

Lower Thames Crossing Task Force – Health and Equalities Impact Assessment

1 Our Approach to Health and Equalities Impact Assessment

- 1.1 Highways England is committed to undertaking a thorough assessment of the potential impacts of the Lower Thames Crossing project on people, health and communities, through the Environmental Impact Assessment (EIA) process, as well as through wider assessments, including an Equalities Impact Assessment (in line with provision of the Equality Act 2010) and a Distributional Impact Assessment (in accordance with guidance provided by the Department of Transport). Assessment of potential health impacts was designed to be undertaken as part of the EIA, in line with recent changes to EIA Regulations and guidance. Further, in order to promote best practice, Highways England specified that a Community Impacts Report would be prepared for LTC, describing potential impacts and mitigation measures on local people and vulnerable populations and bringing together information about people and communities into one place.
- 1.2 The approach to assessing the potential impacts of the project on people, health and communities was amended in June 2018 following meetings and correspondence between Highways England and a group of Local Authorities (Thurrock, Kent, Essex, Medway and Southend-on-Sea). The new approach incorporates a stand-alone Health & Equalities Impact Assessment, the purpose of which is to identify potential benefits and negative effects on health and wellbeing as a result of the project, considering impacts on the health of existing and new communities, together with appropriate mitigation and recommendations as necessary. Highways England has appointed Karen Lucas, a Professor of Transport and Social Analysis at the University of Leeds, as an independent advisor to the community impacts workstream for LTC, providing additional rigour and objectivity to the assessment work being undertaken. Professor Lucas also chairs the CIPH Advisory Group.
- 1.3 The Community Impacts and Public Health (CIHP) Advisory Group was established in November 2018 comprising an independent chair, representatives from the LTC project team and senior representation from Local Authorities potentially affected by the project (invited Local Authorities have been by virtue of their proximity to the project and registered interest and include Kent CC, Essex CC, Thurrock Council, Medway Council, Southend-on-Sea BC, Gravesham BC, Dartford BC, London Borough Havering and Brentwood BC).
- 1.4 The Group held a preliminary meeting in November 2018 with senior representation from Local Authorities, following which a Terms of Reference for the Group was agreed by members. The principal objectives of the CIPH Advisory Group are to develop collaborative working practices; to enable a holistic understanding of how the project potentially impacts on local people, communities and health; and to consider potential benefits and opportunities arising from the project.
- 1.5 Three full meetings of the CIPH Advisory Group have been held. Benefits of these meetings to date have included data sharing, the identification of health issues and priorities affecting individual Local Authorities and agreement of specific methodologies for the assessment of potential community and health impacts.
- 1.6 A summary of what has been **agreed** to date by the CIPH Advisory Group is as follows:
 - The Health and Equalities Impact Assessment will use the World Health Organisation (WHO) definition of health as a ‘state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’. This acknowledges that a range of social, economic and environmental factors influence health status, for example the environment, income levels, employment and education.
 - The Health and Equalities Impact Assessment will use Welsh Health Impact Assessment Support Unit (WHIASU) guidance to identify **vulnerable populations** – these include children and young people, the elderly, people on low-incomes, people with physical or mental ill health, travellers, black and minority ethnic groups, people living in rural /isolated areas. Further discussions with the CIPH Advisory Group have highlighted children with special educational needs as a particular vulnerable group for inclusion in the assessment, e.g. potential impacts relating to travel to school during the construction phase.

