Health needs assessment workbook

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Acknowledgements

This workbook draws on a wide range of relevant theory, and includes current concepts from the fields of health needs assessment (HNA) and health impact assessment (HIA).

Much of the learning and experience gained from our popular *Health Needs Assessment in Primary Health Care* teams workbook (Hooper and Longworth, 1998) is included, as well as the experience gained from working with many inter-agency and multi-disciplinary groups beyond primary care.

None of this would have been possible without:

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We have immensely enjoyed developing this work, and we feel those who have worked with us have also enjoyed learning and working in this way. So we hope you do too… .

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Contents

Introduction

National policy emphasises health improvement, and reducing the health inequalities between groups of people, by promoting clear, well managed programmes of action.

National goals for health

'To improve the health:
1) of the population as a whole by increasing the number of years of life and the number of years people spend free from illness
2) of the worst off in society and to narrow the health gap.'
(DH, 1998)

A wide range of factors affect health – including lifestyle, income, education, housing and transport. Actions taken regarding any of these factors will also have an impact on health. So it is important to put 'health on everyone's agenda' (DHSS, 1976). In order to achieve the national goals for health, key actions have been proposed for the public sector, especially the National Health Service (NHS) and the local authorities (LAs).

- Development of a health improvement programme (HImP), which will identify the health needs of local people and what needs to be done about them. Development of the HImP (now health improvement and modernisation programme, HIMP) is led by primary care trusts (PCTs), but involves a wide range of partners.
- National and local policy-makers and planners should 'think about the effect their policies (programmes and projects) may have on health'.
- A new responsibility for LAs to 'promote the economic, social and environmental wellbeing of their area', and to develop community strategies.
- Implementation of new arrangements to strengthen local democracy.
- Introduction of the 'Best Value' regime, with its emphasis on the four Cs – *challenge, consult, compare, compete.*

All these goals and policy initiatives reinforce the concept of sustainability – creating environments fit for future generations. This is already a key part of the existing activities of LAs.

Health needs assessment (HNA) or health impact assessment (HIA) have become frequently used planning terms, but there is considerable confusion about what they actually mean. Both are planning processes for improving health that require a systematic review of the health issues facing a population or programme being assessed. They use similar steps, but have different origins and starting points: HNA starts with a population; HIA starts with a programme.

This workbook presents an approach to HNA that uses a common language and gives practical guidance based on considerable experience.

The HNA process has been developing over the past few years – numerous groups in the NHS, local authorities and multi-agency planning teams have been involved in using and shaping the approach. It is an integral part of the health improvement

and modernisation programme (HIMP), and is being used to structure the approach to planning for existing priorities and identifying new ones. It is the core of the process being used to develop HIMP action plans for each of the priority areas identified in the HIMP. It is also being used in complementary planning processes, including developing the Joint Investment Plan for Older People, the Local Transport Plan, and Best Value reviews.

We are developing an interactive electronic version of this book, which really brings the process alive. This should be available from the summer of 2002, so email us for details.

What is health needs assessment?

Health needs assessment is a systematic review of the health issues facing a population leading to agreed priorities and resource allocation that will improve health and reduce inequalities.

Health needs assessment is about engaging people in thinking about health, and planning what can be done to improve health and reduce health inequalities, whatever the issue. This ensures that any action taken minimises harm to health, and may improve it for those with the most to gain. It is an important process for a range of groups serving the population: from primary healthcare teams and community development workers, through PCTs to local authorities and beyond.

The process helps to change policies by getting people involved in considering health, via the following mechanisms.

1 Building public policy that always includes action for health by:
   - identifying activities that maximise health benefits and minimise health damage for a target population
   - making the effects of programmes on health explicit in the planning process
   - ensuring that, at least, health is not worsened by any planning decisions
   - including explicit health-related objectives within the programme's objectives.
2 Creating supportive environments, whether physical, social, cultural or economic, that enable the choice of goods and services to be informed by their impact on health.
3 Strengthening community action to re-orient social and cultural norms and give help to individuals.
4 Enabling people to take control over their health and increase their coping skills.
5 Re-orienting healthcare planners and practitioners to think holistically.
(Based on the *Ottawa Charter for Health Promotion*, WHO, 1986)

How the health needs assessment process can be used locally

The uses of the process will vary from district to district. There are three main ways the process has been used.

1 Health improvement and modernisation programme action plans
   Health needs assessment has been used to plan for priorities in local HIMP planning, such as heart disease, mental health, tobacco control, housing, and older people.
2 Community (health) planning
   Health authorities and, latterly, primary care groups and trusts work with LAs to tackle social exclusion in deprived areas, using the HNA process.
3 Service-specific plans
   A range of specific services and professional groups use the process for their own plans: for example, a group of primary healthcare teams in an area; a group of health visitors or physiotherapists.

How to use this workbook

This workbook has three parts:

1 **summary** of HNA: this is the bare bones of the assessment – the questions that should be answered
2 the **five steps** of HNA: these contain the guidance necessary to undertake your own HNA
3 the Appendixes: a **reference tool** to help you undertake your HNA, to dip into and use as you proceed.

