake), but also central to defining the significance of effect.

In order to address the potential variances stated above, the ISEP health sensitivity methodology criteria (ISEP, 2022a) are shown in **Table 19-4** has been applied to structure the assessment of significance.

Table 19-4: Sensitivity criteria

Sensitivity	Definition
High	High levels of deprivation (including pockets of deprivation); reliance on resources shared (between the population and the ABR2 Project); existing wide inequalities between the most and least healthy; a community whose outlook is predominantly anxiety or concern; people who are prevented from undertaking daily activities; dependants; people with very poor health status; and/or people with a very low capacity to adapt.
Medium	Moderate levels of deprivation; few alternatives to shared resources; existing widening inequalities between the most and least healthy; a community whose outlook is predominantly uncertain with some concern; people who are highly limited from undertaking daily activities; people providing or requiring a lot of care; people with poor health status; and/or people with a limited capacity to adapt.
Low	Low levels of deprivation; many alternatives to shared resources; existing narrowing inequalities between the most and least healthy; a community whose outlook is predominantly ambivalent with some concern; people who are slightly limited from undertaking daily activities; people providing or requiring some care; people with fair health status; and/or people with a high capacity to adapt.
Very low	Very low levels of deprivation; no shared resources; existing narrow inequalities between the most and least healthy; a community whose outlook is predominantly support with some concern; people who are not limited from undertaking daily activities; people who are independent (not a carer or dependant); people with good health status; and/or people with a very high capacity to adapt.

Source: ISEP (formerly known as IEMA) Guide to Determining Significance for Human Health in EIA (ISEP, 2022)

19.2.5.3 Significance of Effects

The significance of effects refers to the consequences of an impact. The significance of the effect upon population and human health receptors is determined by correlating the magnitude of the impact and the sensitivity of the receptor. A range of significance of effect is presented in **Table 19-5**. The final assessment of significance for each effect is based upon expert judgement of the peer-reviewed literature.

Table 19-5: Significance of effect

Magnitude of impact	Receptor Sensitivity			
	High	Medium	Low	Very low
High	Major	Major/moderate	Moderate/minor	Minor/negligible
Medium	Major/moderate	Moderate	Minor	Minor/negligible

Magnitude of impact	Receptor Sensitivity			
	High	Medium	Low	Very low
Low	Moderate/minor	Minor	Minor	Negligible
Negligible	Minor/negligible	Minor/negligible	Negligible	Negligible

Source: ISEP (formerly known as IEMA) Guide to Determining Significance for Human Health in EIA (ISEP, 2022)

For the purposes of this assessment, any effects with a significance level of less than Minor have been concluded to be not significant in EIAR terms. **Table 19-6** provides a description of each significance level.

Table 19-6: Significance conclusion and reasoning related to public health

Sensitivity	Definition
Major (significant)	The narrative explains that this is significant for public health because: • Changes, due to the ABR2 Project, have a substantial effect on the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by referencing relevant policy and effect size (magnitude and sensitivity levels), and as informed by consultation themes among stakeholders, particularly public health stakeholders, that show consensus on the importance of the effect. • Change, due to the ABR2 Project, could result in a regulatory threshold or statutory standard being crossed (if applicable). • There is likely to be a substantial change in the health baseline of the population, including as evidenced by the effect size and scientific literature showing there is a causal relationship between changes that would result from the ABR2 Project and changes to health outcomes. In addition, health priorities for the relevant study area are of specific relevance to the determinant of health or population group affected by the ABR2 Project.
Moderate (significant)	The narrative explains that this is significant for public health because: • Changes, due to the ABR2 Project, have an influential effect on the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by referencing relevant policy and effect size, and as informed by consultation themes among stakeholders, which may show mixed views. • Change, due to the ABR2 Project, could result in a regulatory threshold or statutory standard being approached (if applicable).

Sensitivity	Definition
	• There is likely to be a small change in the health baseline of the population, including as evidenced by the effect size and scientific literature showing there is a clear relationship between changes that would result from the ABR2 Project and changes to health outcomes. In addition, health priorities for the relevant study area are of general relevance to the determinant of health or population group affected by the ABR2 Project.
Minor (not significant)	The narrative explains that this is not significant for public health because: • Changes, due to the ABR2 Project, have a marginal effect on the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by effect size of limited policy influence and/or that no relevant consultation themes emerge among stakeholders. • Change, due to the ABR2 Project, would be well within a regulatory threshold or statutory standard (if applicable); but could result in a guideline being crossed (if applicable). • There is likely to be a slight change in the health baseline of the population, including as evidenced by the effect size and/or scientific literature showing there is only a suggestive relationship between changes that would result from the ABR2 Project and changes to health outcomes. In addition, health priorities for the relevant study area are of low relevance to the determinant of health or population group affected by the ABR2 Project.
Negligible (not significant)	The narrative explains that this is not significant for public health because: • Changes, due to the ABR2 Project, are not related to the ability to deliver current health policy and/or the ability to narrow health inequalities, including as evidenced by effect size or lack of relevant policy, and as informed by the ABR2 Project having no responses on this issue among stakeholders. • Change, due to the ABR2 Project, would not affect a regulatory threshold, statutory standard or guideline (if applicable). • There is likely to be a very limited change in the health baseline of the population, including as evidenced by the effect size and/or scientific literature showing there is an unsupported relationship between changes that would result from the ABR2 Project and changes to health outcomes.

