

Institute of Environmental Management and  
Assessment (IEMA) Guide to:

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# Effective Scoping of Human Health in Environmental Impact Assessment



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# Acknowledgements

## Working Group

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## About IEMA

The Institute of Environmental Management & Assessment (IEMA) is the professional home of over 18,000 environment and sustainability professionals from around the globe. We support individuals and organisations to set, recognise and achieve global sustainability standards and practice. We are independent and international, enabling us to deliver evidence to governments, information to business, inspiration to employers and great stories to the media that demonstrate how to transform the world to sustainability.

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# 1. Executive Summary

- 1.1. This guidance covers the consideration of health as a topic in environmental impact assessment (EIA). It presents a framework that supports a proportionate approach that can apply to all scales of EIA.
- 1.2. The guidance should be used by EIA practitioners working on projects in England, Wales, Scotland, Northern Ireland and the Republic of Ireland. It may also support or inform the approach taken by other stakeholders engaged in EIA and for EIA practice further afield.
- 1.3. This guidance is applicable to the various EIA legislative processes within England, Wales, Scotland, Northern Ireland and the Republic of Ireland. Knowledge of the EIA process is assumed.
- 1.4. Practitioners of health in EIA are part of the public health endeavour, and practice must reflect this role. Legal challenge to health in EIA work is a risk and it can be reduced by following guidance. IEMA supports quality and proportionality.
- 1.5. An EIA must identify, describe and assess the direct and indirect significant effects in an appropriate manner of a proposed development on human health. It must include the information that may reasonably be required for reaching a reasoned conclusion on the significant effects, taking into account current knowledge and methods of assessment. It must include a description of the forecasting methods or evidence used to identify and assess these significant effects, including details of difficulties encountered in compiling the required information.
- 1.6. Scoping is the process of identifying the content and extent of the information to be submitted to the competent authority under the EIA process. For human health this means deciding on the relevant health issues that are likely and have the potential to significantly affect population health. At this stage methods can also be specified, and governance arrangements clarified.
- 1.7. The guidance confirms that a wider determinants of health approach should be taken by EIA scoping. A list of common determinants of health relevant to EIA is provided, with considerations for each one in an Annex. Population groups are also listed to support in identifying where there may be the potential of significant health inequalities.
- 1.8. Articulating the reasons for scoping determinants of health in or out of further assessment is advocated. This may be informed by pre-application discussion with public health stakeholders and/or the affected community. Key points of contact are listed, and illustrative questions provided.
- 1.9. An EIA Report health chapter is required where:
  - either other EIA technical topics have been scoped in to assess likely and potentially significant effects to human receptors, community amenities or services, and there are likely and potentially significant population health implications from such assessments;
  - or there is likely to be a change due to the project in a wider determinant of health not covered by other EIA technical topics, and this change is potentially significant for population health.
- 1.10. The scoping exercise should be proportionate, focusing the assessment to likely and potentially significant population health effects of the project.
- 1.11. If there is not the potential for likely significant population effects, either beneficial or adverse, human health should be scoped out of the EIA. This should include confirmation that mitigation and enhancement measures have been explored and/or secured.
- 1.12. The relationship with standalone Health Impact Assessments (HIA) is clarified. Where an EIA is undertaken and there is also a requirement for HIA, projects should normally meet the HIA requirement through the EIA Report health chapter.
- 1.13. The guidance highlights key learning from existing national and international good practice publications, extends the guidance where necessary and signposts out to further detail.

## 2. Introduction

### Document Aims, Audience and Terminology

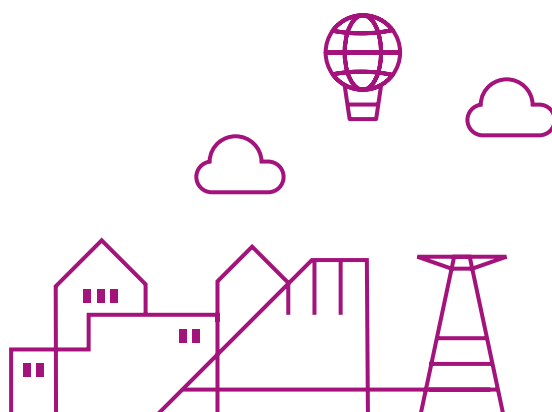
- 2.1. The aim of this guide is to enable those responsible for commissioning, conducting, or reviewing an Environmental Impact Assessment (EIA) to determine the scope of the human health chapter. This guide is focused on the scoping phase of the EIA process – including input to Scoping Reports and responses within Scoping Opinions.
- 2.2. Legislation for EIA has left the definition of 'human health' to competent experts. This guidance updates and provides further detail on the position from the 2017 IEMA Primer on health in EIA<sup>1</sup>.
- 2.3. This guidance has been produced, both to inform current practice and in anticipation of potential changes to the way that EIA is undertaken in the UK and Republic of Ireland, and addresses inequalities and population health as environmental outcomes of a project.
- 2.4. This document forms one of a series of focussed health guidance documents aimed at EIA practitioners and reviewers, planning application decision makers, health policymakers and other stakeholders. At the time of publication, the following, accompanying IEMA Guide has also been produced: **Determining Significance for Human Health in EIA (November 2022)**.
- 2.5. The audience of this guide are EIA health practitioners (hereafter 'practitioners') responsible for drafting and conducting Scoping Reports in England, Wales, Scotland, Northern Ireland and the Republic of Ireland (although it may also be used internationally). It also assists those members of competent authorities who develop EIA Scoping Opinions. Knowledge of the structure and purpose of the EIA process is therefore assumed.
- 2.6. Across these countries and practitioners there is some variation in terminology, although the following is used in this guide:
  - EIA Report rather than Environmental Statement;
  - 'Health', 'human health' and 'health and wellbeing' are used interchangeably;
- 2.7. EIA legislation includes the phrase 'population and human health' and these are two separate EIA technical topics. 'Population' relates to the EIA socio-economic chapter assessment and 'human health' relates to the EIA health chapter assessment. This guidance also makes reference to 'population health' which is defined as the health outcomes of a group of individuals, including the distribution of such outcomes within the group.
- 2.8. A glossary of common terminology and definitions is provided **Annex 1**.

## Human health in EIA context

- 2.9. EIA is a legal requirement for certain types of public and private projects and follows a structured process. EIA informs an application for consent to proceed with a project and is a key public health and environmental sustainability activity.
- 2.10. It aims to ensure potential positive health impacts and prevent potential negative health impacts of a project. Improving population health and reducing inequalities in health has an intrinsic value that is of huge importance to all communities and it is a highly cost-effective policy objective<sup>2,3</sup>.
- 2.11. This guide defines the approach to scoping human health in EIA. Health is influenced by a range of factors, termed the 'wider determinants of health'. Wider determinants of health span the bio-physical, social, behavioural, economic and institutional factors. This guide provides a basis for scoping across these wider determinants of health.
- 2.12. For human health, the EIA scoping process primarily relates to:
- deciding if there are wider health determinants and population groups to include in the assessment;
  - deciding the correct spatial and temporal assessment boundaries;
  - specifying assessment methods sufficient to the complexity and importance of the impact; and
  - clarifying governance and engagement arrangements.