Getting the best out of this workbook

The HNA process is split into five steps. Each is presented in a common format:

Introduction to the step

Outcomes for the step

A written summary of what has been agreed

An estimate of the time required for the tasks

Background information, concepts and definitions

Issues to consider before undertaking the tasks

Key questions

Detailed procedures for undertaking each task

To help you get the most out of the workbook, help is given in this section on:

- managing the overall process – some ideas on specific roles and the activities required
- managing the steps – some ideas about the timing and sequencing of team sessions needed to work through the materials
- tracking how well you are doing – a checklist is provided for this purpose (page 8).

Health needs assessment process: steps and timings

Any HNA must involve a wide spectrum of people from a range of backgrounds. Inevitably, people have different working definitions of common terms – health, needs, inequalities. This section provides a common language for groups to use, to help avoid confusion and misunderstandings.

Many people who have used this approach to HNA find that they already have many of the different bits of knowledge and skills the process requires. However, putting this into the systematic framework used here can be challenging. Doing this with colleagues from different disciplines and organisations is always an invaluable experience, and helps build more effective local collaborations.

The table below summarises each step and the associated tasks. The timings given are for completing the tasks in each step in the first HNA cycle. All timings are approximate, as the actual time taken depends on the participants, how they will work as a group, the complexity of your situation/health problem, and the amount of time you have available. Groups have found repeating the cycle to be quicker as experience develops.

Group work for an HNA cycle: summary of steps and tasks

Step	Tasks	Time (min)
Introduction	Introductory task – summary, concepts and common language for the process	15
Step 1 Getting Started	*Preparatory work*	
	1a Defining the population	15
	1b Improvement, integration, involvement	90
	Time for task	**105**
Step 2 Identifying the Health Priorities for the Population	**2a.1** Identifying aspects of health functioning	15
	2a.2 Identifying conditions and factors to profile	45
	2b.1 Compiling the profile; assessing severity	60–120
	2b.2 Collecting information to create the profile	10*
	Preparatory work	
	2b.2 Compiling the profile; assessing size	30
	2c Choosing overall priorities	60
	Time for task	**220–280***
Step 3 Assessing the Health Priority	*Preparatory work*	
	3a Improvement, integration and involvement	15
	3b Identifying conditions/factors impacting on this health priority	30
	3c Choosing the significant impacts on this health priority	45
	3d Identifying effective action for this health priority	60
	Preparatory work	
	3e Identifying acceptable changes for this health priority	90
	3f Are the resource implications of the proposed changes feasible?	15
	3g A final check	15
	Time for task	**270**
Step 4 Planning for Health	*Preparatory work*	
	4a Developing an action plan	
	4b Developing an implementation plan	
	Time for task	**120–180***
Step 5 Evaluation	**5** Evaluating your programme	**30***

*Depends on the number of issues.

> Estimated total time for all steps is **12 h 40 minutes to 14 h 40 minutes** (excluding the time required for preparatory work).

Who will do what in guiding the process?

Guiding the process requires three groups of activities:

1 leading the HNA process overall

2 planning and managing the sessions efficiently

3 leading the assessment of the priority health problems.

Within these roles, specific activities must be tackled:

- identifying who will be involved in working on the HNA process throughout (Step 1b)
- deciding how the time needed for the sessions is going to be created
- deciding where and when the sessions are to be held, including letting everyone know and booking rooms
- circulating copies of the workbook, or relevant pages such as the tasks
- encouraging people to read and think about the appropriate steps and tools before the sessions
- obtaining funding or support
- motivating the participants
- facilitating the sessions – who should lead the discussion through the steps? This includes ensuring the participants understand the step; managing the step and the time; and keeping the participants to any agreed ground rules
- leading the specific projects that the participants decide to undertake from the HNA, for example, developing the population profile; tackling the health priority; sorting out information.

Who does these activities depends on the skills and experience the participants have. You may feel that an external facilitator for sessions might be useful, although this may add to the costs.

An external facilitator is most useful to:

- keep the momentum going
- ensure sessions take place and are well structured
- ensure useful notes and plans are written down
- act as a signpost for resources.

Whoever is leading the process, whether an individual, a team, or an external facilitator, they *must*:

- understand each step and tasks before guiding the participants through
- think through the issues in this section in some detail.

How is this process going to fit into everyone's busy schedule?

The process has been managed as:

- a series of half-day workshops for all key stakeholders, with a small working group making progress on the detailed work between each session
- 2-hour sessions spread out at 2-week intervals, allowing for time to digest and do preparatory work for the next step
- hourly sessions at weekly intervals for smaller teams, such as primary healthcare teams
- a mix of these according to local logistics.

How does work proceed outside sessions?

Work before and after the sessions is needed, and not all participants will be able to attend. How are you going to distribute the work that needs to be done outside the sessions?

Don't always choose the obvious person to do the work: some participants may wish to develop new knowledge, skills or contacts.

