In recent years a good deal of work has been undertaken to reconnect the planning and public health professions. The return of the public health workforce to local government in England and the higher profile given to health and wellbeing in the National Planning Policy Framework have both brought new momentum to this work. In March 2014, the Government published its National Planning Practice Guidance, which reiterated that ‘Local planning authorities should ensure that health and wellbeing, and health infrastructure are considered in local and neighbourhood plans and in planning decision making’.

The TCPA’s Reuniting Health with Planning project has generated both detailed guidance for planners and public health specialists and an analysis of the challenges and opportunities facing the two professions at a time when the opportunity for closer working is greater, at least in unitary authorities, but budgets are under pressure. A recurrent theme in the TCPA’s work has been the challenge of finding, generating and using appropriate evidence to make the case for spatial planning interventions that seek to improve health and wellbeing. The 2012 guidance, Reuniting Health with Planning, recommended that planners and public health specialists develop a
collaborative evidence base. However, it also acknowledged that this area of work needs further development at local level.

This article describes some of the key issues relating to evidence that have emerged as planners and public health specialists have stepped up their efforts to pursue health and wellbeing outcomes through the planning system. It goes on to describe the case study method as a suitable approach to evaluating the impact of planning decisions on health and wellbeing.

Issues with evidence

Evidence is important to the work of public health specialists and planning professionals alike. But these two professions value evidence in different ways.

The work of public health specialists is driven by two key sources of evidence: data about the health needs of the local population, compiled in the Joint Strategic Needs Assessment (JSNA), and research evidence about what interventions are effective in addressing these needs. Although public health specialists may resist a ‘medical model’ when making sense of these needs, focusing as much on the social causes of ill health as on the organic causes, they share with the wider medical profession a commitment to pursuing strategies that are demonstrably ‘evidence-based’. They typically rely on international reviews of hundreds of academic studies to decide how best to act, although the evidence available to inform decisions varies in quality and quantity, depending on the specific policy area.

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Planners also ground their work in a description of the local population. However, they are more interested in demography, population trends, housing supply and spatial characteristics, all of which are key ingredients of a Local Plan. When it comes to development proposals, planners look for evidence that is specific, local and clearly linked to planning policy. The constraints of the law, it cannot be taken into account in a decision on a planning application. Nonetheless, the scope of relevant evidence is broad; data which illuminate the local context, provide insight into public attitudes and strengthen cost-benefit arguments are all valued by planners.

Although there is a good deal of overlap between these interests, difficulties arise at the sharp end of planning practice. In particular, broad-based evidence from the academic literature about the long-term health outcomes of spatial design interventions does not translate easily into a calculation of the specific benefits and cost savings in an area where a development is proposed. Consequently, such evidence can be difficult to use to counter the location-specific and carefully costed arguments put forward by developers.

Conflicts arise not just between health outcomes and commercial outcomes but also between different health outcomes. For example, green space is a key ingredient of ‘active design’, but in some circumstances there may be a health argument for losing open space to new development: good-quality new housing is important to health and wellbeing in areas of housing need, and commercial development creates opportunities for employment which may improve the wellbeing of those who are seeking work, given reasonable working conditions. Such strategic choices about long-term spatial planning priorities may therefore be, in effect, decisions about which health and wellbeing outcomes to prioritise.

Given these issues with the available evidence, the case for planning for health has to be carefully made. Where possible, health-improving interventions should align with the broader interests of planners and developers as this will help to secure their inclusion in new proposals. The case is harder to make when such health-improving interventions constrain development, for then they are likely to be challenged by developers, who may be quick to argue that such interventions undermine the economic viability of their proposals or conflict with other objectives that planners are obliged to take account of. There ought, however, to be a bottom line: if a proposed development not only fails to promote health and wellbeing but is likely to cause harm to public health, it should not proceed unless mitigating measures are included.

Building the local evidence base

If planning committee members are to be better persuaded to promote health and wellbeing through their decisions, officers need to build a local evidence base that balances headline evidence of the relationship between planning decisions and health with local evidence that illuminates local needs and local success in promoting health and wellbeing.
Ideally this evidence will include a portfolio of linked resources. The first of these are the JSNA and the Local Plan. The potential for the JSNA to highlight needs that can be addressed through planning decisions has been well documented, and the more that the JSNA describes these needs spatially, the more useful it is likely to be to planners. A clear description of the health needs of a community where a new development is proposed provides planners and public health professionals with a concrete starting point for making their case for health-improving design. The Local Plan is useful in describing the contextual factors that affect health, such as housing supply and the quality of the environment.

The needs of a local community can also be described through community surveys and consultation. Local authorities, and planners in particular, are familiar with these methods. These can be especially useful in describing public experience and views in areas that are too small to be distinguished by the data in the JSNA.