Sensitivity	Definition
	In addition, health priorities for the relevant study area are not relevant to the determinant of health or population group affected by the ABR2 Project.

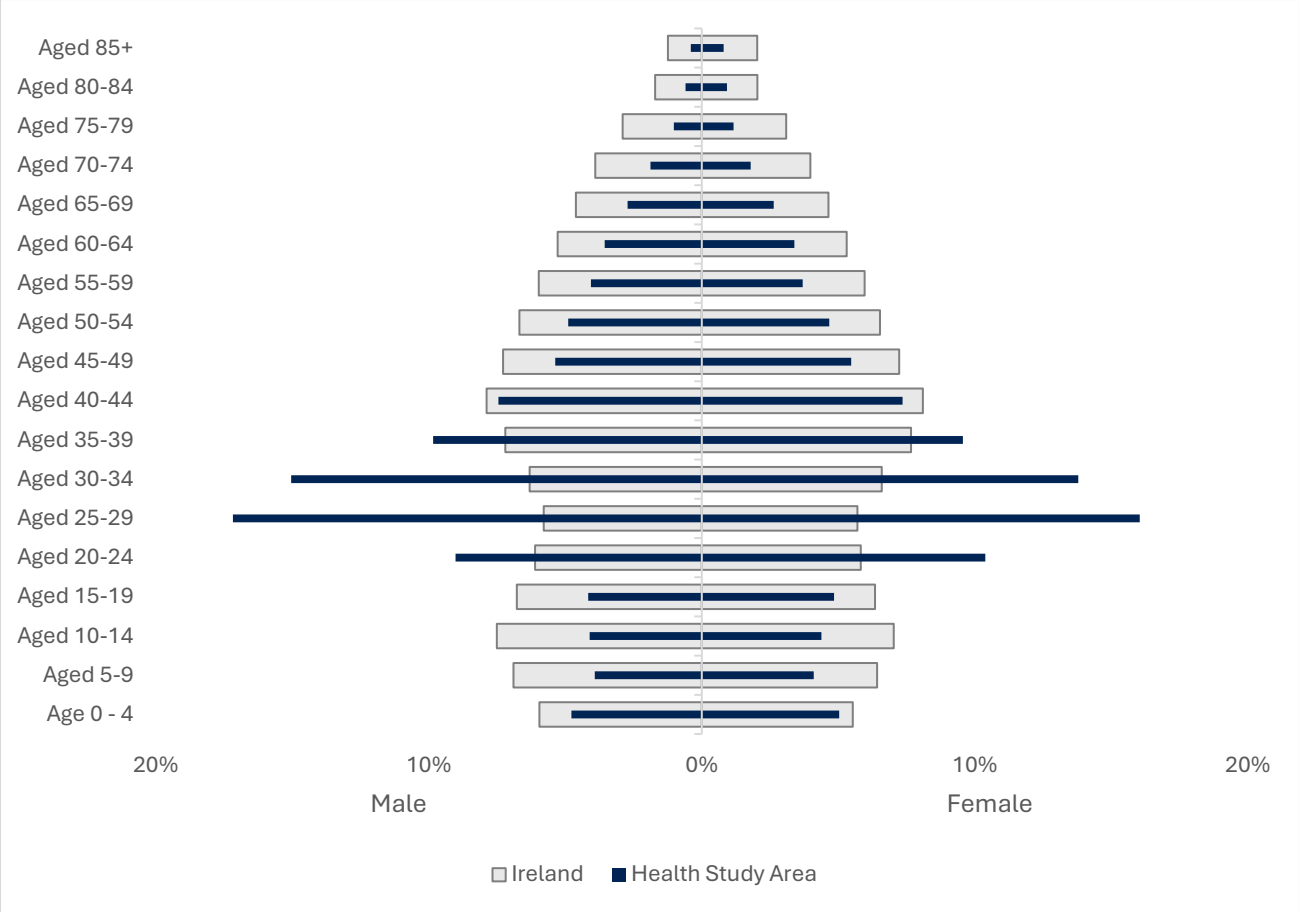
Source: ISEP (formerly known as IEMA) Guide to Determining Significance for Human Health in EIA (ISEP, 2022)

19.3 Baseline Environment

The following information, which makes up the demographic and human health baseline, is intended to contextualise the local health circumstances of the communities surrounding Dublin Port using publicly available statistics. Where feasible, data have been collected for the Electoral Divisions (EDs), including Pembroke East A, North Dock B and were compared to the regional (Dublin) and national average. Data for Local Electoral Areas (LEAs), including South East Inner City, North Inner City and Pembroke were utilised in instances where ED data was not available. In terms of socio-economic indicators, income and employment are likely to have a broader impact and are therefore more relevant for Dublin region than for individual EDs.

