

Health in Environmental Impact Assessment

A Primer for a Proportionate Approach



Foreword

As IEMA moves towards its goal of transforming the world to sustainability, we see the scope and scale of roles and activities carried out by our members grow ever-wider. The EIA Directive has been the presiding legislation which has governed the way our members work for many years. Assessment is a crucial area of activity of our membership, so we are very pleased to see the revisions to the Directive correctly recognise that everything we do is fundamental to good health, when properly evaluated and implemented. This has been a hot topic for IEMA for some time – we have created a working group to take a hard look at health, and health impact as a distinct discipline. We say the changes which have been cast within the revised Directive provide a great opportunity for all members, regardless of their background or specialism, to engage with other professionals and professions. Together, we can protect our environment, and improve lives. I would like to thank the Faculty of Public Health and Ben Cave Associates, who have made this primer possible, and I look forward to seeing the benefits of its production come to life.

Tim Balcon, Chief Executive, IEMA

The Faculty of Public Health (FPH) has long valued, and sought to contribute to, the work of spatial planners and environmental management. The combined efforts of these sectors is fundamental to sustainability, to protecting and promoting health and well-being for individuals, communities and populations, and to redressing health and environmental inequity. The FPH is the standard setting body for public health specialists in the UK and it ensures that an understanding of the sources, mechanisms and impacts of environmental change, and effective controls, are core to its members activity and their professional development. As the home for thousands of public health professionals across all sectors we advocate, support and provide guidance on environmental and sustainability issues. It is hugely encouraging that our members are working closely with colleagues from spatial planning and environmental management. The changes to the Environmental Impact Assessment Directive, and to national legislation, provide an important opportunity for improving public health and quality of life. To maximise this opportunity we must continue collaborating across sectors and we must refine our shared understanding of roles, responsibilities, resources, expertise and professional languages. This primer is a product of such collaborative work and we are convinced that it will be a valuable aid in delivering both the aims of the Directive and our mutual ambitions for environmental quality and public health.

John Middleton, President

Simon Capewell, Vice-President, FPH

Executive Summary

Environmental Impact Assessment (EIA) is a key public health and environmental sustainability activity and the revised Directive presents opportunities for an effective consideration of population and human health and for greater collaboration across the key professional groups.

This document is a primer. It is intended to spark discussion. It offers brief guidance and recommendations for public health teams, EIA practitioners, planning officers, consultees, consenting authorities and others concerned with population and human health (e.g. during screening, scoping, consultation, assessment, reporting and monitoring).

EIA guidance should clearly define the proportionate assessment of population and human health.

Key EIA principles include a comprehensive approach to health, proportionality, consistency, equity and reasonableness.

The biggest opportunity to influence project design and hence influence health outcomes occurs while scoping, very early in the design process.

Improved UK EIA guidance on population and human health is urgently needed. EIA professionals, public health teams, planning officers, environmental health officers, private sector consultants and community groups must work quickly, and work together.

The Institute of Environmental Management and Assessment (IEMA) has established a health working group, within its Impact Assessment Network (ia@iema.net) to both enable discussion amongst its own members and to arrange meetings with relevant planning, EIA, public health and other stakeholders.

Both IEMA and FPH members are keen to support EIA and thus promote a more effective consideration of population and human health.

FPH and IEMA will work collaboratively to help ensure the UK's 2017 EIA Regulations generate positive outcomes for the consideration of health in EIA and the wider planning system.

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The primer was co-authored and edited by Ben Cave (BCA), Josh Fothergill (IEMA), Gillian Gibson and Ryngan Pyper (both BCA) and Patrick Saunders (FPH).

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Introduction

Aims and Audience

The spring 2017 revisions across Environmental Impact Assessment (EIA) legislation give effect to the amended European Union EIA Directive (1). One of the amendments clarifies that 'population and human health' factors should be on the list of environmental topics considered by EIA. The EIA Directive (1) does not seek to define the way in which topics are addressed. There is thus no prescribed EIA definition for 'population and human health'.

This primer aims to raise awareness of the implications of this change amongst those concerned with the coverage of population and human health in EIA, e.g. EIA professionals; public health teams; planning officers; environmental health practitioners; developers; private sector consultants; and community groups.

The audience for this document is assumed to have a working knowledge of EIA in the UK. A useful guide to the EIA process can be found in IEMA's reference document - The State of EIA Practice in the UK (2).