Remember

- **Each step:**
  - needs work before and after any group session
  - covers information that everyone should have read and understood *before* **starting the tasks, so allow time for this.**
- **Managing time efficiently is crucial. The timings of the tasks may seem short, but they are realistic provided the session is managed well – they are based on considerable experience of facilitated sessions.**
- **Don't try to fit all the tasks into too short a timescale, or spread them out so that momentum is lost. Allow time between each session for reading, data collection and consultation with others.**
- **Tackling more than one step at a time will only work if the participants are clear what the steps entail, and if you have collected the information necessary to complete the related questions.**
- **Help with information or facilitation can be available from other groups and organisations. Don't try and struggle through on your own – ask for help and advice.**

How well are you doing?

To help all involved to get the best out of the process, it is useful to track progress. The facilitator may find this checklist useful when reviewing at the end of each session.

How are we doing?

Step(s) being reviewed: _____ Date: _____

1 What have we achieved so far?

2 Is there anything we need to sort out before we progress to the next step?

Content of the HNA:	*Managing the sessions:*

3a Which things did we find easy/straightforward?

Content of the HNA:	*Managing the sessions:*

3b Which things did we find difficult/complicated?

Content of the HNA:	*Managing the sessions:*

4 Based on what we found easy/difficult, what are the important lessons we need to learn from our experience so far, so that we can:
(a) complete the next step of our HNA as well as possible?

Content of the HNA:	*Managing the sessions:*

(b) do things better next time we carry out this step?

Content of the HNA:	*Managing the sessions:*

5 What do we need to do next?

Content of the HNA:	*Managing the sessions:*

Summary of concepts and process

> This summary contains the core questions for each step in the HNA process. It is crucial that this summary is read and understood by all involved.

What is health needs assessment?

Health needs assessment is a systematic and explicit process which reviews the health issues affecting a population. The process aims to improve health, and reduce health inequalities, by identifying local priorities for change and then planning the actions needed to make these changes happen. At the core of the HNA process are four explicit criteria which focus first on the impact and changeability of issues, then the acceptability and resource feasibility of effective changes.

Principles

Underpinning the whole HNA process are three principles:

1 **Improvement** of health and inequalities by making changes that improve the most significant conditions or factors affecting health, then targeting the population groups with the most to gain, and those services that can make the most difference to their needs.
2 **Integration** of this improvement in health into the planning processes used by those services, so that the identified changes are implemented in their plans.
3 **Involvement** of:
   - people who know about the health issues in a community
   - people who care about those issues
   - people who can make changes happen.

So the process results in effective actions being targeted at those with most to gain, and engages those services that have most control over making these changes happen.

Criteria for choosing priorities

Four explicit criteria are at the core of the HNA process, and are used throughout to help clarify thinking and lead to changes that will improve health.

1 What are the conditions/factors that have the most significant **impact**, in terms of severity and size, in health functioning? IMPACT
2 Can the most significant conditions/factors be effectively **changed** by those involved in the assessment? CHANGEABILITY
3 What are the most **acceptable** changes required for the maximum positive **impact**? ACCEPTABILITY
4 Are the **resource** implications of these changes **feasible**? RESOURCE FEASIBILITY

Steps in the health needs assessment process

There are five steps in the HNA process. Each step is summarised below.

Sometimes a planning group has a clear priority which has already been agreed. In that case, the process could start at Step 3 to assess the needs of that priority. Here Task 3a would be even more important, in order to be really clear why this priority was chosen as the one to assess in detail.

Step 1 Getting started – why is this health needs assessment necessary?

1a   Who is the population to be assessed?
Why is this population a priority?
Are there any specific issues about this population that make them significantly more important for HNA than other local populations?
Does this population have significantly worse health than others locally – do they experience significant health inequalities?

1b   What is the aim of the HNA?
What improvements in health and inequalities are you trying to achieve and for whom?

Why are we doing this assessment?
Why has this population/programme been identified as a priority locally?
Are there relevant national or local priorities?
Is the priority significant enough to undertake the assessment?

What are the boundaries of this assessment?
What is the remit of the key agencies involved in this assessment?

What are the fixed points of the assessment?
What are the relevant policies (a national service framework, a white paper, etc)?
What are the specific actions, targets, or required ways of working?

What is happening locally that is relevant?
What are the relevant local planning processes and activities, and how will the assessment link to these?
What work has been done to identify needs for this population, or is in progress, locally and nationally?

Who should be involved in profiling, choosing priorities and planning?
Are the appropriate partners/agencies for this population committed to the assessment – are they the people who can make change happen for this population? Are key players at a strategic level signed up?
Who are the key people in the following groups?
    the profiled/target population and the wider community?
    the people delivering the current or planned programmes to the population being assessed?
    the organisations commissioning and managing the programmes?
Who is not signed up to this assessment, and does this matter? What should be done to sign them up?
Who should be involved, when and how?

For a population or broad topic to be assessed, the relevant strategic planning group should check *why* it is important enough to be assessed (see Step 1).

