Technical Briefing 4

ASSOCIATION OF PUBLIC HEALTH OBSERVATORIES

APHO

Target setting in a multi-agency environment

Purpose

This is the fourth in a series of technical briefings produced by the Association of Public Health Observatories, designed to support public health practitioners and analysts and to promote the use of public health intelligence in decision making.

In this briefing we look at key issues to consider when setting targets in a multi-agency environment, including the choice and use of appropriate methodologies, indicators and statistics, and consideration of the wider political and ethical context. Further material to support the series is available at http://www.apho.org.uk

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Acknowledgements

Introduction

What is a target?

The Audit Commission defines a target as 'a time bound desired level of improvement'.[1]

EXAMPLE: Following on from the Government's 2004 spending review, the Home Office formulated a five-year strategy in order to achieve the targets specified by seven Public Service Agreements. This included a target to 'reduce crime by 15%, and more in high crime areas by 2007/08', using March 2005 as a baseline.[2]

Why are targets needed?

Targets can help clarify what is being aimed for and make explicit expectations of performance for those providing services. Targets also help set priorities and provide a means to judge achievements. One of the main reasons for using targets is to monitor the impact made by an intervention, process or practice. Even if a target is not ultimately achieved, the process of setting it often provides an incentive to improve performance and helps focus attention on the issue.

Types of targets

Not all targets are alike, even ones that are based on the same indicator.

Aspirations: long-term priorities and goals. These do not necessarily have targets or stated timescales built into them.

EXAMPLE: To improve the health and wellbeing of a population. This may or may not be achievable over the short- to mid-term but is still a desirable aim.

Top down: some targets are set by national or regulatory organisations. However, increasingly there are opportunities for discretion in specifying local targets, taking into account the needs of the local community while simultaneously contributing to national goals (see Box 1).

Stretch: a 'stretch' target is where the target is increased or stretched so that it is even more ambitious than the original and aims to achieve greater outcomes, usually with a stated reward as an incentive.

EXAMPLE: If the national target is to reduce the under-18 conception rate by 50%, a local authority could negotiate with the government an increased target of a 60% reduction, alongside increased investment and then an agreed financial reward if the target is achieved.

Setting targets in a multi-agency environment

Agreeing joint targets across several agencies is challenging, as organisations have different priorities and standards of performance. As performance improves and trust between organisations builds, a shift from nationally- to locally-set targets is easier to achieve.

Box 1: Local Area Agreements

A new performance framework for local authorities and their partners in England was introduced in 2008–09. Local Area Agreements set out priorities for a local area and are agreed between central government, a local area (the local authority and Local Strategic Partnership) and other key partners at the local level. From April 2008, a single set of 198 performance indicators replaces existing performance indicators. Each Agreement will include up to 35 targets from among the national indicators, complemented by 17 statutory targets on educational attainment and early years. The national indicator set are the only measures central government will use to performance manage outcomes delivered by local government working alone or in partnership.

Definitions of the indicators have also been published and have allowed stakeholders an opportunity to give views on the methodology, frequency of reporting and data sources used. These indicators have been chosen with Public Service Agreements (PSAs) in mind and are grouped into various themes: stronger communities, safer communities, children and young people, adult health and wellbeing, tackling exclusion and promoting equality, local economy, and environmental sustainability.

Source: Department of Communities and Local Government (DCLG)[3]

Key tasks in setting a target

Target setting can be split into three stages:

Scoping – deciding what the target should cover and what measure (indicator) to use for monitoring.

Gathering baseline data – collecting current and historical information about the issue to be addressed.

Pitching – deciding on the size of change to aim for.

Stage 1: Scoping

What are you trying to achieve?

Pinpointing exactly what different agencies want to achieve (the outcome) is a key step in the target-setting process.

Examples include:
• Raise the educational achievement of children and young people.
• Reduce the harm caused by alcohol and drugs.
• Improve street and environment cleanliness.

In a multi-agency environment, targets need to reflect partnership organisations' desired outcome(s), which in turn may reflect national requirements and/or local needs. If a target is being designed to measure the success of a proposed intervention, then it must be reasonable to expect that the intervention will have a demonstrable effect on the chosen outcome(s). This may seem obvious, but it is not always a straightforward matter. The value of using a set of agreed outcomes lies in the focus they provide across agencies or projects. Targets also require a plan for implementation – without one, monitoring may be difficult or even impossible.