A planning perspective on establishing links with public health is also provided in a Town and Country Planning Association publication (3). Such sources inform the primer, but their technical content is not duplicated here. This primer is structured around three main themes:

Practical challenges and opportunities arising from the need to consider population and health effectively and consistently in EIA.

Principles suggested to guide EIA coverage of population and human health.

Key messages and recommendations to develop guidance and best practice for EIA coverage of population and human health across the UK.

The remainder of this introduction covers:

- terminology used in the primer;
- EIA in the context of a wider system of impact assessment; and
- a developer's perspective on EIA.

Terminology

Environment means a broad approach that encompasses both biophysical and human health or quality of life issues, specifically relating to the issues listed within Article 3 of the EIA Directive (2011/92/EU, as amended by 2014/52/EU) (1).

Health is defined here as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (4).

The EIA Directive (1) focuses attention of the assessment on **likely significant effects**, i.e. on effects that are deemed likely to occur and, if they were to occur, would be expected to be significant.

A **health outcome** is a change in the health status of an individual, group or population which is attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status (5).

Determinants of health are the range of personal, social, economic and environmental factors which determine the health status of individuals or populations (5).

Development consent encompasses permission to proceed with a project following formal approval sought from a consenting authority.

A **consenting authority** is the body responsible for examining an application for, and deciding whether to award, development consent. EIA applies to different development consent regimes across the UK; for example, planning

consent, marine licensing, Highways Act, land drainage and nationally significant infrastructure projects. There are thus different consenting authorities; for example: Local Authorities/ Local Planning Authorities; the Planning Inspectorate; the Secretary of State; Ministers within devolved administrations; the Department of Infrastructure (Northern Ireland); Marine Management Organisation / Marine Scotland, Natural England, Forestry Commission.

Developer (or applicant, client or proponent) might be a public or private company or an individual. Local authorities and government agencies can also be developers.

EIA professional refers to the environmental consultants typically appointed by developers to manage the EIA process. The EIA is overseen by an EIA co-ordinator.

Statutory consultees are the bodies that are required to be consulted during the EIA (e.g. the principal council for the area, the Environment Agency, Natural Resource Wales, Natural England, Scottish Environmental Protection Agency, Northern Ireland Environment Agency, etc). Other bodies may also be consulted during an EIA depending on the nature of the application; these wider stakeholders are often referred to as non-statutory consultees.

EIA is part of a wider system

EIA is one part of a wider system of environmental assessment which aims to protect the environment and human health. The assessment of population and human health may thus start before EIA (e.g. Appraisal of Sustainability (AoS),

Strategic Environmental Assessment (SEA) or Sustainability Appraisal (SA)). Other assessments may also run in parallel to EIA (e.g. Health Impact Assessment (HIA)). These wider assessments that feed into EIA are further opportunities to engage with population and human health.

Box 1 shows how health issues raised at the strategic level (AoS, SEA and SA) can have a bearing on the scope of project level EIAs. In some cases, health issues may already have been addressed at a strategic level and beyond making the appropriate links to those assessments; the EIA need not assess such issues further.

In other cases, issues raised at the strategic level may need addressing through project level EIA. Strategic documents can therefore inform EIA screening and scoping opinions.

HIA is another process that is used on its own, or alongside EIA, to provide specific health input to project design and to identify appropriate actions to improve and protect health. HIA has established processes and approaches that add value to planning decisions. **The coverage of health in EIA need not equate to HIA.** The relationship between EIA and HIA is considered briefly below (see page 9).

Box 1: Appraisal and assessments of policies, plans, programmes and projects

Appraisal of Sustainability (AoS) is conducted on National Policy Statements (NPSs) which are produced by UK Government departments. They give reasons for the policy set out in the statement, and must include an explanation of how the policy takes account of Government policy relating to the mitigation of, and adaptation to, climate change. They include the Government's objectives for the development of nationally significant infrastructure in a particular sector (6).

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 and requires the consideration of effects on "human health" (7). SEAs are prepared by a planning authority.

Sustainability Appraisal (SA) is also conducted, in some parts of the UK, on plans and programmes that set the framework for future development consent. SA derives from the Planning & Compulsory Purchase Act 2004 (8). SAs are prepared by a planning authority. SA and SEA are usually conducted as one process.