## When to consider the health assessment scope?

- 2.13. Although scoping is normally an early stage of the process, it is good practice to keep the scope of the assessment under ongoing review. This guide focuses of scoping as a formal EIA stage, but also notes how scoping informs earlier and later EIA stages.
- 2.14. Health in EIA aligns to the wider principles and approach of Health Impact Assessment (HIA) and seeks to inform and enhance the decision-making process to improve health and health equity. Further information on the relationship between health in EIA and HIAs is set out below.
- 2.15. The approach at the scoping stage can be high level and based on the available information. At scoping, a given health effect is deemed 'likely' or 'not likely' and then, in turn, 'potentially significant' or 'not significant'. This ensures that the whole assessment is properly focused and proportionate.



## The Regulatory requirement

2.16. The legislative basis of EIA requirements across the above mentioned countries (in para 1.5) derives from the EU EIA Directive 2011/92/EU, as amended by 2014/52/EU. This is transposed into a range of national EIA legislation. Given the diversity of national legislation, the common origin of the EU Directive wording remains informative and adequately summarises the current requirements.

2.17. Directive 2014/52/EU states:

- The objective of EIA is to “to ensure a high level of protection of the environment and of human health” (Recital 41).
- The EIA shall “identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on ... population and human health...” (Article 3).
- The EIA Report shall include: “A description of the factors specified in Article 3(1) likely to be significantly affected by the project: population, human health...” (Annex IV).
- The EIA Report shall include: “the information that may reasonably be required for reaching a reasoned conclusion on the significant effects of the project on the environment, taking into account current knowledge and methods of assessment” (Article 5).

2.18. Any variation in how these broad requirements is phrased in national legislation does not affect the approach to health in EIA as described in this guide. Equally, while new legislation may be introduced following the UK withdrawal from the EU, the principals reflected in the Directive (i.e. protection of human health and application of a suitable assessment of significant effects on human health) are likely to be carried forward.

2.19. The EIA Report must present the ‘likely significant’ human health effects of the project. At the scoping stage, there are uncertainties and there is limited insight into significance, so scoping identifies whether population health effects are ‘potentially significant’<sup>1</sup> or not on the following basis:

- If a change in a wider determinant of health is likely and potentially significant for population health, it is scoped in for further assessment;
- Wider determinants of health should be scoped out where a concise professional judgment can be provided that a population health effect is unlikely or does not have the potential to be significant. Mitigation or enhancement measures should be quoted here to evidence this.

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1. Further guidance on establishing significance is provided in the accompanying IEMA Guide Determining Significance for Human Health in EIA (November 2022).

# 3. Presenting health in EIA Scoping

## Health in Scoping Reports and Scoping Opinions

- 3.1. If being produced, the EIA Scoping Report should always include a section on human health. This aligns with the statutory requirement to consider the project's potential for likely significant effects to human health.
- 3.2. The Scoping Report should state why relevant determinants of health are scoped in or out, based upon specific factors described in the guide. Table 4.1 provides points of contact with public health stakeholders to discuss such decisions. Table 5.1 provides an indicative (but not exclusive) list of wider determinants of health. The scoping report may also refer to the temporal and geographical scope of the health assessment, the methods to be used, the health outcomes expected, and indicate how the community has been/will be engaged throughout the EIA and planning process (acknowledging that health is a multi-disciplinary topic).
- 3.3. Where the project is EIA development and a Scoping Opinion is given, the EIA Report will follow this direction. The process of producing the Scoping Opinion should be robust and complete based on the information available. The Scoping Opinion should also be proportionate, meaning that it should remain focused on the likely and potentially significant effects on population health due to the project. The EIA Scoping Opinion should include a section on human health informed by public health stakeholder input.

## Seeking a Proportionate Scope

- 3.4. There can be a temptation to scope in a long list of wider health determinants to avoid the risk of later challenge. This would be contrary to proportionality and could be detrimental to delivering an effective assessment of the likely significant health effects. Scoping may be informed by careful application of the precautionary principle. Where there are threats of serious damage to health, a lack of full scientific certainty should not be used as a reason for postponing measures to minimise this damage. The precautionary principle should be used sparingly in health scoping. It should not be cited as a general reason to scope in all, or most, wider determinants of health for further assessment.
- 3.5. EIA scoping should be proportionate. Where all relevant wider determinants of health are scoped out, including those in Table 5.1, health as an EIA technical topic can be scoped out. In such instances the justification for scoping out each wider determinant of health and for the overall scoping out of health as an EIA topic should be clearly explained in the Scoping Report.
- 3.6. If a project does not seek a formal Scoping Opinion, the justification for scoping out each wider determinant of health and the overall scoping out of health should be set out in the EIA Report.



### A health chapter in the EIA Report or stand-alone HIA?

- 3.7. Beyond the EIA, HIAs have been employed to understand health effects arising from development. This section aims to outline the overlap between the approaches.
- 3.8. The expectation should be that the EIA Report will include a chapter on human health where:
- Wider determinants of health not covered by other EIA technical topics have been scoped in; or
  - Other EIA technical topics have been scoped in to assess likely and potentially significant effects to human receptors, community amenities or services; and there are likely and potentially significant population health implications from such assessments.
- 3.9. Such other EIA technical topics may include air quality, noise, socio-economics, transport, water quality, visual impact, land use, soil quality and recreation, this list is not exhaustive. Where other EIA technical topics do not have likely and potentially significant population health implications this should be explained with a concise justification within the EIA Scoping Report health section.
- 3.10. If the implications of other EIA technical topics for population health are not clear at the scoping stage, then an EIA Report health chapter should be included, and once the further assessment detail for those topics is available, explain whether or not there are likely and significant population health effects. The health chapter may be brief in some cases, but should bring together the project's likely and significant population health effects in one place for stakeholders. It should explain the project's public health implications, including relevant health outcomes and effects on health inequalities.
- 3.11. The practice of solely relying on other EIA technical chapters to provide the coverage of human health (i.e. disparate discussion of health issues across the EIA Report), is not recommended and should not be the justification to scope out health in EIA. It does not support an efficient review by public health stakeholders or the consistent discussion of population health outcomes and public health implications using a consistent methodology.
- 3.12. The practice of a separate standalone HIA report being appended to the EIA Report to meet the EIA requirement is not recommended. This can result in inconsistencies or duplication, additional demand on public health stakeholder resources, less clearly secured health mitigation or enhancement measures, and lack of clarity as to how the EIA statutory requirements (assessment of likely significant effects) are met. HIA checklist approaches are unlikely to meet EIA statutory requirements to assess likely significant effects. However, there may be circumstances where a standalone HIA is justified, and such justification should be provided within the Scoping Report.
- 3.13. Where there is a policy or validation requirement to undertake HIA, EIA projects should normally meet this through the EIA Report health chapter<sup>2</sup> where significant health effects are likely to occur. Where the EIA follows IEMA guidance the health chapter will align to HIA principles<sup>4</sup>, including considering wider determinants of health and health inequalities. This can be assured by early engagement with public health and planning stakeholders during scoping – further detail provided in Section 4. Should a separate HIA be required by the determining authority, duplication between the HIA and EIA should be minimised, and the EIA Report must remain the location where any likely significant effects of the project on human health are reported.

