

Measuring health and wellbeing impacts

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Jenny Dunwoody
Katie Wood
Michael Towl

ARUP



FUTUREGOV

copper

 Grant Thornton



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Contents

This session will give an overview of the approaches that can be used to measure the impacts of interventions on health and wellbeing. This is drawn from the latest Green Book guidance.

The session will cover:

- Identifying health and wellbeing impacts
- Defining the baseline
- Quantifying health and wellbeing impacts
- Non-quantified health and wellbeing impacts
- Tools and resources

Definition of health

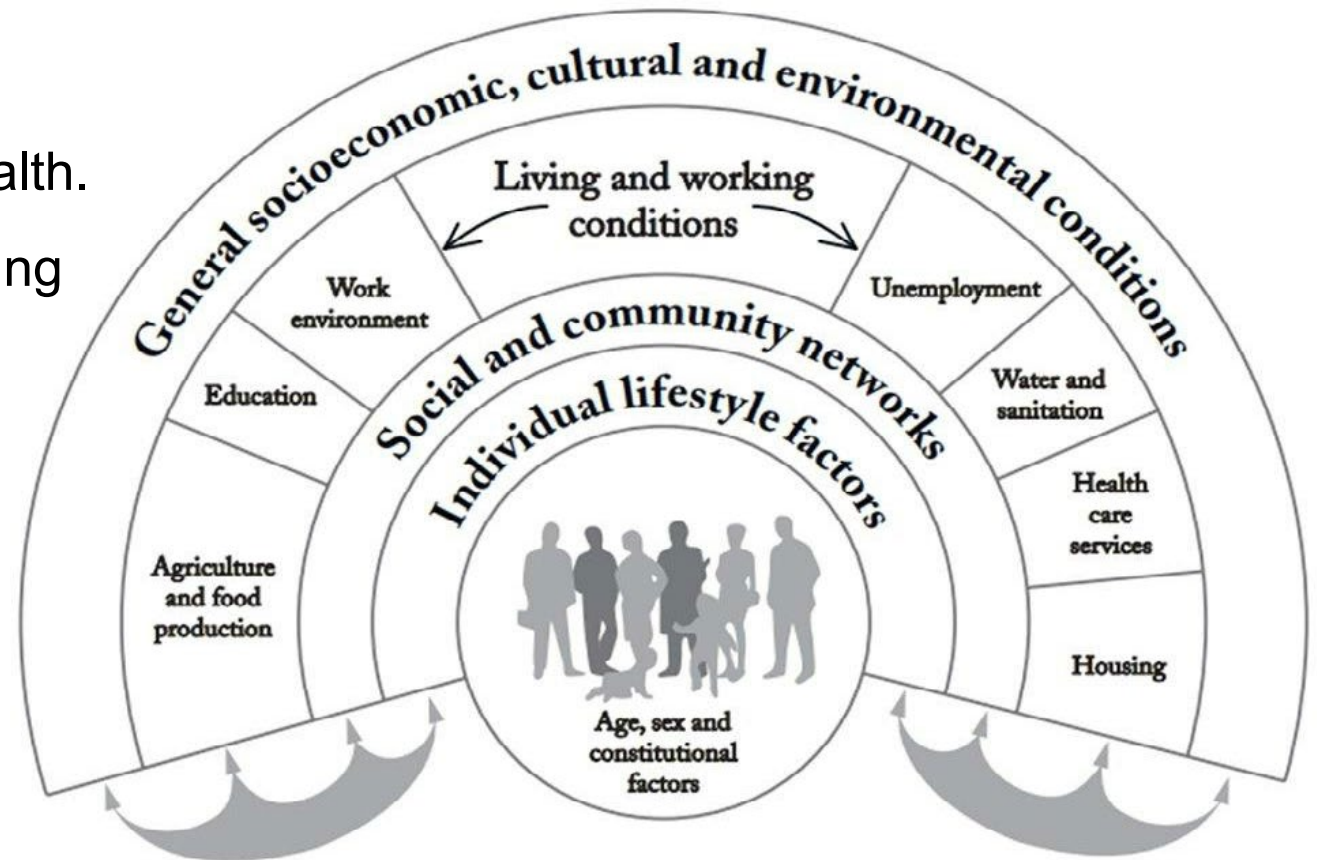
'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'

WHO, 1948

Wider determinants of health – the social, economic and environmental factors that influence people's mental and physical health.