Environmental Impact Assessment (EIA) is conducted on projects and is prepared by the project proponent. EIA originated from Directive 85/337/EEC (9), which was amended and updated three times, before being replaced by the current EIA Directive 2011/92/EU, as amended by 2014/52/EU. Among the changes that will come into force from 2017 is the requirement for a consideration of effects on "population and human health".

The developer's perspective on EIA

Developers seek a **balanced approach** to manage risk related to their project. They seek **clarity** and **certainty** both to manage **costs** and to avoid the risk of **challenge**.

Clarity

Developers will not necessarily be familiar with the health-related data that is available. The emphasis will be on public health professionals to provide influence through appropriately tailored information (e.g. in Joint Strategic Needs Assessments) which can contribute to the EIA or help identify potential mitigation measures.

Certainty

Early engagement offers mutual benefits to developers and consultees alike as it helps develop a shared understanding and thus a degree of certainty. Early engagement is preferred but it can be hard to arrange due to competing demands on consultees' time. The aim of engagement is to avoid surprises that come when consultee responses arrive late in the process. By this point changes to project design are harder and more expensive to implement.

Costs

Projects are run to strict timetables and to strict budgets. Work needs to be effective while being as efficient as possible. In EIA terms this means delivering a proportionate assessment. There is no formal definition of a proportionate EIA but the assessment must focus on likely significant effects; as such, while many issues raised by stakeholders are relevant to informing a planning decision only some of them will need a detailed assessment with the EIA.

Challenge

Developers will ensure that their application is legally compliant and that risks are properly identified and managed. This helps to avoid challenges which delay the application or which lead the consenting authority to reject the application. The list of topics for the EIA is refined during screening and scoping to focus on those that are considered likely to have significant effects. However, the prospect of legal, and other, challenges can lead to a risk averse approach and a reluctance to remove topics which are suggested by stakeholders. Early engagement with health professionals in screening and scoping to scrutinise and agree the population and human health scope should give confidence that the application is both proportionate and compliant.

Balance

The EIA must be accessible (brevity and proportionality) and robust (covering issues raised through consultation). EIA therefore needs a clear understanding of significance for population and human health, without which developers may scope excessive health issues to avoid the risk of later challenge. This would be contrary to proportionality and could be detrimental to delivering an effective assessment of the truly significant health issues. Health professionals can assist in defining health related significance for EIA practice. This will only occur if health stakeholders engage with developer requests to participate in their EIA work.

Challenges to, and opportunities for, the practice of EIA

The revised EIA legislation (implementing the EIA Directive (1)) brings challenges and opportunities for the public health profession and the EIA process, which can be summarised in eight questions:

- How should population and human health be defined in EIA?
- What is the relationship between EIA and HIA?
- What outcome measures constitute a consideration of population and human health?
- How should relevant research be identified, interpreted and used when considering population and human health in EIA?
- What is a significant effect for population and human health in EIA?
- What competencies are required to conduct an assessment of population and human health?
- What are the risks from a business-as-usual coverage of population and human health in EIA?
- How does EIA relate to environmental permitting?