19.3.1.1.1 Demography, deprivation and socio-economic circumstance

As shown in **Figure 19-2**, when compared to the national trend, there is a higher proportion of the population (both male and female) aged 20-39 years old and 40-85+ years old. Overall, the Health Study Area (Pembroke East A, South Dock, and North Dock B) can be described as having a relatively young population than the national average.



Source: CSO, 2023

Figure 19-2: Age Structure

As shown in **Table 19-7**, the Health Study Area has better socio-economic circumstances than both Dublin and the national average for several socio-economic indicators. The proportion of residents aged 15+ with degree-level education and above, and mean gross household income, is notably higher in the Health Study Area compared with the Dublin and Ireland averages.

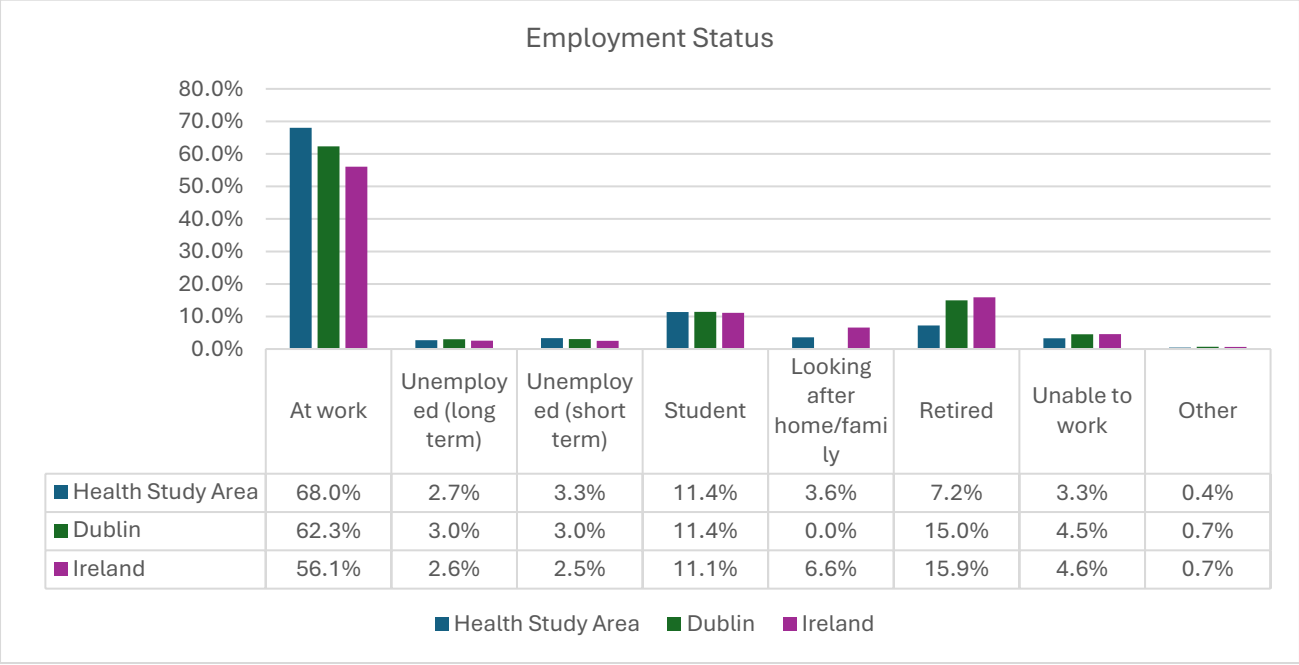
Long-term unemployment is the only indicator where the Health Study Area does not outperform both comparators; the proportion of the working-age population in long-term unemployment in the Health Study Area is slightly higher than the Ireland average but remains lower than the Dublin average.

Table 19-7: Deprivation and socio-economic circumstance

Indicator	Date	Health Study Area	Dublin	Ireland
Population aged 15+ with degree-level education or higher (%)	2022	52%	41%	34%
% working age (15+) in long term unemployment	2022	2.7	3.0	2.6
Mean Gross Household Income (€)	2022	101,059	87,273	78,508
Key:				
	Better than the Ireland average			
	Worse than the Ireland average			
	Equal to the Ireland average			

Source: CSO, 2023; CSO, 2025

Employment status data shown in **Figure 19-3** indicates a higher proportion of people in work in the Health Study Area compared to the Dublin and Ireland averages, alongside lower proportions of residents not working due to retirement or illness. This further reinforces the overall stronger socio-economic circumstances observed within the Health Study Area.