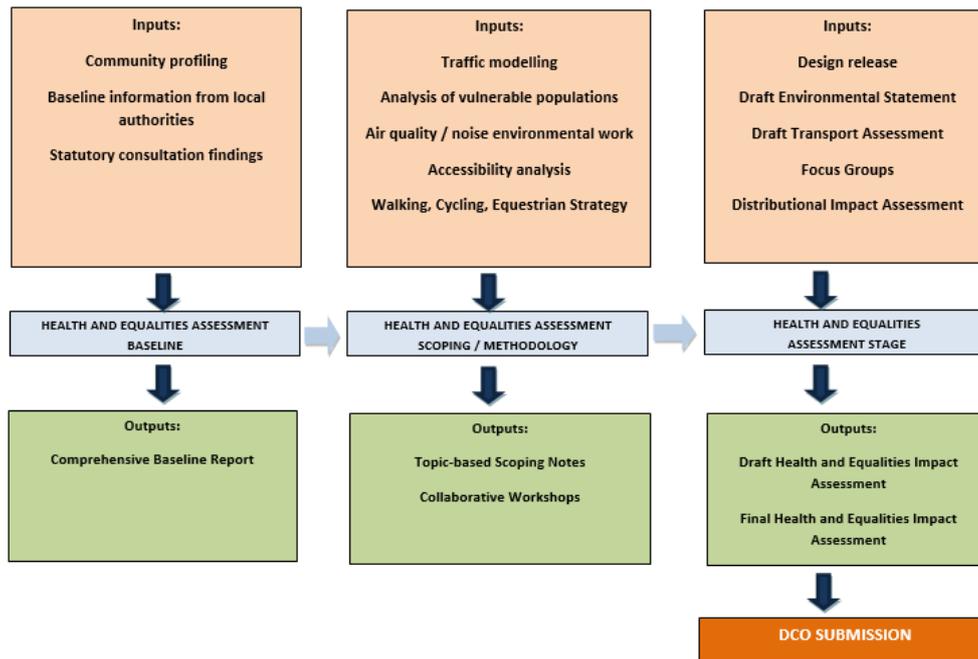
- Health and equalities impacts will be combined in the assessment. Both construction and operational phases of the project will be assessed.
- A comprehensive baseline will be prepared for the Health and Equalities Impact Assessment, covering demographic, health, economic and environmental profiles of local communities. Lower Super Output Areas (LSOAs) will be used to ensure data is locally specific wherever possible. Public health data sources used in the development of the baseline include local area profiles compiled by Public Health England, which are regularly updated. The attached Appendix provides a high-level summary of key aspects full details will be part of the final HIA document. A future baseline will be presented, taking into account population projections, economic forecasts and planned developments.
- Topics scoped into the Health and Equalities Impact Assessment have been agreed as follows:

<ul style="list-style-type: none"> - Air Quality - Noise and vibration - Road Safety - Accessibility - Severance - Access to Community Services, Facilities and Open Spaces 	<ul style="list-style-type: none"> - Access to Work and Training - Active Travel - Social Capital (including community safety) - Mental Wellbeing - Soil and Water Pollution - Other Relevant Topics (e.g. climate change/waste, light pollution)
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- Scoping notes have been prepared which set out proposed methodologies for each of the above topics; these methodologies have been discussed widely at CIPH Advisory Group meetings, with feedback invited from representatives after each meeting. The scoping notes have been agreed at subsequent CIPH Advisory Group meetings, taking into account advised changes as necessary.

1.7 The Health and Equalities Impact Assessment comprises a number of stages for each topic area:

- **Baseline** – key findings of relevance taken from the comprehensive baseline and relevant chapters of the Environmental Statement as necessary.
- **Evidence** – evidence from research to identify links between individual topics and the health of the population (e.g. access to open space has beneficial links with mental and physical wellbeing).
- **Consultation** – key findings from statutory consultation and engagement that has taken place, including the concerns of local communities.
- **Assessment** – identifies whether changes to the health of a population as a result of the project are likely to be beneficial or adverse; an assessment of the duration of change (whether temporary or permanent); consideration of the number of people likely to be exposed to changes in a health determinant together with likely magnitude or severity of change; and an assessment of significance based on professional judgement. The aim of the Health and Equalities Impact Assessment is to enable the impact of the project on social and health inequalities to be identified, minimised and mitigated wherever possible, in a way that is both proportionate and reasonable.
- **Cumulative assessment** – the cumulative assessment will be based on findings from the Environmental Statement in relation to individual environmental topics.

1.8 Links between the Health and Equalities Impact Assessment and other outputs are shown overleaf:



2 Thurrock Profile

2.1 A wealth of relevant baseline data has been collated and analysed for each Local Authority area potentially affected by the project. The data for the Thurrock area has been provided by officers from Thurrock Council, identifying a range of issues arising from the demographic and health profiling of local communities in closest proximity to the project (for example Tilbury, East Tilbury, Orsett, Ockendon, Chadwell St Mary, Stifford Clays, Belhus and Little Thurrock / Blackshots).