Choosing a 'good' indicator

In order reliably to keep track of progress on a target, you need to have an indicator that accurately captures information about it. Often, this will be determined by external policy and/or objectives. The main consideration is whether the chosen indicator measures what you think it measures and not something else. This is an issue of validity. Rather than devise a new indicator it may be prudent to adopt one that is already defined and recognised. In this way, you not only ensure that you are measuring things in the same way as everyone else but you are also saving yourself time by not having to collect the information.

Using 'off the peg' indicators may not always be an option, but before pressing ahead and opting to create a new one, you need to take stock and think about why no-one else has so far done so. There is no value in opting to use an indicator that is difficult to obtain or expensive to collect. Frequency of collection is also relevant. There is little value, for instance, in using a census measure to cover a short time period, given that the census is only updated every ten years. Another common pitfall is choosing an indicator and then realising that you don't know whether you want it to go up or down, as it is not always clear whether a high value is 'good' or 'bad'. For example, a high rate of drug misusers in treatment may reflect either good service quality and provision or a genuine public health burden.

How many indicators?

There is no magic number of indicators that should be used in a given situation: too many and there is a danger that a small number will be pursued at the expense of others, too few and it may not be possible effectively to balance the range of needs – for example, local with national needs. In practice, the number agreed is usually a compromise. The English Local Area Agreements (LAAs) for 2008 allow a maximum number of 35 indicators to be specified (see Box 1).

Box 2 provides a checklist of questions to ask when considering which indicator to choose. For a fuller discussion of how to use and choose indicators, see the Association of Public Health Observatories and NHS Institute for Innovation and Improvement's *Good Indicators Guide.*[4]

Stage 2: Gathering baseline data

A **'baseline'** is a reference value against which future progress is to be judged. The baseline corresponds to the value of a specific indicator (such as mortality from circulatory disease) at a defined period of time (such as 2004–06) for a particular geographic area (such as a local authority). A **'benchmark'** is a reference value against which an indicator is to be compared. For instance, this could be mortality from circulatory disease at a larger area of geography, such as a county or a Government Office Region, against which our baseline indicator at local authority level could be compared.

Understanding the issue

Once the scoping is complete, you will need both current and historical data to judge the extent of the problem you are trying to address. Historical data can be used to ask questions such as: Has there been an increasing or decreasing trend? Are there seasonal patterns? Have the data been stable?

The context of these patterns also needs to be considered. A falling trend does not necessarily mean that this downward trend will continue in the future. For example, a falling trend in coronary heart disease may reflect a range of newly introduced interventions over time. It is false to assume that this trend might continue to fall even if we 'do nothing', as maintaining the downward trend in the future might require the continued introduction of new interventions.

When reviewing historical data, it is important to be aware of any changes that have occurred in terms of the definition or data collection methods. These changes can introduce apparent jumps in a time series of data, not necessarily because of changes in underlying prevalence but because of changes in the way things are counted.

Time series patterns

Some examples of the different types of data patterns over time are provided below.
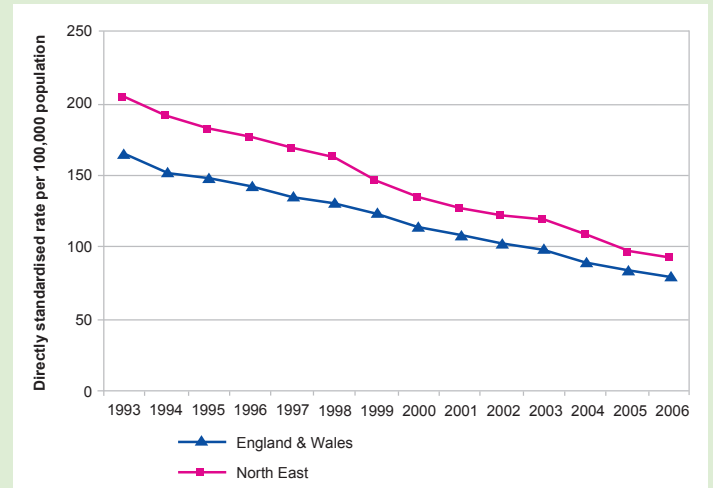
A time series with a **seasonal pattern**...