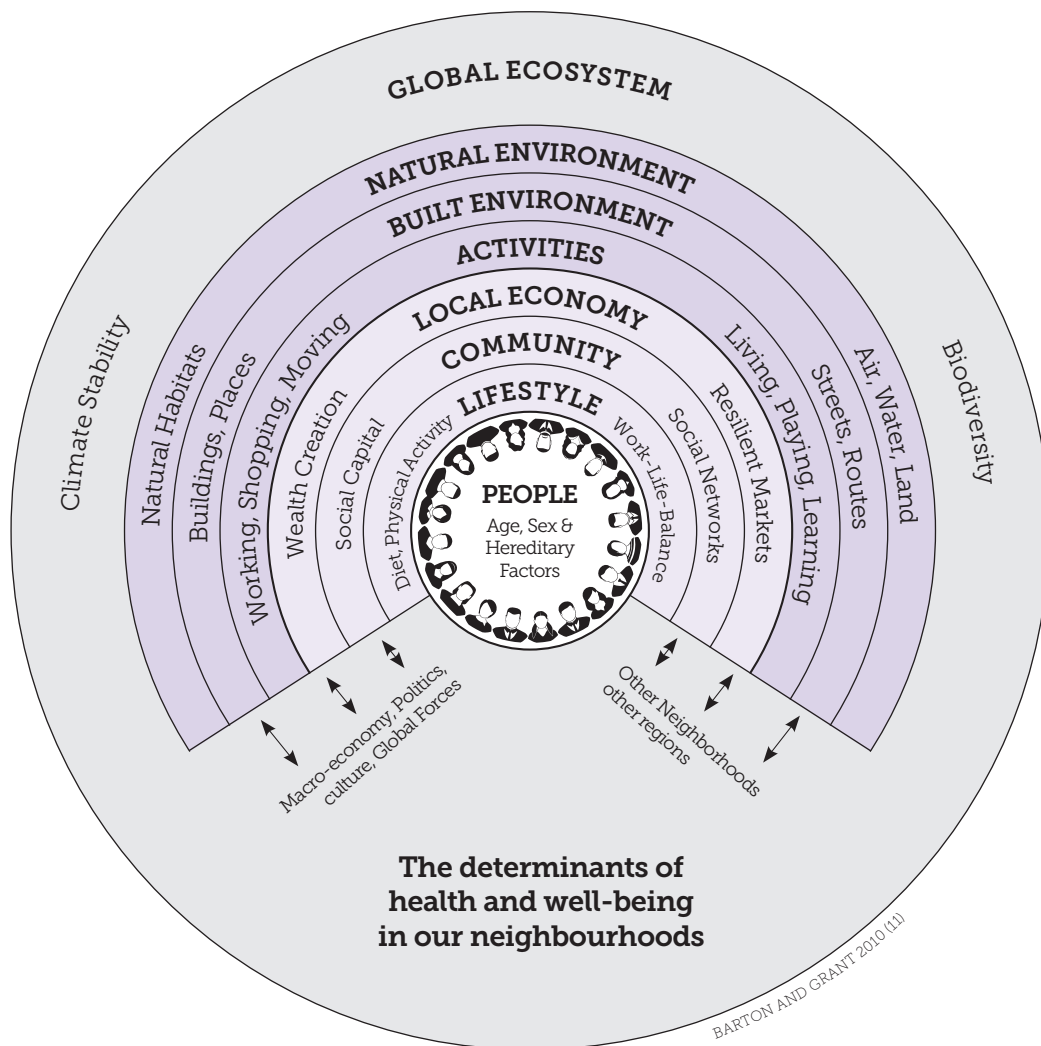
How should population and human health be defined in EIA?

Population and human health are two of the factors which the amended Directive requires, where relevant, to be identified, described and assessed in an EIA. The Directive does not define 'population and human health' but an understanding of the scope of these terms is clearly important in delineating the types of issues that must be covered to ensure that health is properly and proportionately considered.

The EIA Directive thus leaves the scope of issues covered by population and human health factors open to interpretation. This primer advocates that those most qualified to undertake that interpretation are public health professionals.

In the UK, the public health profession uses the World Health Organization (WHO) definition of health, where health is defined as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (4). This definition underpins the 'wider determinants of health' model used by public health. [Figure 2](#) illustrates the model, showing that population and human health spans environmental, social and economic aspects. In Wales, public bodies, some of which are consultees or consenting authorities for EIA, have a statutory duty to promote well-being linked to a wide range of determinants (10).

Figure 2: Determinants of health and wellbeing in our neighbourhoods



Public health is defined as the science and art of promoting and protecting health and well-being, preventing ill-health and prolonging life through the organised efforts of society and has three domains of practice (12):

- health protection;
- health improvement; and
- improving services.

Expertise from each of these domains can be relevant to EIA. Examples of population and human health issues covered by these different practice domains are provided in box 2 (page 7).

Box 2: Examples of issues from different domains of public health practice

Health protection

Infectious diseases

Chemicals, poisons and radiation

Emergency response

Environmental health hazards

Health improvement

Inequalities

Lifestyles, education, housing and employment

Family/community

Monitoring specific diseases and risk factors

Improving services

Efficiency

Clinical effectiveness

Service planning

Equity

The consideration of health effects in UK EIA practice has tended to focus on biophysical issues related to environmental hazards, for example, water and air quality impacts (13). This focus, and the corresponding emphasis on health protection, is an important and enduring area for health input. However, if it constitutes the totality of the analysis on health effects then future assessment will be steered towards a narrow consideration of population and human health to the exclusion of the other components, and contrary to established definitions, of health and wellbeing.

Box 3: Population health

Population health is a field of study in its own right which has been defined as the health outcomes of a group of individuals, including the distribution of such outcomes within the group. The field of population health includes health outcomes, patterns of health determinants and policies and interventions that link these two (16).

