

Impacts and
Outcomes of
Local Authority
Regulatory
Services

LBRO
Better Local Regulation

The Toolkit

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Foreword

Local authority regulatory services check whether our air is clean, food is fit to eat, workplaces are safe and companies trade fairly.

All this vital work and more, supports businesses in delivering economic prosperity and protecting consumers from harm and fraud - a complex task delivered within a complex environment.

Yet historically there has been very little research around the wider impacts and outcomes of local regulatory activity and officers have not been able to measure the difference they make.

As a result local regulatory services have been unable to prove their value to their local authorities, their communities and local businesses and this has been reflected in difficulties around budget and priority setting.

This report commissioned by the public body for better local regulation, LBRO, and delivered by RAND, shows that regulatory services do have demonstrable quality of life outcomes and provides a toolkit for identifying, measuring and managing them.

For the first time local regulatory services have the tools for priority planning, profile raising and budgeting based on a total of 48 benefits to communities and business and this outcome focussed approach has already been adopted by encouraging numbers of authorities.

This report and toolkit represent significant steps forward in both the improvement of local authority regulatory services and enhancing the regulatory system. We look forward to Government Departments promoting this initiative and national regulators using it to gain greater understanding of local priorities.



Clive Grace
Chair
Local Better Regulation Office



Graham Russell
Chief Executive
Local Better Regulation Office

Preface

The Local Better Regulation Office (LBRO) commissioned RAND Europe to undertake a study into the impact and outcomes of Local Authority Regulatory Services (LARS). The background of the study is the perceived lack of knowledge among policy makers of the added value of LARS and indeed the low visibility that such services have in local authorities. The study had three main stages. In the first stage, the research highlighted what is known in the literature about the impacts of LARS and aggregated this information in an impact evaluation matrix. The second stage consisted of trying to understand the ‘theory of action’ or ‘logic of intervention’ of five different aspects of the work of LARS, which were fair trading health and safety, fly-tipping, smoking cessation, and reduction of alcohol harm. Drawing up these logics of intervention in workshops with LARS officials in selected sites allowed the study to understand sequential and feedback links between processes and outputs and outcomes. In a third stage, the study developed a toolkit that could be used of LARS officials to assess the impact of their activities. This report presents the toolkit that has been developed in the last stage of the project.

This report is likely to be of interest to officials involved in LARS or local authorities and the wider policy-makers with an interest in local affairs and impact assessment.

RAND Europe is an independent not-for-profit research organisation that aims to serve the public interest by improving policy-making and informing public debate. Its clients are European governments, institutions and firms with a need for rigorous, impartial, multidisciplinary analysis. This report has been peer reviewed in accordance with RAND’s quality assurance standards.

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We would also like to thank all colleagues at RAND Europe who have made important contributions to our research, in particular Philipp-Bastian Brutscher and Kai Wegrich for their useful and insightful comments during the quality-assurance process.

Finally, we wish to thank the project team at LBRO for their support, and for engaging constructively and collaboratively with us throughout the development of this research.

Introduction

This toolkit has been developed as part of a research project on the impacts and outcomes of LARS activities commissioned by the LBRO. This toolkit has been designed to help LARS overcome three interrelated challenges:

1. LARS often attract little attention and have a low profile in local government priority setting. This may be due to the fact that little systematic knowledge about the impacts and outcomes of LARS activities exists and that it is often difficult to measure, prove and illustrate the positive contributions they make at the local level. Against a background of increasing responsibility for local authorities and tightening local budgets, it may become even more difficult for LARS to make a case for their service and defend their budgets in the future.
2. With the emergence of the better regulation agenda and its extension to the local government level, LARS will need to be increasingly prepared to measure their impact on stakeholders and demonstrate that their activities create benefits and outcomes for local businesses and the communities.
3. Finally, the move towards fewer, outcome-oriented and joined-up performance measures requires LARS to have a better knowledge about the outcomes they are contributing to and how they can help achieve the targets of the LAAs.

This toolkit should help LARS across England and Wales to engage in a more evidence-based discussion about the important impacts and outcomes they may have on a local level and will be a stepping stone towards a cost-consequence analysis at the local level.

EXAMPLE

Throughout this toolkit, you will find examples of how to apply it to assess LARS activities. The examples will focus on the work we conducted with East Cambridgeshire District Council on their fly-tipping activities, but will also include evidence from the other case studies.

Despite consisting of several tools, the term 'toolkit' (or toolbox) may be slightly misleading. The key tools suggested here are closely linked and part of a step-by-step approach to understanding the impacts and outcomes better. While you would be able to use them separately, their full value will lie in using them as the elements of a comprehensive evaluation framework.

This toolkit is structured into three stages, which loosely follow the research stages of the wider research project undertaken by RAND Europe. These stages are:

- 1 to establish the intervention logic of LARS
- 2 to find indicators to measure LARS outcomes and impacts
- 3 to summarise the findings in a dashboard.

There is an overview of the stages and steps in Table 0.1 below.

Table 0.1: Overview of the key stages and steps of the toolkit

Establish the intervention logic of LARS	
1.	Define the scope of your pathway
2.	Choose your approach
3.	Identify your activities
4.	Analyse the inputs
5.	Identify partners
6.	Identify outputs
7.	Identify outcomes and impacts
8.	Link the elements of the pathway
Find indicators to measure the elements of the pathway	
9.	Create a long list of indicators
10.	Mapping potential indicators against known indicators
Synthesise, analyse and communicate the findings in a dashboard	
11.	Prioritise indicators
12.	Choose indicators for dashboard
13.	Arrange indicators into a dashboard

Stage 1: Identify the impacts and outcomes of your service

The objective of the first stage of the toolkit is to identify the intervention logic of your regulatory service. By ‘intervention logic’ we mean the way in which your activities are contributing to your service’s and your local authority’s final objectives. The main tools we suggest for use here are logic models and some elements of process mapping. The final product of this stage will be a pathway – a visual representation of how you perceive impacts to relate to your activities.

STEP 1: Define the scope of your pathway

The first step towards developing this pathway will be for you to define the scope or boundaries of what activities you want to include in your pathway. As both trading standards and environmental health work across a wide range of areas, it will be necessary to focus on a specific area of activity. In choosing such an area you will have to be aware of the trade-off between focusing on a narrow area, which will allow you to draft a more detailed and specific pathway but with only limited outcomes and impacts, and a more high-level pathway with a lower level of detail and accuracy, but a wider picture of outcomes and impact. Furthermore, there are in principle at least two ways of defining the scope and the boundaries of the pathway:

1. By **activity**: Prior to developing the pathway, you define a cluster of activities in a specific policy area. A good starting point for this would be, for example, the policy areas defined by the Rogers Review (2007). From this list of activities you then work your way ‘forward’ to uncover what final outcomes these activities have.
2. By **outcome**: You are interested in a specific outcome, and want to know which activities contribute to LARS, for example which activities contribute to the reduction of alcohol related harms.

Both approaches can be chosen within this toolkit, but the second one is more challenging and will be practically more difficult to execute and requires further steps in defining the scope of your work and ensuring a robust analysis:

1. After choosing your outcome, you need to define an **initial list of activities** you expect to contribute to this outcome. This list will then need to be verified, refined and amended as your analysis continues.

2. It is highly likely that **other services' activities** will also contribute to your outcome, so you should consider which external partners to include, in developing your pathway.
3. By defining outcomes, there is a danger that you will miss out on the **unintended impacts** of LARS. To avoid this, go through all the causal chains in both directions to identify where you might have overlooked essential unintended outcomes.

EXAMPLE

RAND Europe decided to select three case studies which looked at specific activities:

- Activities to tackle fly-tipping
- Measures to tackle alcohol-related harm
- Reducing harm from smoking

RAND Europe then selected two case studies which focused on outcomes:

- Enforcement of health and safety in non-industrial workplaces
- Ensuring a fair trading environment

STEP 2: Choose your approach

After deciding on the scope of your pathway, you will need to make a decision about the approach you want to use to draft the pathway. The choice is between an interactive approach and a desk-based approach:

1. The **interactive approach** uses a workshop with LARS staff and potential external partners to gather the evidence and produce the first draft of the pathway.
2. In the **desk-based** approach a project manager or a small project team will draft a pathway based on available documentation such as service plans and strategy documents as well as their own experience.

The interactive approach has several advantages over a purely desk-based approach. By holding an interactive workshop with key staff involved in the activities and potentially external partners and stakeholders also, a wider set of views can be harvested and the story created will be generally richer in context. Secondly, through jointly developing a pathway ownership of the pathway among staff is increased and discussions about the outcome and impact focus of a service can be triggered. Thirdly, a meeting like this may help to identify options for future collaboration and allow further developing networks at the local level. An interactive approach is, however, more resource intensive and will still need desk-based preparation and follow-up. Nevertheless we clearly see the advantages outweighing the disadvantages and would recommend this approach.

EXAMPLE

RAND Europe used an interactive approach for all case studies conducted. In each local authority we facilitated an interactive workshop. The main technique used was so called 'hexi-mapping'. Participants were asked to write down key elements on individual hexies/Post-it notes to identify the key elements of the causal chain. In a second stage

those were put on a large whiteboard and arranged to reach a shared understanding of the key causal chains.

A wide range of stakeholders participated in these workshops, representing:

- LARS staff
- other council services
- PCT
- police
- parish councils
- neighbourhood panels
- industry and business.

The next steps formulated here are the key analytical steps which need to be covered both in an interactive and a desk-based approach.

STEP 3: Identify your activities

The starting point for you to draft a pathway is to identify the activities you and your team are currently conducting. The best start may be to identify activities individually. These are questions you could ask:

- What are the main activities you are conducting?
- On a day-to-day basis, what are you doing in your job?
- Can these activities be clustered in a group of related activities?

You will then need to group these activities into clusters of similar activities to reduce the complexity of your pathway. Typically you might find groups of activities such as support, analysis and intelligence, enforcement or education. These groups will be the cornerstone of your pathway. From them you need to both work ‘backwards’ to identify inputs and ‘forwards’ to identify the outputs and later the outcomes of your activity.

EXAMPLE

In the fly-tipping workshop, the following activities were identified by workshop participants:

- participating in environmental action days
- enforcement
- prosecution
- investigation
- site visits
- rubbish removal.

These varied activities essentially comprise two clusters, one centred on enforcement actions, and another on education.

The workshop conducted on smoking in Leicester identified a wider range of activities, e.g.:

- running smoking cessation programmes
- awareness and education activities
- enforcing marketing and sales regulation
- enforcing underage sales regulation
- ensuring compliance with smoke-free regulation
- dealing with counterfeited and smuggled tobacco products
- tackling smoking-related litter.

In this case we decided to not group them any further to reflect the breadth of activities. However, two of the activities, smoking cessation and smoking-related litter, were not part of the service under review (environmental health rather than trading standards).

STEP 4: Analyse the inputs

Once you are confident that you have identified the relevant activities, turn your attention to the inputs of your activities. Key questions to address are:

- What inputs do you need to conduct these activities?
- How many staff are required for these activities?
- What resources are needed to conduct the activities?
- What information is needed?

If you decide to focus your pathway on a part of your services activities, you may find it difficult to attribute the share of staff or specific resources to specific activities. At this stage a simple mentioning of the type of inputs would be sufficient, but for the later step you may need, for example, to estimate how much time your staff spend on a particular activity.

EXAMPLE

The inputs required for conducting the fly-tipping work were:

- staff
- skills and capacity
- resources for rubbish removal
- investment budget
- intelligence about fly-tips
- powers to enforce and investigate.

STEP 5: Identify partners

Before moving on to the core of the pathway, the output – outcome – impact relationship, now would be a good time to reflect on the partners you are working with. The idea behind this is twofold:

1. A better understanding of whom you are working with will allow you to assess who else influences the outcomes and impacts of activities.

2. Your partners may hold valuable information and data sources that can be useful for you to assess the outcomes and impacts of your work.

Another set of questions may be useful in identifying partners:

- With whom are you working with on a regular basis?
- With whom do you share information?
- On whom do you have to rely to perform your services?
- What is the character of your collaboration?

EXAMPLE

Key partners identified for the work on fly-tipping were:

- parish council
- neighbourhood policing team
- RECAP (Recycling in Cambridgeshire and Peterborough)
- other council officers
- neighbourhood panels
- fire brigade
- police
- EA.

STEP 6: Identify outputs

With the identification of outputs, you start to develop your pathway forward. Outputs are the direct product of your activities and are typically tangible and countable. Outputs generally refer to what is being done or what is being produced. In principle you should have full control over the outputs you produce. The type of output will depend on the activity under consideration. For example, the outputs of an advertising campaign typically include the number of local press and television adverts, website activity, and so on. The output of food standards work would be, for example, an inspection or a particular type of enforcement action. Compliance of food business is already an outcome as it is beyond your immediate control and might (or might not) be the result of your inspection activity.

To identify your outputs you will therefore have to ask yourself what the direct outputs of your activity are. A lot of (performance) management frameworks use output indicators, so this may be a good starting point for you to identify outputs.

EXAMPLE

The outputs that could easily be identified for the fly-tipping example were:

- removal of waste
- fixed-penalty notices
- cautions
- court cases

- education activities
- environment action days.

STEP 7: Identify outcomes and impacts

From the identification of outputs you can move on to the identification of outcomes and impact.

Outcomes are the intended and unintended results and consequences of your activities. Typically, outcomes tend to be categorised into short-, medium- and longer-term results. The differentiation between outcomes and impacts is not very clear, and we propose here to use a pragmatic definition of impacts. For this research we consider impacts to be outcomes that are more long term and have a wider impact on the community or environment. They are the fundamental direct and indirect effects of your activities over a long-term period on the wider community or environment. These include changes in economic and financial conditions, in social conditions (e.g. reduced violence or increased cooperation) or in environmental and political conditions (e.g. participation and equal opportunities).

To identify the outcomes and impacts, consider the list of questions below:

- What is the ultimate objective of your activities?
- What are the final outcomes you want to achieve?
- Which intermediate outcomes are a precondition for achieving the final outcomes?
- How does your service affect the local community?
- Which groups in the community might benefit, or be burdened by, your service?

In addition, a list of potential outcomes and impacts is included in RAND Europe's impact evaluation matrix, which may be found in the accompanying research report. This initial brainstorming should provide you with a long list of potential outcomes and impacts, of which you will start to make sense in the next step.

EXAMPLE

A wide range of outcomes was identified by the workshop participants in the Ely fly-tipping workshop:

- recovery of removal costs
- avoided fly-tipping through quick removal of rubbish
- publicity
- deterrence of fly-tipping
- preventing further fly-tipping
- reduced cost of clearance for local authority
- fewer obstructions to rights of way
- cleaner environment

- less pollution
- avoided damage to agricultural land
- reduced cost to taxpayers
- improvement in house prices
- performance in place survey
- community cohesion
- pride in area
- more attractive site for businesses
- more attractive tourist destination.

STEP 8: Linking the elements of the pathway

Once you have collected all the key elements of a logic model. Now it is time to make sense of these elements and start linking those elements systematically:

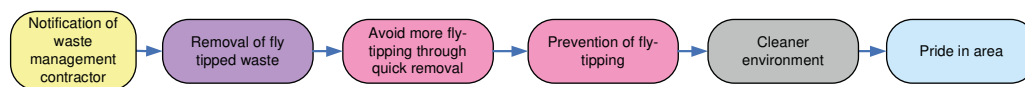
1. Arrange the elements in a basic Input – Activity – Output – Outcome – Impacts order. This will give you the basic structure of your logic model.
2. Choose one activity and start linking it with the matching output. Then think about which outcome follows relatively directly from this output. These are often intermediate outcomes that are not the final objective of your activity, but a necessary requirement for meeting them. A food safety inspection (output) might lead, for example, to a better understanding and awareness of the regulation by the business owner (intermediate outcome), which in turn leads to more compliant food businesses (outcome). More compliant food businesses in turn will reduce the number of cases of food poisoning (outcome), which will increase the overall health of the local community (impact).
3. Test the chains you identified by talking them through in both directions. Are there logical breaks between elements? Are intermediate steps missing? If so, you will need to add elements.
4. Identify the key causal chains. What are the main mechanisms through which your service attempts to impact on the local community?

On a practical level, this mapping exercise can be done in different ways. If you have a large whiteboard available, you could use Post-it notes to denote the key elements and start drawing lines between them, or you could do it in a similar way on a (large) piece of paper. If you go down the desk-based approach, it may be easier to draft the pathway on a piece of paper before using software packages such as Microsoft Visio® straight away.

EXAMPLE

Sticking to our example of fly-tipping, we can now identify different causal links between the elements. The example below focuses on the preventative effect of quick removal of fly-tipped rubbish in the community. If the rubbish is removed quickly (output), this will prevent future fly-tips (intermediate outcome), which in turn results in a cleaner environment (outcome). A visually cleaner environment might lead to an

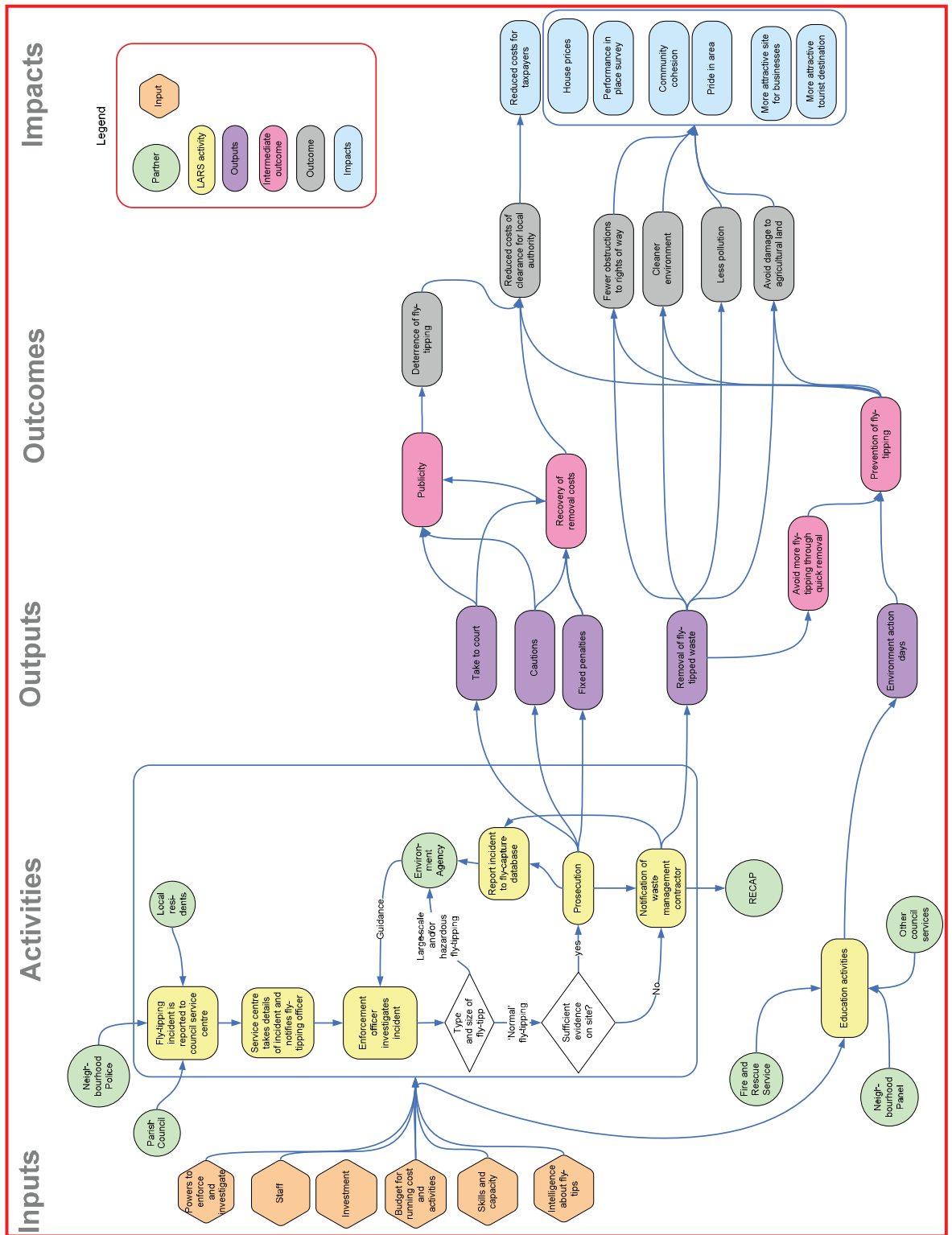
increased identification with and pride in the local area. This chain would look something like this:



This chain does not include inputs as part of the causal chain. In developing your pathway you may realise that inputs can be rather generic for all activities in your service, so you would not need to link them systematically to every activity, doing so when they are very specific. The complete pathway for fly-tipping, combining several of these causal chains, is shown on the next page. Further examples are available in the appendix of this toolkit.