3 Statutory Consultation

3.1 The statutory consultation period held from October – December last year resulted in over 28,000 responses. Key issues raised by members of the public and stakeholders included construction impacts, concerns around air quality, concerns about the proximity of the route to local communities, and other environmental impacts (for example loss of views and impacts on walking and cycling routes). More detail about the findings from the statutory consultation will be released in the near future.

4 Assessing Health Impacts and Potential Benefits

4.1 A summary of the approach to assessing potential health impacts for a number of these areas of concern is summarised below and overleaf.

Construction	
Construction impacts	<p>The construction strategy for the project is still in development; once finalised, we will consider the likely impacts of construction on local communities – for example access to community services and facilities, access to walking and cycling routes or areas of open space, noise and visual amenity impacts.</p> <p>Noise and vibration health impacts will be assessed with reference to levels of LOAEL and SOAEL (Lowest and Significant Observed Adverse Effect Level respectively, which refer to the levels above which adverse or significant adverse effects on health and quality of life can be detected). Noise impacts will be considered in relation to construction activities, construction vehicle noise impacts and night-time construction noise impacts.</p> <p>Changes in air quality during construction may arise as a result of vehicle and plant</p>

	<p>machinery emissions, including dust emissions. A Code of Construction Practice (CoCP) will be prepared as part of the Environmental Statement, which will set out mitigation measures to be implemented during the construction phase. These measures represent Best Practice Management (BPM); with the adoption of BPM measures, the impact of construction activities on air quality would be reduced and should ensure that impacts are minimised, if not eliminated.</p> <p>Our accessibility analysis is being developed as a bespoke method for LTC, measuring access to a variety of destinations covering education, employment, health, transport links (for example railway stations), shopping and social welfare. Accessibility by public transport will compare bus routes against construction routes to identify potential impact areas. An assessment of potential severance will consider locations of amenities, journey to work data and approximate usage levels of routes by pedestrians, cyclists and equestrians in the vicinity of the project.</p> <p>Impacts of construction activity on the mental wellbeing of residents will be considered.</p>
Operation	
Changes in air quality	Based on the detailed air quality modelling work undertaken for the project and conclusions presented in the Environmental Statement. This work will identify communities and locations where there are predicted changes in air quality as a result of the project (both positive and negative).
Changes in noise levels	<p>The noise assessment will identify areas of perceptible change in road traffic noise levels (i.e. a change greater than 1dB, either increase or decrease). Specific sensitive locations which may experience a change greater than 1dB in the short term / 3dB in the long term will be identified.</p> <p>Further analysis will be undertaken to consider wider health and equalities effects as appropriate in relation to locations where changes in road traffic noise fall into higher change bands.</p>
Impacts on pedestrians and cyclists	<p>Identifying locations of potential severance, estimation of the number of people likely to be affected and the location of relevant amenities that may be affected.</p> <p>Assessment of the potential needs of vulnerable populations who may be more reliant on walking / cycling, such as children, low-income households and the elderly.</p>
Mental wellbeing	Consideration will be given to how the project may affect the mental wellbeing of local residents, taking into account potential resilience factors within local communities (for example employment, social networks). Perceptions of the project (in terms of potential impacts on air quality or noise) will be explored through a series of Focus Groups.

4.2 In addition to health impacts, we are exploring a range of potential **benefits** that may arise from the Project, which may have a **positive** effect on the health of local communities. Particular areas of interest include:

- **Walking and cycling routes** – identifying improvements which may encourage physical activity and promote access to services, facilities and open space.
- **Skills and legacy** – increasing the awareness of STEM (Science, Technology, Engineering and Mathematics) subjects to encourage young people into construction careers, and creating sustainable skills, employment and education opportunities.

5 Next Steps

5.1 The next steps for the Health and Equalities Impact Assessment are as follows:

- The next meeting of the CIPH Advisory Group is in September 2019. The focus of this meeting will be on how **Non-Motorised Users** (pedestrians, cyclists and equestrians) may be affected by the project and potential mitigation measures / opportunities based on assessment work and consultation findings; **environmental mitigation** proposed for the project that may be of particular relevance to health (for example noise mitigation, opportunities for addressing visual impacts); and a discussion of the potential benefits of the project in terms of **education and skills training**.
- A further meeting of the CIPH Advisory Group is arranged for November 2019 at which time discussions will focus on whatever topic is relevant at this point.
- Ongoing health and equalities assessment work will continue to feed into design reviews for both construction and operation stages of the project.
- Preparation of a Draft Health and Equalities Impact Assessment prior to DCO submission.
- Findings from a range of assessments, including the health and equalities work, will be incorporated into a Community Impacts Report, which will also form part of the DCO submission.