Source: CSO, 2025 (Data Code: SAP2022T8T1ED)

Figure 19-3: Employment Status

The Pobal HP Deprivation Index for Small Areas is the Irish Government's official measure of deprivation for small areas in Ireland. It draws on data from the Census of Population and reflects three dimensions of affluence and disadvantage: the Demographic Profile, Social Class Composition, and Labour Market Situation. The scores range from approximately -40 (most disadvantaged) to +40 (most affluent). The Pobal HP Deprivation Index uses Confirmatory Factor Analysis (CFA) in its construction, ensuring a consistent measuring scale throughout a series of census waves. The Pobal HP Deprivation score is therefore comparable across census years.

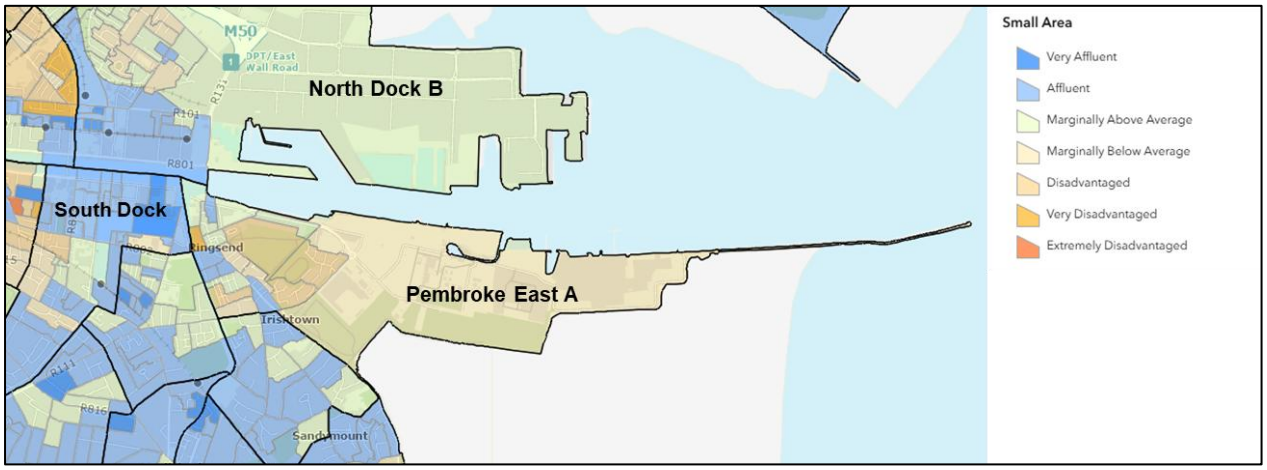
Table 19-8 shows that all three EDs within the Health Study Area fall within the "marginally above average" to "affluent" range on the 2022 Pobal HP Deprivation Index. All three EDs show an overall increase in deprivation from 2011 to 2022. South Dock is the least deprived ED within the Health Study Area.

Table 19-8: Pobal HP Deprivation Index

Area	Score (2011)	Score (2016)	Score (2022)	2022 Pobal HP Description
Pembroke East A	1.7	2.2	0.03	Marginally above average
North Dock B	10.8	11.1	8.5	Marginally above average
South Dock	19.7	15.9	11.4	Affluent

Source: Pobal, 2022

Figure 19-4 visually reflects these classifications for 2022, and shows South Dock comprising predominantly affluent small areas, while Pembroke East A and North Dock B comprising marginally above or below average small areas.