To answer this requires being clear what the topic is, what impact it has on health and inequalities, and for which population (defined by geography, service use or a particular factor). The scope, boundaries and 'have tos' of the assessment should be clarified. Then those who can make change happen for that topic should be included in the process (see Step 1).

Step 2 Identifying the health priorities for the population

2a Developing a profile
What are the most important aspects of health functioning for this population?
From the Health Triangle (page 39), conditions/factors are agreed to be important as they might have a major impact in terms of:

> severity – affecting health functioning, having a long-term effect and affecting other conditions or factors
> size – the number of people with the condition or factor.

What data/information are currently available, or can be collected, to create the profile?

2b Choosing priorities from the profiling according to IMPACT
What are the conditions/factors that have the most significant impact in severity and size on health functioning?

A   IMPACT
Use the following criteria:
Severity – does the condition/factor significantly:

> affect health functioning?
> affect other conditions/factors?
> affect health transiently or long term?
> cause death?

Size – does the condition/factor significantly affect a lot of people in the profiled population?

2c Choosing overall priorities from the profiling according to CHANGEABILITY
Which of the significant conditions/factors can be effectively improved by those involved?

B   CHANGEABILITY
Are all three levels of prevention assessed for action?
Are there relevant professional or organisational policies that set out what must be done?
Are those with most to gain being targeted?

What are the final priorities for this population in order of importance of IMPACT and CHANGEABILITY?
Who is going to take forward each health priority?

Once the population and the boundaries of the assessment have been agreed, a list of the issues affecting the health of that population is drawn up (Step 2a).

Using this list as a guide, the different sources of information about health needs are used to compile a health profile for the population. This profile is then reviewed using the first two HNA criteria of impact and changeability to identify the overall priority health needs for that population (Step 2b,c).

Step 3 Assessing the specific health priority

3a Review Step 1 for this priority
- Why is this health needs assessment necessary?
- What is the definition of the health priority?
- What are the most important aspects of health functioning for this population?

3b,c What are the conditions/factors that have the most significant IMPACT on this priority for severity and size on health functioning? A – IMPACT

Use the Health Triangle and the following criteria.
Severity – does the condition/factor significantly:
    affect health functioning?
    affect long-term health?
    affect other conditions/factors?
    cause death?
Size – does the condition/factor significantly affect a lot of people?

3d What are the effective actions for this health priority? B – CHANGEABILITY

What actions are effective across the three levels of prevention?
Are there relevant professional or organisational policies that set out what must be done?

3e What are the most acceptable changes? C – ACCEPTABILITY

Which of these effective actions are happening now?
    who is involved?
    who is the target population?
    are the effective actions reaching those with most to gain?
    are they of the required quality?
What else is happening for this priority?
    what is the evidence of their effectiveness?
    if little evidence exists should they be stopped, or can their negative effects be lessened or mitigated?
    what changes are required to achieve maximum IMPACT on the health priority?
Are the changes acceptable?
    to the target population and the wider community?
    to the people delivering the activity?
    to the organisations commissioning and managing the activity?

3f Are the resource implications of the proposed actions feasible? D – RESOURCE FEASIBILITY

What resources are required to implement the proposed actions?
Can existing resources be used differently?
Are other resources available that have not been accessed before?
What resources will be released if ineffective actions are stopped?
Which of the actions will achieve the greatest IMPACT on health for the resources used?

3g Final check

Are those with most to gain being targeted?

Each of the priorities agreed in Step 2 is assessed in detail, using Step 3. This begins by repeating Step 1 to check that those who *know, care* or *can* are involved. Then the most important issues are agreed using the same procedure and criteria of impact and changeability as used in Step 2. Once these specific issues are agreed, the potential changes that will be effective can be identified by comparing what should be done with what is happening now. Any potential changes need to be assessed using the remaining criteria of acceptability and resource feasibility.

Step 4 Planning for health

Aims
What, overall, are we trying to achieve?

Objectives
What are you specifically trying to achieve for the target population?
If the actions are successful, in what ways will the target population have changed compared to before?
What will they do differently?
What do they say differently?
What will you see in them that is different?

Actions
How can the objectives be achieved?

Indicators
Where are we going and how well are we doing?

Targets
What level of outcome do we want to achieve for whom, and by when?

Having identified acceptable and feasible changes that will be effective in addressing these agreed health needs, an action plan is then developed to implement the changes (Step 4).

Action planning will include agreeing the appropriate aims, objectives, indicators and targets, and what should happen to implement the changes.

The final step in the process is to evaluate the changes, particularly in terms of their impact on the health of the population (outcomes), including those most at risk from the agreed health need priorities as well as the service changes (process).

Step 5 Evaluation

Who is the evaluation for?

Process
Are the original aim and objectives being followed, or still relevant?
What is actually happening?

Outcome
Have the objectives been achieved?
What are the reasons why or why not?
How is the HNA plan going to answer these evaluation questions?

Health needs assessment or health impact assessment?