Public Health England identifies the following determinants of health:

- The built and natural environment
- Education
- Income
- Work and the labour market
- Crime
- Social capital



Identifying health and wellbeing impacts

Link back to the **Strategic Case** and **Theory of Change** in the TIP

Context and need

- What are the health-related issues and needs?
- Who are the target cohorts, e.g. deprived communities, older people, children and young people?

Inputs and outputs

- What projects and resources are needed?
- What will you deliver?
- Who will benefit?

Desired outcomes for health improvement, e.g.

- Community resources
- Accessibility and connectivity
- Social capital / social cohesion
- Economic regeneration
- Lifestyle and behavioural changes
- Health and wellbeing outcomes

Identifying target cohorts

- Deprivation is a key determinant of health outcomes
- Covid has highlighted this issue and widened the gap



Identifying health and wellbeing impacts

- Include both positive and negative impacts
- Consider impacts on the determinants of health and health outcomes

Type of impact	Impacts on determinants of health, e.g.	Impacts on health and wellbeing outcomes, e.g.
Direct health impacts	<ul style="list-style-type: none"> • Physical activity • Diet • Exposure to noise • Exposure to air emissions 	<ul style="list-style-type: none"> • Obesity, heart disease • Respiratory disease • Diabetes • Life expectancy
Direct wellbeing impacts	<ul style="list-style-type: none"> • Social capital • Access to green space • Education 	<ul style="list-style-type: none"> • Mental and physical health and wellbeing
Indirect impacts	<ul style="list-style-type: none"> • Wider economic benefits – income • Crime and ASB 	<ul style="list-style-type: none"> • Mental and physical health and wellbeing

Defining the baseline

- May include:
 - Services, facilities and environmental quality
 - Behavioural factors such as levels of participation / uptake
 - Health outcomes
- Account for projected future change to define 'do nothing' base case, e.g.
 - Population trends (including impacts of covid)
 - Planned new infrastructure / housing

Services, facilities and environment, e.g.

- Physical environment (e.g. noise, air quality)
- Amount and quality of green space
- Availability and quality of facilities
- Type and accessibility of employment sites

Behavioural factors, e.g.

- User numbers
- Levels of participation
- Levels of exercise

Health and wellbeing status

- ONS Wellbeing indicators
- Health outcomes data – work with Public Health team to identify relevant data

Deciding which impacts to quantify

- Is the required data available?
- How robust are your data and assumptions?
- Which methodologies are available?
- Is the methodology compatible with the Green Book Guidance?
- Is the method proportionate to the intervention (in terms of resource and cost)?
- What is already being measured (to avoid double counting)?