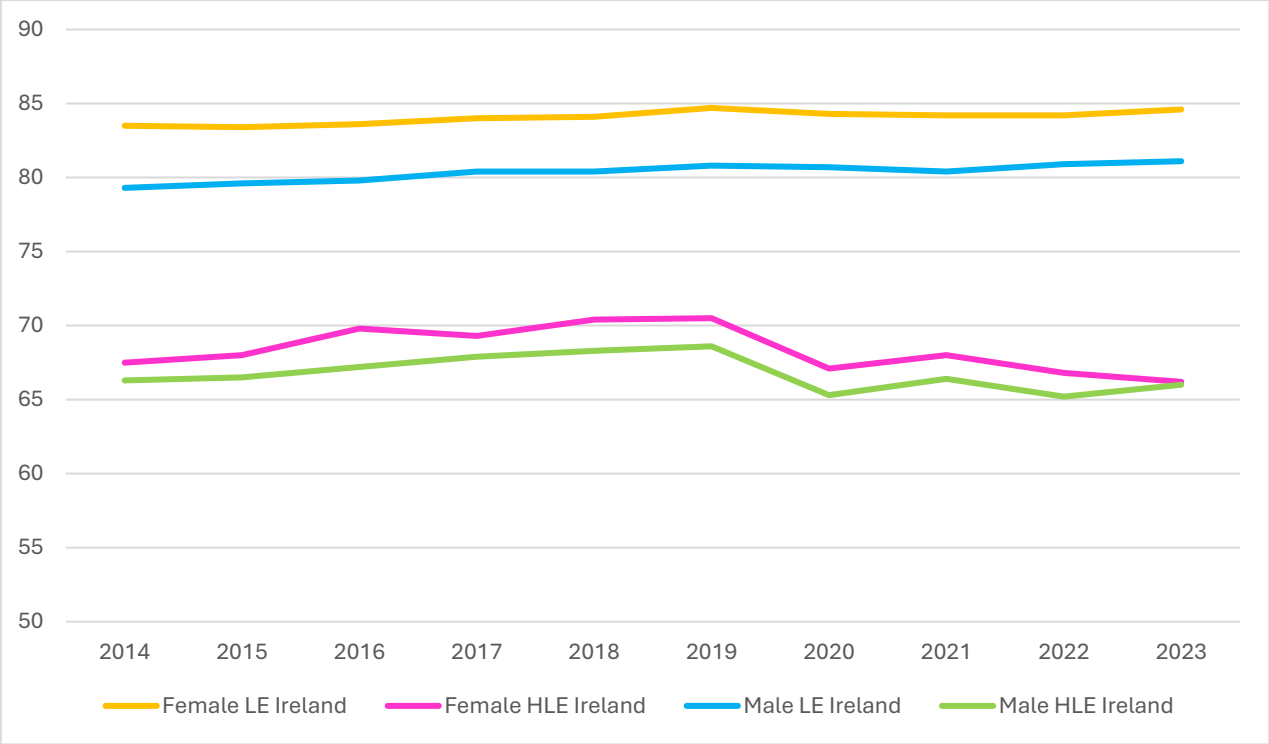
Source: Pobal, 2022

Figure 19-4: Map of 2022 Pobal HP Deprivation Index

19.3.1.1.2 Life expectancy and physical health

Figure 19-5 shows time-series data, spanning 2014 to 2023 for life expectancy (LE) and healthy life expectancy (HLE) (i.e. the number of years spent in good health) for Ireland. Ireland is the lowest geography LE and HLE

data is available for. Both male and female LE in Ireland has gradually increased over the years, while HLE for both males and females peaked in 2019 before showing an overall decline in recent years.



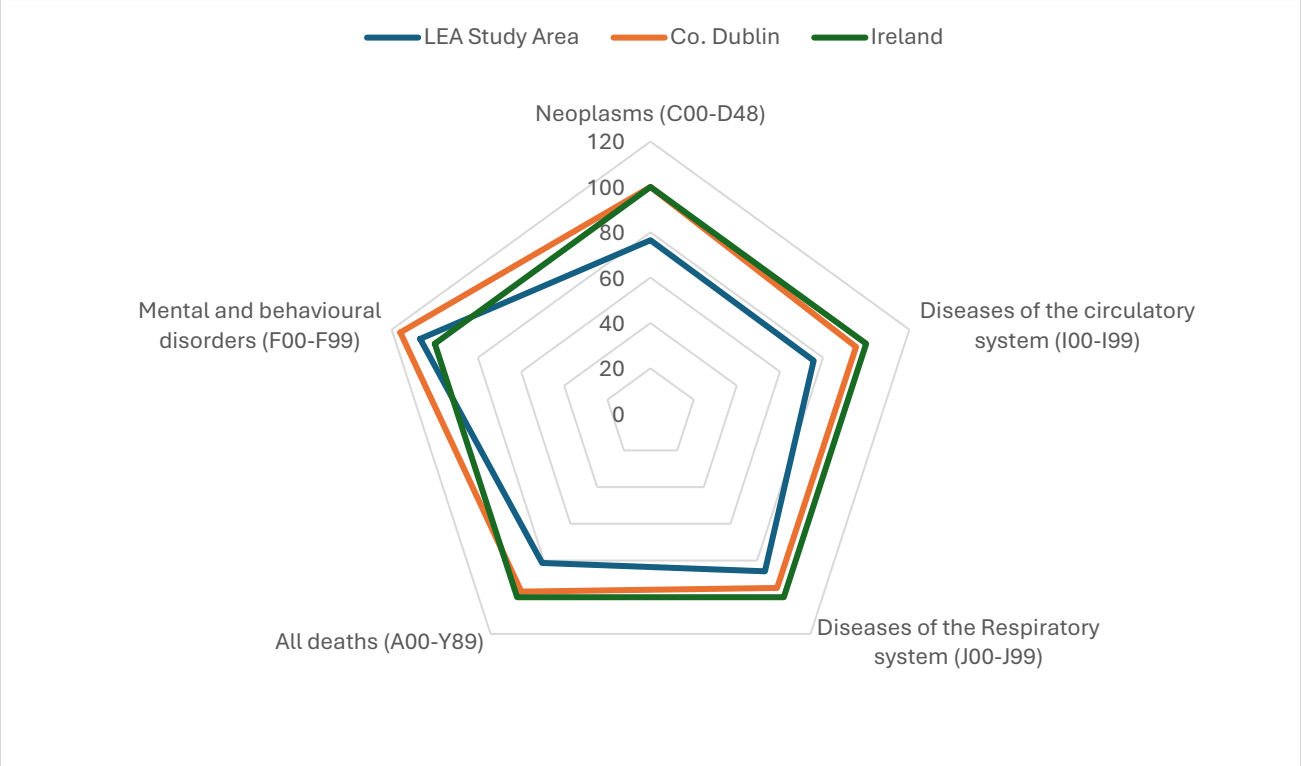
Source: Eurostat, 2025

Figure 19-5: Life expectancy and healthy life expectancy

19.3.1.1.3 Mortality

Figure 19-6 shows standardised mortality rates for the Local Electoral Area (LEA) Study Area and all relevant comparators (Dublin and Ireland). For mortality rates, electoral division data were not available, so the Study Area consists of the following LEAs: Pembroke, South East Inner City and North Inner City.