<sup>2</sup> Non-EIA projects should meet the specific policy or validation requirements.

# 4. Using Engagement to Define the Scope

## Health stakeholders

- 4.1. The pre-application consultation is a process of engagement between potential applicants and other parties which could include the local planning authority, statutory and non-statutory consultees and the general public. See examples of key points of contact in Table 4.1. The parties involved in the pre-application stage will vary depending on the nature and scale of the project and furthermore the public authority may be able to advise on engagement.
- 4.2. Engagement with health stakeholders and communities as part of this process should be considered to support determining the health scope, sensitive community groups, and local health priorities.

**Table 4.1: First points of contact for engagement (not exhaustive)**

| Jurisdiction        | Key organisation / post to contact in first instance            | Other organisations to consider contacting  |
|---------------------|---|---|
| Scotland            | Director of Public Health for the relevant NHS Board            | Public Health Scotland<br>Relevant Health and Social Care Partnership (for Health service issues only)<br>Local Authority Environmental Health Department   |
| Wales               | Director of Public Health for the relevant Health Board         | Public Health Authorities within Local Authorities<br>Public Health Wales<br>Wales Health Impact Assessment Support Unit (WHIASU)   |
| England             | Director of Public Health for the relevant Local Authority      | Integrated Care Systems representatives<br>Office for Health Improvement and Disparities<br>UK Health Security Agency<br>Local Environmental Health Officers  |
| Northern Ireland    | Director of Public Health at the Public Health Agency (PHA)     | PHA directorate of Health and Social Wellbeing Improvement<br>PHA Health Protection Service<br>Local Council Environmental Health Officers<br>Institute of Public Health  |
| Republic of Ireland | Director of Public Health for the relevant Regional Health Area | The Environmental Health Services section of the Health Service Executive (HSE), including Local Environmental Health Officers<br>Health and Safety Authority (HSA) for Control of Major Accident Hazard (COMAH) site or similar<br>Environmental Protection Agency (EPA)<br>Local Planning Authority<br>Institute of Public Health |

4.3. Key questions for this engagement are:

1. What are the main wider determinants of health and population groups that may be influenced over the lifetime of the project?
  2. What are the public health priorities considered relevant to the project, including the area in which the project is proposed?
  3. What population health outcomes do you want to improve/protect as a result of the project?
  4. Are there specific wider stakeholder and community group contacts you can provide to support engagement?
  5. Is there additional data or information you can provide or recommend?
- 4.4. For some EIAs, it may be preferable to seek a formal statement of common ground with public health stakeholders. To facilitate this process, it is beneficial to develop an agreed position between the applicant and public health stakeholders at scoping. This may include:
- Overall commitments to avoiding significant adverse effects and optimising positive effects, including primary, secondary and tertiary<sup>3</sup> mitigation where known;
  - The wider determinants of health and the geographic, temporal and population scope;
  - Data sources, targeted health outcomes and health indicators; and
  - Methods, assessment scenarios and reporting format.

4.5. The project applicant may set up a health forum or a steering group to facilitate governance of health stakeholder inputs and consensus building. Scoping would typically be a focal point of such a forum's activities.

### Community stakeholders

- 4.6. Early engagement with community stakeholders should be taken where feasible. This should be intended to inform or confirm the scope, by identifying matters that are particularly important or of concern to such communities.
- 4.7. Engagement can also help to improve community understanding of the project and practitioner understanding of the community. Engagement can also actively alleviate particular impacts upon mental health, by providing a sense of control, inclusion and participation. Such engagement activities could be considered primary mitigation.

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<sup>3</sup> Mitigation and/or enhancement measures can be 'primary' (i.e., forming part of the project being consented), 'secondary' (i.e., requiring further activity in order to achieve the anticipated outcome), or 'tertiary' (meeting legislation or standard practice).

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## Internal project stakeholders

- 4.8. Internal engagement between the EIA practitioner and applicant, including the design team, can embed healthy design principles and alternatives. Consideration of human health should start from the earliest project development stage. Late changes to the design, that respond to likely significant adverse health effects, can often be avoided by early health advice and insight. Similarly, early identification of the potential for significant health benefits can be delivered more efficiently when commenced early.
- 4.9. There should be early input by EIA health practitioners to optioneering, master planning and the consideration of project alternatives, such as inclusion within design or planning workshops. This is a critical point at which to influence the project in favour of public health and to reduce project risks and costly changes.
- 4.10. At the point when alternatives are considered, which may include the EIA scoping stage, consider which alternative is better for:
- Avoiding or reducing adverse effects in magnitude (e.g. scale and duration) or on the most sensitive receptors (e.g. vulnerable groups);
  - narrowing health inequalities;
  - promoting health related behaviours;
  - enhancing social and economic environment conditions to enable people to thrive;
  - enhancing bio-physical environment conditions to enable people to thrive; and/or
  - improving access to good-quality health and social care.

# 5. Scoping wider determinants of health

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## What wider determinants would be affected?

- 5.1. Table 5.1 summarises the wider determinants of health associated with the WHO definition of health, and sets out an indicative list of wider determinants of health that cover the issues commonly encountered in EIAs. To promote consistency, it is recommended that the list in Table 5.1 is the starting point for scoping exercises, although not exhaustive.
- 5.2. A list of indicative scoping considerations within each wider determinant of health is set out in the third column of Annex 2: Table 9.1.
- 5.3. Health pathways are complex and outcomes are affected by multiple determinants. Judgement should be used to cross-reference such overlaps in scoping decisions and only scope in the most relevant wider health determinant. For example, the project's impacts on 'physical activity' may be discussed under 'open space, leisure and play' if it is the project's provision of such spaces that drives the behaviour.
- 5.4. Decisions to exclude, or scope-out, a potential health impact should be supported by a brief statement. For example, stating what existing project features mitigate that impact. Annex 2: Table 9.1 promotes aspirational public health objectives. There are usually trade-offs between wider determinants of health, and some adverse impacts are typically scoped-in for further assessment.
- 5.5. The Scoping Report health section may refer to issues that are scoped-out due to their coverage within other permitting or risk management processes. For example, that 'occupational health and safety', 'emergency planning' or 'port health' issues are addressed by relevant regulation and that this does not require further consideration beyond noting that it helps to mitigate community healthcare implications.
- 5.6. Where there is the potential for gaps in the jurisdiction of some health issues, such as when a large non-local workforce leaves the project site and enters the community, the EIA health scope should consider the potential for likely and potentially significant effects.