There are two terms often cited when planning to tackle health: health needs assessment and health impact assessment. These are often used interchangeably, but our experience is that they may be poorly understood and can be criticised because they are not used effectively.

Are they different?

The main difference is their starting point and the scope of the assessment.

Health needs assessment

- HNA starts with a population, whether defined by geography, age, gender or ethnicity, issue or service user – it *creates* programmes for improving health and reducing inequalities.
- HNA is a systematic and explicit process, which identifies the health issues affecting a population that can be changed.
- HNA results in clear health priorities for the population and then plans programmes to tackle such priorities.

Health impact assessment

- HIA starts with a programme, and *modifies* policies or programmes to maximise the improvements in health and reduction of inequalities.
- HIA is a process by which a policy, programme or project may be judged as to the effects it may have on the health of a population.
- HIA results in clear health priorities for a specific policy or programme of activities that affect the health of a target population, and then makes recommendations for changes to the policy or programme.

Another difference is in the origin of each approach: HNA has come from health policy, especially in healthcare, whereas HIA has come from non-health policy fields, especially environmental policy. This has resulted in the use of different language, but the essential steps are the same in both.

Similarities

There are a number of similarities in principles and ways of working. They both:

- improve health, especially inequalities, and promote social justice
- have both short and long timescales, and avoid compromising the health of future generations
- require broad ownership and involvement of the target population
- require real collaboration of all key players
- are systematic, explicit and transparent
- use the social model of health, although HNA also includes the medical model
- require a wide range of skills, knowledge and experience
- require a wide range of types and sources of information
- require a balance between the time taken to undertake the assessment and the potential benefits.

Finally, both use the same core steps in planning, although they use different language.

The current emphasis for primary care teams is on HNA, but HIA is required by current health policy, including national service frameworks, as it is important to review the impact of existing and proposed plans on health.

HNA and HIA – a comparison

Health needs assessment	Health impact assessment
Step 1 Getting started **Who is the population?** **Why this assessment?** **What are the boundaries/fixed points?** **Who is involved in the HNA?** **How will the HNA occur?**	*Screening* **Why is this programme being assessed?** **Who is the population affected?** **Who is involved in the HIA?** *Scoping* **What are the boundaries of the HIA?** **How will the HIA occur?**
Step 2 Profiling the health of the population **Choosing priorities for that population** *Step 3ab Profiling the agreed health priority* **Choosing the most important issues to tackle from their impact on health and changeability in the assessed population**	*Appraisal: identifying and assessing evidence* **Examine the programme in detail for evidence of health effects** **Appraise the impact of those effects** **Choose priorities and identify affected populations**
Step 3c–e Identifying required changes **Agreeing what changes are required** **Who will lead these changes**	*Deciding recommendations* **Agreeing what changes are required** **Choose priorities**
Step 4 Planning action and implementation	*Implementation* **Engaging decision-makers**
Step 5 Evaluation	*Evaluation*

Benefits, success factors and potential blocks

Main benefits

The main benefits from undertaking the process described here are:

- the discipline of a clear structure for planning helps people to work together – people from different worlds who are planning and delivering services discover they are concerned about the same issues, but use different language
- people from a range of organisations and populations can contribute and see how health is linked to a range of issues they are concerned with
- the process itself often takes less time than anticipated and is thoroughly appreciated, but agreeing who owns what priority can be tricky.

Success factors

Health needs assessment is no different from any other planning process – it is a mix of science and art. There are a few issues that must be addressed to make the process more likely to succeed:

- why is the chosen topic an important area for assessment?
- making clear the boundaries of the assessment, and who is the target population
- gaining the commitment of key senior managers and opinion leaders
- collaboration between agencies and between individuals, especially of those who can make change happen
- access to resources to make the assessment work, particularly expertise and information.

Common potential blocks

Experience has shown that there are many potential blocks. Some of the most common are:

- confusion between:

ends	and	means
what/why		*how*
needs	and	wishes
required		*desired*

- boundaries in people's thinking: 'what can we do about socio-economic and environmental factors such as poverty that create ill health?' (from NHS people) or 'what has health got to do with us?' (from non-NHS people)
- language – not having a shared understanding of words and ideas
- believing we know all the priorities so why bother with assessment, or allowing central/national service priorities to dominate rather than identifying and addressing local needs
- over-emphasis on either local politics and community views or professionally defined needs
- using only one of the levels of prevention – dealing with the potential to prevent ill health or the consequences of ill health is often ignored or marginalised.