Analysing this pathway, three key causal chains may be identified:

1. The current main activity of the regulatory service is to initiate the removal of fly-tipped waste, which has indirect and direct consequences for the local community. Directly, there are clear benefits from removing the waste, including a generally cleaner environment, less pollution, fewer obstructions to rights of way and less damage to agricultural land. Indirectly, the timely removal of waste contributes to preventing future illegal deposit of waste as already existing dumps tend to reduce the threshold for illegally dumping waste.
2. Education activities are the second set of activities conducted by the regulatory services, although those are more ad hoc in nature, including, for example, environment action days. The thrust of the education activities is to prevent fly-tipping by informing the public about the illegal nature and the potential hazards for residents and the environment. This should in turn reduce the number of fly-tipping incidents.
3. The third causal chain evolves from the prosecution of fly-tippers. If there is sufficient evidence on site, the regulatory service can initiate a prosecution which could result in a number of outcomes, such as cautions, fixed penalties or stronger sentences. Central are, however, two outcomes. The prosecution will allow the local authority to recover the removal costs from the offenders. If pursued actively, cases in which offenders have been punished or had to pay back substantial amounts might be communicated to the wider public to create publicity and act as a deterrent. Prosecuting offenders would thus result in reduced costs for local authorities by recovering some of the clean-up costs. In addition the deterrence should lead to an overall reduction in fly-tipping over time.



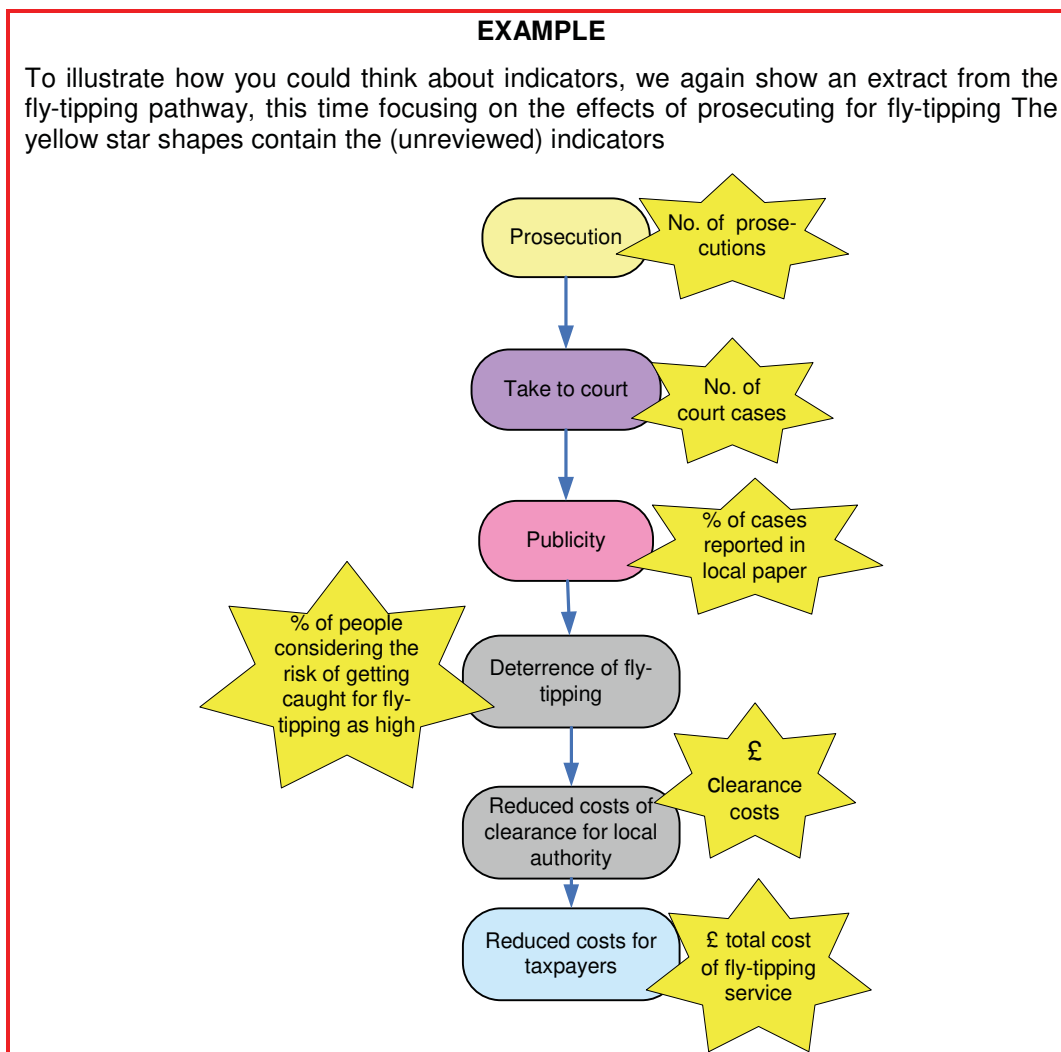
Stage 2: Find indicators to measure the elements of the pathway

In thinking about and focusing your activities on outcomes and impacts, the pathway you have just developed may already be a valuable tool in itself as it made implicit knowledge and a tacit understanding of your activities visible. The next stage of the toolkit builds on the pathway you developed and aims to find ways to measure the key elements meaningfully. As a general rule, this toolkit aims to use existing indicators and measurements rather than developing new indicators. This stage consists of two essential steps, a brainstorming phase to identify potential indicators, and a mapping stage to identify which of those indicators are already being measured.

STEP 9: Create a long list of indicators

If you now have the pathway in front of you, start thinking about how you could measure its key elements. It is very likely that indicators have been mentioned during the initial discussion about the pathway, and now would be the time to focus on them again. The aim of this step is to have a long list of indicators that cover your whole pathway. Draw up this list as follows:

- Try to think about a way of measuring each element of the pathway.
- Consult the impact matrix for further indicators,
- Create a long list of indicators that would be potentially useful in measuring the elements of the pathways.



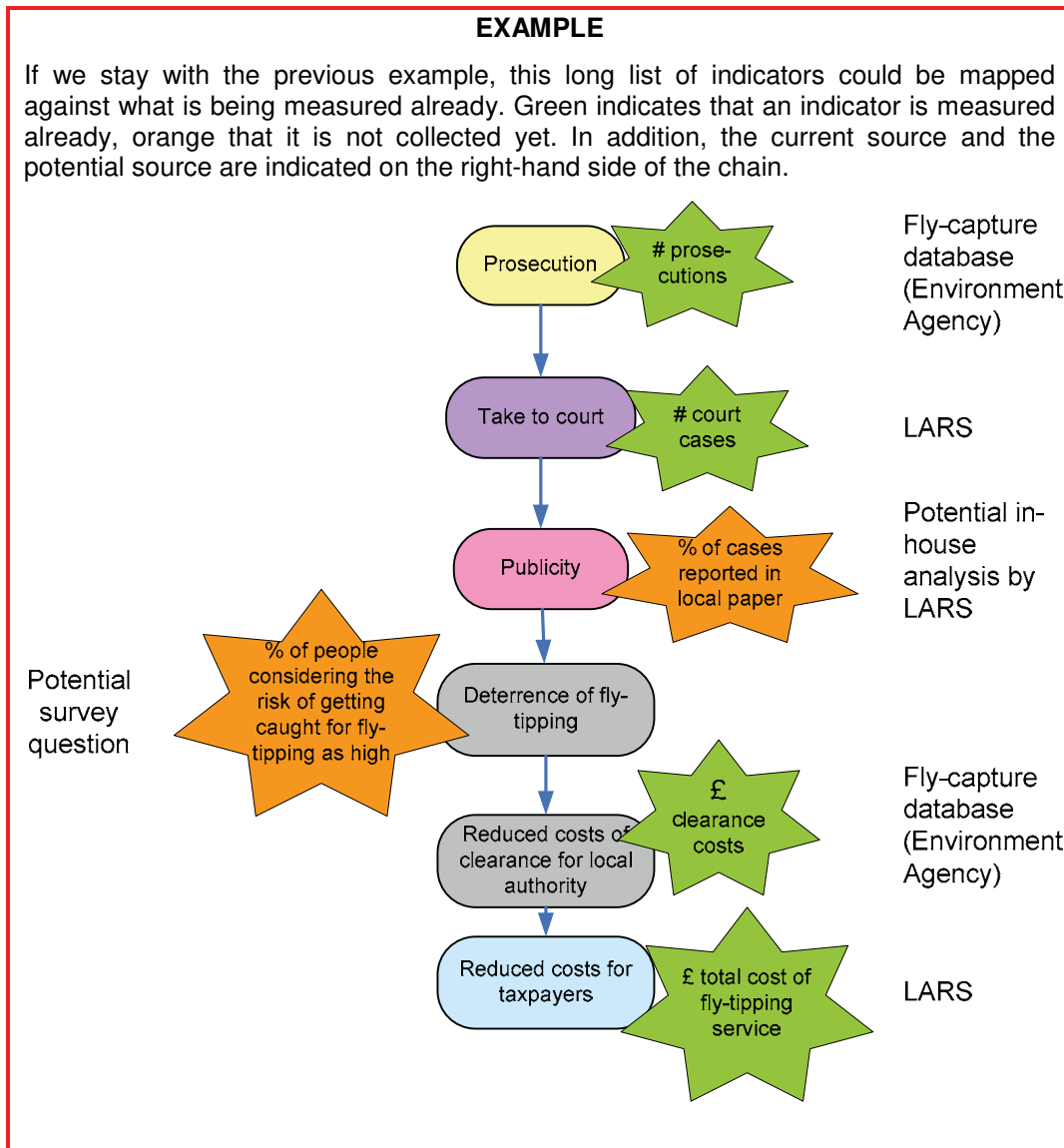
STEP 10: Mapping potential indicators against known indicators

This long list of indicators will now need to be mapped against the information already available by comparing which of the identified indicators are already being measured.

1. Start by looking for indicators already collected by your service. These can be found in service plans, strategy documents and other performance information you and your service currently use. These tend, however, to focus very much on the direct outputs and inputs of the service.
2. If you can't find the indicator identified, start widening the scope of your search:
 - a. Are other services within your local authority likely to hold the information you identified? (e.g. social services, place surveys)
 - b. Do other local organisations have this information? (e.g. PCT, NHS, police)
 - c. Do national regulators or sector bodies provide this information?

- If you can't find a measurement for the initial indicator you identified, make sure you also consider similar indicators that may be suitable to measure what you intend to measure.

Having done this, you now know which indicators and measurements are currently unavailable or not being measured. In the next stage you will need to decide whether it will be worth considering collecting those in the future.



Stage 3: Synthesise, analyse and communicate the findings in a dashboard

The third and final stage of the toolkit aims at analysing, synthesising and communicating the findings of your pathway. To do so we suggest using a dashboard tool. This stage contains guidance on how to prioritise indicators to collect, and how to arrange them in a dashboard.

STEP 11: Prioritise indicators

Your long list of indicators and your knowledge about the availability of indicators will now be the starting point for thinking about prioritising indicators for the dashboard. The key underlying idea is that you want to measure all impacts along the key causal chains you identified. By having a 'data point' at each important step, you will be able to make a more convincing case for how you contribute to local outcomes and impacts.

You will first have to assess which indicator is central to the assessment:

1. Does it measure a key element of the causal chain?
2. Does it measure a key outcome or impact that is of particular importance to your service? (e.g. as part of a LAA)
3. Is it a necessary indicator to achieve a balanced assessment?

Once you have a list of (potentially) important indicators, you should also consider the ease of measurement:

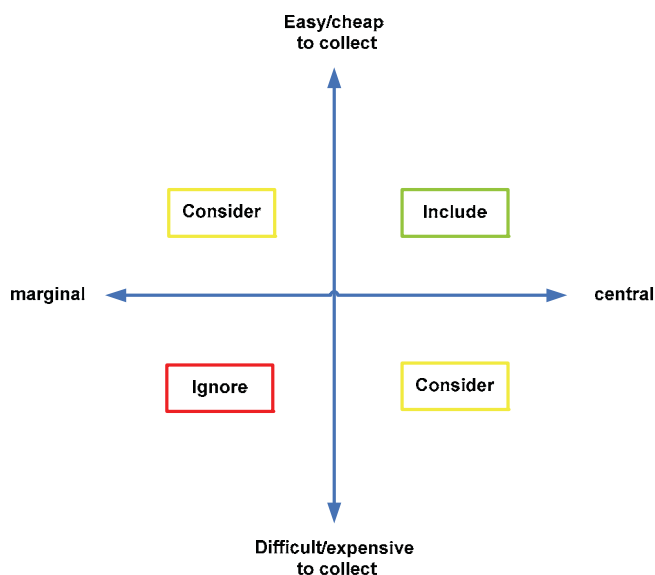
4. Is the indicator already being measured by your service?
5. Is it being measured by other services or national stakeholders?
6. Will it need to be developed?

If the indicator you identified is not being measured yet, consider the following before setting out to collect data:

7. Could the indicator be replaced by an indicator that is already measured? (proxy)
8. Can it be integrated in existing data gathering? (e.g. residents' survey)
9. Could it be easily collected during performing the activities? (e.g. another tick box on an inspection protocol)

10. Would it require substantial your own primary data collection? (e.g. a complete new survey)

The following matrix may be helpful to conceptualise the decision about which additional indicators to collect. If you find yourself with data gaps, make sure you focus on the right-hand side of the diagram, collecting indicators that are central to the assessment – that is, primarily set on the key causal chains of the activity. You could, however, also collect some indicators from the upper left-hand side. These easy-to-collect indicators may help to develop a richer story, but are not central to your assessment.



EXAMPLE

Earlier in this example we identified three key causal chains. Along some of those data were not available; however, we considered it to be essential to measure some of them as they were key elements of the causal chain. These were:

- outputs from educational activities
- assessment of the preventative effect
- assessment of the deterrent effect.

Some indicators that are not currently measured were dropped, such as the publicity indicator, as the deterrence indicator would suffice to demonstrate the effect.

STEP 12: Choose indicators for dashboard

Out of the prioritised indicators you can now choose the final indicators to include in your dashboard.

For this toolkit, we chose to adapt the idea of a management dashboard, which has become increasingly popular in recent years. Dashboards are executive information systems that present a small set of performance measures on a regular and structured basis to strategic decision-makers in order to provide an overview of the organisation’s performance and

thereby identify areas of particular success or concern for more detailed examination. However, the dashboards you will populate here will have a less operational perspective and be more strategic in focus than management dashboards.

There are three criteria to include in the final selection of indicators to go into the dashboard:

1. Indicators should cover all stages of the logic model. Indicators should thus give a fair representation of inputs, outputs, outcomes and impacts.
2. The indicators selected should cover all important causal chains.
3. Finally, there should be a limited number of indicators in the dashboard. We propose having between 12 and 20 indicators overall.

EXAMPLE				
The final selection of indicators followed the considerations to cover the three most important causal links as well as the four elements of the logic model. The table below shows the indicators included in the toolkit.				
Causal chain	Input	Output	Outcome	Impact
Removal		<ul style="list-style-type: none"> • No. of incidents 	<ul style="list-style-type: none"> • Average time between report and removal of waste • • % of people considering the illegal deposit of rubbish as 'not a big deal' 	<ul style="list-style-type: none"> • Total incident clearance costs • % of residents who think their council is making the local area a better place to live in
Education	<ul style="list-style-type: none"> • Staff in FTE or £ • Investment in £ • Budget in £ 	<ul style="list-style-type: none"> • No. people reached by education programmes 	<ul style="list-style-type: none"> • % of citizens considering the risk of getting caught for fly-tipping as high 	<ul style="list-style-type: none"> • % residents who think that rubbish and litter lying around is a very or fairly big problem in their local area • % of businesses considering the local environment a positive location factor
Prosecution		<ul style="list-style-type: none"> • No. of successful prosecutions 	<ul style="list-style-type: none"> • Costs recovered 	

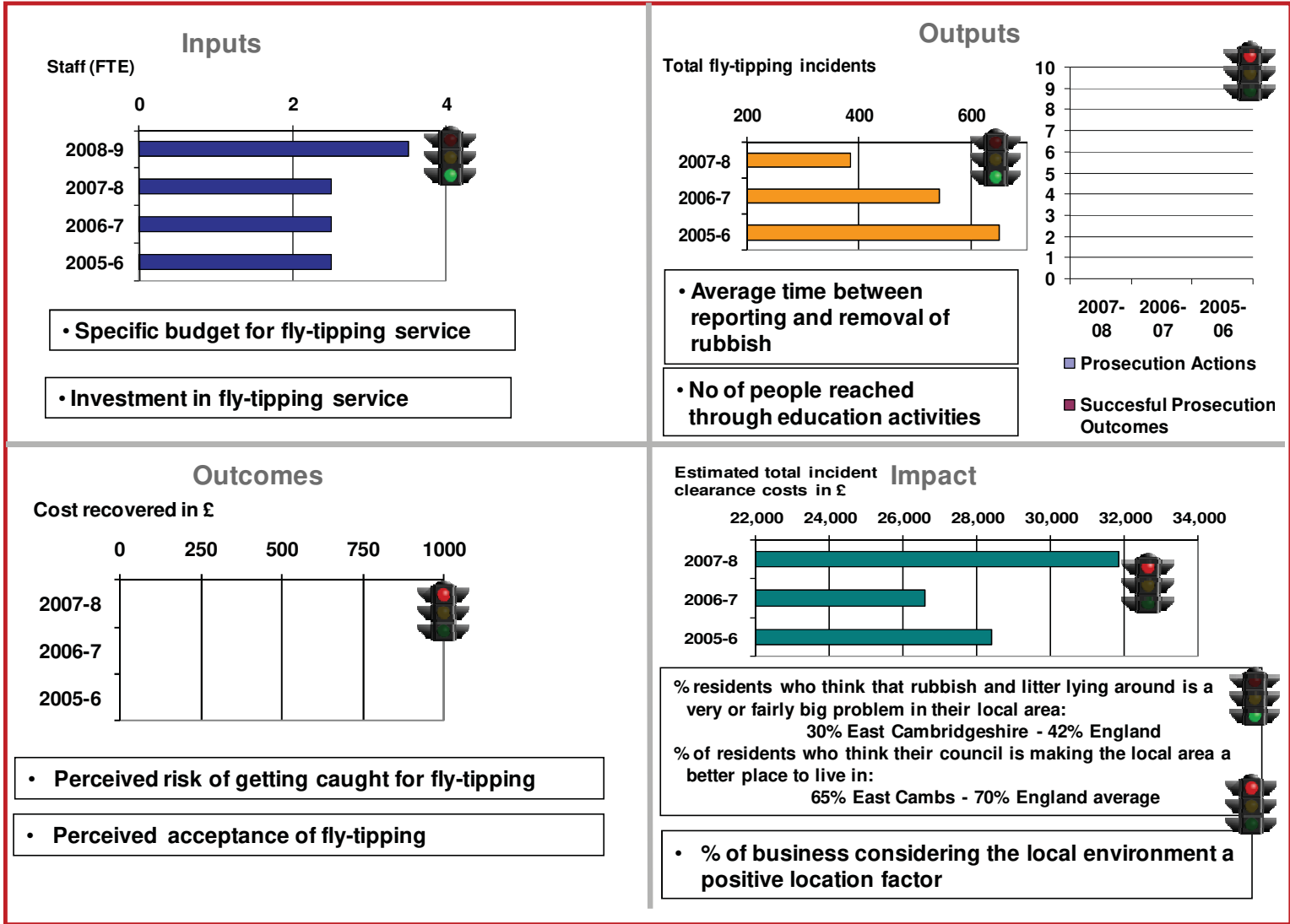
STEP 13: Arrange indicators into a dashboard

In the final stage you can arrange the indicators into the graphical representation of the dashboard. The aim is to provide a one-page overview of how your local service contributes to local outcomes and impacts. For our examples (see box) we developed a page divided into four quadrants (inputs, outputs, outcome and impacts). Each quadrant contains the key indicators and presents time-series data for the last three years where possible. Such an overview page can be easily implemented and updated in a Microsoft Excel spreadsheet or using similar software.