Figure 1: Seasonal patterns of emergency admissions in the South West, 1999–2004.
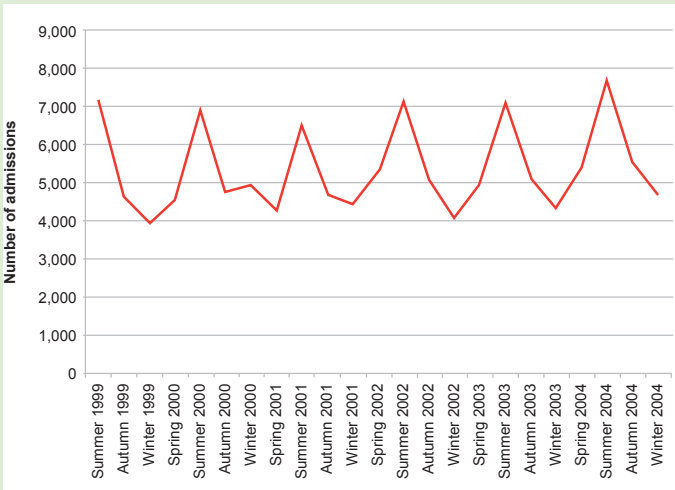
Source data: Hospital Episode Statistics

A time series showing a **decreasing trend**...

Figure 2: Directly standardised rates of circulatory disease mortality per 100,000 population aged under 75, 1993–2006.

Source data: Office for National Statistics

A time series showing discontinuities due to changes in the **way data are collected**...
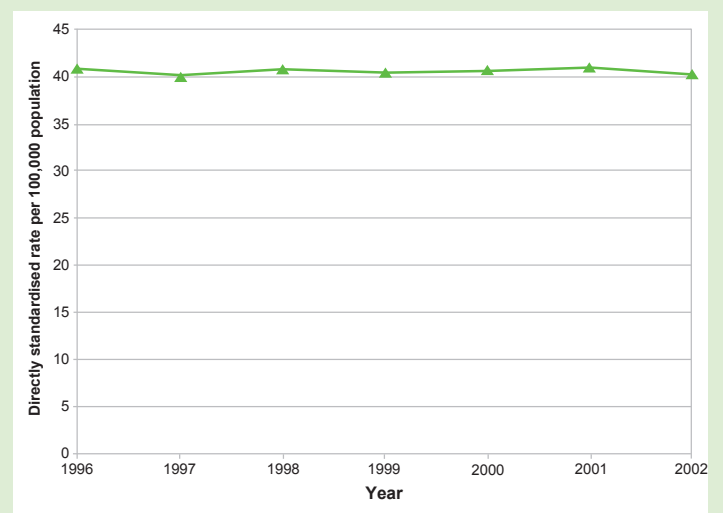
Figure 3: Number of recorded 'violence against the person' crimes in England and Wales, 1980–2006/07.
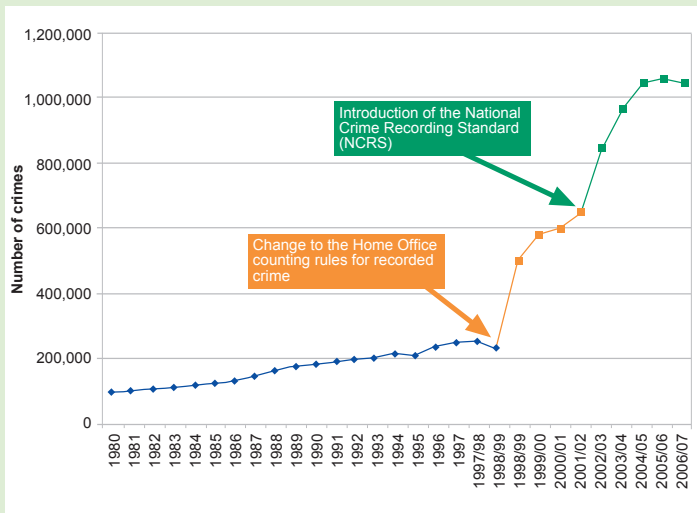
Source data: Home Office

A time series where there appears to be **little apparent change** through time...