Evidence about need has to be matched with evidence about interventions designed to address need. The literature describing the links between spatial planning and health is now well documented and summarised. Key sources are the Marmot report on health inequalities, Fair Society, Healthy Lives, and the subsequent summary of the implications of the report for spatial planning produced by the Marmot team for the National Institute for Health and Care Excellence (NICE). Reviews of the evidence have also been published by the King’s Fund, the World Health Organization and the Local Government Group.

This academic evidence is far from done and dusted. Some of it is still weak, some of the mechanisms by which outcomes are achieved are disputed, and there are some areas where little research has been undertaken. In particular, there is a lack of good-quality research about how specific interventions affect social inequalities in health, illness and mortality. Nonetheless, the core evidence is in place, demonstrating the importance to health, mental health and wellbeing of safe open spaces, green and blue spaces, clean air, protection from traffic, access to fresh food, warm housing, and community participation.

In a perfect world, the evidence of need and the evidence of the effectiveness of interventions would come together seamlessly to offer a clear picture of the benefits and savings of health-promoting planning decisions for a particular locality. In practice, this is where the trouble begins, given how difficult it is to predict the long-term health outcomes of any design decision. This problem can
be addressed both through modelling and through the evaluation of local developments that are designed to promote health and wellbeing. Both approaches require a rigorous assessment of how any intervention will actually lead to measurable changes in health and wellbeing.

**Evaluating new developments: the case study approach**

The world in which planning decisions are made and new developments take place is always complex, with many forces at play. The range of possible social, economic, environmental and health outcomes of any planning decision is considerable. What works in one context may not work in another, so locally generated evaluation results are always likely to be more persuasive to members and officers in a local planning authority than results imported from studies elsewhere. It is precisely because context is so important that it is worthwhile developing a genuinely local evidence base. Although there are likely to be many variations in context within the administrative boundaries of a local planning authority, these variations will be understood locally and will be easier to account for than the much bigger variations across studies from elsewhere.

The case study is a research method that is well suited to capturing the complexity of real-world change, and is the method of choice when the phenomenon under scrutiny is not readily distinguishable from its context. There are different types of case study with different goals but, in the local planning context, the goal is instrumental: the point of doing a case study is to learn lessons that will improve future decision-making and practice. A case study is ‘the intensive study of a single case... to shed light on a larger class of cases’. A case study does not attempt to isolate the intervention and assess its effectiveness independently of other factors, but rather tries to gain insight into the value of the intervention within a given social world. It is a ‘naturalistic’ rather than an experimental design and should be valued as such.

An advantage of the case study method is that it can be relatively straightforward to conduct. It need not add a huge burden to the existing workload of planners and public health specialists in local authorities. As long as any study is carefully planned at the outset, the work involved in collecting and assessing the data need not be onerous, especially if there is a broader interest within the planning department in describing the implementation and outcomes of planning decisions.

**Defining the case**

An initial step in any case study is to define the case. In a planning context, this is likely to be a specific geographic area within which some form of development is going to take place. This area will define the resident population whose health and wellbeing will be the focus of the evaluation.

Case study evaluation is best undertaken when the size of the development is such that any benefits are likely to be felt by existing residents in the area as well as by any new residents occupying newly built homes, as this allows an assessment of health before and after the intervention. However, there is also value in tracking the changes to the health and wellbeing of new occupants.

Once the case has been defined, an initial health and wellbeing profile of the population within the case can be described, drawing on data from the JSNA, the Local Plan and other local sources. In the context of evaluation, a health and wellbeing profile is valuable not only in providing a baseline account of the health and wellbeing of the population under study but also in describing the diversity of routine indicators that can be used to measure progress.

Public Health England’s local health profiles provide a useful view of routine indicators of health and wellbeing at local authority, ward and middle super output area levels (www.localhealth.org.uk/) and the Neighbourhood Statistics website of the Office for National Statistics describes a wider range of local indicators (www.neighbourhood.statistics.gov.uk/). For details of many other sources of local data, see the Public Health England Data and Knowledge Gateway (http://datagateway.phe.org.uk/).

If an evaluation can proceed using such routine indicators, the effort and cost required is greatly reduced. In practice, however, an evaluation of a local area is likely to require some additional research, such as resident surveys and interviews. Because of their inherent complexity, case studies usually rely on multiple sources of evidence.

Many routine indicators are only reported on an annual basis. A case study evaluation into health and wellbeing impacts ought therefore to span at least two years. The time period of the study should be clearly defined at the outset, but should be open to review as the case study proceeds.