Quantified benefits



Non-quantified benefits

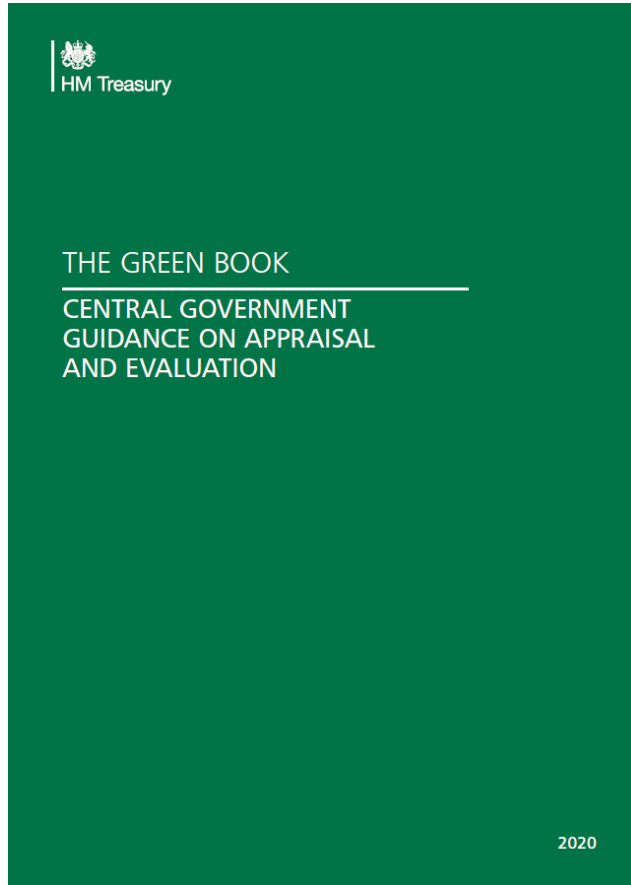
- Is the impact being measured important to the decision being considered?
- H&W impacts that can be monetised/quantified are not necessarily more important than those that can't. *Include all relevant benefits, whether quantified or non-quantified.*

Proportionality

- **What level of detail is needed for the economic case?**
- This will depend on factors such as:
 - The capital cost, risk and novelty of the project
 - Availability of detailed scenario definitions
 - Type of benefit and how easily they can be monetised
 - Distributional impacts – simple or complex
- The TFDP Proportionality Guide can help



Measuring health and wellbeing impacts



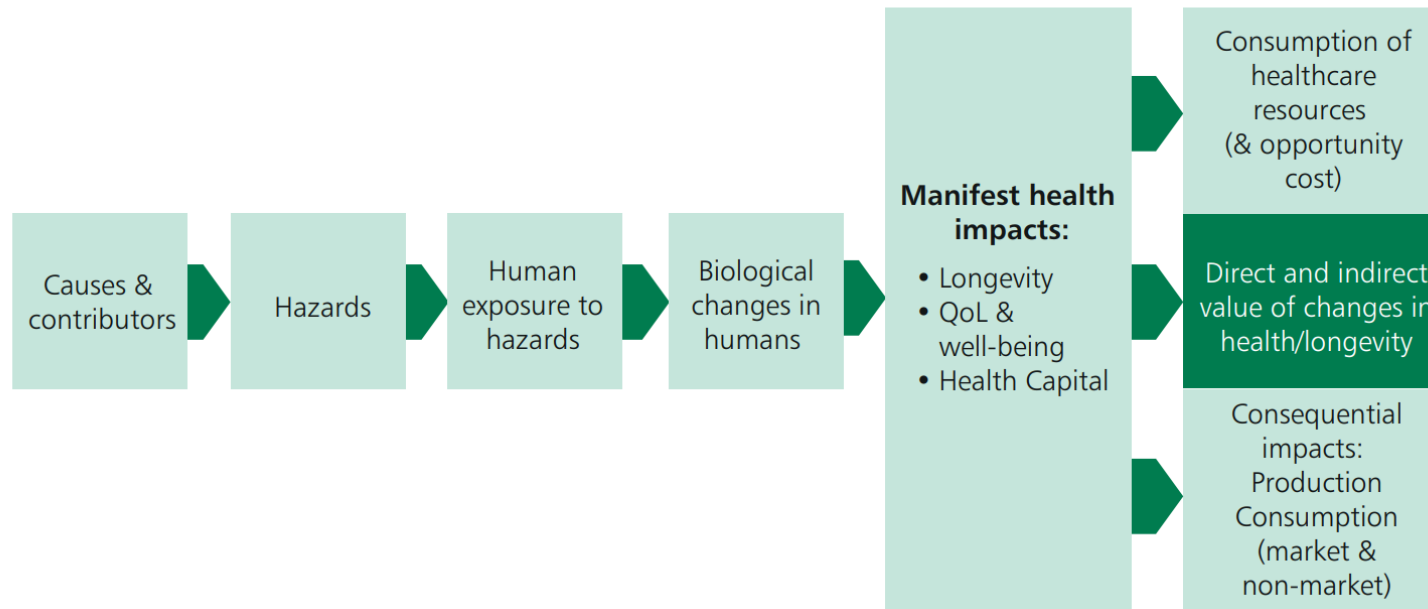
*'...The appraisal of social value, also known as public value, is based on the principles and ideas of welfare economics and concerns overall social welfare efficiency, not simply economic market efficiency. Social or public value therefore **includes all significant costs and benefits that affect the welfare and wellbeing of the population....** For example, environmental, cultural, health, social care, justice and security effects are included'*