The final task will be to define for each indicator what constitutes a positive development and which developments need attention or closer monitoring. To indicate this, you can use traffic light symbols and colours (red, amber, green).

EXAMPLE

The final dashboard developed for the fly-tipping case study is shown in the figure below. The traffic lights indicate which elements of the causal chains require attention. If, as in this case, no prosecution has been happening, potential offenders are unlikely to be deterred.



Appendix: Five examples of pathways

This Appendix provides the five examples of pathways that were used to both develop as well as test the methodology of the toolkit.

1. Implementing fly-tipping regulation in a rural district council

Fly-tipping is the illegal deposit of household or business waste on public land or private property. It ranges from a single black bin bag deposited along an urban road to a large pile of rubbish deposited on agricultural land, in a lay-by or a country lane.

Fly-tipping is mainly regulated by the Environmental Protection Act 1990 and the Clean Neighbourhoods and Environment Act 2005, as well as the Anti-Social Behaviour Act 2003. It is jointly enforced by the EA and local authorities, based on a protocol agreed between the EA and the Local Government Association:

1. The EA is responsible for investigating large-scale incidents of fly-tipping involving hazardous waste and incidents involving organised gangs of fly-tippers.
2. Local authorities' responsibility is to deal with small-scale fly-tipping and to tackle clear-up of fly-tipping on publicly owned land, including roads and lay-bys.

For rural areas, with large areas of agricultural land, fly-tipping is a particularly serious problem. RAND Europe therefore decided to conduct a workshop with East Cambridgeshire District Council to explore the impacts and outcomes of their activities in tackling fly-tipping. East Cambridgeshire District Council is a local authority in a rural part of Cambridgeshire with a population of around 77,000. The local authority employs about 200 staff, with around 19 staff working in regulatory services.

Key activities and their inputs

To address fly-tipping, East Cambridgeshire District Council conducts two sets of activities: first, reactive work once a fly-tipping incident has been reported; and, secondly, preventative education work within the community to dissuade future fly-tipping.

The reactive work is the core of the enforcement activities. The process usually starts with the reporting of a fly-tipping incident by local residents, the general public, parish councils or neighbourhood policing teams. It is registered at the council service centre and passed on to the environmental services department. A fly-tipping enforcement officer investigates the incident, usually by making a site visit first, to determine the type of fly-tipping. If there are large quantities of deposited rubbish, hazardous materials or an indication of

criminal involvement ('Big, bad and nasty'), the case will be transferred to the EA. Normal cases of fly-tipping will be dealt with by the local authority. If the investigating officer can collect enough evidence on the scene or from witnesses, a prosecution is initiated. In every case the next step for the enforcement officer will be to notify the waste management contractor, who will remove the waste.

The proactive work is less prominent in the council's work, owing to resource constraints. It consists of education activities. A recent example is participation in an environmental action day organised in partnership with Cambridgeshire Fire and Rescue Service, Cambridgeshire Police, the Ely Neighbourhood Panel and the Ely Society.

To conduct these activities, the district council requires a number of inputs. These are first of all staff. With a newly recruited enforcement officer, the environmental services team will have around 2.5 full-time equivalents (FTE) devoted to fly-tipping activities. These staff will need to be adequately trained and skilled to do the job – skills constitute another vital input. In conducting their activities, enforcement officers need to be equipped with adequate powers to enforce and investigate cases. Those are derived from the three Acts mentioned above. Finally, the council needs intelligence about the location of fly-tips, which is currently coming from several sources including members of the public, parish councils and council officials.

Outputs

These activities lead to a series of outputs produced by regulatory services. The reactive activities lead basically to two sets of output. First, there are outputs that result from the prosecution of fly-tipping cases. These are court rulings, cautions or fixed penalties issued by regulatory services. This element of enforcing fly-tipping in East Cambridgeshire is not fully developed yet; so far prosecutions have not been conducted. The other main output is the removal of waste deposited illegally. This is currently done by a contractor appointed by Recycling in Cambridgeshire and Peterborough (RECAP).

In terms of education activities, the major output described during the last year has been an environment action day organised by Cambridgeshire Fire and Rescue Service, in which regulatory services participated alongside Cambridgeshire Police, the neighbourhood panel and other East Cambridgeshire District Council services.

The outcomes of enforcing fly-tipping regulation

East Cambridgeshire District Council's efforts to tackle fly-tipping may lead to a number of outcomes and impacts, along **three main causal chains**:

1. The current main activity of the regulatory service is to initiate the **removal of fly-tipped waste**, which has indirect and direct consequences for the local community. There are clear direct benefits in removing the waste, including a generally cleaner environment, less pollution, fewer obstructions to rights of way and less damage to agricultural land. Indirectly, the timely removal of waste also contributes to preventing the future illegal deposit of waste.
2. **Education activities** are the second set of activities conducted by the regulatory services. Those are ad hoc in nature, including, for example, environment action days. The thrust of the education activities is to prevent fly-tipping by informing the public

about its illegal nature and the potential hazards for residents and the environment. This should reduce the number of fly-tipping incidents.

3. The third causal chain evolves from the **prosecution of fly-tippers**. If there is sufficient evidence on site, the regulatory service can initiate a prosecution which could result in a number of outcomes such as cautions, fixed penalties and court-sanctioned sentences. Two outcomes are central. Prosecution allows the local authority to recover the removal costs from the offenders. If pursued actively, cases in which offenders have been punished or have had to pay substantial amounts could be communicated to the wider public to create publicity and act as a deterrent. Prosecuting offenders would thus result in a reduction in costs for local authorities through the recovery of some of the clean-up costs. In addition the prosecution should lead to a reduction of fly-tipping over time.

All three causal chains contribute to wider impacts on the community. These mainly result from a cleaner environment. An environment free of rubbish and litter is often one of the most visible signs of local authority activity. Conversely, an environment full of litter is often perceived as a sign of a badly performing local authority, as well as of social deprivation. Thus a cleaner environment is likely to affect a number of aspects of the quality of a local community, including:

- pride in the local area
- community cohesion
- attractiveness for consumers and tourists
- house prices.

These will be reflected, for example, in place surveys and business satisfaction surveys. In addition to these community impacts, activities to enforce fly-tipping regulation may have a positive impact on the budget of local authorities and thereby reduce costs to taxpayers.

The pathway

Based on the workshop and additional review of documents, the pathway represented in Figure 0.1 could be developed.

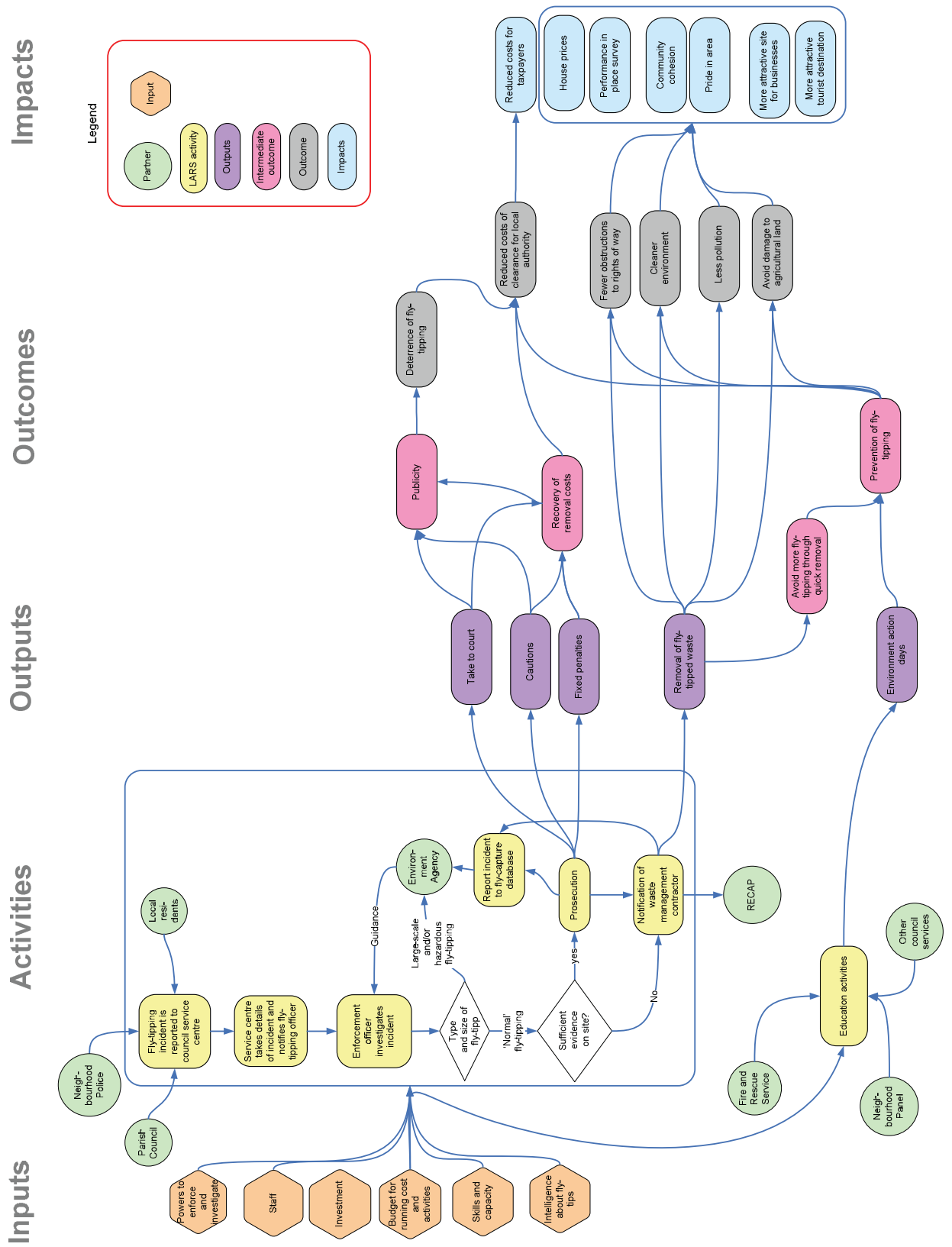


Figure 0.1: Fly-tipping pathway

Identifying indicators and developing a dashboard

After establishing the pathway and intervention logic for dealing with fly-tipping, the next step is to identify indicators that can be used to measure the key elements of the pathway in an impact and outcome dashboard.

In terms of **inputs**, East Cambridgeshire currently has information available on staffing levels as well as on running costs and investments, such as for a CCTV camera to monitor fly-tipping hot-spots, and the budget for education activities. The costs are currently not broken down for fly-tipping activities specifically, but cover all waste collection, recycling and street-cleansing activities. Intelligence about fly-tips is mainly provided through reports to council services by local residents, parish councils and council employees. The number of cases reported is available, and is currently being measured. Other inputs – in particular skills and capacity, and the powers to investigate – are not easily quantifiable, but qualitative information about them is available at the local level. These inputs are relatively generic and feed into all causal chains identified earlier. The selection of indicators for the dashboard is thus relatively straightforward, even though there may be difficulties in attributing these costs precisely to fly-tipping related activities:

1. staff (FTE or in £)
2. running costs (in £)
3. capital costs (in £).

There is a range of information on **outputs** currently available to the service, including the number of fly-tips removed, the number of prosecutions undertaken and the type of sanction applied. This is part of the data reported to the fly-capture database and forms part of the data collected for NI 196 on fly-tipping. There is currently, however, no quantitative measurement of educational activities. If we consider the three causal chains again, data cover only the first and the third chain:

Chain 1. Number of fly-tips reported and removed (fly-capture database).

Chain 2. There is no quantitative indicator of the key outputs. For this purpose, the service could develop a new measure such as an assessment of people reached through educational activities (e.g. participants in an environment action day) to enable them to compare the level of outreach activities across different years.

Chain 3. Number of prosecutions and type of enforcement action taken (fly-capture database).

The immediate **outcomes** resulting from LARS activities are measured to a differing degree. The fly-capture database contains data on recovered funds, the costs of removing fly-tips and the time taken to remove a fly-tip. There are, however, no specific measurements for direct environmental impacts, or for the deterrence and prevention of fly-tipping. There is thus a lack of some key data along the causal chains:

Chain 1. There are no systematic data available on the direct environmental impacts of fly-tipping. This is unproblematic in this case as the causal relationship is very clear. If no rubbish is dumped it cannot pollute the environment, block rights of way or damage agricultural land. The second

claim made in this causal chain is that a quick removal has a preventative effect. Thus monitoring the time between reporting of a fly-tip and its removal is essential. Fortunately, this information is already collected by the service.

Chain 2. To substantiate the claim that education activities lead to prevention of fly-tipping, an understanding of whether the education activities reach the targeted groups is needed. As there are currently no measures for this, the service could consider surveying the target population of their education activities and, for example, testing whether there are changes in the perception of fly-tipping. A question that could be asked in a resident survey could be whether fly-tipping is considered ‘not a big deal’; ‘bad for the environment’, and so on.

Chain 3. Finally, it is claimed that prosecution activities will deter future fly-tipping as well as recover costs. Recovered costs are included in the fly-capture database and are easily accessible to the service. There is, however, no measure of deterrence. As this is an essential element of the causal chain, the service should consider measuring this effect. A necessary precursor to that would be publicity about legal sanctions. Survey questions such as ‘Do you consider the risk of getting caught for fly tipping as high?’ could be put.

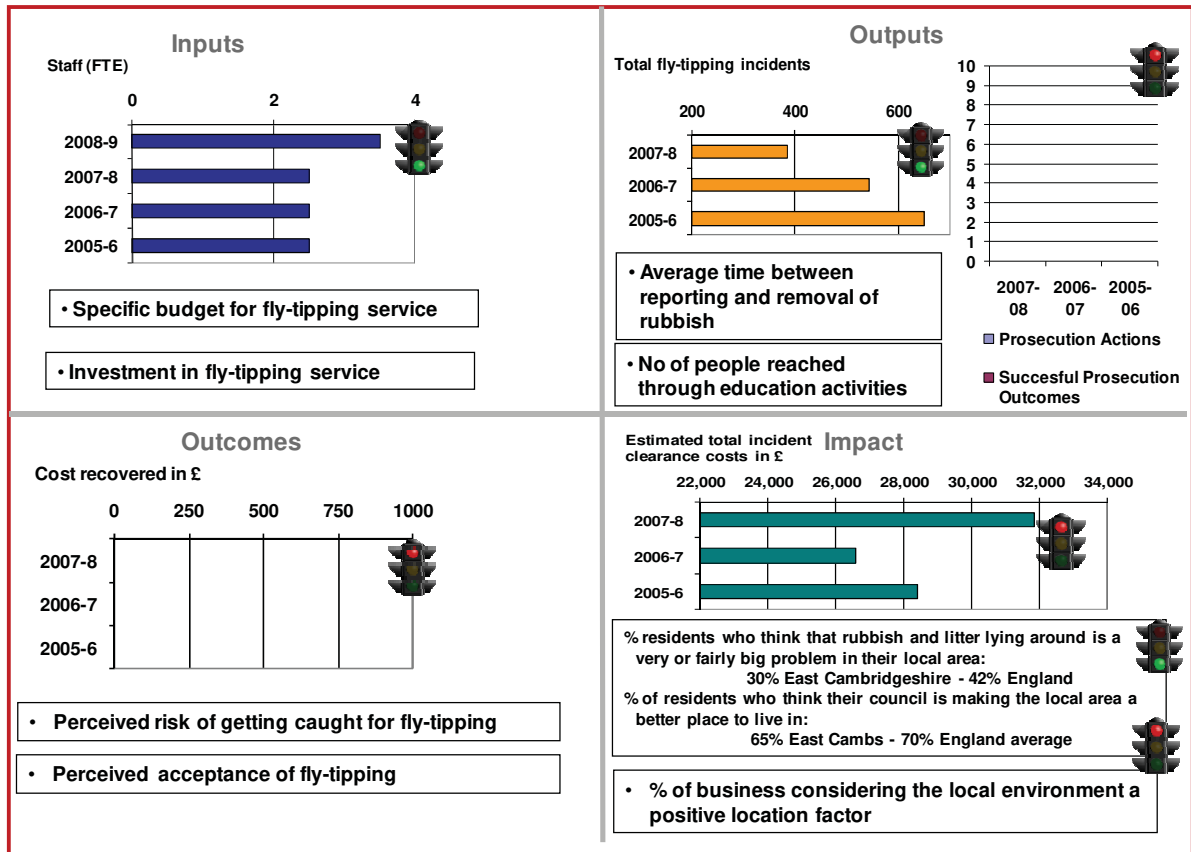
These (additional) indicators should allow the causal chains from outputs to outcomes to be followed. In terms of the wider, long-term impacts, the causal chains merge as they achieve final impacts either through the reduction of illegal waste disposal or through saving money.