Mortality rates from all causes within the LEA Study Area are lower than all relevant comparators. The same is true for the majority of specific health outcomes analysed (circulatory disease, respiratory disease and neoplasms). The exception to this is mortality from mental and behavioural disorders, which is lower in the LEA Study Area than the Dublin average but is higher than the Ireland average.



Source: CSO, 2025

Figure 19-6: Causes of mortality

19.3.1.1.4 Mental health, lifestyle and behavioural risk factors

Table 19-9 shows mental health indicators for Dublin compared to the Ireland average. The majority of adults aged 15 years and over in Dublin experience none to minimal depression, which is equal to the Ireland average (86%). The proportions of adults reporting mild (9%) and moderately severe or severe depression (2%) in Dublin are also equal to the Ireland average. The suicide rate in Dublin (4.3 per 100,000 population) is notably lower than the Ireland average of 8.0 per 100,000 population.

Table 19-9 also presents lifestyle and behavioural risk factors. Daily and occasional smoking in Dublin is slightly higher than the Ireland average. Alcohol consumption remains considerably more prevalent in Dublin, with 82% of adults reporting that they drink alcohol, compared with 76% nationally. The proportion of adults consuming five or more portions of fruit and vegetables per day is lower in Dublin compared to the Ireland average. Additionally, the proportion of the population that engages in some form of physical activity is higher in Dublin with 61% compared to the national average of 49%.

Table 19-9: Mental health, lifestyle and behavioural risk factors

Indicator	Date	Dublin	Ireland
Mental health			
None to minimal depression (% all persons aged 15 years and over)	2019	86	86
Mild depression (% all persons aged 15 years and over)	2019	9	9
Moderate (% all persons aged 15 years and over)	2019	3	3
Moderately severe or severe depression (% all persons aged 15 years and over)	2019	2	2
Suicide rate (per 100,000 population)	2021	4.3	8.0
Lifestyle and behavioural risk factors			
Smoke daily (%)	2022	9.6	8.7
Smoke occasionally (%)	2022	5.2	4.4
Drinks alcohol (%)	2019	82	76
Five or more portions of fruit and vegetables per day (%)	2019	53	55
Proportion of population who do sports, fitness or recreational physical activities (%)	2019	61	49

Key:

	Better than the Ireland average
	Worse than the Ireland average
	Equal to the Ireland average

Source: CSO, 2025

19.4 Description of Likely Significant Effects

19.4.1 Assessment of Construction Effects

19.4.1.1 Health effects from changes in air quality

During the construction phase, the ABR2 Project has the potential to affect air quality through the generation of dust arising from demolition, earthworks, construction activities and trackout, as well as emissions from construction plant and vehicles.

As detailed in **Chapter 10 Air Quality**, there are 246 residential receptors between 100m and 250m of the ABR2 Project with the potential to be impacted.

A construction dust risk assessment was undertaken in accordance with the Institute of Air Quality Management (IAQM) guidance. The assessment considered dust soiling and human health effects associated with particulate matter (PM_{10}). Following the implementation of standard IAQM dust suppression and management measures secured through a Dust Management Plan (DMP) within the Construction Environmental Management Plan (CEMP), potential dust soiling impacts and changes in PM_{10} would be reduced to a level which is not significant and is therefore protective of health and wellbeing.

In addition, changes in construction-related traffic flows on surrounding roads account for less than 5% of baseline flows at all assessed locations. As a result, construction traffic emissions are not expected to result in perceptible changes in pollutant concentrations at nearby receptors.

Considering the limited magnitude, localised extent and temporary duration of construction-related air quality impacts, the magnitude of impact on human health is considered to be negligible, which in an area of low sensitivity would result in a negligible effect, which is not significant in EIA terms.

19.4.1.2 Health effects from changes in noise exposure

During the construction phase, there is the potential for changes in noise exposure associated with on-site construction activities and traffic movements.

As detailed in **Chapter 12 Terrestrial Noise and Vibration**, construction noise has been assessed using noise modelling for representative worst-case activities during the daytime, evening and night-time hours based on conservative assumptions for plant and equipment.