Figure 4: European age-standardised mortality rate for all injuries, Scotland, 1996–2002.

Source data: Injury Observatory for Britain and Ireland

Stage 3: Pitching the target

How to set an achievable target

It is not easy to determine whether a target is achievable but investigating past and current indicator values and the variation that is exhibited may help.

Various techniques exist to help us understand historical patterns and make forecasts. Graphing historical data is important and can be used to check whether there is a single trend across the period studied. Using information about the situation and thinking sensibly about what might happen in the future is a good start to forecasting. Though useful for exploring historical trends, regression analysis suffers from some limitations when used for forecasting (or extrapolation of trends).[5] Specific forecasting techniques will usually be more appropriate.

Other techniques such as statistical process control (SPC) can also be used to assess current performance by comparing observations against reference lines, taking into account variations around an average. Whenever the 'observed' value drifts out far from this average, a 'warning' is flagged up. SPC methods are discussed in more detail in the second Briefing in this series.[6]

Forecasting

Past data can be used to estimate a range of likely future values. The general principles behind forecasting are summarised in Figure 5, which shows steps toward a target with a downward trajectory. Plotting data is an invaluable aid in gauging progress towards meeting a target. Frequently, it is assumed that the reductions or increases specified by a target are achieved linearly but this is not necessarily the case.

SMART targets

It is widely accepted that targets should be SMART – specific, measurable, achievable, realistic and timed. Box 3 gives an explanation of these terms and examples of SMART and not-so-SMART targets.

Expressing the target

There are many ways in which targets can be expressed:

Absolute: reduce the number of road injuries and deaths by 200.

Proportional: reduce the number of smoking-related deaths by 10%.

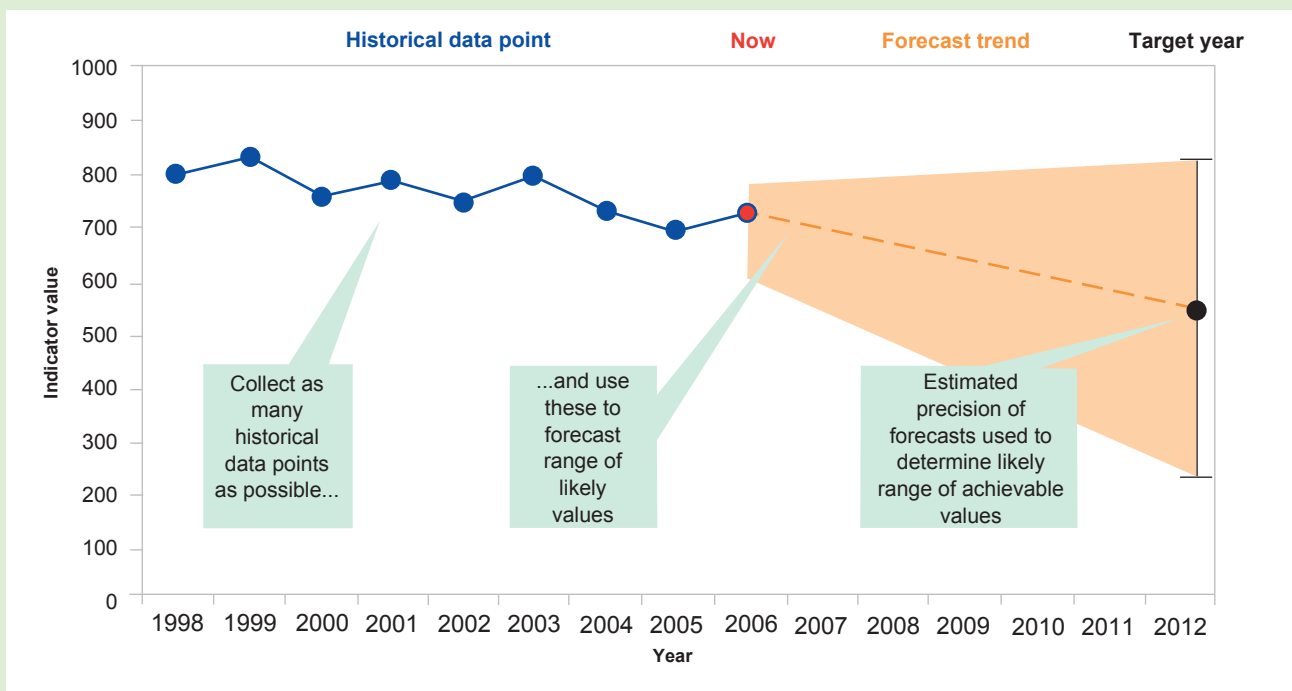**Relative to a benchmark:** reduce the rates of domestic burglaries in a ward to the borough-wide average.