In **terms of impacts**, there are currently not many specific measurements. Several questions in the place survey attempt to measure the perception of environmental cleanliness (e.g. level of satisfaction with cleanliness, views on fly-tipping), and community cohesion. Savings to the taxpayer may be presented through reduced clearance costs as well as the amount of money recovered following prosecutions. In terms of the business and tourism impacts claimed, a survey tool could help to assess whether, for example, environmental quality influenced the destination decision of tourists, or the location decision of businesses. For this dashboard we decided to include the following indicators:

1. Total incident clearance costs (fly-capture database).
2. Percentage of residents who think that rubbish and litter lying around is a very or fairly big problem in their local area (resident survey).
3. Percentage of residents who think their council is making the local area a better place to live in (resident survey).
4. Percentage of business who consider the local environment a positive location factor.

A summary of these indicators, together with time-series data over the last available three-year period, may be found in a dashboard form in Figure 0.2 below. The traffic lights indicate whether the evidence available supports that impacts are made though the claimed

causal chains or not. It can be safely assumed, for example, that the deterrence effect is currently very limited because no prosecutions are conducted.



SOURCES: Place survey 2008, documentation from East Cambridgeshire District Council

Figure 0.2: Dashboard for fly-tipping activities in East Cambridgeshire District Council

2. Reducing harm from smoking in Leicester

The ‘Choosing Health: Making Healthy Choices Easier’ report (Department of Health 2004) highlights the importance of reducing smoking prevalence and exposure to cigarette smoke because of their negative health consequences. Smoking causes a wide range of illnesses, including cancer and cardiovascular and respiratory diseases. Additionally, research shows that the incidence of miscarriages, reduced birth weight and perinatal death increases significantly when mothers smoke during pregnancy.

Overall smoking is the greatest single preventable cause of illness and death. In England alone, deaths estimated to be caused by smoking were around 83,700 in 2007 (18% of all

deaths of adults aged 35 and over (Office for National Statistics, 2009)¹. In 2007, 21% of the population of Great Britain aged 16 and over smoke, 22% of men and 20% of women. Furthermore, important socio-economic differences exist in the prevalence of cigarette smoking, with higher rates among people in manual work than among those in non-manual professions: 25% compared to 16%. Furthermore, around a third of pupils have tried to smoke at least once, and 6% of pupils do smoke regularly (Office for National Statistics, 2009). Costs to the NHS of treating illness and disease associated with smoking were estimated at £5.2 billion a year in 2005/06, approximately 5.5% of the total health care costs².

Smoking in public places is regulated by the Health Act 2006. The Act bans smoking in all working premises and public premises that are enclosed or ‘substantially’ enclosed. This definition includes vehicles used for work purposes such as taxis and vans used in the construction industry. In all cases, the person in charge of the management of smoke-free premises or vehicles needs to make sure that no-smoking signs are displayed in accordance with the established legislation.³

In Leicester smoking prevalence is slightly lower than the average rate in England. In fact, 23 per cent of the respondents to the Leicester Lifestyle Survey (2002) said they smoked, compared to a national average of 26 per cent. People aged between 35 and 44 years old as well as people in younger age groups showed the highest smoking prevalence, above the Leicester average. Overall, the highest prevalence of smoking was found amongst the following groups: white men, people with lower levels of education, and those who described themselves as having bad health. This shows that there are socio-economic characteristics that seem to influence smoking prevalence. People above 55 years old were less likely to smoke than the average and smoking seemed to decline increasingly with age. The same survey also found that more than half of smokers wanted to quit. This was the case amongst those smokers aged less than 45 years old in particular.

Key activities and their inputs

The mission of LARS with regard to smoking is to protect the public by regulating and advising premises, allocating licences and enforcing laws. To do that, working processes in LARS may be split in various stages: data collection and analysis followed by enforcement and education. Although these activities often follow a sequential order, this may not always be the case. In fact, the sources of data very often include information about previous education and enforcement actions. For reasons of simplicity we distinguish between the stages described in the following sections.

Data collection and analysis activities

Local authorities spend a significant amount of time collecting, collating and sharing **intelligence data**. These data are often collected and collated by the local authority itself.

¹ Office of National Statistics (2009). Statistics on Smoking England, 2009. Available at: http://www.ic.nhs.uk/webfiles/publications/smoking09/Statistics_on_smoking_England_2009.pdf (accessed October 2009).

² <http://www.tobacco.org/news/290442.html>

³ http://www.opsi.gov.uk/acts/acts2006/ukpga_20060028_en_2#pt1-ch1-pb2-l1g2

They typically include information on inspections, visits or audits; and information originating from initiatives, projects or special investigations. At the same time, related intelligence data on smoking prevalence, smoking behaviour and other related smoking statistics are also available through partnerships with other services of the locality such as the fire brigade, the police, the health sector, social care professionals and local community actors. On other occasions, data are shared between local authorities and national regulators or other national bodies such as HM Revenue and Customs. Collection of data is an activity, whereas the **data** themselves are an important input to the activities of regulatory authorities in tackling smoking. They may include research laboratory results and also statistics on complaints from the public. Public bodies offer information desks and channels of communication such as the web, the phone and physical facilities to respond to residents' enquiries and offer various forms of support. These communication channels are not only important support services, but also important sources of information. Following the path of data collection, data are monitored and analysed. For this activity local authorities require the appropriate **infrastructure** – buildings, equipment and people. Infrastructure includes office equipment, computer and communications equipment, and other types of technology. **Staff** need to be trained and to have the skills, competencies and analytical capacities their work requires. Altogether staff, skills and infrastructure form the basis of the data collected, stored and analysed by local authorities, who carry out their statutory activities.

Risk assessment has a key role to play at all stages of the regulatory process. Typically, the local authority will use risk assessments or risk ratings to prioritise its work, in particular in relation to inspections. This element also contributes to the general move towards a better regulation agenda in which local authorities and national regulators seek to minimise the burden they place on compliant businesses and direct their resources to best effect towards businesses they suspect may be in breach of legislation (or know to be non-compliant from previous inspections). In the case of smoking, local authorities may prioritise those businesses that have previously been caught selling tobacco products to young people under the age of 16, for example.

Following guidance from the BIS, regulators aim to adopt a precautionary principle to minimise the regulatory burden they place on third parties. This includes keeping three criteria in mind: 'that there must be a credible threat (which needs to be described and clarified); that scientific certainty is not required (but the appropriate level of scientific proof needs to be determined); and that measures taken must be cost-effective (which requires the validity of any cost-benefit analysis to be tested critically)' (BIS 2009a).

Education and awareness activities

With appropriate intelligence data and analytical support, regulatory services can carry out **education and awareness activities**, which are different depending on whether the target is the demand or the supply side of the smoking market. On the demand side, local authorities work together with other organisations using a variety of different marketing and communication strategies to inform the population about the adverse effects of smoking, including those on health and those on the environment caused by fire and littering. For example, local authorities often create media opportunities to promote smoke-free environments, collaborating and supporting national media campaigns and so

on. In addition to general public campaigns, strategies addressing the demand for cigarettes target particularly people at high risk such as those under the age of 16, pregnant women, and people on low earnings and in low-skilled employment.

On the supply side, local authorities in conjunction with partner organisations such as Business Link and the local Chamber of Commerce work to increase general awareness and provide advice about existing (and often new) regulation of smoking.

Enforcement activities

To reduce smoking, regulatory authorities act on several enforcement fronts:

- **Enforcing marketing and sales legislation.** Tobacco lobbyists claim that advertising only increases the market share of a particular brand, without recruiting new smokers. However, tobacco control activists assert that tobacco advertising stimulates tobacco sales (and thus encourages smoking behaviour). Several evaluation studies confirm this position, reporting decreases of up to 9 per cent in smoking prevalence as a consequence of banning tobacco advertising (Willemsen and de Blij 2009). Because of the negative consequences of tobacco advertising, local regulatory authorities have the duty to ensure that current restrictions (e.g. regarding advertising, labelling, free gifts) and new regulations on tobacco (e.g. internet advertising, brand-sharing) are enforced.
- **Enforcing underage legislation.** Under British law, it is prohibited to sell certain products, such as tobacco, to persons under a certain age. Furthermore, retail premises are under the obligation to put a warning notice in a prominent position to make that message visible to anyone purchasing cigarettes. Appropriate warnings also need to be displayed on vending machines.
- **Enforcing smoke-free legislation.** LARS also ensure workplaces and enclosed public places in England comply with smoke-free legislation.
- **Dealing with counterfeit tobacco.** This is a task typically performed by trading standards within local authorities. Counterfeit tobacco is a widely available substitute for genuine tobacco products. It tends to be found in shops located in more disadvantaged areas and in car-boot sales, amongst other places. Control of it not only contributes to better health outcomes,⁴ but also to a fairer and more competitive market.
- **Tackling smoking-related litter.** Smoking-related litter is detrimental to local areas as it degrades the amenities and general environment. In addition, smoking litter can be dangerous: burning cigarettes can cause bin fires (and potentially more extended fires and human deaths).

⁴ If cheap cigarettes were not available to under-16s, for instance, we can envisage that the price of genuine tobacco products would be an incentive for young people not to smoke. In addition, counterfeit tobacco products may contain additional hazardous substances and have greater health consequences than tobacco itself.

Outputs

Regulatory authorities aim to carry out their activities in a practical, equitable, consistent and constructive way whilst having a positive impact. Enforcement authorities, including Leicester City Council, recognise that as a principle businesses want to comply with the law. They therefore follow ‘soft’ approaches that minimise the regulatory burden on businesses. These approaches may produce different outputs. Education and awareness activities include outputs such as routine and targeted visits by LARS to business premises in order to raise awareness and provide advice, and campaigns and leaflets aimed at the target population. Outputs derived from enforcement activities include inspections, reports of investigations, test purchasing, informal warnings, formal statutory letters, formal legal cautions, and so on.

For critical breaches of legislation, LARS follow the prosecution pathway, with outputs ranging from fixed administrative penalties to court rulings, revocation of licence, prison sentences, and so on.

The outcomes of enforcing smoking regulation (causal chain)

Outcomes are medium- to long-term effects derived from the activities carried out by local authorities alone, or in collaboration with other public and private organisations. In the case of smoking, we identified a number of outcomes and impacts to which Leicester City Council contributes. We have described these along a set of two key causal chains as described below: Education, awareness and enforcement activities include ‘soft’ measures of enforcement such as advice and caution letters.

Chain 1: education and awareness activities are conducted by local authorities, mostly in coordination with other public and private organisations. The thrust of these activities is to increase awareness of the negative consequences of smoking by informing the public about the health and environmental consequences and dangers. Higher rates of awareness may lead to changes in behaviour with lower prevalence of smoking and fewer younger people starting to smoke. If the causal chain follows, a lower prevalence of smoking will improve health outcomes and consequently will reduce healthcare costs and social inequalities, and contribute to increased life expectancy for those who quit smoking.

Chain 2: enforcement activities are conducted by local authorities when businesses are found not to be compliant with legislation. These measures may include ‘soft’ instruments like business advice or caution letters, or sanctions such as administrative penalties, licence revocation or prison sentences. Depending on the area of activity performed by the regulatory authority, the following subcausal chain components have been identified within the wider enforcement causal chain:

- With **marketing and sales enforcement**, local authorities aim to prevent the illegal advertising and promotion of tobacco products, which if enforced reduces smoking prevalence rates and dissuades people from starting to smoke. The impacts are straightforward: improvement in health outcomes and consequently a reduction in health costs and social

inequalities, and an increase in life expectancy for those smokers who quit.

- **Enforcing underage legislation** aims to reduce the availability of tobacco products to young people, helping them to avoid an early start in smoking and thereby contributing to better health outcomes.
- **Ensuring compliance with smoke-free legislation** intends to change the behaviour of smokers, and also to improve the environment of businesses, thereby reducing exposure to harmful smoke. Again, the direct impact of these activities is lower prevalence rates and improved outcomes.
- By **dealing with counterfeit tobacco** authorities expect to reduce the supply of cheap cigarettes, with the purpose of reducing smoking prevalence, dissuading potential new smokers from starting, and so contributing to better health outcomes. However, the main purpose of dealing with counterfeit tobacco is to contribute to a fairer and more competitive market, in which businesses compete in the same conditions.
- By **tackling smoking-related litter**, regulatory authorities intend to reduce the illegal disposal of cigarette butts and consequently prevent bin fires and reduce smoking-related litter. At the same time, the prevention of bin fires implies generally a reduced number of fires, preventing negative health outcomes and potentially saving lives, and also protecting valuable material property (including land). Reducing the illegal disposal of cigarette butts also supposes a decrease in cleaning costs and hence a more efficient use of council resources that can be redirected elsewhere.

The pathway

Based on the workshop and additional review of documents, the pathway represented in Figure 0.3 could be developed.

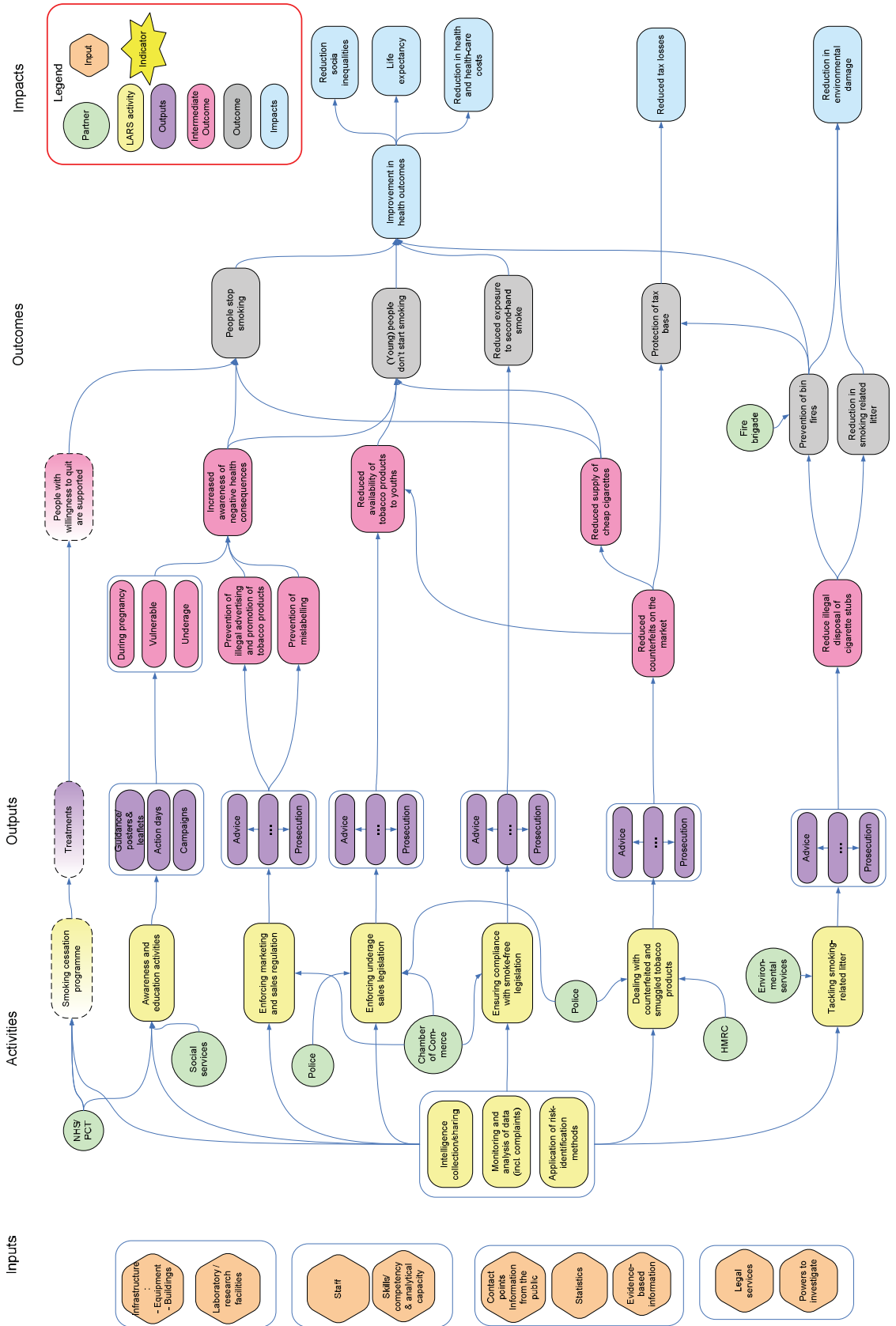


Figure 0.3: Smoking pathway

Identifying indicators and developing a dashboard

After establishing the pathway and intervention logic for smoking, the next step is to identify indicators that can be used to measure the key elements of the pathway in an impact and outcome dashboard.

In terms of **inputs**, we would envisage that Leicester City Council has information available on staffing levels, training and level of experience of staff, as well as on budget allocation for the environmental health team overall (if no specific information is available for the activities the team carried out with regard to smoking in particular). This budget information is likely to include salary costs, running expenses and other departmental overheads.

The council's work in relation to smoking is very varied and, as previously identified, may be clustered into two main groups of activity or causal chains:

Chain 1: education and awareness activities

Chain 2: enforcement activities.

The main inputs for chain 1 have been mentioned (staff, staff experience, budget, etc.) and will also include information obtained from partner agencies in order to target education and awareness activities at certain at-risk groups, for instance (e.g. the team might rely on information from the PCT to gain intelligence about which groups within the population are most likely to start smoking). The inputs for chain 2 are largely centred on intelligence gathered by the council. As previously mentioned, this intelligence will be made up of various sources and types of information including complaints from the general public about non-compliant premises (e.g. someone reports a business they have witnessed selling tobacco products to under-16s), risk rating of premises (based on complaints from the public, intelligence from partner agencies and experience of dealings with a business, as well as other criteria such as type of business), and information and statistics from partner agencies about premises and the population in a given area.

Thus the selection of indicators for the dashboard at this point is relatively straightforward and could be as follows:

1. staff (FTE or in £)
2. running expenses (in £)
3. departmental overheads
4. staff training and years of experience
5. number of complaints from the general public and partner organisations about non-compliant premises.

There is a range of **output** information that is currently available to the local authority to assess its activities in relation to smoking. These could include the number of inspections or visits to businesses for potential breaches of smoke-free legislation or for selling tobacco products to under-16s, the number of education and awareness activities and the number of people attending these activities, and the proportion of successful test purchases in

relation to the overall number of test purchases and the number of prosecutions for breaches in smoke-free regulation and underage selling of tobacco products. These outputs would be split between the two causal chains as follows:

Chain 1: number of education and awareness activities and the number of people attending these activities, and so on.

Chain 2: number of inspections or visits to businesses for potential breaches of the smoke-free legislation or for selling tobacco products to under-16s; proportion of successful test purchases in relation to the overall number of test purchases, the number of prosecutions for breaches of smoke-free regulation and underage selling of tobacco products, and so on.

The immediate **outcomes** resulting from these inputs and outputs are measured to different degrees. These are classified below into health outcomes and other outcomes, and are accompanied by suggested relevant indicators:

Health outcomes:

1. Reduction in the number of people smoking / increase in the number of people accessing smoking-cessation services; NI 123, 16+ current smoking rate prevalence / PSA 18.
2. Reduction in levels of second-hand smoke exposure – measures of cotinine concentrations⁵ in non-smokers; number of businesses non-compliant with the smoke-free ban.⁶

Other outcomes:

3. Reduction in illegal advertising and promotion of tobacco products – number of businesses non-compliant with legislation regarding the promotion and advertising of tobacco products.
4. Decrease in the availability of tobacco products to under-16s – number of successful test purchases in relation to the overall number of test purchases carried out.
5. Reduction in the supply of counterfeit tobacco products – number of counterfeit tobacco products offences.
6. Reduction in the number of bin fires caused by tobacco products such as cigarette butts – number of bin fires.
7. Reduction in smoking-related litter – number of tobacco-related littering offences.