Appendix A Demographic and Health Profile Summary

A.1 Analysis of demographic and health profiles for Thurrock communities located in closest proximity to the LTC project reveal the following issues:

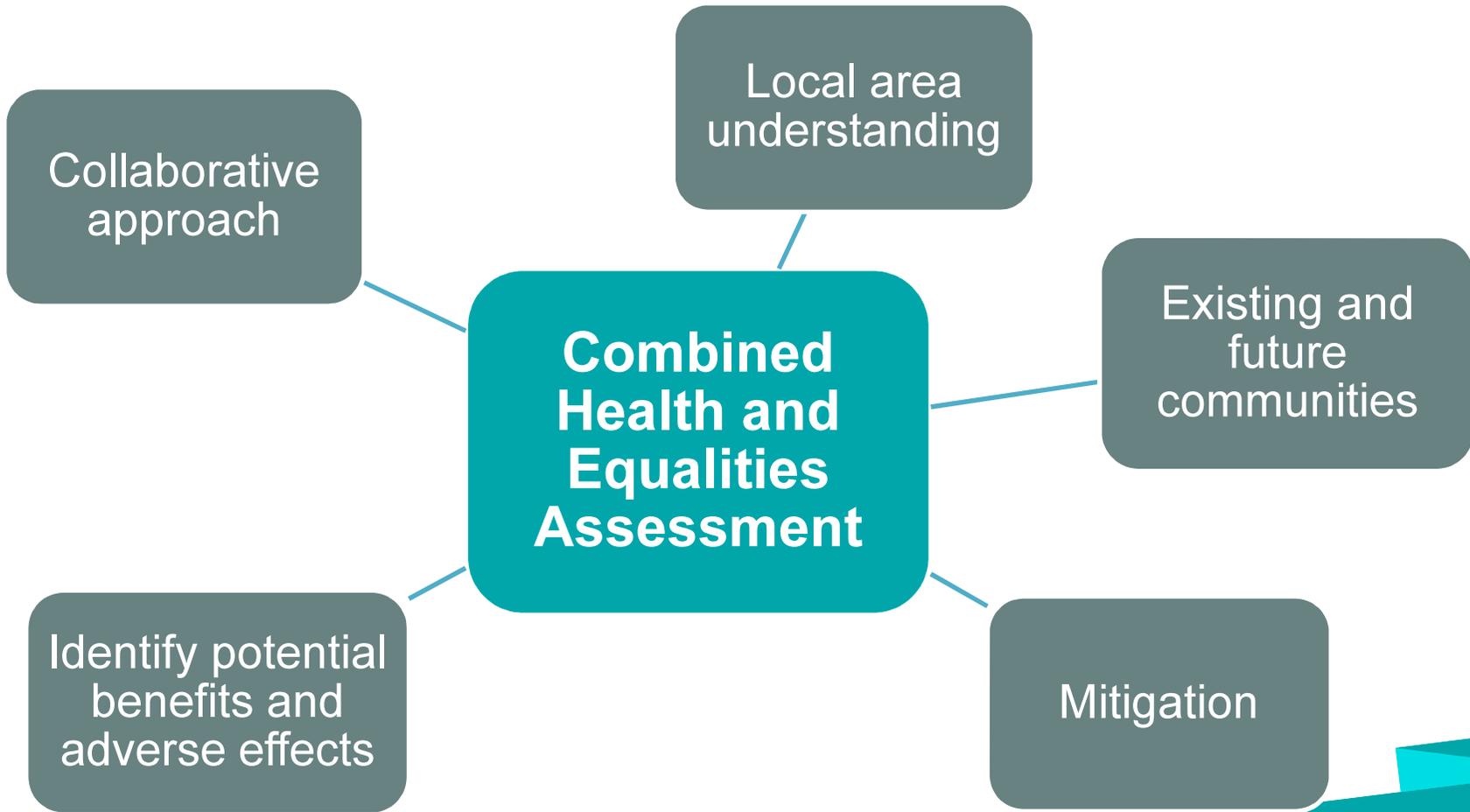
- There are areas with high levels of poverty and deprivation (notably wards in the Tilbury area, Chadwell St Mary and Belhus). These local populations may therefore be more vulnerable to changes in their local environment.
- Life expectancy is lower in several of these communities than is the case for Thurrock as a whole or nationally denoting that they are potentially more vulnerable to health risks than the average population.
- Premature deaths as measured by the Standardised Mortality Ratio (SMR) are higher in certain locations than is the case for Thurrock as a whole or nationally. Deaths and premature deaths from conditions including coronary heart disease and respiratory disease are higher in Ockendon, Tilbury (notably Tilbury St Chads ward) and Chadwell St Mary.
- Hospital admissions for Coronary Obstructive Pulmonary Disease (COPD) are higher for wards within Tilbury, East Tilbury, Ockendon, Chadwell St Mary and Stifford Clays than for Thurrock or England as a whole.
- Social isolation is a feature of a number of communities, as measured by the proportion of pensioners who live alone, which may also make them more vulnerable to certain health risks. Communities where this is a particular issue include Tilbury Riverside and Thurrock Park ward (39.1% of residents may experience social isolation compared to 31.9% for Thurrock), Stifford Clays and Ockendon. Communities such as Orsett also have a higher proportion of people aged over 65 who may be more vulnerable (a further 14% of residents here have a long-term limiting illness or disability).
- Both adult and childhood obesity are prevalent health issues, which should also be reflected when considering potential health risks. Within Tilbury wards, some 13% of 4 to 5-year olds and over a quarter of 10 to 11 year olds are classified as obese, compared to 9.3% and 19.3% nationally. Other wards where obesity is a particular issue include Ockendon (where 28.6% of adults are obese), Belhus (30.2% of adults and 26.3% of 10 to 11-year olds) and Chadwell St Mary (27.6% of adults).