Predicted noise levels at the nearest noise-sensitive properties to the north, south and west of the site were assessed against the most stringent (Category A) limits set out in BS5228:2009+A1:2014, which are set to be protective of the environment and human health. Noise modelling results demonstrate that in all cases, worst-case construction noise levels during the daytime, evening and night-time periods are below the relevant limits and are therefore considered to be protective of health and wellbeing.

Based on guidance in the Design Manual for Roads and Bridges (LA111), the level of traffic increase would result in changes in traffic noise of less than 3 dB(A) at nearby noise-sensitive receptors. As stated in **Chapter 12 Terrestrial Noise and Vibration**, as changes in noise of approximately 3 dB(A) are generally what is considered to be perceptible to the human ear, and any increase in traffic noise during the construction phase

would not be noticeable. Accordingly, construction traffic is expected to result in a negligible noise impact on the local road network.

On the basis that temporary and intermittent changes in noise exposure would be imperceptible and remain within noise limits set to be protective of health and wellbeing, the magnitude of impact on health would be negligible, which in an area of low sensitivity would result in a negligible effect, which is not significant.

19.4.1.3 Health effects from changes in transport nature and flow rate

As set out in **Chapter 15 Material Assets – Traffic and Transportation**, material will need to be imported and exported from the site, which will generate construction traffic movements on the surrounding road network.

In a worst-case scenario, the import of 54,500m^3 of material over 120 working days would generate an average of approximately 29 vehicle arrivals and 29 departures per day, equating to around three vehicle movements in each direction per hour. In addition, export of up to 60,085m^3 of material, assuming a maximum of 800m^3 per day, would result in approximately 51 arrivals and 51 departures per day, equivalent to around five vehicle movements per hour in each direction. Taking import and export of materials together, this would lead to approximately 80 vehicle arrivals and departures per day (160 two-way movements) and 8 vehicle movements in each direction per hour (a combined 16 movements).

Construction traffic is expected to primarily use Promenade Road for site access, connecting to the wider road network via the Dublin Port Tunnel. Assessment of the worst-case scenario against average hourly traffic flows at key junctions shows that construction traffic required for import/export of materials would account for less than 5% at all nodes, indicating an insignificant impact on the surrounding highway network.

Taking account of the embedded mitigation provided through the Construction Traffic Management Plan (CTMP), due to the temporary nature of construction works and insignificant impact on the surrounding highway network, potential impacts on themes relevant to health and wellbeing (such as risk of accident and injury, severance, and pedestrian amenity) would be limited. On this basis, the magnitude of impact on human health would be negligible, which in an area of low sensitivity would result in a negligible effect which is not significant.

19.4.2 Assessment of Operational Effects

19.4.2.1 Health effects from changes in air quality

As stated in **Chapter 10 Air Quality**, the ABR2 Project does not introduce operational activities beyond what is already consented to that would give rise to new sources of air pollutant emissions. As a result, no effects on human health are anticipated, and the magnitude of impact would be negligible, resulting in a long-term negligible effect that is not significant.

19.4.2.2 Health effects from changes in noise exposure

As stated in **Chapter 12 Terrestrial Noise and Vibration**, the ABR2 Project comprises only the completion of outstanding construction elements of the wide ABR Project that were not delivered within the original planning time frame; it does not introduce a separate operational phase. As a result, there are no operational noise impacts arising from the ABR2 Project beyond those already assessed.

19.4.2.3 Health effects from changes in transport nature and flow rate

As stated in **Chapter 15 Material Assets – Traffic and Transportation**, there will be no operational impact of the ABR2 Project on the surrounding highway networks beyond what is already consented. As a result, no effects on human health are anticipated, and the magnitude of impact would be negligible, resulting in a long-term negligible effect that is not significant.

19.5 Inter-relationships

Health is influenced directly and indirectly by a range of environmental and socio-economic determinants. The most relevant health determinants in the context of the ABR2 Project, which are scoped into the population and health assessment, have been established through an iterative scoping exercise.

The population and health assessment draws from and builds upon technical outputs from inter-related topics, comprising: **Chapter 12 Noise and Vibration**; **Chapter 15 Material Assets – Traffic and Transportation**; and **Chapter 10 Air Quality**. A summary of these inter-relationships is provided below:

- Health and traffic/transport – a change in transport nature (i.e. increasing presence of HGVs) and flow rate can cause negative mental and social health and wellbeing impacts through increasing perceptions of severance, reducing pedestrian amenity (and potentially causing fear/intimidation effects) and increasing risk of accident and injury;
- Health and air quality – there is a linear relationship between exposure to air pollutants and attributed health outcomes such as hospital admission/mortality rate from respiratory and cardiovascular diseases; and
- Health and noise – there is a complex relationship between noise and attributed health outcomes such as hospital admission/mortality rate from cardiovascular disease and mental health conditions (e.g. depression, anxiety and dementia). Noise can affect health both directly (in extreme circumstances, which is less common), and indirectly (through annoyance or sleep disturbance). However, the health effects from noise/vibration can also be affected by tonality and type of noise (e.g. low frequency noise, infrasound and amplitude modulation).