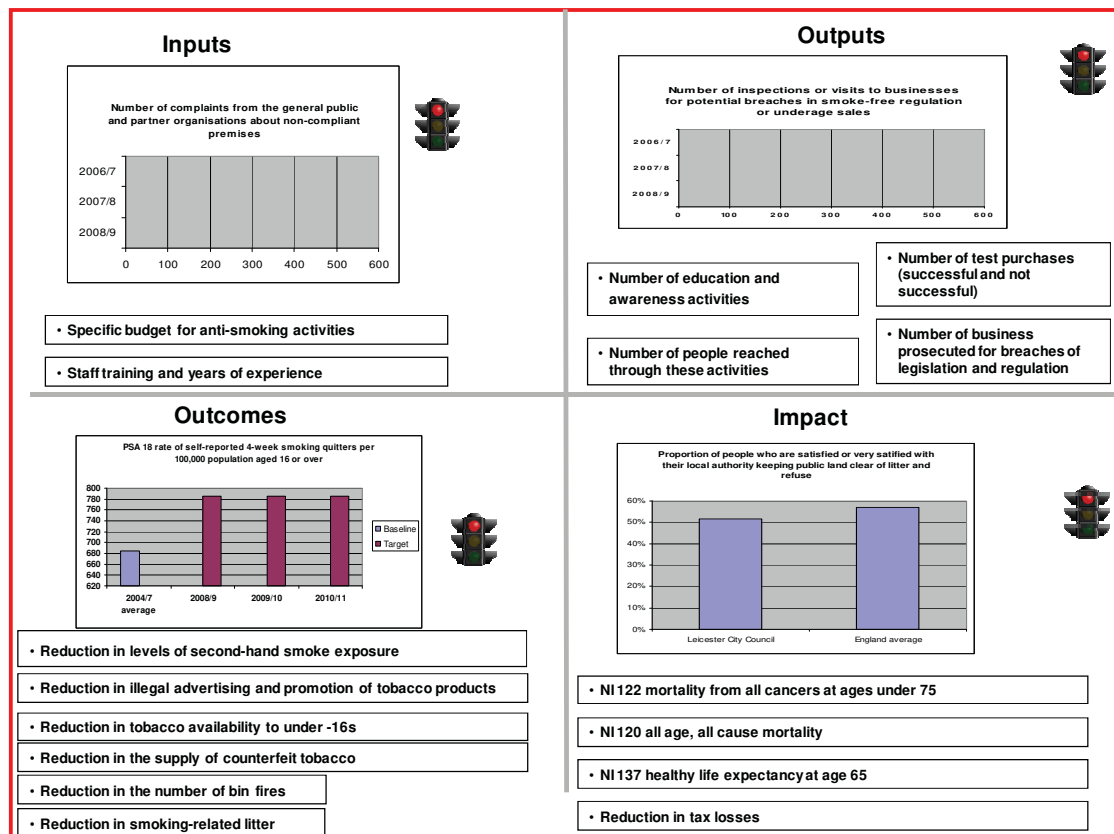
⁵ Cotinine has an *in vivo* half-life of approximately 20 hours, and is typically detectable for up to one week after the use of tobacco. The level of cotinine in the blood is proportionate to the amount of exposure to tobacco smoke, so it is a valuable indicator of tobacco smoke exposure, including secondary (passive) smoke (Source: Wikipedia 2009: <http://en.wikipedia.org/wiki/Cotinine>; last accessed July 2009).

⁶ This measure is suggested rather than the number of businesses compliant with the smoke-free ban because it is possible that the local authority will not have the exact number of businesses to which the smoke-free legislation applies within the area it covers.

In terms of **impacts**, we have identified the following as resulting from the two causal chains previously described and have indicated potential indicators for each:

1. **Improved health outcomes** including a reduction in social inequalities, an improvement in life expectancy and a reduction in health and healthcare costs that result from tobacco smoking – NI 123, 16+ current smoking rate prevalence / PSA 18; NI 122, Mortality from all cancers at ages under 75; NI 120, All age, all cause mortality rate; NI 137, Healthy life expectancy at age 65.
2. **Improved environment** – residents’ satisfaction with the local authority keeping public land clear of litter and refuse (place survey).
3. **Reduction in tax losses** through preventing counterfeit products and litter – number of penalties issued for tobacco-related litter (money recouped by the council), value of counterfeit products seized.

A summary of these indicators may be found in a dashboard in Figure 4.5 below. The traffic lights indicate whether the available evidence supports that impacts are made through the claimed causal chains or not. However, as may be seen, there was limited data publicly available about the different parts of the causal chain, with a notable exception for outcome and impact measures. Therefore, the traffic lights are only illustrative and do not indicate a judgement on Leicester City Council’s current performance in this regulatory area. We would envisage that local authorities would hold most of the data mentioned for the input and output component of the chain and that they therefore would be able to populate it themselves without much need for added data collection.



SOURCES: Leicester Local Area Agreement Framework 2008–11. and Place survey 2008

Figure 0.4: Dashboard for anti-smoking activities undertaken by Leicester City Council

3. Interventions to reduce alcohol-related harm in Cambridgeshire

According to a NHS Information Centre report published in May 2008, alcohol-related NHS hospital admissions more than doubled from 93,500 in 1995/6 to approximately 207,800 admissions in 2006/7. Of the total admissions, 57,100 were specifically related to alcohol, such as liver disease. Alcohol was also the cause of 6,500 deaths in 2006. Equally alarming has been the increase in the number of pupils who admit having started consuming alcohol and the increase in the units of alcohol consumed (NHS Information Centre 2008).

Drinking alcohol above reasonable consumption patterns has consequences for health outcomes and also affects the burden on the NHS. The estimated cost of dealing with alcohol-related sicknesses and admissions is from £1.7 billion to £3 billion each year.^{7, 8}

⁷ BBC (March 2004), Alcohol puts Huge Pressure on NHS, online, available at: <http://news.bbc.co.uk/2/hi/health/3537257.stm> (accessed June 2009)

⁸ Telegraph (June 2009), £3 Billion Cost of Alcohol to NHS every Year, online, available at: <http://www.telegraph.co.uk/health/healthnews/5561217/3bn-cost-of-alcohol-to-NHS-every-year.html> (accessed July 2009)

Furthermore, consumption of alcohol often results in higher rates of violence and crime. For example, reports show that 46 per cent of victims of violence and crime believed the offender was under the influence of alcohol at the time of the offence. Fifty-nine per cent of victims who were wounded believed the offender was under its influence, and 47 per cent of victims who were assaulted with minor injuries thought the offender was under its influence (NHS Information Centre 2008). Thirty-two per cent of incidents of intimate partner violence were committed when the perpetrator was under the influence of alcohol (Home Office, 2004a). The annual cost of alcohol-related crime and public disorder has been estimated at £7.3 billion.⁹

Furthermore, alcohol has significant negative consequences for the overall economy: the total cost of absenteeism (including employer costs) due to alcohol misuse in England was estimated at £1.8 billion in 2001 (Cabinet Office and Strategy Unit 2003). The cost to employers has been put at £6.4 billion.

The figures moved the government to publish the Alcohol Reduction Strategy for England in 2004 and a renewed strategy in 2007 entitled ‘Safe, Sensible, Social: Next Steps in the National Alcohol Strategy’. These publications included the following aim:

to best minimise the health harms, violence and anti-social behaviour associated with alcohol, while ensuring that people are able to enjoy alcohol safely and responsibly¹⁰

Cambridgeshire County Council has been significantly successful in reducing alcohol-related negative consequences. It won Beacon status for ‘Cutting Red Tape: Delivering Real Economic and Social Benefit through Better Regulation’.¹¹

Key activities and their inputs

To address alcohol-related harm, Cambridgeshire County Council conducts five main types of activity. The first is common to the others and consists of procedures related to collecting, collating and sharing information with partner organisations, especially the local community, the NHS and the police. These partnerships have been set up to share tasks (and therefore resources), including tasks related to data collection and analysis. The remaining four broad areas of activity are the following:

- **Awareness and education activities.** To change alcohol consumption patterns, it is first crucial to understand what sectors of the population are most at risk. Statistics reveal that young people are the most vulnerable to unsafe and anti-social drinking patterns, whether as victims of violence and crime from others such as relatives and friends or as consumers of alcohol themselves. One important element of an alcohol-reduction strategy is to set up campaigns in collaboration

⁹ BBC (March 2004), ‘Alcohol puts Huge Pressure on NHS’. online, available at: <http://news.bbc.co.uk/2/hi/health/3537257.stm> (accessed June 2009)

¹⁰ Cambridgeshire Alcohol Strategy 2008–2011, online, available at: http://www.huntsdc.gov.uk/NR/rdonlyres/B79922AB-E732-4F15-AC16-8A313D30CF4A/0/cambridgeshire_alcohol_strategy_2008__2011_final1.pdf (accessed June 2009)

¹¹ IDEa/LBRO, Cutting red tape: delivering real economic and social benefit through better regulation. Beacon Scheme, online, available at: <http://www.beacons.idea.gov.uk/idk/aio/10847491> (accessed July 2009).

with schools to educate and inform children about how risk-taking alcohol consumption can be avoided.

- **Referral to and coordination with health and social services.** Cambridgeshire employs significant resources on preventative measures, such as educating young people and parents about abusing alcohol. An equally important approach to reducing negative alcohol-related consequences is actively providing help and advice to those in need of assistance owing to an existing alcohol-related problem. These types of intervention include referring people who need treatments or social support to the relevant health and social care services. Identification of people at risk can be achieved through collaboration with NHS services, by identifying hot-spots together with the police and community services, and so on.
- **Provide business advice.** LARS inform businesses not only about potential new pieces of legislation, but also about how to implement and better comply with alcohol regulation. They also inform businesses about the risks of alcohol consumption. Advice includes how best businesses, regulatory services and other partnerships can work together to tackle the adverse impacts of a night-time economy.
- **Enforce underage legislation.** It is illegal for age-restricted goods to be sold to those who are below the specified age limit. A trader can be prosecuted for making an illegal sale. Ignoring the risks of underage alcohol sales does not only affect the health of the community but also the quality of life of those affected. For Cambridgeshire and the majority of councils in England, reducing alcohol-related anti-social behaviour among youths is a priority. To stamp out illegal sales and reduce youth disorder, Cambridgeshire provides advice to businesses. The authority also coordinates and balances the prevention of disturbance (including underage alcohol sales) in neighbourhoods where temporary sports or cultural events are taking place.

To conduct these activities, the council requires a number of inputs. These include first of all staff, who need to be adequately trained and skilled, and appropriate infrastructure – including buildings, laboratory and research facilities and equipment. The council also needs intelligence data on unsafe and anti-social alcohol consumption. These stems from many different sources (depending on the partnership agreement) and includes the police, schools, PCTs and retailers, and members of the public and council officials. Enforcement officers need to be equipped with adequate powers to enforce and investigate cases. Together the inputs mentioned form the basis of local authorities' statutory activities.

Outputs

These activities lead to a series of intermediate and final outputs. First, there are outputs from data collection such as reports. Secondly, in terms of education and awareness, local authorities produce a variety of outputs. For example, the trading standards services (TSS), in collaboration with the police, arrange school visits to inform students about the consequences of buying and consuming alcohol. Often staff from licensed premises are also present during school visits. Other outputs include awareness workshops, posters, leaflets and information campaigns. Business advice can take many forms, including visits to

premises and distribution of information packs about the dangers of underage selling and tips about what to do to reduce it. Thirdly, inspections and test purchasing are conducted. The latter consist of sending minors into shops to see whether they are sold alcohol. Finally, outputs in cases of underage sales of alcohol may be court rulings, formal caution letters, fixed penalties issued by regulatory services, fines or revocation of licences.

The outcomes of enforcing alcohol regulation

Cambridgeshire County Council's efforts to tackle unsafe consumption and illegal sales of alcohol may lead to a number of outcomes and impacts, along four main causal chains:

Chain 1. The current main activity of the regulatory service is to carry out and coordinate **awareness and education activities** targeted at young people, parents and the general population. Clear benefits are gained from alerting the population about the consequences of alcohol and educating them on how to drink safely and responsibly. By doing so, it is hoped that alcohol consumption can be reduced and dangerous drinking patterns changed – especially among underage people and young people between 18 and 24, who are legally allowed to drink but statistically the most significant group of binge drinkers – thereby reducing adolescent pregnancies, accidents caused by drunk driving and hospital admissions due to alcohol consumption. A publication by the Home Office reports that the number of people in the UK that binge-drink at the ages of 18–24 is around 50 per cent among males and a third among females.¹² Changes in behaviour, whether reduced average consumption, less dangerous drinking patterns or both, have very significant consequences for health outcomes. For example, by decreasing the number of people starting to drink at a young age, the number of deaths from liver cirrhosis should decrease. Improvements in health outcomes have an impact on the costs of health and the healthcare system. In addition to achieving positive health outcomes, education and awareness activities are crucial for reducing anti-social behaviour, which includes crime, reckless disregard for safety of self and other forms of consistent irresponsibility. Reducing anti-social behaviour contributes to a healthier and safer community and reduces alcohol-related litter, thereby contributing to a cleaner environment.

Chain 2. A very similar causal chain applies to those activities concerned with the **coordination and referral of cases to health and social care services** providing help, advice and treatment to people with high alcohol dependency. As with education and awareness, the provision of services to reduce alcohol dependency may change alcohol consumption patterns and behaviour, leading to improvements in health outcomes and a reduction in violent crime. Alcohol is the principal factor in cases of violent crime, destroying families and contributing to a cycle of deprivation and lost opportunities.

Chain 3. Advice consists mainly of explaining to businesses what their legal duties are, informing them about good management practices and suggesting ways

¹² Home Office, Binge Drinking Campaign Resource Guide, online, available at: <http://www.alcoholstakeholders.nhs.uk/pdf/Binge%20Toolkit.pdf> (accessed August 2009)

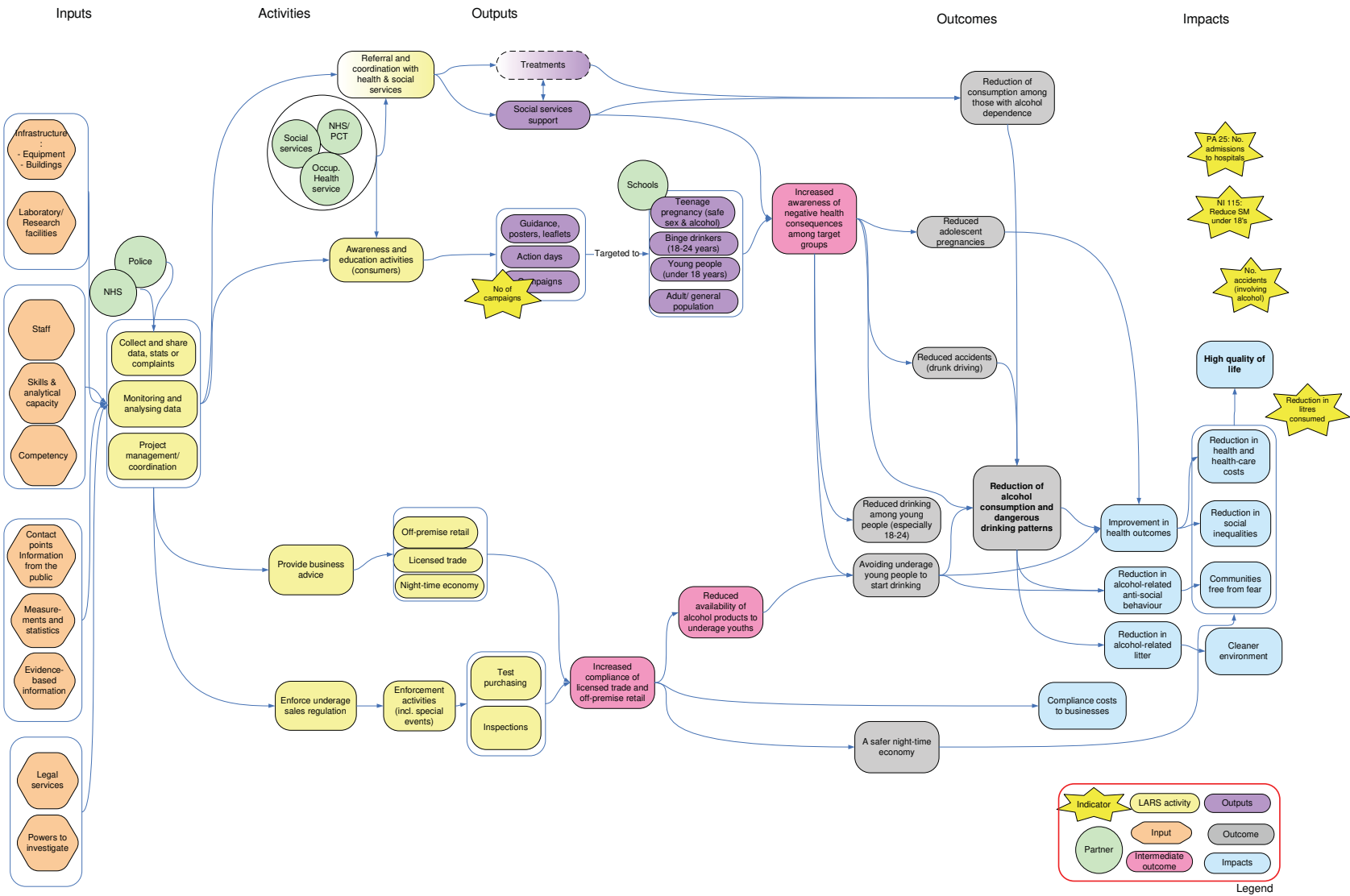
to promote responsible drinking. Furthermore, enforcement officers provide businesses with advice about what licences are required to sell alcohol, what forms and procedures are needed to get a licence, when and to whom alcohol is allowed to be sold, and so on. The outcome of such activities is increased compliance by the licensed trade and off-premise retail outlets, with the objective of reducing alcohol availability among underage youths as well as reducing alcohol consumption and dangerous drinking patterns among the general population. As with the previous causal chains, business advice may contribute to improved health outcomes, less anti-social behaviour and promoting safer and healthier communities more widely. Furthermore, the provision of information and advice may also contribute to reducing social inequalities, taking into account the fact that small and medium-sized businesses may not always have the resources to be up to date in relation to changes in legislation or ways to approach alcohol-related crime. By providing national coverage, regulatory bodies ensure that all businesses get information and advice, regardless of their size.

Chain 4. Enforcement outputs, including inspections and test purchasing, converge to the same common outcome as previous activities: reduced alcohol consumption accompanied by responsible and safe drinking patterns. By prompting such behaviour, society will benefit by savings in health and healthcare costs, fewer social inequalities and less anti-social behaviour. The last of these not only leads to a safer community, but also to a cleaner environment – drinking alcohol in public places such as streets and parks is often correlated with higher volumes of litter.