The Marmot Review (14) identifies the critical importance of addressing the social determinants of health and of reducing inequalities in terms of exposures to hazards and the reduction of inequities in the distribution of the adverse consequences of those exposures e.g. the impact of deprivation. Health improvement is also concerned with empowering people to improve their health. Opportunities for health improvement that might arise due to the construction, and then the operation, of a project include changes in:

- **Activities:** ensuring projects that change access (e.g. to work, shops, transport infrastructure, homes, sport or play facilities and schools) have design, mitigation or enhancement measures to reduce or avoid inequalities and inequities. The most vulnerable members of society often stand to lose the most from both the construction and the operational stages of a project.
 - **Local Economy:** increasing the opportunities for local people and businesses to benefit from jobs and investment arising from a project (including indirect provision of goods and services). Higher income is closely associated with better health, reduced mortality and improved mental wellbeing.
 - **Community:** creating and maintaining the public realm to enable the formal and informal social gatherings that are associated with beneficial effects for health and the reduction of health inequalities. Individuals and communities who enjoy physical and emotional support are more resilient to stressful situations, and have higher levels of mental and physical wellbeing and lower instances of isolation.
- **Lifestyle:** a project can take simple design steps to encourage the use of green spaces and active transport. This will contribute towards maintaining, or increasing, levels of physical activity and improvements in mental and physical health including heart disease, diabetes and obesity.

Health care services are vital in dealing with ill health including acute and chronic illness and injury. Efficient access to sufficient service provision is often relevant to EIA. Developing and **improving services** can be a matter requiring planning consent (15). The impact of a project on healthcare services may also be considered in the assessment and changes in demand may, in turn, require a s106 agreement.

The 2017 changes to EIA legislation require a consideration of population and human health. It should be noted that the 2017 changes to EIA legislation do not directly refer to population health (see Box 3), but do expect EIA to assess the interactions between the factors, including population and human health; as such, it will be reasonable for some EIAs to give due consideration to this field.

Opportunity: Public health, as a specialty, has a key role to play in determining the way in which population and human health is defined in future UK EIA practice especially as it relates to wider health and wellbeing issues.

What is the relationship between EIA and HIA?

HIA and EIA are separate processes. HIA is defined as a combination of procedures, methods and tools that systematically judges the potential, and sometimes unintended, effects of a policy, plan, programme or project on both the health of a population and the distribution of those effects within the population. HIA identifies appropriate actions to manage those effects (17).

The EIA Regulations (18,19) set out a procedure for identifying those projects which should be subject to an EIA, and for assessing, consulting and coming to a decision on those projects which are likely to have significant environmental effects (20). EIA currently includes some aspects of health. For example, EIA considers human receptors in relation to air or water quality and noise or light disturbance. Furthermore, the socio-economics chapter of EIAs typically include the implications on public services (including health services), education and employment.

Guidance documents for good practice in HIA (see, for example, sources 21-23) can inform EIA practice in relation to population and human health. Conducting an HIA will not necessarily meet the EIA population and human health requirement. By the same token, conducting an EIA will not automatically meet the requirements of an HIA. Some local authorities have policies requiring HIAs for major schemes. However, while HIA is not a routine requirement, it is often conducted voluntarily as good practice.

The WHO provides an overview of health in different types of impact assessment (24), and **Box 4** presents the WHO perspective on the relationship of HIA to other types of impact assessment and suggests three avenues along which can be covered.

Challenge: Disproportionate burdens may be placed on developers if HIA is applied as a proxy for the consideration of population and human health in every future UK EIA.

Box 4: Health in impact assessment

The health sector, by crafting and promoting HIA, can be regarded as contributing to fragmentation among impact assessments. Given the value of impact assessments from a societal perspective, this is a risk not to be taken lightly ... The need ... and justification for separate HIA cannot automatically be derived from the universally accepted significance of health; rather, it should be demonstrated whether and how HIA offers a comparative advantage in terms of societal benefits ...

Health issues can, and need to, be included [in impact assessment] irrespective of levels of integration. At the same time, from a civic society perspective, it would be unacceptable for HIA to weaken other impact assessments. A prudent attitude suggests optimizing the coverage of health along all three avenues:

- better consideration of health in existing impact assessments other than HIA;
- dedicated HIA; and
- integrated forms of impact assessment

Extract from World Health Organization Regional Office for Europe (24)

What outcome measures should be used when considering population and human health?