**Table 5.1: EIA wider determinants of health to scope (not exhaustive)**

| Categories                          | Wider determinants of health                          |
|-------------------------------------|---|
| Health related behaviours           | physical activity                                     |
|                                     | risk taking behaviour                                 |
|                                     | diet and nutrition                                    |
| Social environment                  | housing   |
|                                     | relocation  |
|                                     | open space, leisure and play                          |
|                                     | transport modes, access and connections               |
|                                     | community safety                                      |
|                                     | community identity, culture, resilience and influence |
|                                     | social participation, interaction and support         |
| Economic environment                | education and training                                |
|                                     | employment and income                                 |
| Bio-physical environment            | climate change mitigation and adaptation              |
|                                     | air quality   |
|                                     | water quality or availability                         |
|                                     | land quality  |
|                                     | noise and vibration                                   |
|                                     | radiation   |
| Institutional and built environment | health and social care services                       |
|                                     | built environment                                     |
|                                     | wider societal infrastructure and resources           |

# 6. Methods and sources of information for health scoping

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## Considering the health policy context

- 6.1. The strategic decision-making level, defining relevant legislation and Government policies, plans and programmes will often influence the health scope and should be summarised in the Scoping Report or EIA Report. This reduces planning risk and optimises the identification of health opportunities tailored to delivering local policy requirements.
- 6.2. These may include regulatory requirements, planning policies and local health assessment guidance. As such publications are likely to frame the decision-making process it is sensible for scoping to include an early consideration of their key requirements.
- 6.3. Requirements may address health protection, health improvement and health care. Consider whether there are sector specific national policy positions that would be influential at determination and how they reference health. Consider if there are local requirements for HIA and how these would be met through the EIA health scope.

## Links with other EIA topics

- 6.4. Other EIA technical topics will inform the scope of the health assessment and discussions should be held with the other authors. For example, the health scope may cross-refer to EIA sections on:
  - Air quality
  - Noise and vibration
  - Landscape and visual
  - Geology & soils (contamination)
  - Biodiversity
  - Water environment
  - Transport
  - Socio-economics
  - Recreation and land use
  - Major accidents and disasters
  - Microclimate
  - Climate change mitigation and adaptation.
- 6.5. Authors of the health section of the Scoping Report should have an appropriate understanding of the project, its context and public health knowledge.

### Scoping to reflect significant effects

6.6. Scoping should determine the potential for health effects to be both 'likely' and 'potentially significant'. The following questions assist with this determination for each wider determinant of health, and responses should be documented as part of the scoping process.

- 1) Is likelihood for the wider health determinant established through a plausible source-pathway-receptor link which is probable given the actual project activities? If no, scope-out wider determinant, if yes, proceed.
- 2) Is the effect on the wider determinant of health potentially significant, because the expected scale of change is:
  - a. central/influential to the public health agenda of the relevant jurisdiction (positive or negative effects), as informed by an understanding of relevant scientific literature, local baseline conditions and local health priorities? If yes, scope-in, if no scope-out; or
  - b. contentious/unclear (negative effects) or strongly desired and in need of securing (positive effects), as informed by an understanding of relevant consultation responses, regulatory standards and the health policy context? If yes, scope-in, if no scope-out.
- 3) For negative effects, does committed mitigation avoid potentially significant population health effects? And, does committed mitigation proportionately further minimise other effects? If yes, scope-out, if no scope-in.
- 4) For positive effects, do committed enhancements already proportionately maximise public health opportunity, with no significant population health effects to discuss? If yes scope-out, if no scope-in.

6.7. Many potential health effects can be scoped out because they are unlikely. This includes scoping out health effects because there is certainty that proposed mitigation or enhancement is secured and high confidence that it would be effective.

6.8. A pragmatic approach is often needed based on project context and professional judgement. There is consensus on many health pathways and their plausibility, in establishing a source, pathway, receptor linkage, which can be made at scoping without reference to scientific literature. By contrast, atypical health concerns may require reference to the literature.

6.9. Further information on EIA health significance is provided in separate IEMA Guide **Determining Significance for Human Health in EIA** (November 2022).



## Understanding scoping limitations

- 6.10. Scoping should be in accordance with up-to-date policy, guidance, applicable case-law and scientific consensus, acknowledging any tensions introduced by emerging evidence. At scoping, only a preliminary judgment on significance is needed. Scoping justifications should be clear and concise, awareness of relevant evidence should be demonstrated, but need not be referenced or set out in detail.
- 6.11. The scientific literature (including public health evidence) will not cover every causal relationship. Public health analysis is based on the strongest possible evidence but takes a pragmatic and consensus approach when that evidence base is incomplete.
- 6.12. It is important to note that a change in a wider determinant of health does not automatically translate into a change in population health outcomes. The change is usually an influence on one of multiple risk factors for a given health outcome. People are affected in different ways. A relatively large, widespread and sustained change in a wider determinant of health is usually required to sufficiently alter risk factors, such that a potentially significant population health effect could arise.

For example, a change in noise disturbance may affect hypertension (high blood pressure), which is a risk factor for cardiovascular disease. Not all people who experience the noise will experience hypertension and not all those who have hypertension will get cardiovascular disease. Cardiovascular disease is also affected by a wide range of other risk factors, including diet, exercise and smoking. Noise also affects sleep disturbance and quality of life, which influences mental health. Professional judgement is needed at scoping to decide whether the expected level of noise change is potentially significant for public health, and therefore should be scoped in.

# 7. Other scope considerations

## Temporal scope

- 7.1. Health impacts vary between project stages. Consequently, the scope should identify which project stages are to be included. The following are examples:
- Pre-commencement (including relocation)
  - Demolition
  - Construction
  - Operation
  - Decommissioning
- 7.2. Where multiple assessment scenario years are used, the reporting should avoid high levels of repetition and be clear how the health effects in relevant geographic areas change over time between the assessed years. It should also seek to assess representative worst case periods during project phases, in terms of how they could influence key wider health determinants.

## Geographic scope

- 7.3. Health effects vary between geographical areas. The geographic scope should have regard to the populations within relevant geographic zones of influence or study areas, for example (different terminology may be used):
- Site-specific population
  - Local population
  - Regional population
  - National population
  - International population

- 7.4. The smaller geographic scale (e.g. site specific population) may be defined conceptually, rather than with reference to hard administrative boundaries. An administrative boundary does not necessarily define the boundaries of potential mental and physical health effects.
- 7.5. The geographic scope should seek to identify where there are likely and potentially significant site and local area effects that differ from the wider effects, and focus on areas where the project would exert most influence.
- 7.6. Using a single geographically defined neighbouring community (site-specific population) to cover a range of effects across different wider determinants of health can provide appropriate flexibility and is proportionate. If there are clearly distinct localities from which a project's activities occur (e.g. communities along a linear development) it would be appropriate to present multiple separate site-specific geographic populations.
- 7.7. Reporting should have regard to the geographic audiences most relevant to the health effects of the project. The populations of relevant geographic areas should be defined to aid understanding of the individual and combined health effects due to the project. For projects of a linear nature (e.g. cable, pipeline, road or rail infrastructure), reporting structure should allow the localised conclusions for relevant geographic areas to be understood separately. This does not require that every community has a separate reporting section, but that relevant localised effects should be discussed as appropriate.

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## Population scope

7.8. For health in EIA, population groups are the sensitive receptors, the health outcomes of which are considered. The IEMA Guide **Determining Significance for Human Health in EIA (November 2022)** explains populations in more detail. Other EIA chapters may identify receptors as community assets such as schools or hospitals. Population health refers to the health outcomes of a group of individuals, including the distribution of such outcomes within the group<sup>5</sup>. Scoping should therefore have regard to population level effects on health and differences between groups in the population.

7.9. Relevant population groups for each scoped-in wider determinant of health should consider both geographic populations and vulnerable sub-populations. This allows a discussion of inequalities at the assessment stage. The following populations and sub-populations are typically considered:

- The general population (for a given geographic zones of influence or study area); and
- Sub-population(s) with vulnerability due to:
  - Young age
  - Older age
  - Income or unemployment
  - Health status
  - Social disadvantage
  - Access or geographic factors.