In conclusion, in the long term the impact of enforcement activities combined with the other activities carried out by LARS contribute to a better quality of life.

The pathway

Based on the workshop and additional review of documents, the pathway represented in Figure 0.5 could be developed.



Identifying indicators and developing a dashboard

After establishing the pathway and intervention logic for alcohol reduction, the next step is to identify indicators that can be used to measure the key elements of the pathway in an impact and outcome dashboard.

In terms of **inputs**, Cambridgeshire could use information available on staffing levels as well as on yearly net budget. Staff and budget should be broken down by type of activity. The selection of indicators for the dashboard is relatively straightforward here, even though there may sometimes be difficulties in breaking down staff and budget by the different related activities:

1. staff (FTEs or in £)
2. net budget (in £).

If we consider the four causal chains again, the following **output** measures could be collected:

Chain 1. To support the Cambridgeshire alcohol strategy, the council provides a wide range of **education and awareness activities** producing a series of outputs. For example, education and awareness activities targeted at children and young people include the number of schools receiving personal, social and health education (PSHE) sessions. Another example of the type of outputs produced by local authorities is the number of pupil referral units¹³ receiving PSHE and the number of sessions delivered. There is a question about whether this type of information is collected regularly by LARS or partner organisations, although similar data should be collected to be able to achieve one of the LAA targets, which is to reduce teenage conception by 45 per cent.¹⁴ PSHE is delivered to promote the health and well-being of young people as they grow up by giving them knowledge and skills.

Chain 2. Treatment of alcohol in the UK is divided into four tiers of service delivery, with two variables, 'amount of treatment' and 'amount of observation', determining the appropriate level of intervention. Tier 1 and tier 2 consist of supportive counselling and opportunistic detoxification regimes respectively. Tier 3 is for complex cases and Tier 4 for the most urgent and severe cases of alcohol misuse (Raistrick 2000). In order to assess the extent of the problem of alcohol misuse and outputs delivered by local authorities, Cambridgeshire could count the number of cases by tier. For example, in the case of tiers 3 and 4, Cambridgeshire is counting the number of cases of alcohol detoxifications as well as the related percentage of rehabilitation placements. While this information was not at our disposal, it is probably collected for the NI 39, Alcohol-related hospital rates.

¹³ Pupil referral units (PRUs) are a type of school established and maintained by the local authority that provides education for children who require alternative educational provision.

¹⁴ Template for local public service agreement (LPSA) performance reward grant proposal of Cambridgeshire County Council, online, available at www.cambridge.gov.uk

Chain 3. Following the experience of a pilot community alcohol partnership (CAP) in St Neots (Cambridgeshire), trading standards provides **information and education** to off-licence premises to help avoid incidents of underage sales. Enforcement officers also visit licensed premises and attend special events, distributing information to provide advice to businesses, especially on how to deal with factors that affect safety, such as fire safety, first-aid provisions and structural integrity.¹⁵ The number of visits is probably a measure available to LARS, but was not publicly available.

Chain 4. Some measures which give a feel for the scale of activities engaged by **enforcement** officers may be measured in term of inspections, the total number of attempted test purchases using children, and the number of complaints from the public about underage sales of alcohol.

All activities carried out by LARS lead to one common outcome: reducing alcohol consumption and at the same time changing behavioural patterns with regard to drinking alcohol. In fact, reducing average levels of alcohol consumption is not enough. By increasing knowledge and providing advice to both businesses and consumers, local authorities aim to trigger more responsible, safe and reasonable alcohol behaviour. How regulatory activities impact on alcohol consumption is easy to measure. Statistics are regularly available from bodies such as HM Revenues and Customs, which collects excise data on duty-paid clearances for the UK domestic market, and by the Office of National Statistics, which publishes the alcohol consumption pattern. The intermediate outcomes for the causal chains are slightly more difficult to measure, and not necessarily always available:

Chain 1. Substantiation of the claim that education and awareness activities lead to less alcohol consumption and less dangerous drinking patterns requires them to be linked together by understanding, first, whether those activities change people's awareness of the dangers and consequences of irresponsible alcohol drinking. This can be measured by means of public opinion perception surveys with either the overall population or specific target groups. For example, Cambridgeshire found that alcohol as a whole is a concern in the wider community. Findings included results where 78 per cent of people feel informed about the risks of alcohol, but 40 per cent wanted more information.

Chain 2. A typical output of the referral and coordination of alcohol cases consists of counting the number of cases of alcohol detoxification over a period by tier level – in other words, by the extent and gravity of the alcohol case. However, to connect and understand the relationship between availability and access to treatments and its effect on consumption patterns, it is necessary first to understand whether the number of cases treated actually contributes to less consumption among those with alcohol dependence. Ideally, the length and frequency of structured alcohol interventions should be recorded as well as the outcomes of those, which can be measured by, for example, the levels of alcohol in

¹⁵ [http://www2.cambridgeshire.gov.uk/commins/minutes.nsf/web/sub-commins-env_transport-env_trans_ctte-reports-etc0699-5.doc/\\$FILE/etc0699-5.doc](http://www2.cambridgeshire.gov.uk/commins/minutes.nsf/web/sub-commins-env_transport-env_trans_ctte-reports-etc0699-5.doc/$FILE/etc0699-5.doc)

blood and cases of relapse. Unfortunately, Cambridgeshire does not record any of that information systematically.¹⁶

Chain 3 and Chain 4. The supply of alcohol is also an important factor affecting alcohol consumption – alcohol consumption is affected by the legal and illegal availability of alcohol. To reduce the availability of illegal alcohol, and therefore illegal consumption, LARS need to make sure they are increasing business compliance. Business compliance is typically assessed in terms of number of complaints.

So, following the causal chain, activities have been linked to a common outcome: reduction in alcohol consumption and reduction in dangerous drinking patterns. However, in terms of the wider, long-term impacts, the causal chain splits into three main types of impact:

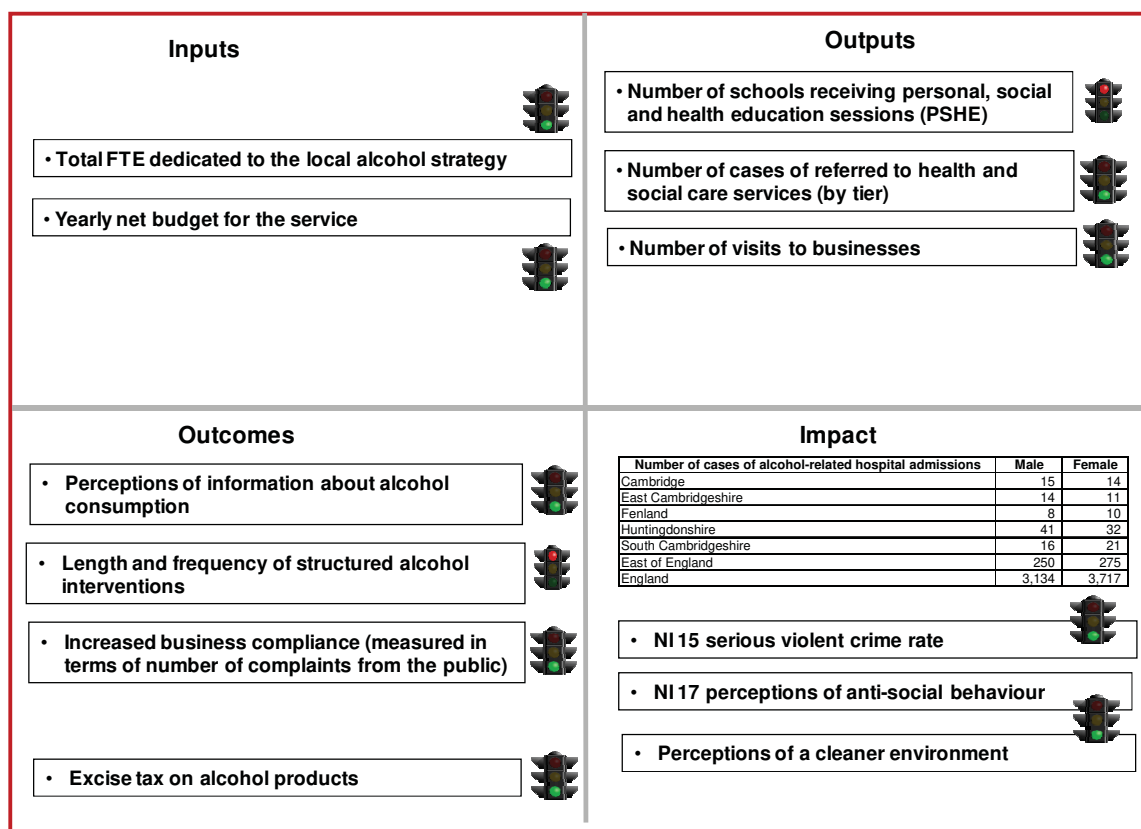
- **Impact on health outcome indicators.** Lower alcohol consumption has proved to decrease alcohol-related disease such as liver cirrhosis. Other possible indicators include hospital admissions for alcohol-specific conditions.¹⁷ Evidently, through their activities and their impact on health outcomes, LARS are also contributing to reduce health and social care costs.
- **Impact on anti-social behaviour and violent crime.** Statistics show that on average 38 per cent of offenders supervised by the Cambridge probation area identified alcohol as the principal cause for offending. By reducing alcohol consumption – whether through increased compliance by retailers, pubs and other premises or because of increased knowledge and awareness by consumers – violent crime and anti-social behaviour can be reduced. NI 15, Serious violent crime rate, and NI 17, Perceptions of anti-social behaviour are reported on an annual basis.
- **Impact on alcohol-related litter.** The evidence from the CAP pilot scheme in St Neots showed that (joint) interventions to reduce underage public drinking reduced alcohol-related litter in spot areas by 92 per cent.

In the long term, safer, healthier and cleaner environments will have multiple effects in yielding better quality of life. Despite limitations derived from attribution, levels of satisfaction are often measures in surveys.

A summary of these indicators may be found in a dashboard form in Figure 0.6. The traffic lights indicate whether the evidence available supports that impacts are made through the claimed causal chains or not.

¹⁶ Cambridgeshire Alcohol Strategy 2008–2011, online, available at: http://www.huntsdc.gov.uk/NR/rdonlyres/B79922AB-E732-4F15-AC16-8A313D30CF4A/0/cambridgeshire_alcohol_strategy_2008__2011_final1.pdf (accessed June 2009)

¹⁷ Cambridgeshire Alcohol Strategy 2008–2011, online, available at: http://www.huntsdc.gov.uk/NR/rdonlyres/B79922AB-E732-4F15-AC16-8A313D30CF4A/0/cambridgeshire_alcohol_strategy_2008__2011_final1.pdf (accessed June 2009)



SOURCE: RAND Europe

Figure 0.6: Dashboard for alcohol activities in Cambridgeshire County Council

4. Implementing health and safety regulation in workplaces in Islington

Over 200 people a year lose their lives at work in Britain, around 150,000 non-fatal injuries are reported each year and an estimated 2 million suffer from ill health caused or made worse by work (HSE 2008). These injuries are very costly to employers. As an example, slips and trips alone have been estimated to cost employers over £500 million a year (*ibid.*).

Health and safety regulation in the workplace is aimed at helping businesses comply with legislation in order to minimise the risks of accidents, ill health and sickness absence resulting from work activities.

It is mainly regulated through the Health and Safety at Work Act etc. 1974 and the Health and Safety (Enforcing Authority) Regulations 1998. The latter statutory document allocates the enforcement of health and safety legislation of different premises to HSE and local authorities. In a nutshell, the regulations set out the following division between the two:

1. HSE is responsible for workplaces where the main activity is manufacturing, transport services, healthcare, education, public sector services and construction.

2. Local authorities are responsible for enforcement in the services sector, such as offices, retail premises, warehouses, catering establishments, consumer services premises, places of entertainment, hotels and residential accommodation.

For an urban area such as Islington which has over 5,000 workplaces¹⁸ that fall within the remit of the local authority and a large number of commuters, health and safety in the workplace is an important service.

The borough of Islington is an inner London authority with a population of 175,797 and 80,289 households. It covers an area of just 6 square miles and is London's smallest borough. It borders four local authorities – Hackney, City of London, Haringey and Camden – in an area of immense diversity in both use and population. Islington is rated as the eighth most deprived area in England, but house prices are well above the London average, showing that disparities are high. The ethnic minority population is estimated at 26.75 per cent and there are many community languages.

Key activities and their inputs

To address health and safety in the workplace, Islington Borough Council conducts two key sets of activities: inspections (both programmed and reactive) and the provision of guidance, training and information to businesses, employees and members of the public regarding health and safety in the workplace.

Programmed inspections represent the bulk of the work carried out by the commercial environmental health team, and a majority of the team's resources are dedicated to these. Each year, officers in the team are set inspection targets as part of their performance appraisal process. They are monitored on progress against these targets on a monthly and quarterly basis. As an example, in 2006/7 the inspection target for the team was 380.

Reactive inspections, on the other hand, are ad hoc inspections triggered by intelligence gathered from the public, employees, businesses and partners such as the police and the fire brigade as well as HSE. This information is logged by the team along with details of any subsequent inspections or actions from the team with regard to this intelligence. In the event that the intelligence gathered about a potential health and safety risk in a workplace falls under HSE's jurisdiction, the team passes on the relevant information to HSE for them to act upon. If the intelligence gathered falls under the remit of the council and the information given is deemed to be serious enough to present a potential risk to health and safety, an officer from the team will make an initial visit to the site. When the investigating officer finds significant evidence of a potential health and safety breach on the premises, they will provide the business with guidance and advice on how to comply with health and safety regulation effectively or, if the breach is serious enough, initiate a process of formal action.

¹⁸ Of these 5,000 workplaces, over 1,000 are classified as retail shops, 2,000 as offices and 1,000 as catering premises. Source: Islington Council, Public Protection Division, Workplace Health and Safety Enforcement Service Plan 2006/7, online, available at: <http://www.islington.gov.uk/DownloadableDocuments/Environment/Pdf/healthandsafetyserviceplan.pdf> (Accessed, July 1st, 2009).

In addition to inspections, the council organises awareness-raising events and training events to inform and guide businesses and the general public on how to comply with health and safety legislation.

In order to conduct these activities, the council requires a number of inputs. These are first of all staff. In 2006/7, the commercial environmental health team has 23 members of staff for a range of activities including health and safety. The team comprises 4 principal environmental health officers, 14 senior environmental health officers, 4 principal technical officers and 1 trainee food safety officer. These staff need to be adequately trained and skilled to carry out their job within the team; skills are an important input to the council's work on health and safety in the workplace. Skills are not only necessary to carry out investigations on the ground, but also for applying risk ratings to premises in order to prioritise programmed inspections. In conducting their enforcement and guidance/awareness-raising activities, officers need to be equipped with adequate powers and knowledge to enforce health and safety legislation in the workplace and carry out investigations, as well as to provide guidance. The employment and training of staff require financial resources which are detailed in Table 0.1 below for the year 2006/7.

Table 0.1: Budget dedicated to workplace health and safety

Activity	Workplace health and safety budget (£)
Employee salaries	380,261
Running expenses	10,990
Total budget under budget manager's control	391,251
Department overheads	154,654
Gross expenditure	545,905

SOURCE: Islington Borough Council (2006), Public Protection Division, Workplace Health and Safety Enforcement Service Plan 2006/7, online, available at:
<http://www.islington.gov.uk/DownloadableDocuments/Environment/Pdf/healthandsafetyserviceplan.pdf>
 (accessed 1 July 2009)

The team's authority is derived from the two statutory documents: the Health and Safety at Work Act etc. 1974 and the Health and Safety (Enforcing Authority) Regulations 1998. Finally, the team needs intelligence about potential breaches of health and safety legislation in order to carry out their reactive work. This type of information/intelligence is passed on to the team by a wide range of stakeholders and partners, including the general public, employees, businesses, the police, the fire brigade and HSE. Another important input into the process of health and safety regulation enforcement in the workplace is the service planning and objective setting activities that the team carries on a yearly basis to drive their activities.

Outputs

The activities described above lead to a series of outputs. Inspection activities (both programmed and reactive) lead to two sets of possible outputs: formal action and informal action. Formal action is undertaken by the team when there has been a serious breach of health and safety regulation or when businesses that were previously advised about an existing health and safety hazard on their premises fail to remove it. The outputs of formal action available to enforcement officers may be categorised as follows:

- serving statutory notices or prohibiting activities

- seizing equipments, documents and goods
- issuing licences with conditions
- removing licences or changing conditions
- issuing formal cautions
- prosecution
- seeking injunctions.

On the other hand, informal action may be taken when no formal breach of health and safety legislation has been found or when there is a breach of legislation but it is not deemed to warrant immediate formal action. The outputs of informal action include giving advice and guidance as well as sending warning letters setting out changes that need to be made to work premises to make them compliant with health and safety regulation.

In terms of education, outreach and awareness activities for the general public and businesses, the main outputs are events and activities to raise awareness. For instance, the team has recently run a dermatitis awareness event for hairdressers to raise awareness and dispense advice about how to deal with this issue in that particular sector. The team also runs regular training events for businesses. The team uses examples of prosecutions of businesses as a means to raise the public's awareness of particular health and safety issues in local businesses; for instance, they recently publicised the prosecution of a tattooist in the local press. This publicity acts as a deterrent to other businesses as it shows them that the council is taking action and that there is a risk of their getting caught if they don't comply with current regulation.

The outcome of health and safety regulation in the workplace

The work of the commercial environmental health team in the area of health and safety in the workplace can lead to a number of outcomes and impacts at the local level. We have clustered these impacts and outcomes along two main **causal chains**:

1. The first causal chain is the **removal of potential health and safety hazards in the workplace** through both programmed and reactive inspections. Inspections are the main activity carried out by the team and they have both direct and indirect consequences for the local community. Directly, there are clear benefits from removing potential health and safety hazards, the main one being a reduction in the risk of accidents, ill health and death in the workplace. Indirectly, prosecutions that result from the investigation of potential hazards in workplaces may also act as a deterrent and increase compliance with health and safety legislation from other businesses if the prosecutions are effectively publicised. In addition, publicising prosecutions may increase the general public's awareness of health and safety regulation, which may in turn result in more intelligence/complaints being transmitted to the team for investigation.
2. The second causal chain is the **provision of guidance and advice to both members of the public and businesses** through educational and training activities. This tends to be a more ad hoc set of activities which may, for example, include individual training or awareness-raising events. The aim of this set of

activities is to inform and raise the awareness of the general public and businesses about health and safety legislation and compliance. Logically, this provision of information about legislation and how to comply with it should reduce the number of accidents, and the incidence of ill health and deaths caused by breaches in health and safety legislation.