(Paragraph 2.3, The Green Book 2020, HM Treasury)

Impact Pathway Approach

- Annex 1: Non-market Valuation - Life and health effects
- *Health affects the ability to produce and consume goods or services and the ability to derive welfare and well-being directly. The impact pathway approach is a way of structuring analysis of the effects of external factors from causes to consequences for health and life.*

Figure 11. The Impact Pathway Approach



- *‘The focus of appraisal should be on benefits and costs important to the decision being considered.’ (What matters most is not necessarily that which is most easily quantified.)*

Green Book approach to valuing health and wellbeing

Long-list approach

- Qualitatively describe the probable H&W effects of a feature and undertake CBA on two versions of the proposal with/without the feature.

Short-list approaches

- Monetised approach: Non-market valuation of social costs and benefits based on revealed preference (implicit price), stated preference (willingness to pay), or estimated from wellbeing responses.
- Monetised approach: Valuing risks to life and health
 - Value of Prevented Fatality (VPF)
 - Statistical Life Years (SLYs) – measure of life expectancy at population level
 - Quality/Disability Adjusted Life Years (QALYs / DALYs) – years of healthy life (longevity & quality)

The above approaches are resource intensive and may not be proportionate for all projects. Tools are available that provide values based on these approaches.

- Subjective wellbeing approaches, including:
 - Inclusion of wellbeing in Social Cost Benefit Analysis (CBA), where valuations are robust enough; or
 - Cost-effectiveness analysis (CEA) – compares costs for a specified wellbeing outcome
- Non-quantified description of H&W effects

Wellbeing Guidance for Appraisal

The 2021 Wellbeing Guidance for Appraisal (supplementary Green Book guidance) provides further advice on how to incorporate wellbeing into the business case process.

The definition of wellbeing is based on the ONS measures of personal, community and national wellbeing.

Wellbeing indicators are described in Annex A.

This includes *objective* measures, i.e. visible factors that can be measured, and *subjective* measures, i.e. self-evaluated 'personal wellbeing'

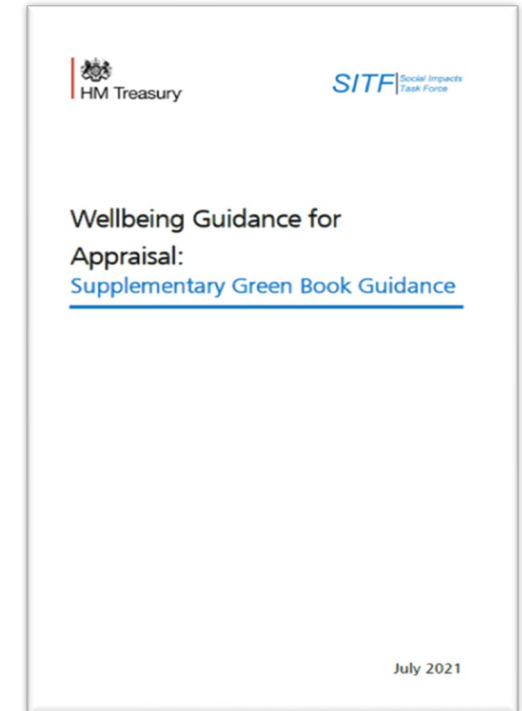


Wellbeing Guidance for Appraisal

- Wellbeing can be quantified through changes in 'Life satisfaction' using the ONS the 0-10 scale [ONS 0-10 scale](#)