7.10. Annex 2: Table 9.2 describes population sub-groups in more detail, including characteristics that can be noted to provide detail on populations and vulnerabilities that may be relevant to a particular wider determinant of health.

## Combined effect considerations

7.11. There are two types of combined effects:

- In-combination effects (also known as intra-project effects) describe the combined effects of multiple changes in wider determinants of health from a single project.
- Cumulative effects (also known as inter-project effects) happen if one project is carried out at the same time as (concurrently), or after (consecutively), another project.

7.12. The identification of other projects to inform the cumulative (or inter-project) effects assessment can be carried out at scoping stage. These may be reported in their own EIA Report chapters or may form part of the analysis in each EIA technical chapter.

7.13. The combined (or intra-project) health assessments are easier when populations are defined consistently at scoping for each wider health determinant. For example, so that all effects to 'the local population' across wider determinants of health can be collated and discussed.

7.14. Further guidance on assessing the significance of combined effects is provided in **Determining Significance for Human Health in EIA (November 2022)**.

# 8. Annex 1 List of Abbreviations/ Glossary

The glossary is adapted from Cave et al<sup>6</sup> and IPH<sup>7</sup>

| Term   | Definition   |
|--|--|
| <b>Applicant/Developer</b>                   | The party who seeks development consent on an EIA project.   |
| <b>Wider determinants of health</b>          | Biological, behavioural, socio-economic, cultural or environmental factors which contribute to the health status of individuals or populations (adapted from source <sup>8</sup> ).  |
| <b>Development consent</b>                   | This is the decision of the competent authority or authorities which entitles the applicant to proceed with the project <sup>9</sup> .   |
| <b>Environment</b>                           | Environment includes health. The two are inextricably linked as one system. EU Directive 2014/52/EU Article 3 on EIA is explicit that human health is a factor within the definition of environment <sup>10</sup> . Similarly, EU Directive 2001/42/EC Annex 1 <sup>11</sup> and the Protocol on SEA Article 2 <sup>12</sup> are explicit that environment includes health.  |
| <b>Environmental Impact Assessment (EIA)</b> | Process to examine the likely significant effects of a project whereby the applicant prepares an EIA Report, this and any other information is consulted upon and examined by the Competent Authority which then forms a reasoned conclusion (set out in Article 1(2)(g) of the EIA Directive).  |
| <b>The EIA Report</b>                        | Document prepared by the applicant that presents the output of the assessment <sup>9</sup> . Prior to the 2014 amendment to the Directive this document was known as an Environmental Statement and, at the time of writing, this term continues to be used by many.   |
| <b>Equity in health</b>                      | This refers to the absence of unfair, unjust and avoidable differences in exposure to health risk factors and status, among groups of people. As an example, significant differences in mortality or environmental risk exposure between low and high-income groups would be considered unfair, unjust and avoidable, and therefore considered inequitable (from source <sup>13</sup> ).   |
| <b>Health and human health</b>               | A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity <sup>14</sup> . The definition of 'health' has not changed since 1948, and it is clear that mental and social wellbeing are also to be considered in addition to effects on physical health. Health and wellbeing are influenced by a range of factors, termed the 'wider determinants of health' <sup>14</sup> . The terms 'health' and 'health and wellbeing' are used interchangeably in this guide. |
| <b>Health authority</b>                      | Local, regional or national health department that by reason of its specific health competencies and responsibilities is likely to be concerned by the health effects of the implementation of the proposal.   |
| <b>Health Impact Assessment (HIA)</b>        | HIA as a process which systematically judges the potential, and sometimes unintended, effects of a project, programme, plan, policy or strategy on the health of a population and the distribution of those effects within the population. HIA identifies appropriate actions to mitigate health risks and to promote health opportunities, and guides the establishment of a framework for monitoring and evaluating changes in health as part of sustainable development <sup>4</sup> .                            |

| Term                        | Definition   |
|-----------------------------|--|
| <b>Health indicator</b>     | A characteristic of an individual, population or environment which is subject to measurement (directly or indirectly) and can be used to describe one or more aspects of the health of an individual or population (quality, quantity and time) <sup>8</sup> .   |
| <b>Health inequality</b>    | This refers to observed difference in health status between groups of people or in their exposure to health risk factors <sup>13</sup> .   |
| <b>Health outcome</b>       | Change in health status of an individual, group or population attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status <sup>13</sup> .   |
| <b>Health priority</b>      | A health issue that has been identified, and given priority, by public health teams at local, regional, national or international levels.  |
| <b>Health promotion</b>     | The process of enabling people to increase control over, and to improve, their health <sup>15</sup> . It focusses on population health and well-being by addressing inequalities and the broader social and environmental determinants identifying action needed to create healthy environments and to reduce inequalities and risk factors <sup>16</sup> .  |
| <b>Health protection</b>    | Policies and activities based on legislative or other means designed to promote healthier environments, within which healthy choices are easier to make <sup>17</sup> . Can make use of intelligence from surveillance and monitoring to develop services that protect health from communicable diseases and environmental risks and hazards <sup>16</sup> . |
| <b>Health risk factor</b>   | A social, economic or biological status, or behaviours or environments which are associated with or that cause increased susceptibility to a specific disease, ill health or injury <sup>8</sup> .   |
| <b>Health sector</b>        | Organised public and private health services, health departments and ministries, health related non-governmental organisations and community groups, and professional associations (adapted from source <sup>8</sup> ).  |
| <b>Health services</b>      | Include health promotion, disease prevention and diagnostic, treatment and care services (adapted from source <sup>8</sup> ).  |
| <b>Health status</b>        | A description and/or measurement of the health of an individual or population at a particular point in time against identifiable standards, usually by reference to health indicators <sup>8</sup> .   |
| <b>Impact assessment</b>    | Process of identifying future consequences of a current or proposed action. The 'impact' is the difference between what would happen with the action and what would happen without it <sup>18</sup> .  |
| <b>Likely health effect</b> | This effect is one that, with reference to the scientific literature, shows a plausible theoretical link between source-pathway-receptor; and the occurrence of which is judged as probable, in a specific context.  |