19.6 Mitigation and Monitoring

Public health is by definition, preventative in nature. Therefore, mitigation measures adopted as part of the construction and operation of the ABR2 Project focus on precursors to health and wellbeing outcomes, thereby providing an opportunity for intervention to prevent any adverse impacts.

For example, during construction, a CEMP would be implemented, which would incorporate a DMP and NMP to manage air quality impacts and control construction noise. Air quality mitigation measures will focus on the effective management of construction activities to minimise dust and emissions at source and will be proportionate to the scale and nature of the works. Noise mitigation will be implemented in accordance with established best practice and relevant guidance to minimise disturbance associated with construction activities.

Measures will focus on the appropriate management of plant, equipment and working practices to control noise levels and protect nearby sensitive receptors.

Construction traffic will be managed in accordance with the CTMP, which will control the routing and scheduling of vehicles to minimise disturbance and maintain safety on the surrounding road network.

The only monitoring proposed relates to construction noise, which will be carried out as a compliance measure to confirm that noise levels remain within limit values and that mitigation measures are effective. Monitoring locations and procedures will be agreed with Dublin City Council and set out in the Noise Management Plan.

On the basis that no significant adverse human health effects are anticipated and embedded mitigation and monitoring measures are designed to be protective of health and wellbeing by targeting precursors to health outcomes, no further health-specific mitigation or monitoring is considered necessary.

19.7 Potential Cumulative Effects

Chapter 21 Cumulative Effects and Environmental Interactions outlines the methodology used to complete the assessment of cumulative effects, which may arise from adjacent or nearby development, together with those predicted for the ABR2 Project. The projects which have been considered within the assessment of cumulative effects are outlined in **Chapter 21 Cumulative Effects and Environmental Interactions**.

Where construction of the ABR2 Project overlaps with the construction of other nearby developments, there is potential for cumulative effects on environmental determinants of health, such as dust and noise, from on-site construction activities. However, it is assumed that each construction site would have standard mitigation measures in place, similar to those implemented for the ABR2 Project, to reduce the generation of environmental pollutants and thereby limit the potential interaction between environmental determinants of health and cumulative health and wellbeing impacts.

Regarding the potential for cumulative traffic impacts (and associated impacts on air quality and noise) during construction, a number of cumulative developments have been identified, the majority of which are located within Dublin Port lands and will be subject to CTMPs, including the management and coordination of vehicle movements. Given the limited traffic generated by the ABR2 Project and the application of traffic management measures across cumulative schemes, the contribution of the ABR2 Project to any cumulative effects would be limited and temporary in nature. On this basis, no significant cumulative traffic-related effects on human health are anticipated.

19.8 Residual Impacts

In circumstances where the mitigation measures are fully implemented during the construction and operational phases, as outlined in **Section 19.6**, the Residual Effects of the ABR2 Project on Human Health would not be significant.

19.9 Summary of Effects and Conclusions

Overall, no significant adverse health effects associated with the range in health determinants assessed (air quality, noise exposure, transport nature/flow rate) are anticipated to be directly attributable to the ABR2 Project.

No cumulative effects are anticipated due to appropriate DMP, NMP, CTMP and CEMP expected for the ABR2 Project and other associated projects assessed as part of the respective technical disciplines.

A summary of the impact assessment is provided in **Table 19-10**.

Table 19-10: Summary of Effects relating to Health

Potential Effect and Receptor	Phase[1]		Magnitude of Impact	Sensitivity of Receptor	Significance of Effect	Significant/Not Significant	Mitigation Measures	Residual Effects
	C	O						
Health effects from changes in air quality due to construction dust and construction traffic	✓		C: Negligible	C: Low C: High (if present)	C: Negligible	C: Not Significant	Project-specific DMP to be embedded within a CEMP	C: Not Significant
Health effects from changes in noise exposure from construction-related noise (from works at the Site)	✓		C: Negligible	C: Low C: High (if present)	C: Negligible C: Minor adverse	C: Not Significant	Project-specific NMP to be embedded within a CEMP	C: Not Significant
Health effects from changes in noise exposure from construction-related noise (from construction traffic)	✓		C: Neligible	C: Low C: High (if present)	C: Negligible C: Minor adverse	C: Not Significant		C: Not Significant
Health effects from changes in traffic on External Road Network	✓		C: Negligible	C: Low C: High (if present)	C: Negligible C: Minor adverse	C: Not Significant	CTMP to be submitted and agreed prior to commencement	C: Not Significant

[1] C: Construction Phase; O: Operational Phase

19.10 Limitations of Assessment

The human health assessment draws from and builds upon the technical outputs from inter-related disciplines, most notably: **Chapter 10 Air Quality**; **Chapter 12 Terrestrial Noise and Vibration**; and **Chapter 15 Material Assets - Traffic and Transport.**

As a consequence, the assumptions and limitations of those assessments also apply to any information used in this chapter (e.g. for modelling work undertaken). It is, however, considered that the information provides a robust basis for the assessment of human health.