The current endpoints of EIA analysis are expected changes in, for example, air quality or noise levels. From a public health perspective, these are changes in determinants of health, not changes in health outcomes. The consideration of significant effects on population and human health requires a statement on the way in which any change can be expected to manifest itself e.g. a change in respiratory health, or in mental wellbeing. The endpoint of EIA population and human health analysis should, where possible, describe the predicted health and well-being outcomes. This raises the issue of attribution i.e. how the health outcomes in a future population will be impacted as a result of the proposed development.

Challenge: The requirement to reach a conclusion on health outcomes has implications for EIA methodology and the technical competencies for that assessment.

How should relevant research be identified, interpreted and used when considering population and human health in EIA?

This section discusses issues of the nature, quality and application of research evidence in EIA. The following section considers how such evidence can contribute to a professional judgement on the EIA significance of effects due to a particular project.

Sectors define the term 'evidence' in different ways, for example, evidence for planners can refer to planning policy or to routine statistics whereas for public health professionals it is predominantly derived from the published academic literature. There are different types of, and uses for, health evidence (25). The different types include academic public health literature, emerging but as yet unpublished research, expert opinion, official scientific guidance and, in some cases, the 'grey' literature relevant to population and human health.

Impact assessment aims to reach objective, robust and evidence-based conclusions on the likely effects of a project. So, how should public health research be identified and used? The aim is to establish real or plausible associations between identified hazards and adverse impacts on determinants of health and health outcomes and can thus inform each stage of an assessment. It is also a powerful tool for identifying the effectiveness of interventions that might form part of a mitigation strategy. There are well developed strategies within public health for systematically identifying relevant research outputs and for quality grading that

research. However, the evidence base relating to specific developments is often unlikely to be well developed or of the quality that is required to make definitive judgments. Where public health academic evidence is available it should be identified and used. However, the absence of high quality public health academic evidence does not necessarily justify scoping an issue out of an EIA or finding that an effect is not-significant. Absence of evidence of an effect is not evidence of absence of effect. In addition, any public health assessment will also need to consider the assets brought by the proposal and balance those against any negative effects. This is a position, though, that public health has

much experience of and is skilled in assessing the range of evidence and other factors such as population susceptibility, community assets and the cumulative impact of multiple stressors in reaching a rational and proportionate response.

Evidence to cite may include: scientific literature; consultation responses; expert opinion; emerging but unpublished evidence; baseline conditions; local health priorities; policy context; and regulatory standards. The plausibility of a development generating a potential health effect can initially be evidenced using a simple source-pathway-receptor model (see Box 5)

Box 5: Example of Source-Pathway-Receptor model for health effects:

Source	Pathway	Receptor	Plausible Health Impact?	Explanation
✗	✓	✓	No	There is not a clear source from where a potential health impact could originate.
✓	✗	✓	No	The source of a potential health impact lacks a means of transmission to a population.
✓	✓	✗	No	Receptors that would be sensitive or vulnerable to the health impact are not present.
✓	✓	✓	Yes	Identifying a source, pathway and receptor does not mean a health impact is a likely significant effect; health impacts should be assessed (describing what effect will occur and its likelihood) and likely health effects are then evaluated for significance.

The scientific literature (including academic public health evidence) will not cover every causal relationship or intervention using rigorous methods for all contexts. So, while public health analysis is based on the strongest possible evidence it takes a pragmatic and consensus approach when that evidence base is incomplete.

Challenge: Using the best available public health academic evidence will strengthen EIA. However, expecting all population and human health issues in EIA to be determined by good quality academic evidence is not realistic.

What is a significant effect for population and human health in EIA?

The 2017 UK EIA legislation requires that the EIA should focus on significant effects but it does not elaborate on the way in which significance should be defined. Defining significance for population and human health can be challenging and there is currently no guidance for considering population and health in UK EIA practice.

The scale of this challenge is further complicated by variations in both the concept of significance and the terminology used, to help evaluate whether an effect is significant, between EIA, public health and planning professionals. A key step forward in helping to define the basis of a significant population / human health effect in EIA will be overcoming such language barriers through the development of a shared understanding across the professionals involved in the process.

In impact assessment, the significance of an effect is usually a matter of expert professional judgements informed by reference to an evidence base and to practitioner guidance. In EIA, the concept of significance is a key element in determining whether such an assessment is required and determining whether specific impacts, or even an entire topic (e.g. health, water, ecology), is included within the scope of the assessment. As such, the significant environmental effects identified through the EIA become the focus of the information presented in the Environmental Statement, which is then taken into account during a planning determination.