Remember

- The logical starting point is profiling the population to decide the health priorities, but you may feel that you already have an agreed health priority. As the first time is also about learning the process, start with that priority. But do not ignore profiling the population – the discussion involved has proved invaluable to many groups, and has produced some surprises in the priority areas eventually identified.
- Profiling is also important to set baselines for local public health which can be re-assessed after a time to check progress.
- The workbook is to help plan a needs assessment for a population. It is written in a logical progression, but in reality the profiling might occur long before any priorities are specifically planned for; or a specific priority might be assessed without going through the profiling step. Experience has shown that people using this format have found the overall process useful, and the things to think about invaluable, but often have to slightly adapt what they actually do in the steps to suit the circumstances.
- The whole process is about change – so the early involvement of key players is important. A wide range of expertise relevant to the issues being assessed is required; specialist public health and planning expertise is essential.
- Good facilitation includes managing group dynamics: the facilitator needs these skills, but does not need to know the specifics of health issues, the population or local issues, as the participants do.
- Information may be patchy, especially data, so you will need access to skills and interpretation of meaningful data.
- Start by assessing areas where you believe you can succeed in making a difference.
- Keep using the framework of the Health Triangle and the HNA criteria for clarity and openness.
- Be clear about timescales for doing the HNA – the process takes time and continuing effort.
- The 'have-tos' which any organisation must deliver need to be included in the assessment.
- The process may seem daunting, but the workbook is based on our experience of:
  - many primary healthcare teams and nursing teams who have worked through the process
  - multi-agency groups, especially within HIMP planning
  - service review groups.
- Remember an elephant can be eaten – you just need to do it in small chunks!

Common language

Confusion may be caused by different interpretations of key words and phrases – such as health, needs, health needs assessment, or health impact assessment.

Health needs assessment links a wide spectrum of activities. These include defining the epidemiology of a disease – how many people have got it, how much it affects them, and why they get it; reviewing the level and quality of service provision; and uncovering the views of a community about their health and how it could be improved.

So clear definitions and unambiguous language are crucial from the start. The time you invest at the start of the process in developing a common understanding of these key words and phrases will reap huge benefits as you work through the different steps.

Health

The extent to which an individual or group is able to:
- satisfy basic human needs
- change or cope with their environment
- realise aspirations.

Health is:
- a resource for everyday life
- a positive concept emphasising social and personal resources as well as physical capabilities.
  (WHO, 1984)

It allows people to 'be all they can be', irrespective of differing capabilities, experiences or cultures. So it can apply to a person who uses a wheelchair, or has limited intellectual capacity, or to a world-class athlete. This is a social model of health, which includes fulfilling basic human needs (including safety, shelter, warmth, water and food), being able to relate to people as part of their social and community environment and their physical and economic environment, and achieving their hopes and expectations. The key aspects of this functional definition of health are listed in the following table (Ware, 1993). These aspects can only be understood by finding out people's perceptions about their limitations compared to their

Being able to:	Aspect of health:
undertake your work or other regular daily activities, eg cooking and cleaning, looking after the children	role functioning
join in social activities with family, friends, neighbours or other groups	social functioning
carry out basic physical steps, eg climbing the stairs, walk to the shops, bathing or dressing yourself	physical activity
not feel bodily pain or have pain interfere with your normal work outside the home or housework	pain
feel peaceful and happy rather than down in the dumps, sad or nervous	mental health
feel full of life rather than tired and worn out	vitality

expectations. The coping abilities of individuals shape these perceptions. So the levels of health within a population can only be known by asking about their perceptions – health cannot be assessed in any other way. This can be done using questionnaires such as the 'SF36', a widely used measure of general health status (Ware, 1993).

Levels of prevention of ill health

The three levels of prevention are used to differentiate between:

1 preventing the problem occurring at all – *primary prevention*
2 preventing the problem progressing or recurring by detecting and dealing with it – *secondary prevention*
3 preventing the consequences or complications of the problem – *tertiary prevention.*

Levels of prevention are sometimes referred to as 'upstream' and 'downstream' interventions.

A person is standing on the bank of a river and is mystified as to why there are so many people in the river struggling to get out and what he/she can do to help (*secondary prevention*). The question that keeps occurring to that observer is 'who or what is pushing them all in *upstream*, and how can we stop it happening?' (*primary prevention*). So, the levels of prevention can help us to understand when the interventions occur in the development of the impact of a problem on health. This recognition can be used to refocus investment 'upstream' or 'downstream'.

> ## Example: Physical disability and levels of prevention
> For physically disabled people, a transport policy should not only reduce accidents (to reduce the risk of physical disability occurring), but also enable physically disabled people to cope with the consequences (to be able to travel).

Diseases and conditions

Diseases and conditions are important only in their impact on health and function. It can be difficult to assemble objective evidence for this, so disease becomes a proxy for health itself – the medical model of health is 'absence of disease'. In this approach, cure rather than prevention is emphasised, and treatment of disease focuses on individuals rather than their wider human needs or those of populations. But the social and medical models are not mutually exclusive – they are interdependent, as conditions are affected by factors and *vice versa*.

Disease is related to factors at all three levels of prevention of ill health.

1 Disease can be caused by a factor.
2 Problems with detection and treatment of disease relate to factors.
3 The consequences of the problem are affected by factors.

Conversely, conditions can increase or decrease the impact of a factor on health, for example, angina can decrease a person's ability to work and so reduce their income.

In this book, the term 'conditions' is used to include diseases.