Lower Thames Crossing

Health, Equalities and Community Impacts

15th July 2019





A Collaborative Approach



Timeline

November 2018

Initial meeting to discuss remit

April 2019

Approach to accessibility, severance, road safety topics discussed and agreed

January 2019

Terms of Reference agreed
Approach to Health Impact Assessment discussed

June 2019

Approach to assessment of air quality and noise discussed

What has been agreed by CIPHAG to date?

World Health Organisation definition of health

Social model of health

Use of guidance agreed to identify vulnerable populations

Topics scoped in for assessment

Collation of localised baseline data

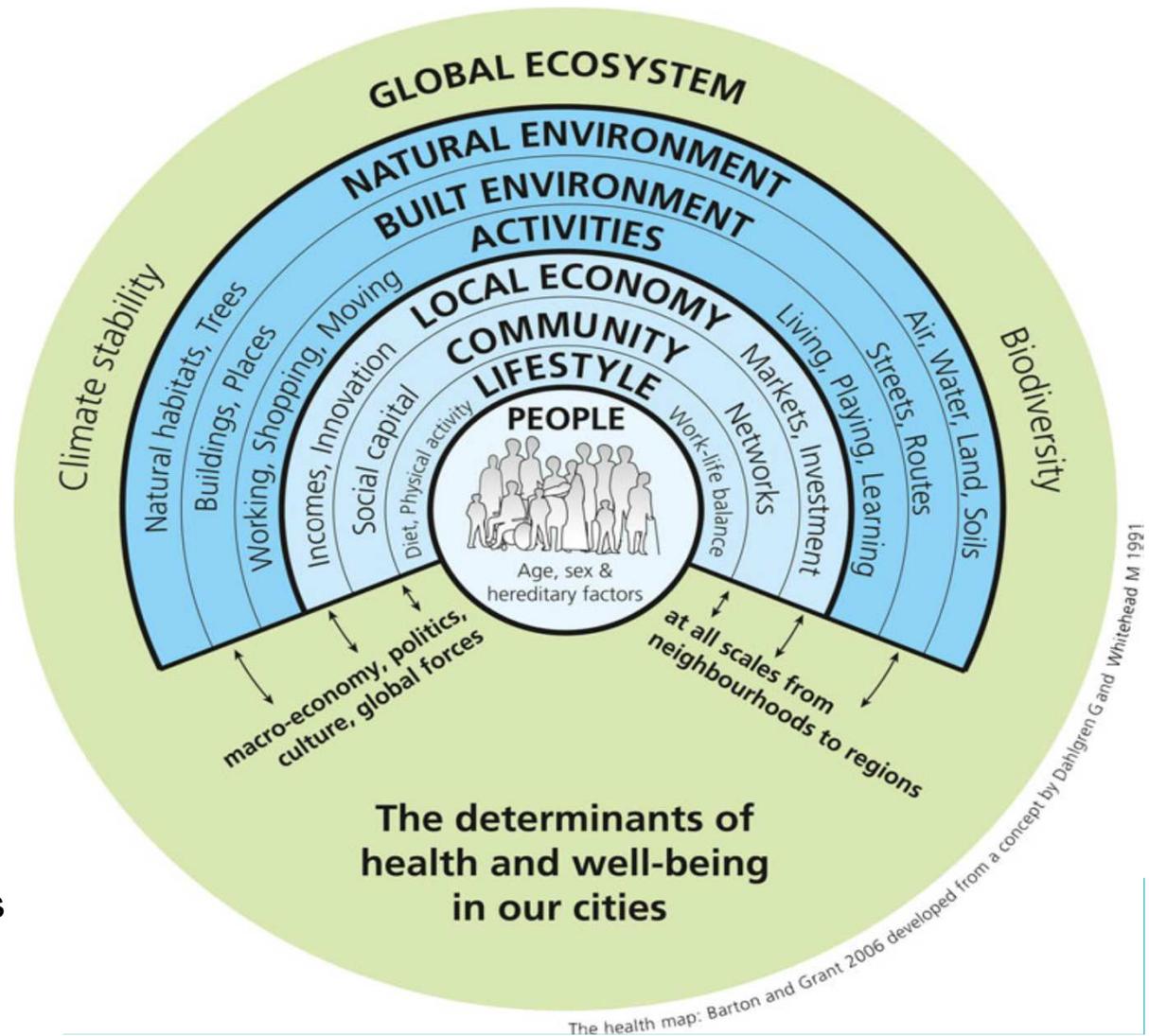
World Health Organisation (WHO) definition of health:

‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’

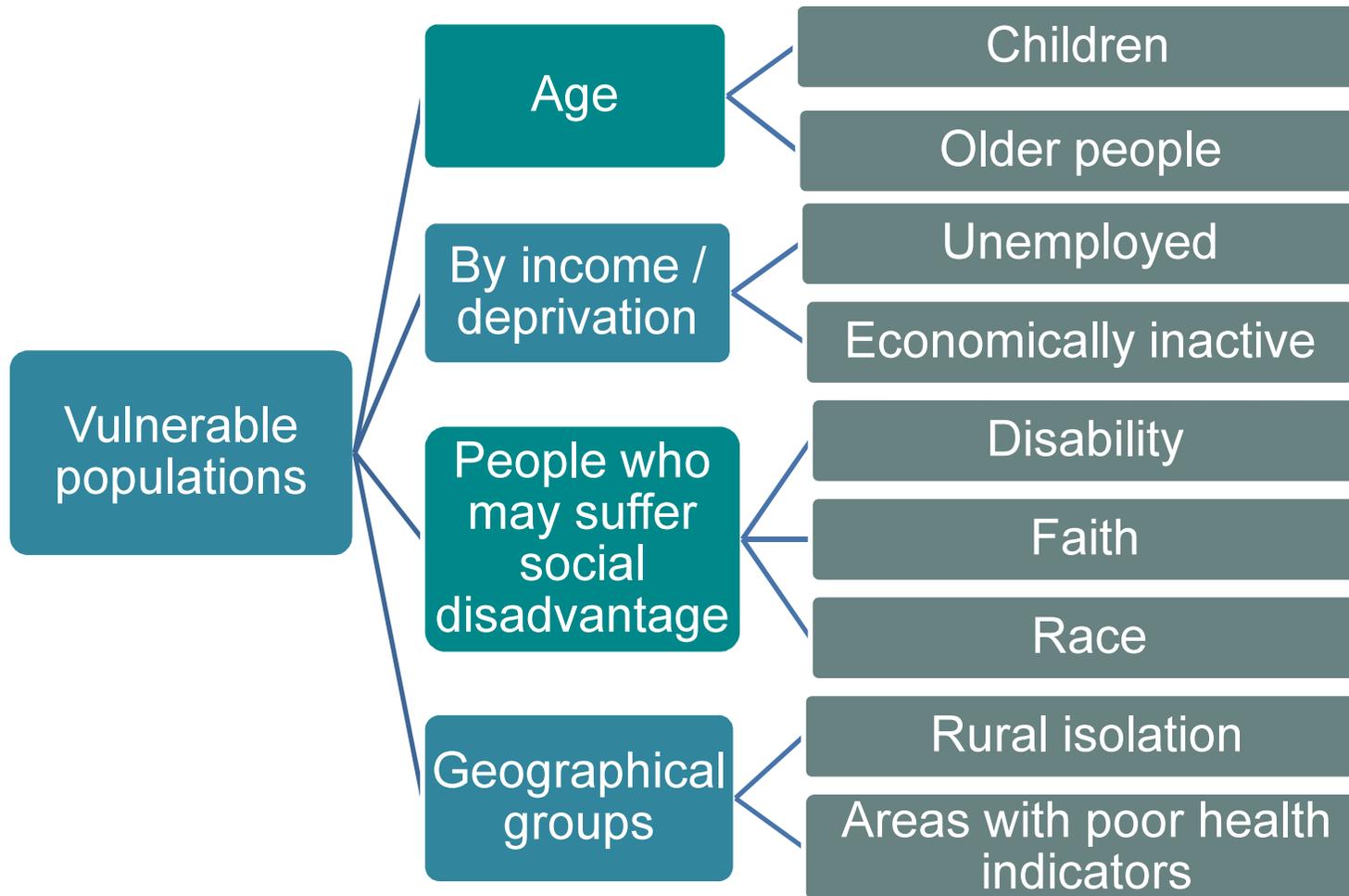
And of mental health:

‘a state of well-being 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’

The Social Model of Health



Dahlgren and Whitehead (1991) as amended by Barton and Grant (2006)

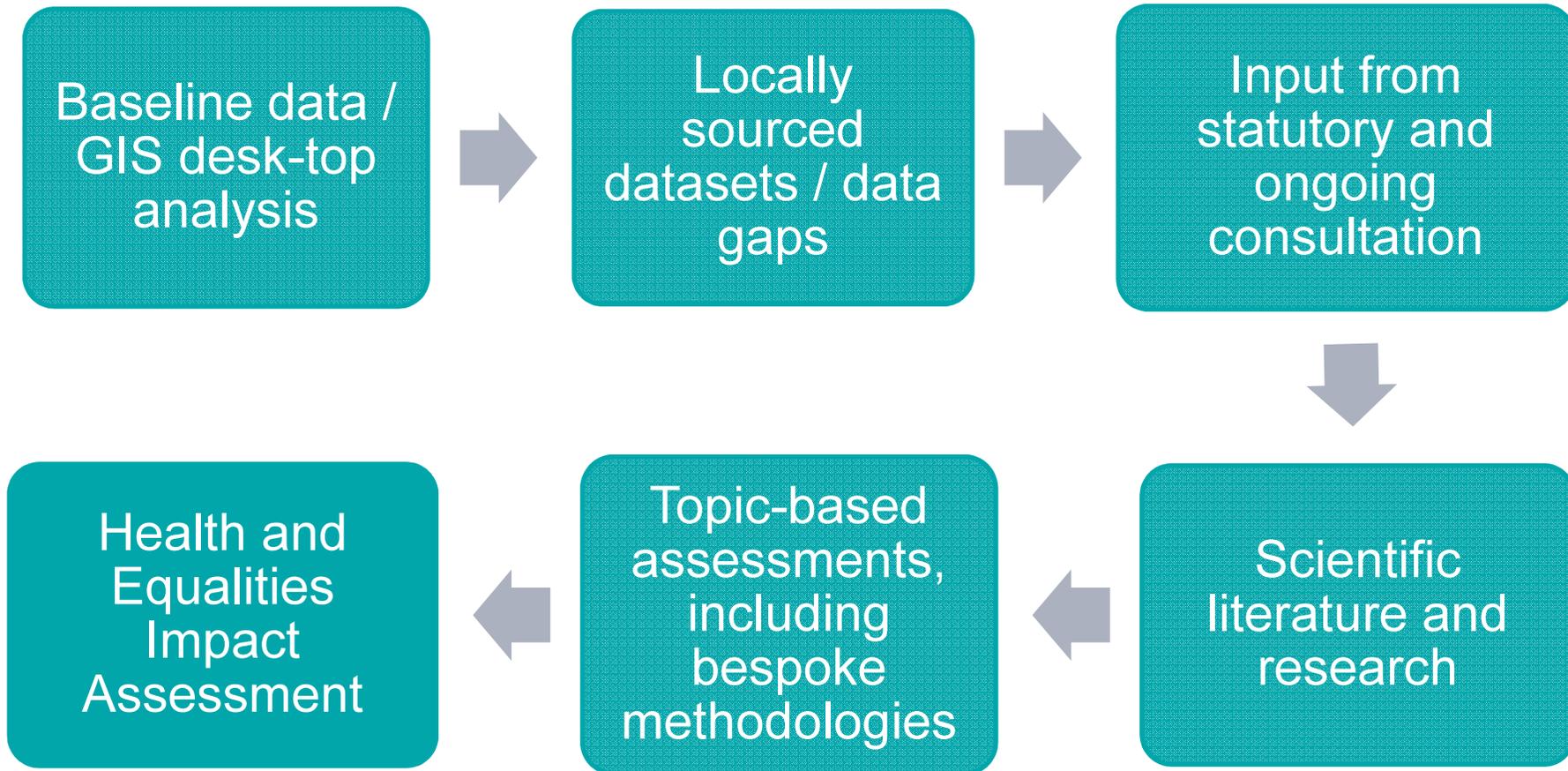


Welsh Health Impact Assessment Support Unit Guidance

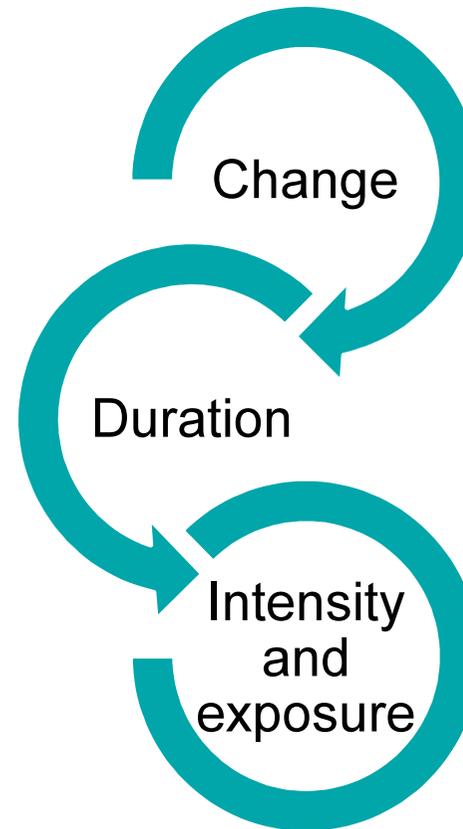
Key issues identified from high level baseline data supplied by Thurrock Council:

- § Health inequalities within Thurrock
- § Deprivation and associated health impacts
- § Social isolation – e.g. elderly people living on their own
- § Obesity levels – both children and adults
- § Health vulnerabilities including coronary heart disease and respiratory disease

Health and Equalities Impact Assessment - Process



- What aspect of the Project would cause the change?
- How might the health determinant change as a result?
- Would it be temporary or permanent?
- What is the magnitude of change in the health determinant?
- How many people are likely to be exposed?
- What about vulnerable populations?
- Possible mitigation measures?



Potential Health Impacts and Benefits

Construction

Air quality

Noise

Accessibility

Walking and cycling

Mental wellbeing

Potential Health Impacts and Benefits

Operation

Changes in air quality

Changes in noise levels

Impacts on pedestrians and cyclists

Access to services and facilities

Mental wellbeing

Next Steps.....

Questions?

Scheme	Approach to Air Quality & Noise	Comment
M4 Junctions 3-12 Smart Motorway	Use of ES data	No discussion of health outcomes Broad community profiling only
Silvertown Tunnel	ES data as starting point Quantitative analysis of AQ and noise health effects	Significantly smaller study area Risk of oversimplification for a larger area / that equality issues may be masked Question how meaningful findings are
A303 Stonehenge	Use of ES data HUDU matrix provided	No detailed discussion of health outcomes
Great Yarmouth Third River Crossing	Use of ES data No additional narrative	No detailed discussion of health outcomes Broad community profiling only