Both of these causal chains contribute to wider impacts on the local community. There are three main impacts to which these chains contribute. They are as follows:

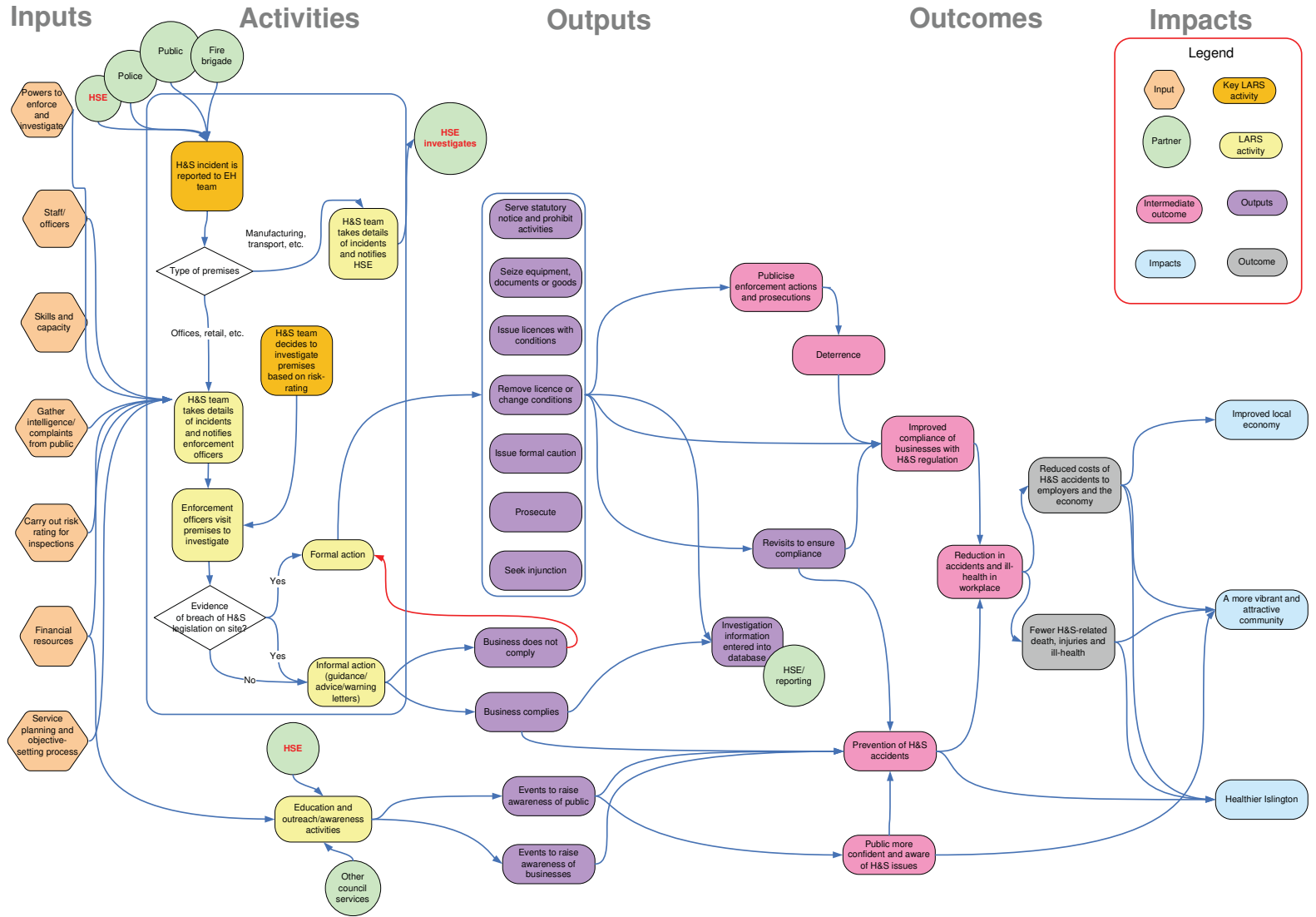
1. **An improved local economy.** As more businesses comply with health and safety legislation, we envisage that they will save financial resources through having fewer staff members off work due to ill health or injuries, which will contribute overall to an improved local economy. In addition, it is possible that compliant businesses will be more sustainable financially because their risk of litigation from employees is lessened and because they are more likely to be compliant in other areas.
2. **A more vibrant and attractive community.** As more businesses comply with health and safety legislation, we envisage that local businesses will become more attractive places to work in, contributing to ensuring that a flow of people come into the borough to work and also spend some leisure time in pubs, restaurants, bars, shops and other outlets located there.
3. **A healthier Islington.** As accidents, ill health and deaths are reduced, we envisage that employees' health will improve to some extent and that this could have wider implications for the local community's health status.

Some of these impacts will be reflected in the place survey or business satisfaction survey, for example.

The pathway

Based on the workshop carried out at Islington Borough Council in June 2009 and additional documents, we were able to develop the following pathway.

Figure 0.7: Health and Safety Pathway



Identifying indicators and developing a dashboard

After establishing the pathway and intervention logic for health and safety in the workplace, the next step is to identify indicators that can be used to measure the key elements of the pathway in an impact and outcome dashboard.

In terms of **inputs**, Islington Borough Council currently has information available on staffing levels as well as the budget allocation for the team's health and safety enforcement work in the workplace, broken down into employee salaries, running expenses and department overheads.

As previously mentioned, a majority of the team's inspection work is undertaken through programmed inspections based on risk ratings of premises. Another significant part of the team's work is made up of reactive inspections triggered by intelligence from a number of stakeholders and partner agencies (i.e. the general public, businesses, the police, the fire brigade, etc.). It is expected that a majority of this intelligence is either provided by phone or in writing and that the team then enters the information gathered into a database to inform its enforcement work. Therefore, one of the input measures could be the number of complaints or reports of health-and-safety-related incidents made to the team. Other inputs such as skills and the powers to investigate are not easily quantifiable, but the team would hold qualitative information about these. For instance, the team would know the qualifications of their staff and their years of experience, and so on. These inputs are fairly generic and feed into the two main causal chains previously identified. Thus the selection of indicators for the dashboard at this point is relatively straightforward and could be as follows:

1. staff (FTEs or in £)
2. running expenses (in £)
3. department overheads (in £)
4. number of complains/reports made to the team.

There is a range of **output** information that is currently available for the enforcement of health and safety in the workplace, including the number of inspections (both programmed and reactive) carried out, the number of enforcement notices served and the number of prosecutions, as well as qualitative information about these (e.g. type of premises, type of legislative breach, number of visits to the premises, action taken by the officer). Some of these data are part of the data reported to HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences at Work Regulations (RIDDOR), which is compiled into annual statistics. The team also sets itself target in terms of the number of businesses it needs to engage with each year and records the number that have been engaged with against this target. However, from the documents we reviewed there does not seem to be quantitative measurement of public information and awareness activities. If we now map the two main causal chains previously identified with the output data described, we obtain the following:

Chain 1. Number of enforcement notices served.

Chain 2. Number of businesses engaged with. In addition to this measure, the team could develop a new measure or use current data gathered about the

interaction it has with the general public to raise awareness and provide information on health and safety in the workplace. This measure could include elements such as the number of events organised that are aimed at the general public, with such detail as the number of participants, of leaflets sent out, and so on. Collecting this type of data (if not currently collected) would enable the team to get a feel for the amount of outreach activity conducted year on year in this field of regulation.

The immediate **outcomes** resulting from health and safety regulation in the workplace are measured to different degrees. For example, as identified in the pathway, this regulatory service produces the following two main outcomes:

Chain 1. Compliance of businesses with health and safety regulation as a result of inspection activities undertaken by the team to remove potential health and safety hazards in workplaces.

Chain 2. Prevention of health-and-safety-related accidents, ill health and deaths, and reduction in accidents related to health and safety in the workplace, as a result of providing guidance and information to both businesses and the general public.

The first outcome, compliance, is not straightforward to measure as such. One way to get a sense of business compliance over time would be to look at the number of accidents and regulatory breaches reported to the team and HSE regarding health and safety in workplaces in the borough. Presumably a reduction in the number of accidents and regulatory breaches reported might indicate an increase in compliance. The number of accidents that occur year on year could also be used as a proxy for compliance.

The second outcome, prevention of health-and-safety-related accidents, ill health and deaths, and reduction in accidents related to health and safety in the workplace, is more straightforward to measure as the team reports and monitors the number of accidents and fatal injuries that take place in the borough.

These outcome indicators should enable us to follow the causal chain from outputs to outcomes. In terms of the wider, long-term impacts, the causal chains merge again to some extent, as they achieve these final impacts either through the removal of potential health and safety hazards in the workplace through inspections or through its awareness-raising activities and guidance to the general public and businesses.

In terms of **impacts**, there are currently no straightforward measurements to gauge progress made against these. As previously mentioned, there are three main impacts at the end of the two causal chains:

1. improved local economy
2. more vibrant and attractive community
3. healthier Islington.

The first two impacts are very closely interrelated as an improvement in the local economy often goes hand in hand with the creation of a more vibrant and attractive community for people to move into – more businesses move into the area and with them come new opportunities for leisure and employment. The third impact is slightly different as it relates

to the health of the local community. It can also be said that the link between health and safety in the workplace and this impact is somewhat more removed, in particular since the borough has a large number of commuters who are by definition not residents of the local community.

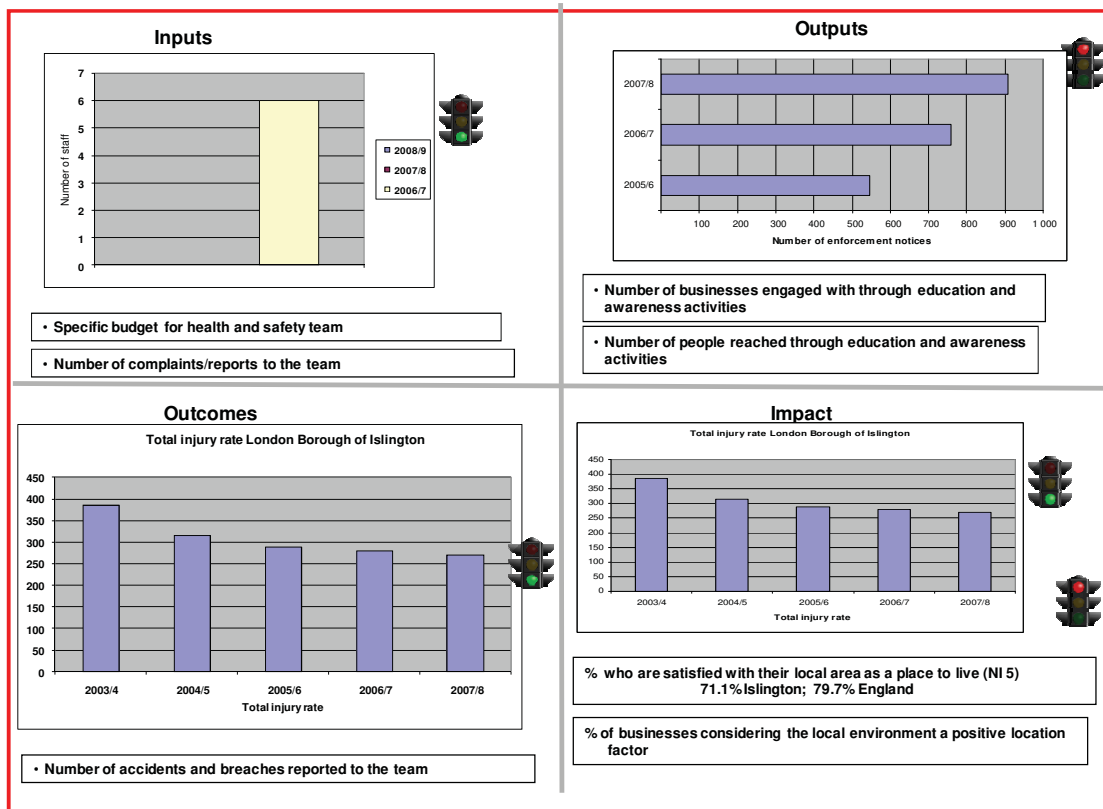
In terms of measuring these impacts, the following indicators, some of which have already been used in previous stages of the causal chain, may be used as proxy:

1. Total number of ill health, accidents and fatal injuries due to health and safety breaches in the workplace.
2. Percentage of residents who are satisfied with their local area as a place to live (data from the place survey).
3. Percentage of businesses that consider the local environment a positive location factor (to be collected through the business satisfaction survey if not readily available).

A summary of these indicators, together with time-series data over the last available three-year period, may be found where available in a dashboard form in Figure 0.8 below. The traffic lights indicate whether the available evidence supports that impacts are made through the claimed causal chains or not. As such, they should give an indication of which areas the local authority should focus its attention on to achieve its set outcomes. However, in this case, given that the data we obtained from publicly available sources were patchy, these are only illustrative and should not be read as a judgement on the performance or ability of Islington Borough Council to meet its aims with regard to health and safety in the workplace.

In addition, data on the number of enforcement notices are from the regional statistics reported to HSE under the RIDDOR regulations and are for all London local authorities who submitted the data, rather than just for Islington Borough Council (as those data were not available at local authority level).

In most cases where data for the different components of the causal chain (i.e. input, output, etc.) are not available, we envisage that these data would be currently held by local authorities so that they would be able to complete the dashboard almost entirely without the need for additional data collection.



SOURCES: Place survey 2008, HSE and RIDDOR data

Figure 0.8: Dashboard for health and safety in the workplace activities at Islington Borough Council

5. Trading standards services in Northamptonshire

TSS enforce a broad range of legislation on fair trading and often on other aspects of legislation for animal health, food safety and underage sales of tobacco, alcohol, knives and fireworks. TSS are responsible for enforcing over 80 Acts of Parliament including:¹⁹

- Weights and Measures Act 1985
- Trade Descriptions Act 1968
- Consumer Protection Act 1986
- Consumer Credit Act 1974
- Enforcement provisions under Part 8 of the Enterprise Act 2002.

In the face of increased budgetary pressures as well as increased demand for public services, local regulatory services work with a clear focus on priorities, which are generally set by

¹⁹ <http://www.berr.gov.uk/whatwedo/consumers/fact-sheets/page38607.html>

councillors, who at the same time focus on the needs of the local community and the National Priorities set by the government.

The service responds to many government priorities, including from BIS, the Department of Health, the Home Office, the Serious and Organised Crime Agency, FSA and OFT, which has responsibility for Consumer Direct. Trading services also collaborate with scambusters, illegal money lending and intelligence teams, which have been implemented regionally to take action jointly with TSS against rogue trading activities. Other partners include the police, the Chamber of Commerce, schools, LACORS, and so on.

In Northamptonshire there is primarily a consumer protection and fair and safe trading enforcement service. In addition to enforcement and regulatory activities, the service provides advice and information to consumers (in association with Consumer Direct) and businesses, with the aim of increasing their knowledge and raising awareness about their rights and obligations.

Trading standard services in Northamptonshire carry out these enforcement and education activities in different areas including age-restricted sales, counterfeit goods, and buying goods and services (including product safety):

- **Age-restricted sales**, which primarily includes alcohol and tobacco products, have been an important priority for the Northamptonshire County Council, which managed to reduce illegal sales in 2007/8 against the previous year.²⁰ The impacts of the causal chain for age-restricted sales of tobacco and alcohol may be followed under sections 2 and 3 of the current report respectively.
- **Counterfeiting** of goods occurs most commonly in designer-labelled clothes, cosmetics, alcohol, music and computer software. By collaborating with different organisations, Northamptonshire has seized thousands of items, including DVDs, trainers, sunglasses and jewellery.
- **Buying goods and services.** As with the above two other categories, trading standards aims to ensure a fair and safe trading environment. With regard to the safety aspect of trading standards, LARS aim to reduce avoidable injuries by ensuring compliance with safety regulation through enforcement activities or through education and advice. For example, Northamptonshire County Council removed various products from the market (e.g. electric blankets) after testing established that they were unsafe for use. On the fair trading aspect, TSS deal with consumer complaints and thereby reduce or eliminate the 'provision by traders of goods or services without reasonable skill, misleading or false acts or omissions, aggressive or coercive selling, use of unfair contract terms and failure to provide consumers with statutory rights, such as cancellation rights' (OFT 2009). In other words, trading standards protect the statutory rights acquired by consumers the moment they buy goods from a trader, and they also protect

²⁰ Northamptonshire County Council Trading Standards Service Plan 2008/9, online, available at: <http://www.tradingstandards.gov.uk/northants/SERVICE%20PLAN%20%202008-2009.pdf> (accessed June 2009)

consumers from other unfair or rogue trading activities such as doorstep crime. Examples derived from these types of activities include the prosecution by Northamptonshire trading standards of individuals and businesses supplying falsely described motor vehicles.

The next sections focus on the latter of the above mentioned activities – that is, on the fair trading aspect of buying and selling goods. The purpose of focusing on one of the activities is to build a simple pathway that graphically represents the potential social, economic and environmental impacts of TSS.

Key activities and their inputs

To ensure fair trading in buying and selling goods, Northamptonshire conducts an important number of activities, starting with back-office activities such as data collection, monitoring and analysis. A lot of the analysis is shared between partners such as the police and the NHS. This intelligence is the basis for the core activities of trading standards. These are split between education and awareness activities for consumers and for businesses, and enforcement activities.

- **Education and awareness activities** may follow two different approaches: a more proactive approach, targeted towards consumers or businesses, with the objective of increasing general knowledge and awareness; and a more reactive approach, targeted towards people who have been victims of rogue trading, for example victims of doorstep crime.
 - Proactive education and advice is probably the most common activity, directed at both businesses and consumers. Education and advice to consumers is directed at the general population and the vulnerable population, including the elderly, young children and individuals with low incomes. One typical area of advice concerns doorstep crime, which may cover many areas of concern including distraction burglary, bogus callers and unscrupulous doorstep selling. Advice may consist of action days, campaigns, posters, leaflets and booklets providing practical guidance on how to choose a reliable trader, as well as a range of other useful general information on a variety of topics. Most of these activities are carried out in collaboration with a variety of stakeholders. Proactive work also applies to businesses. In fact, regulatory services also help businesses more generally to comply with regulation. Typically, LARS help businesses by visiting their premises to inform them about new pieces of legislation.
 - Reactive work especially applies to cases of doorstep crime. Trading standards in collaboration with different organisation offer emotional support and practical help as well as information for victims of a range of crimes.
- **Enforcement and regulatory activities by trading standards** (buying goods and services) most commonly consist of inspections. Inspections may be carried out as part of a service routine inspection programme, because a complaint has been received, or because an officer suspects that legislation has been breached. The

last-named often results from earlier inspections or from intelligence data gathered by an officer making the case for an investigation into a possible breach of legislation. If the inspection or investigation reveals a breach of the law, trading standards have to decide on the path they want to follow. Depending on the severity of the breach, trading standards may choose 'soft' instruments such as visiting business premises to provide advice on trading standards, issuing informal warnings or sending out formal letters. If the breach is more severe, trading standards may decide to take the case along the path of prosecution. Prosecutions are instigated only after careful consideration of all the circumstances.

To conduct these activities, trading standards require a number of inputs. First, they need staff who have the experience, skills and knowledge to carry out the activities. In conducting their activities, enforcement officers also need to be equipped with the adequate infrastructure and materials such as buildings, research facilities, databases and software and hardware facilities. Together these produce the data and statistics that enforcement officers need to prioritise their work and to target the highest risk businesses. In this respect, the Consumer Direct helpline and database are a key input to the activities of trading standards officers.

Outputs

The activities outlined earlier lead to a series of outputs produced by regulatory services. Enforcement activities lead basically to two sets of output. First, outputs may result from the prosecution of unfair trading cases, which depend on the seriousness of the breach of the law. Compliance with regulation is enforced either through 'soft' instruments such as business advice, formal cautions or informal warnings; or through prosecution, which may result in different legal outputs such as administrative penalties, revocation of licences or prison sentences.