Factors affecting health

This social model of health recognises that health is an outcome of the effects of all the factors affecting the lives of individuals, families and communities in different ways and through different pathways. Significant improvements in a community's health and a reduction in health inequalities can only be achieved through improvements to people's social,

The rainbow model provides a way of looking systematically at the factors affecting health (based on Dahlgren, 1995)

economic and environmental quality of life, supported by appropriate healthcare and social care, and action to support positive health behaviour.

Factors may affect health both directly (eg injury) and indirectly (by causing a disease or increasing its impact on health). Factors range from those which affect the individual, through their immediate circle, family or community, and the wider environment in which they live, play and work, to the level of local, national and international policy.

The rainbow model (above) provides a way of looking systematically at the factors affecting health. Individuals are at the centre of the model, with factors affecting their behaviour radiating out to the wider policy areas:

Biological factors are identifiable psychological and physical factors, eg genetic make-up, personality disorder, allergy, or high blood pressure.

Lifestyle factors include a range of personal behaviour such as exercise, the food we eat, smoking, and use of mind-altering drugs.

Social and community networks include friendships, family relationships and some of the cultural norms of the communities in which we live. These social and community networks can have both a positive and negative impact on health. They can be a valuable source of support when times are difficult, but they can also provide no support or have a negative effect.

Living and working conditions are structural factors that include:
- housing – adequacy, overcrowding, affordability, warmth
- air, water, noise, waste disposal
- land use, quality of buildings, natural habitats
- safe open spaces, leisure amenities, affordable shops (especially food)
- safety in home, roads, workplaces, crime
- employment – opportunities for jobs, working conditions, unemployment
- different modes of transport
- information, advice availability
- education and life-long learning
- creation and distribution of wealth, including levels of income.

The overall socio-economic, cultural and environmental conditions in which people live are factors that affect whole societies. This includes local and national policies that have an impact on health, which in turn determine such influences as economic conditions and employment opportunities. It would also include the status and treatment of the poor, and those from other cultures or communities, as well as the dominant social beliefs. The status of women in cultures can have a profound impact on their health and their ability to live well.

The biological and personal behaviour choices of an individual cannot be separated from the other layers of influence on their lives. Behaviour that may seem damaging to health, and inexplicable, can sometimes be the only effective way an individual has to cope with other pressures in their life. So to improve health an individual must be able to resist disease, cope with stress, and live and work in a society that supports health through providing both positive cultural practice and an environment that is conducive to health.

Inequalities in health

Inequalities in health are usefully defined as differences that are unnecessary and avoidable, but also unfair and unjust (Whitehead, 1990). So which health differences are inevitable (unavoidable), and which are unnecessary and unjust? The table below shows how changeable – that is, unnecessary and avoidable – some factors are. Quite which are unfair or unjust must be subject to local debate.

Factor	Ability to change
Biological	Some are changeable by treatment, but genetic change emerging
Lifestyles	Some behaviours are freely chosen, including health-damaging behaviours Some groups are the first to adopt health-promoting behaviour For others, choice of health behaviours is severely restricted
Social and community networks	Certain aspects may be under an individual's control Many more are beyond individual control but can be altered by organisations and society
Living and working conditions	Avoidance and reduction of risk by an individual is possible for some factors Most can only be altered through legislation and organisational intervention Changes should include sustainability, ie being fit for the health of future generations
Access to services	Due to geographic or communication difficulties, individuals may be unable to access services Service quality and other factors amenable to change by agencies

There is an additional category – 'natural selection or health-related social mobility, ie the tendency for sick people to move down the social scale'. In this category the original ill health may be unavoidable, but the consequences, such as low income, may be felt to be unjust.

The Acheson Report (1998) identifies six main areas for action needed to reduce inequalities in health. The 'Acheson 6' can be helpful prompts to ensure that the major inequality issues affecting the general population are considered in any HNA. These are: low income; education; employment; housing and environment; transport; nutrition.

Needs

The English use of 'need' as both a verb and a noun confuses the understanding of HNA. 'Need' used as a verb indicates the solutions to this difference between the desired and real states – the *how?* For example, I *need* to take a walk to overcome my *need* to feel better.

If health is regarded as a resource for life, then health 'needs', as a noun, must be a desired level of resource that is different from the perceived reality – the *what?*

Needs assessment is always about change in order to bridge the gaps identified. Often, when faced with a problem, people discuss solutions before being clear what the problem actually is. While such solutions may be useful, the problem will continue because all the factors affecting it have not been identified, or the main ones clearly identified for action. Using 'need' as a noun, the balance between perceptions of need is critical in understanding the difference between the desired state and the perceived reality, and the changes required to bridge this gap. Bradshaw's grouping of needs (below) helps clarify this.