Relative to expected level: reduce public order incidents by 15% relative to expected background trends.

Relative to cost/value for money: save twice the amount invested in reducing damage to void properties.

Tied to a tolerance threshold: aiming to reduce a risk to a certain threshold value (such as 5% or less).

The way you choose to express your target will depend on the nature of the data, the indicator you have chosen and your original objectives.

Figure 5: Key steps in using forecasting to help set targets.

Using targets in practice

Setting targets is not just a technical exercise, it involves understanding the realities of the 'real-world' context in which the target is being set and in which interventions to meet the target will be agreed and implemented. The following are key issues that should be considered. Box 4 provides a target-setting checklist that is particularly useful when working in a multi-agency environment.

Accountability

Any potential improvement arising from the use of targets is increased if identified officials assume responsibility for the targets. Extra care is needed in a multi-agency environment, as each agency needs to be clear about its own responsibilities for delivery of a target.

Political and ethical drivers

Targets may be imposed at a national level or as a means of meeting the needs of local populations. In these cases, the need for targets is partly a reflection of political considerations at national and/or regional level.

'Gaming' (perverse incentives)

Gaming may arise when an indicator has been introduced that does not adequately capture the complex process it is attempting to represent. For example, a target specifying that all patients will be seen at A&E within 15 minutes of arrival may result in skilled staff being employed to say 'Hello'. Clearly, if the target had specified that patients had to be seen and *treated* within 15 minutes there would be far less room for manipulation.

Another consideration is whether the attainment of one target is at the expense of others. Uptake of smoking cessation services is higher amongst affluent individuals than amongst the more deprived. This risks widening the inequality in health between the most and least deprived members of society. To guard against this it is useful to consider clusters of indicators which will provide a more rounded picture of the process under consideration.

Awareness of targets

For targets to have practical value their aims and objectives need to be plain to all, be they partner organisations, service providers or the public. Clear communication of targets may prove challenging, particularly if they represent complex processes. Even if SMART targets have been used, it may be sensible to consider publication of two versions – one in plain English for general consumption and another more detailed version for use in partnership organisations.

Once agreed, targets in a multi-agency environment need to be integrated into the plans of all relevant partnership organisations. Only once they have been widely adopted and accountability agreed can they start to offer practical benefits.

Monitoring progress

To track the progress being made against targets, there needs to be a clear specification of what data need to be examined, at what time intervals and by whom. There also needs to be a clear agreement around who will be monitoring these data and what action will be taken should the need arise. It is also important that results from the monitoring processes are related to the wider context as political, structural or other socio-economic developments may have an impact on progress.

Box 4: Target-setting checklist

- What is the starting position?
- What is the scale of the problem?
- What is the trend?
- How do these compare with other areas?
- What has similar activity achieved elsewhere?
- Are the conditions the same?
- Are we planning to tackle the problem in the same way?
- Are we putting in the same resources?
- What else is going on that may affect performance?
- How might the target(s) be affected by other local or national initiatives?
- If there is a national target, how does the local target relate to this?
- What sort of change is the government looking to achieve?

- How much of this needs to come from locally-driven initiatives?
- Have staff providing services been consulted on the target?
- Does the target take account of their input?
- How will staff commitment be secured?
- Is the target worthwhile?
- Will the public regard it as acceptable?
- Will achieving it be satisfying?
- Based on what has been achieved elsewhere, does it represent value for money?

Source: Setting and Using Targets[7]

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The Association of Public Health Observatories (APHO) represents and co-ordinates a network of 12 public health observatories (PHOs) working across the five nations of England, Scotland, Wales, Northern Ireland and the Republic of Ireland.

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