0 to 4	Low	7 to 8	High
5 to 6	Medium	9 to 10	Very High

- A change in wellbeing on the above scale can be monetised by multiplying the change by the value of a 'Wellbeing Adjusted Life Year' (WELLBY)
- The recommended standard value of one WELLBY is £13,000 (based on 2019 values)
 - e.g. reducing life satisfaction by 0.4 for 1 year would have a value of $0.4 \times £13,000 = £5,200$ for each individual in the population
- Represents a population average willingness to pay and therefore applies equally to all income groups
- Losses and gains are valued equally – subjective wellbeing encompasses positive and negative effects
- For large changes in life satisfaction it may be important to consider the impact of diminishing marginal utility of income on valuations, which is not reflected in the WELLBY approach.
- Other monetised values for specific health outcomes are provided in the Table on p.61 of the guidance



Considerations for appraisal of health impacts

Existing health and social status

Those with existing poor health are likely to gain more from interventions to improve opportunities and conditions in relation to health

Diminishing marginal utility

Effect of an additional unit of benefit depends on how much the individual or population already has. Consider whether 'basic needs' are met.

Fairness and equity

Relative status may matter more than absolute status. Comparisons affect people's satisfaction with their situation. Look beyond averages and understand who is affected.

Direction of change

Negative effect resulting from the loss from an existing state may be greater than the positive effect from an identical gain.

Positive or negative reinforcement

Can lead to multiplier effects, e.g. education – ability to find work – opportunities for wider social connections and healthy lifestyle choices such as physical activity and engagement in cultural activities

Adaptation

Wellbeing effects may diminish as some changes become normalised over time. Apply Green Book 'health' discount rate which starts at 1.5% (years 0-30) and declines gradually thereafter

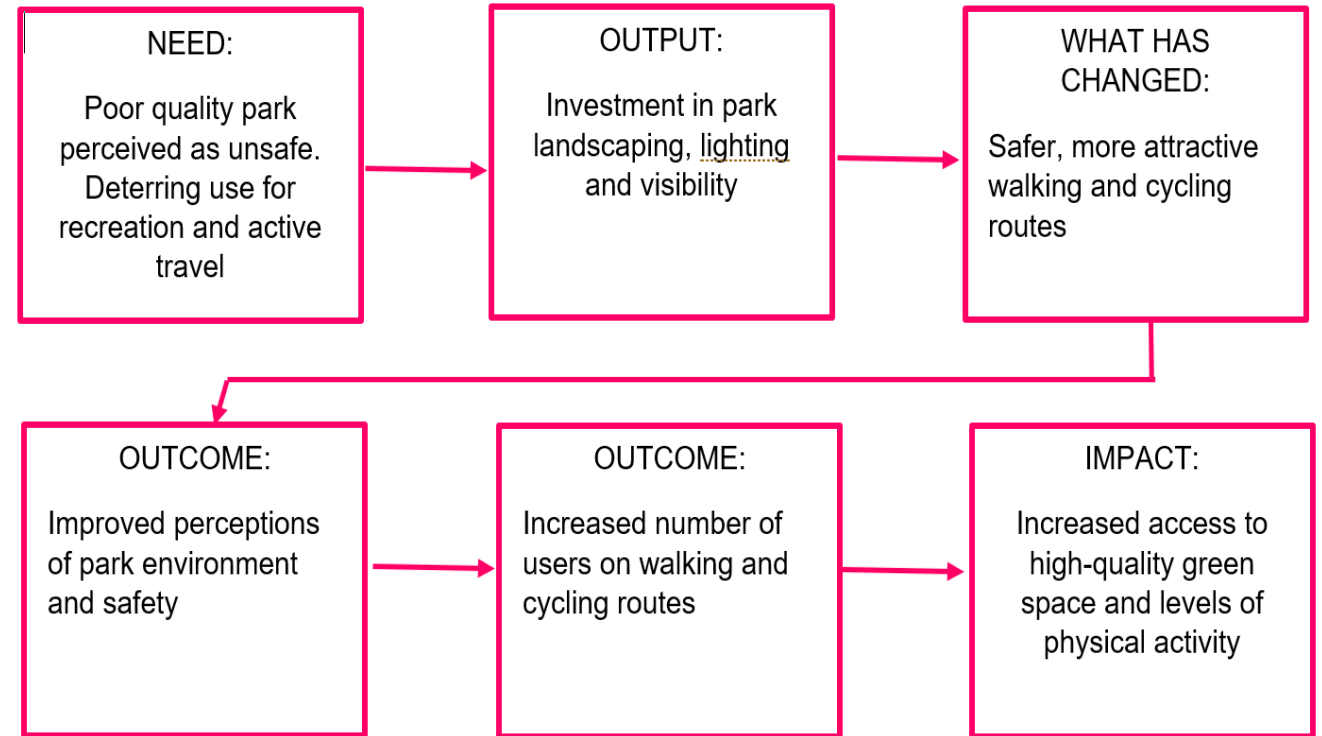
Avoiding overclaiming and double counting