Secondly, education and awareness activities produce different kinds of output. For the general population, TSS of Northamptonshire together with Consumer Direct target consumers and businesses by providing general advice and information on their rights and obligations. For the vulnerable groups, Northamptonshire organised in 2008 the consumer challenge quiz competition in which local schools participated. Outputs vary greatly and can be measured in terms of the type and frequency of activities, scale of target population, and so on.

The outcomes of enforcing trading standards regulation

Northamptonshire County Council's efforts in trading standards may lead to a number of outcomes and impacts, along the following causal chains:

Chain 1. The first causal chain arises from the **enforcing fair trading regulation** activity. Depending on the severity of the breach, enforcement officers will follow different legislative pathways. Whenever appropriate, enforcement officers are advised to use **soft instruments**. Small and medium-sized enterprises especially may not always be aware of certain regulations. It is therefore the role of the TSS to support, advise and raise awareness among businesses regarding the existing legislation. The direct intermediate outcome of using soft instruments is better informed and more compliant businesses. At the same time such an outcome has

positive effects, including direct financial savings to consumers and reduced income losses to legitimate businesses, positively affecting the competitiveness of the local trading economy.

Although soft instruments are more often used, certain businesses might commit more **serious offences**. In such cases, regulatory authorities will refer the cases to court, which may decide on a variety of different outputs, such as administrative penalties, revocation of licences, seizure of products and proceeds of crime or even prison sentences. These decisions are taken at court, graphically represented in the pathway in Figure 0.9 by the dashed boxes as opposed to the boxes with solid lines. Independent of the type of output, prosecution results in two important intermediate outcomes: a financial outcome (through fines and money collected from the proceeds of crime) and a behavioural outcome, by stopping or deterring traders from carrying out unfair practices. The **financial outcome**, derived from the collection of fines and from proceeds of crime, can positively affect public finances and give greater value for public money. The **behavioural outcome** of deterring businesses and individuals from unfair trading practices can have two important outcomes:

- Prosecution deters unfair trading such as doorstep crime, often resulting in *less violence and crime*, although deterrence will depend on the perception of the risk of being prosecuted. Reduction in violence and crime has important social impacts by creating independent, safer and healthier communities as well as communities free from fear.
- Prosecution and its associated perception of risk changes behaviour by making *businesses more compliant* with legislation. Variations in business compliance obviously have significant non-financial and financial impacts. For example, common sense dictates that a more compliant business community, everything else equal, results in fewer costs to consumers given that the probability of being involved in unfair trading practices (e.g. purchasing falsely described products and services) decreases, hence saving costs to consumers. At the same time, both legitimate businesses and also the public sector are more satisfied with a more compliant business community. For the former, incomes might increase compared to a situation where competition includes unfair trading businesses. For the latter, a wider compliant business community entails potentially higher tax revenues but also less enforcements costs.

Chain 2. The second causal chain evolves from **education and awareness**. The outcomes differ slightly depending on the target group to which education and awareness is directed. In the case of activities targeted to consumers, the degree of impact is very different if the intervention is directed at the general population or at specific groups. Targeted interventions to vulnerable groups such as the elderly, young children or low socio-economic groups tend to be more effective. For example, campaigns to prosecute doorstep crime may not be effective if targeted to the general population, but will be more effective for specific groups such as the elderly and homemakers, who are the most vulnerable groups. Therefore where

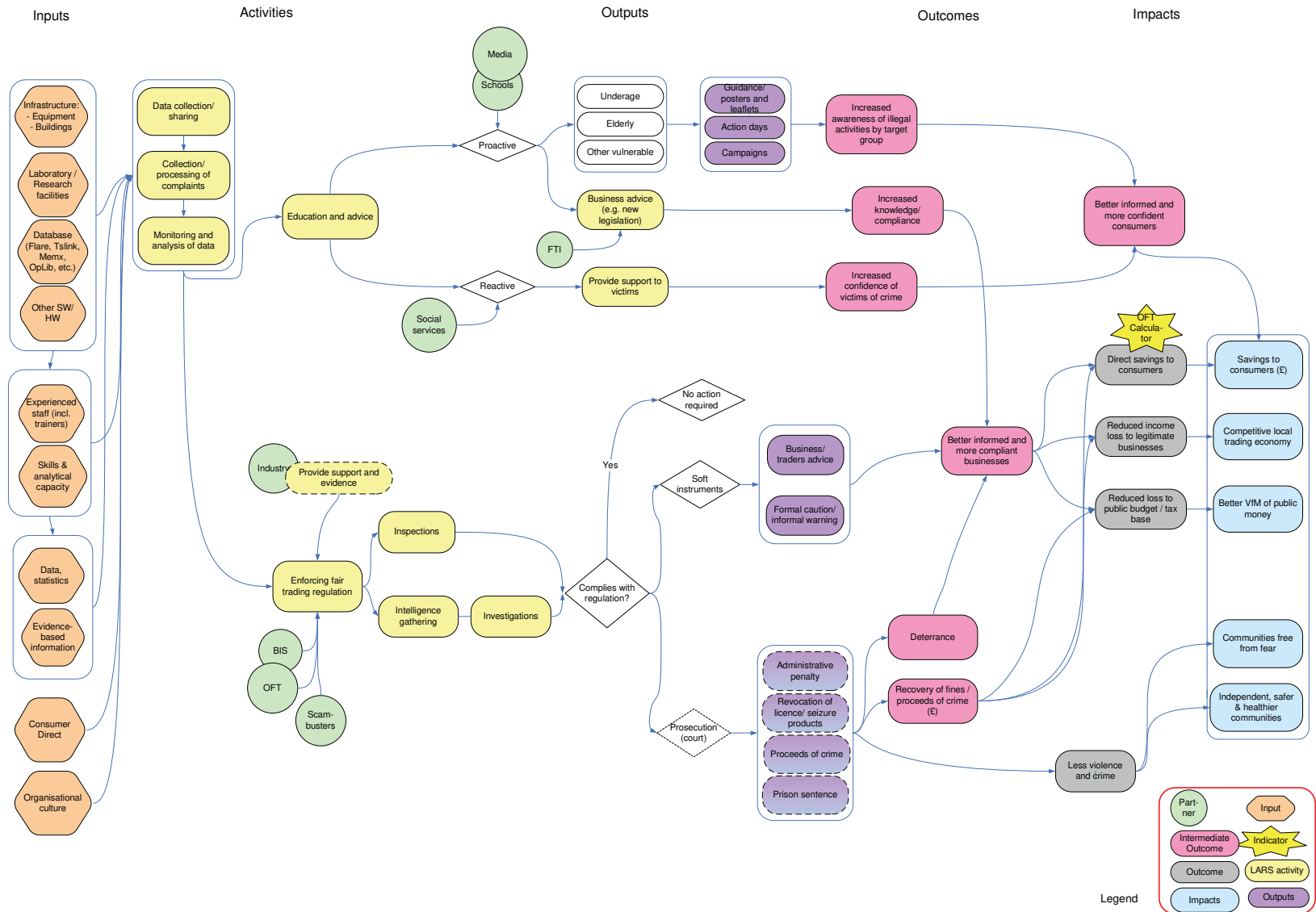
possible education and advice are tailored to cover the specific needs of consumers with the objective of increasing consumers' awareness and knowledge of their rights and obligations. On the other hand, LARS also provide specific support to victims of crime, which has a direct impact on consumer confidence. Hence, TSS play an important role in creating better informed and more confident consumers. At the same time this causes the following:

- A financial impact, measured by the savings made by consumers. Consumers with a better understanding and knowledge of their rights and obligations when purchasing goods will become wiser purchasers, thereby saving themselves the costs of unfair purchases.
- A social impact, with consumers feeling better informed and more confident, and consequently less fearful, safer and more independent.
- In the case of education and advice to businesses, the expected outcomes are similar to the 'soft' enforcement activities, meaning better informed and compliant businesses, thereby positively impacting on consumer savings, legitimate business income and public finances.

The causal chains just described (and represented in the pathway represented in Figure 0.9) are mainly a lineal representation. Causal relations are often more complicated, and important feedback loops exist between the different elements of the causal chain. Nevertheless, the essence is to identify what local regulatory authorities do to understand the outcomes and impacts to which they contribute as well as to identify some of the external factors that may affect those outcomes and impacts.

The pathway

Figure 0.9: Trading standards pathway



Identifying indicators and developing a dashboard

After establishing the pathway and intervention logic for fair trading, the next step is to identify indicators that can be used to measure the key elements of the pathway in an impact and outcome dashboard.

In terms of **inputs**, Northamptonshire could use information available on staffing levels, on the number of people receiving training and also on running costs. Northamptonshire trading standards had a total of 39.5 staff on 1 April 2008 and a total net budget of slightly over £1.9 million.²¹ However, the service benefits from a more detailed reporting of inputs. For example, LARS could report by the nine areas of responsibility: fraud (including rogue trading), fair trading, age-restricted sales, animal health and welfare, consumer and business advice, environmental controls, consumer safety, food and agricultural standards, and licensing and registration.

Achievements towards the staff personal appraisal and development programme could provide an indication of how many skills and how much knowledge and expertise go into trading standards work. Performance is reviewed on a regular basis and assessment on how to improve it is provided. The number of actions derived from the assessments for the programme could be an indicator of how the service is being monitored and how it managed to ensure delivery of services.

The selection of indicators for the dashboard is thus relatively straightforward here, even though there might be difficulties in attributing costs to the different areas of responsibility within trading standards:

1. staff (FTEs or in £)
2. achievements derived from assessments of the personal appraisal and development programme
3. running costs (in £).

There are a range of **outputs** currently available to the service. Let us consider the two causal chains again:

Chain 1. Many types of outputs are produced as a result of **education and awareness activities** to consumers. For example, Northamptonshire County Council counts the total number of press releases, which for the year 2007/8 totalled 20.²² These press releases were targeted at the whole population and covered a wide variety of topics. Titles included 'Trading Standards Warning about Counterfeit Vodka', 'Electric Blankets Tests Reveal Faults', and so on. Press releases may not only raise the exposure (and profile) of trading standards; they may also raise awareness of the type of crime and how to deal with it. To target more specific consumers' groups, Northamptonshire could count the number of people over 50 attending awareness campaigns. Their campaigns set up to raise

²¹ Northamptonshire County Council Trading Standards Service Plan 2008/9. Available at: <http://www.tradingstandards.gov.uk/northants/SERVICE%20PLAN%20%202008-2009.pdf> (accessed June 2009).

²² See: <http://www.tradingstandards.gov.uk/cgi-bin/northants/newslist.cgi?news=prss>

awareness about distraction burglary and at the same time provide community safety and security advice.

Chain 2. Enforcement actions produce a variety of outputs, which may be classified depending on the level of risk to health, danger or nuisance from a particular situation. The actions are proportionate to the risk and generally allow informal warning before formal action, unless there is a high risk. Some of these actions produce more informal outputs, such as visits to businesses, general visits or visits resulting from an inspection or investigation. Other outputs produced are formal cautions issued by trading standards. For example, Northamptonshire has regularly reported on the number of formal cautions issued by the service. No information was available for the year 2006/7, but the number of cautions issued went down from 21 in 2005/6 to 14 in 2007/8. This number in isolation is not necessarily an indicator of increased compliance. However, by following the causal chain it would be possible to find out whether the decrease in the number of cautions is a measure of better compliance or just a consequence of an increase in the number of inspections. For more severe cases, Northamptonshire also records and publishes information on the number of defendants prosecuted in court, which increased from 29 in 2005/6 to 59 in 2007/8. Again, these statistics can only be analysed as part of the different indicators of the causal chain. For example, measures along the causal chain could indicate that the number of prosecutions increased as a direct result of an increase in the number of inspections, of better trained and thus more efficient inspectors, and of better collaboration between trading standards, the police and other local partners.

Depending on what path is followed along the causal chain, a variety of outcomes result from LARS activities. Following the causal chains that have been described, LARS can claim to produce three principal outcomes: better informed and more confident consumers, better informed and more compliant businesses, and improved recovery from fines and proceeds of crime.

Chain 1 showed that education and awareness activities are carried out by trading standards with the aim of achieving certain impacts. For example, awareness days about bogus callers and doorstep crime should decrease the chances of residents being defrauded, and in the long term entail significant cost savings to consumers and reduced crime. However, before understanding the long-term impact, trading standards need to measure the short- to medium-term impact. In this particular case, Northamptonshire could measure whether education and awareness activities targeted at consumers result in better informed and more confident consumers. This outcome can be measured by means of the **number of complaints/enquiries**. Alternatively, Northamptonshire could measure the outcome on the basis of the results from the customer satisfaction survey. The survey includes information about percentages of ‘consumers who found the advice given was useful and easy to understand’, ‘consumers who felt better equipped to deal with future problems’, and so on.

Chain 2 (enforcement activities) produces two main types of immediate outcome. On one hand, enforcement activities, whether through soft instruments or

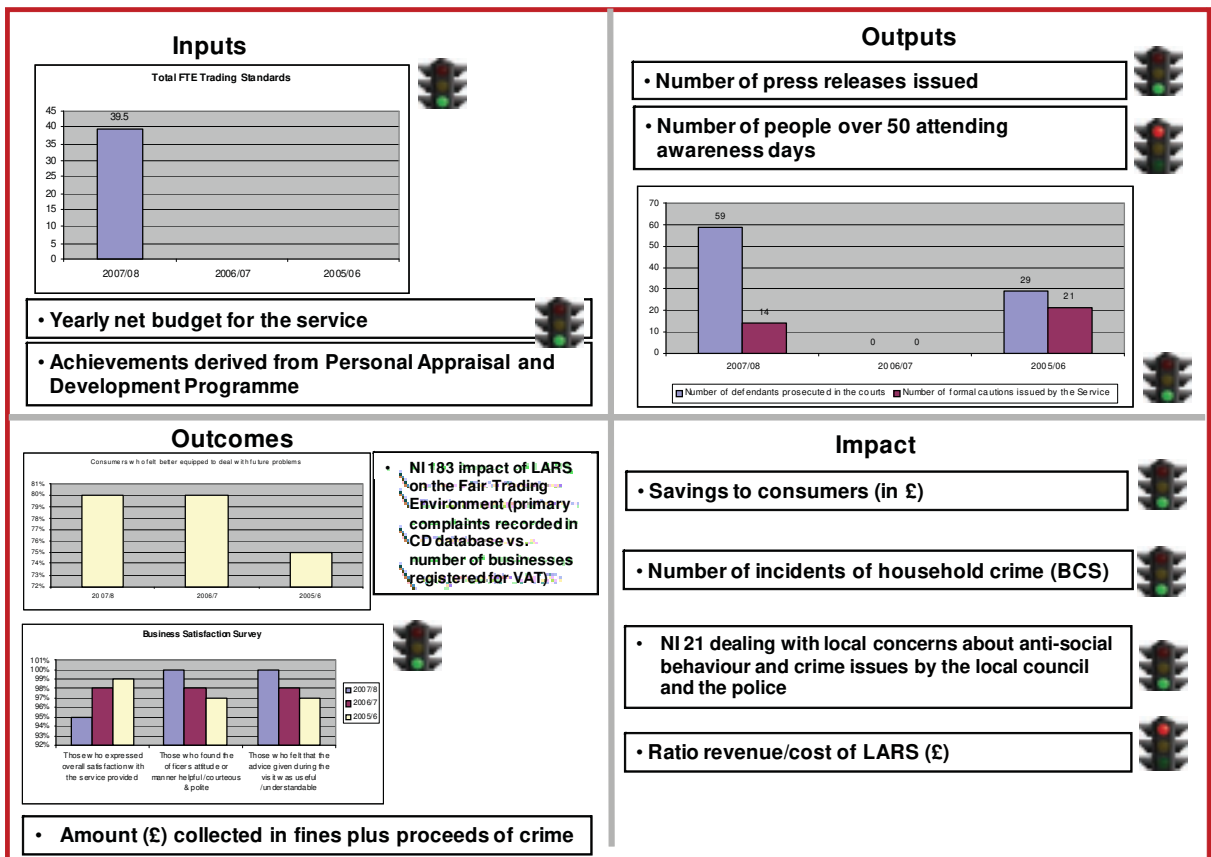
prosecution, are intended to produce more informed and more compliant businesses. Business compliance may increase simply because businesses have more information about their rights and obligations and because they get advice on how to deal with some of their problems. However, business compliance is also highly correlated with the deterrent effect caused by the risk of being caught – in other words, by the probability of being caught in an illegal activity plus the severity of the punishment. Better informed and compliant businesses can be measured through business satisfaction surveys. Northamptonshire reported that 100 per cent of businesses in 2007/8 felt the advice given during a visit was useful/understandable. On the other hand, the outcomes of enforcement activities can also be measured in terms of the amount of money collected from fines and from proceeds of crime.

Impact follows outcomes. Better informed and more confident consumers and better informed and compliant businesses lead to the following:

- **Direct savings to consumers.** OFT's trading standards impact study (OFT 2009) reports that trading standards work can deliver at least £347 million of consumer savings a year in the UK, which equals a benefit–cost ratio of 6:1. To estimate the individual contribution of each trading standards service, OFT in partnership with TSS has developed the Impact Assessment Calculator. The calculator enables TSS to estimate individually the consumer savings they deliver, and hence provide evidence of their contribution to the economic well-being of local communities.
- **Less violence, crime and disorder.** With informed and confident consumers and more compliant businesses, the levels of crime, violence and disorder may decrease. For example, if consumers have been informed that doorstep crime offenders tend to distract a person in order to burgle their house by using tricks such as saying they are from a gas or electricity company, consumers will be more aware of taking such preventative action as asking visitors for official documentation. TSS in partnership with organisations such as the police collect important statistics that can inform about how violence, crime and disorder are affecting the local community. A key source for this type of information is the British Crime Survey, which contains different indicators by county council. Alternatively, NI 21, Dealing with local concerns about anti-social behaviour and crime issues by the local council and police, may be used as an indicator to measure the impact of trading standards on perceived confidence in community safety. This indicator is built on data from the place survey and the British crime survey.
- **Reduced income loss to legal businesses** is difficult to measure. Nevertheless, surveys reporting satisfaction of businesses with trading standards could be used as an indicator.

Money collected from fines and proceeds of crime improves public finances. The type and degree of penalty for breaking the law tends to have a deterrent effect on offenders, as

suggested by the general deterrent theories which assume that potential offenders will measure the risk of being similarly caught or prosecuted for committing a crime. However, deterrence theory has proved difficult to validate, also because of the multiple intervening factors (Encyclopædia Britannica 2009). Prosecution can also be an important source of public income. OFT estimated that the financial impact of TSS in terms of fines and proceeds of crime was in excess of £3 million in 2007. Hence, by pursuing crime more effectively, the revenues generated by LARS can be higher, potentially increasing the return on investment of every pound invested. It is important to bear in mind, however, that the higher the perception is regarding the efficiency of LARS, the higher the deterrence effect, which at the same time can cause a reduction in prosecution cases coming to court and therefore a reduction in revenue.



SOURCE: RAND Europe

Figure 0.10: Dashboard trading standards for Northamptonshire County Council

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