| Term  | Definition   |
|---|--|
| <b>Mental Health</b>                            | A "state in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community" <sup>19</sup> . This definition clarifies the 'mental wellbeing' element within the WHO health definition.  |
| <b>Mitigation</b>                               | Measures envisaged to avoid, prevent or reduce any identified significant adverse effects on the environment <sup>9</sup> .  |
| <b>Pathway</b>                                  | This is the route by which changes to determinants of health lead to changes in health outcomes <sup>20</sup> .  |
| <b>Population</b>                               | Any group of people with shared characteristics. This could be the entire population of a defined area, or a population defined by relevant characteristics that make them more vulnerable to a proposal change, such as age or socio-economic status.   |
| <b>Population health</b>                        | This means the health outcomes of a group of individuals, including the distribution of such outcomes within the group <sup>5</sup> .  |
| <b>Public health</b>                            | This is a theoretical and practical discipline in its own right and is the science and art that focuses on: • Population health • Human systems and interventions intended to improve population health and • Interactions between these two systems (adapted from source <sup>17</sup> ).   |
| <b>Scoping</b>                                  | Process of identifying the content and extent of the information to be submitted to the Competent Authority under the EIA process <sup>9</sup> .   |
| <b>Screening</b>                                | Process of determining whether a project listed in Annex II of the EIA Directive, or referred to in case law of the Court of Justice of the European Union, is likely to have significant environmental effects (adapted from source <sup>9</sup> ).   |
| <b>Significance</b>                             | This relies on informed, expert judgement about what is important, desirable or acceptable for public health with regards to changes triggered by the proposal in question <sup>21, 22</sup> . The use of 'significance' in this guide is distinct from 'statistical significance'. Statistical significance is routinely used in scientific analysis to refer to whether the effects are real rather than chance occurrences, and is not necessarily a test of importance, desirability or acceptability <sup>1</sup> . |
| <b>Significant health effect</b>                | An effect triggered by the project that is judged to be important for public health (a positive or negative effect), highly desirable for public health (a positive effect) or unacceptable for public health (a negative effect).   |
| <b>Stakeholders</b>                             | People or organisations from public, private and/or voluntary sectors and the communities or groups involved in, or affected by, a project.  |
| <b>Strategic Environmental Assessment (SEA)</b> | Strategic Environmental Assessment (SEA) is conducted on plans and programmes that set the framework for future development consent. SEA derives from Directive 2001/42/EC <sup>11</sup> and requires the consideration of effects on "human health". SEA may also be undertaken under the Protocol on SEA <sup>12</sup> , which has a specific emphasis on health and can voluntarily apply SEA to legislation and policy.  |

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| Term                                 | Definition  |
|--------------------------------------|---|
| Vulnerable groups or sub-populations | Sensitive to changes in health determinant in a given context. Can include groups such as ethnic minorities, people with disabilities, people who are homeless, people living in poverty, those struggling with addiction and substance abuse, and isolated older people (adapted from source <sup>23</sup> ).  |
| Well-being                           | Is multi-dimensional and incorporates each, and all, of the following <sup>24</sup> : <ul style="list-style-type: none"><li>• Material living standards (income, consumption and wealth) • Health • Education</li><li>• Personal activities including work • Political voice and governance; • Social connections and relationships • Environment (present and future conditions) • Insecurity, of an economic as well as a physical nature.</li></ul> It is subjective and is typically measured with self-reports <sup>25</sup> . |

# 9. Annex 2 Detailed Scoping Tables

**Table 9.1: EIA wider determinants of health to scope and considerations (not exhaustive)**

| Wider determinants of health   |                              | Considerations   |
|--|------------------------------|--|
| <b>Health related behaviours</b><br><br>Factors pertaining to promotion of healthy behaviour and lifestyles  | <b>physical activity</b>     | How the project affects physical activity levels, including opportunities to promote physical activity through: education; transportation and planning; planning and environment; workplaces; sport, parks and recreation; and in health promotion initiatives and services. Where physical activity effects relate most directly to 'open space' or 'transport' discussed below, avoid duplication and cross-refer in the scoping decision.   |
|  | <b>risk taking behaviour</b> | How the project affects behaviours, including opportunities to reduce risk taking behaviours for its workforces and end users. Reference how this can be reflected within the construction / operational management plans in relation to markets created by the presence of the workforces, as well as in terms of operational opportunities introduced by the project as determined by its land use mix alternatives and types of commercial outlets proposed. Issues include use of alcohol, cigarettes, non-prescribed drugs, problem gambling and communicable illness (including STIs and other infections).  |
|  | <b>diet and nutrition</b>    | How the project affects access to food, including opportunities to promote good nutrition; support production and/or access to affordable healthy food options, including changes in availability or quality of agricultural / growing land. This may also include learning and skills initiatives as well as access to allotments, new retail outlets and markets. Where relevant consider how the project may influence diet related elements to reduce obesogenic environments.   |
| <b>Social environment</b><br><br>Factors pertaining to the organisation of society and promotion of social interactions to achieve safe and cohesive communities | <b>housing</b>               | How the project affects housing need, e.g. construction workforce, and provision, including opportunities to provide good quality new or regenerated housing that responds to local needs. Where housing is proposed reference how the project can provide: a dwelling mix relative to community need; housing that meets high build quality and internal space standards to avoid overcrowding; appropriate and equitably located affordable housing and social housing provision; homes that are designed to be adaptable to different life stages and care needs; inclusion of homes specifically adapted to support independent living for older and disabled people; a layout and movement that promotes cohesion and connects with existing communities to avoid physical barriers, residential segregation or gated communities; a design that promotes a sense of safety and neighbourliness and reduces the risk of social isolation; a good quality indoor environment (e.g. air quality, efficient thermal comfort, noise insulation and natural light); high quality safe outdoor space, including public green space, including maintenance; land uses and spaces which encourage social interaction; the inclusion, retention or re-provision of an appropriate mix of community facilities, public amenities and social infrastructure; inclusion where appropriate of day-care for dependent children or adults; homes that are protected from flood risk and sustainable drainage systems avoid increasing flood risk for others; and where temporary accommodation is proposed, such as for construction workforces, how appropriate standards, legacy opportunities and community implications are addressed. |



| Wider determinants of health |  | Considerations  |
|------------------------------|--|---|
|                              | <b>relocation</b>                              | Does the project involve population relocation, and include opportunities to safeguard people's health, including mental health, during any loss of housing and community support or connections (noting that mental health effects may commence even before the planning decision); how protocols for communication have been set up and how they handle uncertainty; how hard-to-reach and seldom-heard groups are engaged with; how individual needs are being understood and responded to; how people are supported to maintain continuity with schools, social networks and employment; how the support package responds to affordability, which influences alternative housing quality and overcrowding; how support is provided irrespective on tenure; how the remaining community may be affected (e.g. their identity and viability of retained services and amenities).  |
|                              | <b>open space, leisure and play</b>            | How the project affects places and spaces, including opportunities to encourage physical activity, use of space and social networking. Reference: existing, new and improved opens spaces (green and blue); natural habitats; sports, leisure and recreational amenities and facilities; and play facilities. Note how the project takes into account quality, safety, age, sensory and mobility considerations. Consider how well these spaces link to communities and the public realm in ways that are safe, welcoming and accessible for all. Consider the location and timing of re-provision in terms of its ability to positively influence physical activity, social interaction and supports the mental health benefits of exposure to greenspace. Identify how the project reduces an obesogenic (obesity enabling) environment in terms of equitable access to physical activity opportunities.  |
|                              | <b>transport modes, access and connections</b> | How the project affects the way people travel, including opportunities to promote active, safe and sustainable transport and access. Reference how it can support: prioritisation and promotion of walking and cycling; road and route safety, including traffic management, travel planning and/or calming measures; use of good quality public transport with suitable access and connectivity. Discuss as relevant how the project has had regard to: new transport infrastructure connectivity to places, spaces, services and facilities; healthy streets; connections to strategic walking and cycling routes; and quality, safety, age, sensory and mobility considerations. Explain how it avoids or minimises adverse effects on: routine journey times, access to health, social care and education; emergency service response times; and community severance. Set out the effect on existing routes, including public rights of way, parking provision and pedestrian or cycling infrastructure, that may be affected by diversions or capacity changes, including how changes are communicated and alternatives are equitable. |
|                              | <b>community safety</b>                        | How the project affects crime and injury risk, including opportunities for its design and management to incorporate elements to minimise both actual crime and fear of crime. Explain how it has had regard to: police/security and emergency response requirements, including avoiding consequent local capacity challenges; policies on modern slavery; and practices to safeguard vulnerable adults and children. Explain how the project minimises injury risk (e.g. falls and drowning) to the public during all phases. Consider if the project may affect discrimination, harassment or relations between groups.  |