**Theories of change**

When a health-promoting intervention of any kind is specified within a planning process, the decision is likely to be the outcome of a convergence of evidence, policy, guidance, good practice, and members’ and officers’ own experience and priorities. The mechanism of action whereby the intervention will deliver benefits to the health and wellbeing of the local community may not be fully theorised or articulated. However, if an evaluation is to be useful, a model is needed of how outcomes will actually be achieved. This is the heart of a good case study: theorising the detailed mechanisms of change that lead to desired outcomes within the given local context. Unfortunately, it is a feature of case studies
that is frequently omitted and so makes comparison between them extremely difficult.\textsuperscript{15}

One way of articulating these theories of change is to use a ‘logic model’. This is simply a map of the context, mechanisms and outcomes which allows all stakeholders to consider how outcomes will be achieved and what other factors might affect them, for better or worse. Fig. 1 illustrates a logic model that describes how the inclusion of space for a community garden in an estate masterplan for the

\begin{figure}[h]
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\includegraphics[width=\textwidth]{logic_model.png}
\caption{Logic model: health and wellbeing outcomes from designating space for a community garden in an estate masterplan.}
\end{figure}
renovation of an estate can potentially deliver improvements in physical health, mental wellbeing, social cohesion, and community safety. The model includes an assessment of the risks and obstacles that may impede success and/or lead to undesired consequences.

In order to make explicit the anticipated chain of events that will deliver hoped-for outcomes, a logic model will usually include a range of intermediate outcomes. These are vital to the evaluation because their impact on the high-level outcomes may be too weak to identify a specific change in the latter, especially if other factors are also affecting these outcomes. Given this problem, which is common to many public health evaluations, intermediate outcomes should be valued as proxy indicators of success.

For example, Fig. 1 includes the intermediate outcome ‘Good cross-section of estate residents among participants’. This outcome is important because a reduction in inequalities on the estate – one of the high-level outcomes – will only be achieved if relatively disadvantaged residents participate and benefit from the intervention. This example highlights the importance of addressing equity issues within an evaluation and more generally within the design of interventions. There is always a risk that an intervention designed to improve the health and wellbeing of a local community will not benefit all residents and may even disproportionately benefit those who are already in better health, thereby increasing inequalities. In order to reduce inequalities, interventions ought to be targeted in proportion to the needs of disadvantaged population subgroups in the local population.

Conducting the evaluation

The point of an evaluation is not only to get evidence of impact but also to gain insight into how outcomes are achieved. Consequently, the collection of routine quantitative data should be complemented by qualitative investigation, where appropriate, and by multi-disciplinary review.

A case study is best overseen by a small steering group of stakeholders including planners, public health specialists, local residents and community leaders. The role of this steering group is not only to ensure the proper conduct of the study and the collation of the evidence, but also to reflect critically on findings and identify lessons for the future. In any case study of the impact of planning interventions, it is likely that the original logic model will change significantly over the course of the study in the face of unexpected events and outcomes. Recording these changes is a vital part of the evaluation.

The key steps of a case study, not necessarily in this order, are:

- Defining the case and the research questions, which are made explicit in the logic model. (Will intervention x lead to outcomes a, b and c? How are these outcomes achieved?)
- Describing the baseline health and wellbeing profile, including contextual data, and identifying routine indicators that can be used to monitor progress.
- Defining additional research methods, such as local surveys and interviews, that will ‘plug the gaps’ left by the routine data and provide qualitative insight into what is happening on the ground and why.
- Undertaking research and collating and analysing the data on an ongoing basis. All personal data should be anonymised unless there is prior agreement otherwise.
- Critically reviewing the evidence and the logic model, exploring how initial theories of change stand up to the emerging evidence, and developing revised or wholly new theories of change.
- Communicating the findings in a manner that values all outcomes, including intermediate outcomes, describes the context of the intervention in detail, and, as far as possible, makes sense of what happened.

Throughout the case study, the evaluators should be seeking not only to describe what is happening but also to explain why certain outcomes are achieved and others are not. This is where the multidisciplinary group is most important: the perspectives of local people, who see what is happening day-to-day on the ground, will be just as important as the perspectives of professionals who can look to the wider literature to make sense of what is going on.

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This diversity of input makes the case study more methodologically robust as the findings do not rely on a single interpretation of events. Competing ideas can be tested against the evidence. A case study will also appear more robust to outsiders if it is transparent, i.e. if a clear record is kept of everything that is done to obtain and analyse data.

‘A case study... offers planners and public health specialists a means of expanding their local evidence base with real data about the impact of development decisions on the health and wellbeing of the local population’

Conclusion

The case study method is ideally suited to the highly context-dependent circumstances of planning interventions. It potentially offers an account of how the broad evidence of the effects of spatial planning interventions on health translates into real change in specific localities.

Although a case study is not an experiment, it can be used to explain as well as to describe what is going on in a given context. A case study is a rigorous method which brings together a detailed description of context, mechanisms and outcomes; a theory of how outcomes are achieved; empirical evidence of what outputs and outcomes actually arise; and a process of critical review to deliver insight into what has actually happened. It offers planners and public health specialists a means of expanding their local evidence base with real data about the impact of development decisions on the health and wellbeing of the local population.

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Notes