Deciding on the *significance* of a potential effect on human health, or on other topics, does not necessarily mean finding that effect to be *statistically significant*. As set out in the definition of HIA (see p.15) this is a judgement and the assessor should seek to reach consensus with consultees and other stakeholders.

It should be recognised that statistical significance, which is routinely used in scientific analysis refers to whether the effects are real rather than chance occurrences, and is not necessarily a test of importance. The latter is also powerfully influenced by the existence of other stressors on communities and populations, their cumulative effect, the susceptibility of the population (e.g. disproportionate levels of deprivation), equity, and the impact of broader quality of life factors which are challenging to measure objectively. Population and human health significance in EIA should include a professional judgement supported by evidence, for example on an issue's 'importance' and 'acceptability'. Available evidence to cite in the EIA may include: scientific literature; consultation responses; baseline conditions; local health priorities; and regulatory standards.

Any future guidance on significance of health in EIA would need to consider:

- The way in which a judgement on significance should balance a range of beneficial and adverse effects across different groups within society (e.g. due to age, current health status or geographic location).
- The extent to which a precautionary approach should be relied upon when reaching a conclusion on significance.
- Whether an effect becomes significant only when it affects a certain proportion of a population or a certain geographic coverage.
- How validated risk-exposure relationships can be applied in circumstances where there are no direct current measures of effect available.
- Whether adverse effects can be significant even when conditions are compliant with regulatory or statutory standards (e.g. when a particularly vulnerable population is present).

These and other questions around significance are a prompt for the wider public health community to debate what should constitute a significant population and human health effect in EIA. There is a need for consensus to inform guidance on this issue.

Challenge: Without informed guidance to help determine the significance of health effects, EIA practice is likely to be inconsistent in both assessing and mitigating adverse health effects.

What competencies should be required to conduct an assessment of population and human health?

The 2017 changes to EIA legislation introduce the need for the developer's assessment, in the form of an Environmental Statement, to be prepared by Competent Experts. UK EIA practitioners have indicated that they view this requirement as including both the EIA co-ordinator and the lead of each of the factors scoped into the assessment. As such, those leading the 'population and human health' components, where they are scoped into an EIA, should be expected to be able to demonstrate that they meet this requirement. Technical competencies, and means of assuring them would need to be identified.

The revised EIA legislation requires those who examine the Environmental Statement to have sufficient expertise to come to their own reasoned conclusions on the significance of the environmental effects identified. This includes effects related to population and health. Tools and guidance exists in relation to reviewing HIA reports (26) and the advice within this could be adapted to aid the examination of health related sections within Environmental Statements.

Opportunity: These are core standards for public health practitioners and EIA professionals need to be aware of both the opportunities for their recruitment to the process and the potential limitations of that input given the current demands on this resource.

What are the risks from a business-as-usual coverage of population and human health in EIA?

At the time of writing, public health, and other health stakeholders do not routinely contribute to EIA and will need to find, and to justify, time and resources to do so. The way that population and human health is covered in EIA cuts across sectors and it is a developing agenda. Dialogue is needed to agree practical ways to deal with the issues identified in this primer.

A business-as-usual coverage of population and human health in EIA runs the risk that EIA practice will be shaped with negligible input from public health. This, in turn, runs the risk that a body of practice develops, and comes to be considered technically compliant, with neither input from, nor the challenge of, public health professionals. This has been the case with Strategic Environmental Assessment (27,28).

Challenge: Public health, and other health stakeholders, need to find, and to justify, time and resources to contribute to shaping EIA practice and to participating in the EIA process.

Challenge: Significant public health impacts and opportunities related to a project may not be recognised and thus not duly taken into consideration by the consenting authority.

How does EIA relate to environmental permitting?

The Environmental Permitting Regulations (as amended 2013) (29) implement aspects of the Environmental Protection Act 1990 (30) and require that defined industrial processes and waste control measures have a permit to operate. A permit application can be made at the same time as an application for development consent or it can be made once development consent has been granted.

Information that is part of separate permitting applications may not be available at the time of EIA. Such information may be relevant to the full consideration of potential population and human health effects, particularly where there are issues of public understanding of risk. For example, emergency planning reports are typically not available whilst the design of the project and the EIA are being prepared. This has been cited as a source of concern by local communities.