- Ensure that only the **additional net gain** of benefits are taken into consideration. See Towns Fund Economic Case Best Practice Guidance for guidance on additionality (deadweight, displacement, leakage and substitution).
- Consider what other methods are being applied to avoid **overlap** and **double counting**. For example:
- Other Green Book Non-market Valuation methods:
 - Air quality – (Defra guidance on damage costs) - health, quality of life
 - Noise – (Defra guidance gives appraisal values for different transport sources) - health and wellbeing
 - Outdoor Recreation Valuation (ORVaL) Tool – visitation rates and recreational welfare benefits
 - Amenity (hedonic valuation based on property values) - noise, dust, odour, landscape and visual
- Transport Analysis Guidance (TAG Data Book) and Active Mode Appraisal Toolkit - connectivity, amenity, noise and air emissions, accidents
- Culture and heritage (DCMS and Arts Council guidance) – wellbeing, identity, sense of place
- Land value uplift (MHCLG Guidance) – amenity, quality of life, community cohesion, social benefits
- See Figure 6 of Wellbeing Guidance for Appraisal for an illustrative example of how to avoid double counting

Non-quantified benefits

Unquantified benefits are an important part of the Economic Case. It may not always be proportionate (effort or cost required) or possible to quantify all benefits. No specific format or method is required by MHCLG, but there are steps that can be taken to show that these benefits are robust and evidenced:

- Show a **benefits map/logic model/detailed theory of change** for the project benefits and disbenefits.
- Identify any **additional activities which need to happen in order to achieve the benefit** (i.e just because a new arts centre is built, does not necessarily mean that this will increase cultural participation). Ensure these are included in the project scope and plan if they are going to be claimed as direct benefits, otherwise they should be claimed as indirect or enabled benefits which require a further project or works to be delivered
- Identify **beneficiaries** for further robustness
- Specify the **magnitude and certainty** of the benefit
- A **benefits register** should be provided as part of the Management Case



Tools and resources

- Greater Manchester [CBA model](#)
- HACT [Mental health social value calculator](#)
- What Works Wellbeing [How to measure your wellbeing impact \(2018\)](#)
- Sport England [Measuring impact](#)
- WHO/Europe [Health Economic Assessment Tool \(HEAT\) \(active travel\)](#)
- Public Health England [Health economics evidence resource](#)
- Public Health England [Wider Impact of Covid on Health monitoring tool](#)

- The table on p61 of the [Wellbeing Guidance for Appraisal](#) provides additional data and research, including monetised values, linked to the ONS dimensions of wellbeing

- [Towns Fund Economic Case Best Practice Guidance](#)

Questions for Towns

- Are you / will you be measuring H&W impacts in your business case? (Show of hands)
- Can you share your experience – what methods have you used, what issues have you encountered?

Questions?