| Wider determinants of health  |  | Considerations   |
|---|--|--|
|   | <b>community identity, culture, resilience and influence</b> | How the project affects the way people feel about their community, including opportunities to contribute to a positive community identity, sense of belonging and sense of control. Consider how it can positively respond to its influence on the physical, economic, cultural and/or social landscape of communities. May include project related change due to: population in-migration and out-migration; visual landscape/townscape change; changes to the extent or setting of ecological or cultural assets; lighting changes, including night-lighting, overshadowing and reflections; and the attractiveness of the area, public spaces and buildings. Consider how it can support community engagement at all stages of development. Consider influences on local pride and wellbeing; cultural and spiritual ethos and community sense of control over their living environments and workplaces.  |
|   | <b>social participation, interaction and support</b>         | How the project affects opportunities for community participation and interaction, and for social and family support. Explain how it may affect indoor or outdoor community assets and meeting places, for voluntary, social, cultural or spiritual participation. Consider influences on social support and social networks; volunteering and social enterprise; and the ability to provide family support.   |
| <b>Economic environment</b><br><br>Factors pertaining to health promoting socio-economic conditions and resources | <b>education and training</b>                                | How the project affects the educational and skills attainment, including opportunities to provide good quality education and training opportunities. How it can maintain or improve school availability, capacity and quality. Consider as relevant primary school, secondary school, further/higher education/training, adult education and specialist educational need providers. Discuss as relevant the project's provision for workforce related skills development, apprenticeships and career advice, including any targeted access for particular geographic or vulnerable groups. Consider as relevant where any re-training is provided for people whose jobs are displaced by the project. Where changes in educational facilities are proposed consider the location and timing of new or re-provided facilities, transitional arrangements and staffing implications.   |
|   | <b>employment and income</b>                                 | How the project affects socio-economic status and working conditions, including opportunities to provide economic opportunities and resources that protect and promote good health. Reference how it can influence: the type, quality and quantity of employment during each phase; unemployment, including from displacement of existing businesses or services or following completion of a project phase; particular features of employment, such as shift work, job security, working conditions, or occupational hazards; targeted recruitment, procurement and investment within an area that may raise standards of living, including for areas that experience the adverse effects of the project. Consider how the project's employment profiles may affect: family structures, roles or relationships; poverty, social exclusion, social status or income disparities; and/or levels of economic activity/inactivity. Describe where it makes provision for new employment land uses (e.g. new office space) including any managed and affordable workspace for local businesses and voluntary/social enterprises. |

| Wider determinants of health   |                                      | Considerations   |
|--|--------------------------------------|--|
| <b>Bio-physical environment</b><br><br>Factors pertaining to health protection to achieve healthy environmental conditions | <b>climate change and adaptation</b> | How the project affects climate altering pollutant emissions and climate adaptation strategies, including opportunities to positively respond the challenges of climate change and global health inequalities. Reference how it contributes to an increase or decrease in incremental but long-term and escalating climatic change impacts that affect the current and future global populations in terms of: extreme weather, heat stress and flood risk and fire injury risk; exacerbation of chronic cardiovascular and respiratory conditions; exposure to food-, water- and vector-borne infection or toxins; food production and malnutrition; population displacement, labour productivity and economic loss. Consider effects to more sensitive populations, potentially geographically distant, including in low- and middle-income countries. Discuss sustainable design and management measures that support elimination or reduction in climate altering pollutant emissions (see IEMA Greenhouse Gas Management Hierarchy), including through renewable energy sources, agricultural practices, transports choice, materials selection, construction techniques and procurement. Consider adaptation that increases reliance to climate change, including how buildings and public spaces are designed for efficient thermal comfort and resilience to flooding.  |
|  | <b>air quality</b>                   | If the EIA is scoping in air quality as a technical chapter with the prospect of human receptor impacts, then also scope in air quality as a determinant of health. Consider the contribution and impact that point source and fugitive emissions to air from the project will make to local air pollution, including opportunities to contribute to maintaining a good standard of air quality. How it affects exposure to: dust, aerosols, odour, coarse particulate matter, particulate matter (e.g. PM <sup>10</sup> and PM <sup>2.5</sup> ), nitrogen dioxide and other relevant air pollutants. Consider the distribution and duration of exposures (short-term and long-term, including where more sensitive population or sub-populations may be present. or features of pollutants that may affect toxicity, such as particulate matter composition or size. Include peak events due to project activities (including combined impacts of all pollutants/activities) and/or meteorological conditions. Explain the level of change with reference to relevant statutory health protection standards, and have regard to the degree of change relative to the baseline situation and advisory guide values (e.g. WHO global air quality guidelines). Consider the project's application of the 'as low as reasonably practicable' principle given the non-threshold health effect nature of some air pollutants. |

| Wider determinants of health |                                      | Considerations  |
|------------------------------|--------------------------------------|---|
|                              | <b>water quality or availability</b> | If the EIA is scoping in the water environment as a technical chapter with the prospect of human receptor impacts, then also scope in water quality and availability as a determinant of health. If it is very likely that any pollutant linkage pathways would be broken by normal good practice mitigation, provide clear text that the findings of the EIA water chapter will be kept under review and will be scoped into the health chapter if there are significant effects to the water environment that relate to human receptors, drinking or bathing water. Reference as relevant how the project can affect: drinking water quality (from ground or surface water sources), including biological and chemical agents; drinking water quantity or access; and recreational/bathing water quality, including biological and chemical agents and disease vectors. Explain the level of change with reference to relevant statutory health protection standards, having regard to the degree of change relative to the baseline situation and advisory guide values. Consider application of the as low as reasonably practicable principle. |
|                              | <b>land quality</b>                  | If the EIA is scoping in ground conditions as a technical chapter with the prospect of human receptor impacts, then also scope in land quality as a determinant of health. Or if it is very likely that any pollutant linkage pathways would be broken by normal good practice mitigation, provide clear text that the findings of the EIA ground condition chapter will be kept under review and a health assessment will only scope this in if there are significant effects to the soil environment that relate to human receptors. How the project affects: mobilisation of historic pollution; risk of new ground pollution (e.g. industrial agents or accidental spills); and food resources and safety (e.g. availability of or contamination on agricultural land, and allotments). Consider potential for ground pollutants (new or historic) to migrate off-site and if appropriate consider such effects proportionately within the air quality or water quality determinants depending on the relevant health pathway.  |