In each of the devolved administrations, and in England, public health works with the environmental regulators to provide health input to environmental permitting (31). This input typically focuses on health protection issues. Public Health England set out the process, including the links with local public health teams, in recent guidance for England (32). This does not cover noise and odour. Public health teams have important local perspectives to offer to all development consents and permitting processes. Whilst acknowledging that there are differences in remit the coverage of population and human health within EIA and environmental permitting should be joined up and consistent.

Opportunity: The overlap of issues between EIA and environmental permitting could enable efficiency savings by using core information in both processes and thus improve consistency and outcomes.

Principles

This section sets out from a public health perspective five key principles that should underpin the coverage of population and human health within EIA. Although not dictated by statutory requirements these principles are informed by the amended EIA Directive (1), by accepted principles for Health Impact Assessment (17,33) and by accepted principles for Environmental Risk Assessment (34).

Comprehensive approach to health

Physical, mental and social wellbeing is determined by a broad range of factors from all sectors of society. Consideration of these wider determinants of health (see Figure 1) and their inter-relationships should inform the assessment of population and human health.

Proportionate

The assessment should be proportionate. The scoping of population and human health issues into EIA should focus on whether the potential impacts are likely to be significant. Where they are found likely to be significant, effort should focus on identifying and gaining commitment to avoiding or reducing any adverse effects and to enhancing beneficial effects.

Consistency

The assessment, its process and conclusions, should be in accordance with up-to-date policy, guidance and scientific consensus, acknowledging any tensions introduced by emerging evidence. The assessment should show awareness of good practice in previous impact assessments of population and human health (including stand-alone HIA). However, consistency does not imply blind adherence to guidance and precedence at the expense of local context and/or the need for innovation.

Equity

The distribution of health impacts across the population should be considered, paying specific attention to vulnerable groups. Where impacts that are unfair and avoidable are identified appropriate measures should be included to avoid, reduce or improve health, and other, outcomes for affected groups.

Reasonableness

An objective assessment should be undertaken based on evidence and on sound judgment. The assessment process should follow an acceptable, explicit logic path and retain common sense in applying relevant guidance. Divergence from accepted practice should be explained

Key messages

Dialogue is needed to develop guidance and to shape practice

This document is a primer for the urgent discussions necessary to reach consensus between those concerned with the coverage of population and human health in EIA, notably public health teams, EIA practitioners and planning officers. As a primer it raises only the most pressing issues.

Guidance is required to inform good practice on population and human health factors relevant to EIA (e.g. during screening, scoping, consultation, assessment, reporting and monitoring). Guidance is needed for EIA practitioners, consultees and consenting authorities.

EIA and public health processes will benefit from guidance which clearly defines the proportionate assessment of population and human health. This will also reduce risks for developers (see page 4). The principles set out in this primer can inform this guidance (see page 17).

The opportunity to influence the design of a project, and thus to influence potential health outcomes, is at its greatest early in the design and EIA process. This influence wanes as consent is awarded and construction begins. The EIA scoping stage is a key opportunity for public health input.

Will public health professionals take up the opportunity to ensure their knowledge and expertise is a key voice in the EIA process?

This primer presents both challenges and opportunities. UK EIA guidance on population and human health is needed.

EIA professionals, public health teams, planning officers, environmental health officers, private sector consultants and community groups must work together.

Action now will avoid uncertainty and it will make the best of opportunities arising out of the inclusion of population and human health in EIA practice.

Both IEMA and FPH members are interested in enabling the effective consideration of population and human health within EIA. IEMA has created a health working group, within its Impact Assessment Network (ia@iema.net) to both enable discussion amongst its own members and to arrange meetings with relevant planning, EIA, public health and other stakeholders. FPH and IEMA will continue to explore opportunities to work collaboratively to help ensure the UK's 2017 EIA Regulations generate positive outcomes for the consideration of health in EIA and the wider planning system.

Further information and references

Further information

Wales Health Impact Assessment Support Unit (WHIASU)
www.wales.nhs.uk/sites3/home.cfm?orgid=522

Scottish Health and Inequalities Impact Assessment Network (SHIAN)
www.scotphn.net/networks/scottish-health-and-inequalities-impact-assessment-network-shiian/introduction

IEMA Impact Assessment Network
ia@iema.net

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- Note:** On the 16th May 2017 references (18), (19) and (35) replaced the respective 2011 and 2009 versions of the related regulations.

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