| Wider determinants of health |                     | Considerations  |
|------------------------------|---------------------|---|
|                              | Noise and vibration | <p>If the EIA is scoping in noise (and vibration) as a technical chapter with the prospect of human receptor impacts, then also scope in noise as a determinant of health. Consider how the project affects the existing sound environment, including opportunities to maintain a standard of sound environment that is conducive to health, including mental health. Reference as relevant how the project affects exposures to noise and vibration, including if information is available, an indication of the likely number of people affected. Consider the distribution and duration of exposures (including to any sensitive sub-populations), or exposures at more sensitive locations such as hospitals or schools. Consider any particular features of the noise that mediate its effect, such as frequency, tone or character; how both short-term and long-term exposures may affect health outcomes, with reference to both peak event metrics and averaged noise metrics (referencing scientific evidence such as the 2018 WHO Environmental Noise Guidelines and underpinning systematic reviews). Explain the level of change with reference to relevant standards set by, or commonly adopted in relation to, government noise policy, and have regard to the degree of change relative to the baseline situation and advisory guide values. Consider the project's application of the 'as low as reasonably practicable' principle. Consider for indoor spaces, including housing quality, as well as outside spaces (private and public) in relation to tranquillity and opportunities for respite. Consider relevant interdependencies between indoor noise, air quality and overheating that could arise from mitigation or adaptive behaviours.</p> |
|                              | radiation           | <p>How the project affects actual and perceived exposure to electromagnetic and ionising radiation risks, including opportunities to adopt exposure guidelines and design measures that avoid or minimise actual risks. Consider the mental health effects of widespread concerns about exposure from major electrical infrastructure or radiation sources. Note where there is the potential for high and/or prolonged exposure in close proximity to places where people spend extended periods of time.</p>  |

| Wider determinants of health  |  | Considerations  |
|---|--|---|
| <b>Institutional and built environment</b><br><br>Factors pertaining to institutions for health-related care and illness prevention, other organisations and systems that influence communities and wider system resources that support public health | <b>Health and social care services</b> | How the project affects provision or use of health and social care services, including opportunities to extend capacity and quality standards. How it affects the accessibility, capacity and quality of: primary care; secondary care (including hospitals); ambulance services; social services, including use of community centres; dental services; pharmacy services; sexual health services; and mental health services. Consider when appropriate how its provision of occupational healthcare services for its workforces can avoid or reduce pressures on community services. Consider any challenges relating to recruitment and retention of staff, as well as the role of health and social care services in preparedness for emergency scenarios (major accidents and/or disasters). Whilst projects are not expected to subsidise or fund public services where there is entitlement, it may support routine health and social care planning through information provision and will often make a financial contribution where there is a need to support transitional arrangements, step changes in demand or temporary demand peaks. For both project workers and end users, reference may be made to: usual place of residence / primary care registration location; and expected profile of service use when away from their usual place of residence, e.g. travelling. Explain where it includes the provision, or replacement of facilities and how these meet appropriate service provider requirements. Consider the project risk profile in terms of transmission of infectious disease and any measures to share information or otherwise support disease prevention services, or equivalent occupational provision, including screening, vaccination and epidemic response. |
|   | <b>built environment</b>               | How the project affects the built features of the environment that contribute to health, including opportunities to contribute to local or neighbourhood design that fits positively into the wider spatial planning context to support physical, mental and social wellbeing. Explain as relevant: the project's use classes (land uses) and how these relate to need without over supply that promotes risk taking behaviours or unhealthy lifestyles; how buffer zones are used and maintained (e.g. between industrial uses or transport corridors and residential or public space uses); how it extends or complements existing community provision of local retail, financial and commercial services, community assets, social infrastructure and green space; how it minimises susceptibility to major accidents or disasters; how it promotes recycling and manages waste to avoid nuisance or hazards; how it extends or operates within capacity of communications and sanitation systems and water and energy resources; how any utilities diversions or interruptions minimise disruption to end users; how it incorporates principles of inclusive and age-friendly / life course design including in connecting to existing street, route and places; and how any new built environment features due to the project will be managed and maintained.  |

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| Wider determinants of health |  | Considerations  |
|------------------------------|--|---|
|                              | <b>Wider societal infrastructure and resources</b> | The wider societal effects of the project for public health. Reference as relevant how the project contributes to: energy infrastructure; transport infrastructure; waste management infrastructure; water infrastructure; communication and IT infrastructure; or other infrastructures on which society depends for good population health. Also consider its wider contribution to: economic development or GDP; climate change mitigation or adaption (including improved air quality and preparedness for extreme weather events such as heatwaves, storms and flooding); and protection or enhancement of the natural environment (e.g. biodiversity, access to natural spaces and habitats). |

**Table 9.2: Considerations for each population group to inform scoping rationale and the assessment**

|  |
|--|
| <b>General population</b>  |
| Consider effects to the <b>general population</b> within the study area/zone of influence. Reference relevant sub-groups or characteristics, including as relevant: current and future residents; construction/demolition workforce; operational workforce; decommissioning workforce; service providers; visitors to the area; road users; and users of the project's services or the project's target population.  |
| <b>Vulnerable sub-population(s)</b>  |
| Consider if there is particular sensitivity associated with vulnerability due to <b>young age</b> . Reference relevant sub-groups or characteristics, including as relevant: children, young adults, unborn children (and their mothers).  |
| Consider if there is particular sensitivity associated with vulnerability due to <b>older age</b> . Reference relevant sub-groups or characteristics, including as relevant: older people; and frail older people.   |
| Consider if there is particular sensitivity associated with vulnerability due to <b>income</b> (low income or insecure income). Reference relevant sub-groups or characteristics, including as relevant: people who are unemployed, economically inactive, or homeless; people on low incomes or living in poverty; people with shift, part-time or seasonal work; people with low job security or with few progression prospects; people unable to work due to poor health.   |
| Consider if there is particular sensitivity associated with vulnerability due to <b>health status</b> . Reference relevant sub-groups or characteristics, including as relevant: people with existing poor physical or mental health (including where related to disabilities); carers of people with existing poor physical or mental health (include parents, especially lone parents and elderly carers). As relevant distinguish physical disability, learning disability, sensory impairment, long term medical conditions, and mental health problems.   |
| Consider if there is particular sensitivity associated with vulnerability due to <b>social disadvantage</b> . Reference relevant sub-groups or characteristics, including as relevant: people who experience social isolation; and people who experience discrimination (including people from black and minority ethnic groups and people who identify as being part of faith and belief groups). As relevant if integrating or informing equality impact assessment distinguish reasons that may relate to protected characteristics (age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, sexual orientation). Also consider as relevant potential effects to: gypsy/ travellers; non-English speakers; people involved in the criminal justice system; refugees and/or asylum seekers; single parent families; and people with low literacy/numeracy. |
| Consider if there is particular sensitivity associated with vulnerability <b>due to access and geographic factors</b> . Reference relevant sub-groups or characteristics, including as relevant: people experiencing barriers in access to services, amenities or facilities (including barriers experienced by service providers); people living in areas known to exhibit high deprivation or poor economic and/or health indicators; people in close proximity to the location of changes occurring as a result of the proposal activities. Although these groups may not be 'vulnerable', they are likely to be more sensitive to the changes. Consider as relevant where people live in remote, rural and/or island locations. Or where people live in over-populated areas without sufficient services or amenities.   |



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We believe that together we can change perceptions and attitudes about the relevance and vital importance of sustainability as a progressive force for good. Together we're transforming the world to sustainability.

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