Grouping of needs (Bradshaw, 1994)

An individual recognises changes from normal health – wants, desires	**Felt needs**
An individual seeks help to overcome change from normal health – demand	**Expressed needs**
A professional identifies interventions appropriate for the expressed need	**Normative needs**
Comparison between expressed and normative needs based on severity, amenability to change and availability of resources – relates to equity across different populations	**Comparative needs**

These levels of 'need' (as a noun) link individual expectations, relating inequalities in health (*felt* and *expressed*) to those of the population (*comparative*). So needs can be identified and ranked for action through negotiation and choosing priorities from each grouping of need. Bradshaw helps focus change on three target groups:

1 the recipients of the interventions	*felt* and *expressed*
2 the people providing the interventions	*normative*
3 the organisational systems providing the interventions	*comparative*

(Witkin and Altschuld, 1995)

Making sense of this range of sources of information about needs requires assessing them comparatively, both in relation to each other (eg are the *expressed* needs consistent with the *normative* need), and in relation to other populations (eg is the *comparative* need for tackling the problems experienced by this population greater than that for another population?).

A model of epidemiological, corporate and comparative healthcare needs, developed by Stevens and Rafferty (1994), can be directly linked to Bradshaw's model. The links and sources of information about needs are shown in the following table.

Links and sources of information

Perceptions of the population	**Expressed and comparative needs**
Data about the severity and size of health issues	**Normative needs using an epidemiological assessment**
Perceptions of service providers – this might include the NHS, local authority, voluntary organisations and others	**Normative/corporate needs**
Perceptions of the organisations commissioning and managing services within the profiled population	**Corporate needs**

Policy, programmes and projects

Health needs assessment is all about improving planning processes, and is by definition a multi-agency and multi-disciplinary process. Throughout this workbook the word 'programme' is used to mean a set of related actions that have an impact, either design or by default, on the health of a population. So for simplicity and brevity 'programme' is used to include policies and projects.

Finally

The enduring success of this process is that issues not previously noted are identified as requiring some action, and that by tackling these issues services will be more effective in their impact. The consensus achieved at each step by focusing on the health of the population is highly successful in enabling people from different worlds to understand each other, work together, and share in taking action.

Introductory task: summary of concepts and process and common language

As language can be so confused, in addition to planning the processes, it is useful for participants to read the Summary of Concepts and Process (page 9) and Common Language (page 18) sections before starting the process.

Alternatively, present the common language and steps to the first session of the group undertaking the assessment.

A useful exercise is to ask each person to put into rank order, for themselves as individuals, the aspects of health functioning on page 18. Then collate the individual responses together and discuss any differences. This helps to make the concept of health clearer.

Estimated time for ranking aspects of health functioning is **15 minutes**.

Step 1 Getting started

Health needs assessment goal/purpose

The main goal of any HNA is to improve the health of a population and reduce health inequalities. The assessment must identify those with most to gain and ensure that any programme targets them.

In order to achieve this goal, it is crucial that the people who know about and understand the population, and those who can make changes happen, are involved in the process. As no HNA takes place in isolation from the other priorities and plans of the organisation involved, these must be taken into account throughout the process. These boundaries for the assessment need to be clarified as early as possible.

Outcomes

By the end of this step you should:

1 have a working definition of the population you will be assessing
2 know how they can be identified to track progress
3 have a clear picture of the rationale for the assessment, what your main aim is, and who needs to be involved at the start of the process
4 know which of these issues needs more discussion and clarification as you work through Steps 2 and 3.

Within this step there are two components:

- *Step 1a Who is the population to be assessed?*

  A written definition of the population to be assessed.

- *Step 1b Improvement, integration and involvement*

  An overall aim for the assessment.

  A rationale for undertaking the HNA.

  A list of who must be involved.

> **Estimated time for Step 1 is 105 minutes**, not including preparatory work.

Whether you decide who the population is *before* setting the aim, boundaries and who should be involved, depends on the assessment – for example, a geographical grouping will require the population to be defined before identifying the scope or boundaries for change; but planning for children might require sorting out the latter first.

How you do this is covered in the 'Tasks' sections, but please read through the items to think about before undertaking these tasks. The tasks include procedures that we have included for your guidance, but you may answer the core questions for the step using different procedures. Please be clear about what you are doing before you do it!

Step 1a Who is the population to be assessed?

Background information and definitions for Step 1a

It is crucial that you clarify as soon as possible how the population is defined, why the assessment is being done, and its boundaries, so that the assessment remains focused.

Population

In this workbook, three terms are used to describe different populations:

1 *general population*
  all the people in an area, for example, all the people living in Calderdale and Kirklees
2 *profiled population*
  a sub-set of the general population – the people who will be included in the assessment, for example, children under 18 in Calderdale and Kirklees
3 *target population*
  a sub-set of the profiled population – the people who are affected by a particular condition or factor and will be the focus of particular actions, for example, children in care in Calderdale and Kirklees.

The population whose health is being assessed, the profiled population, will be one of the following:

- people living in a geographic area
- people who share a particular characteristic such as age, gender or ethnicity
- people affected by a specific health issue or factor, eg
  - a physical disability
  - heart disease/stroke
  - low income
  - housing issues
- people who need a specific service, eg
  - people in residential homes for the elderly
  - people registered with a primary healthcare team
  - children in care.

Example 1.1 Defining a population

In a geographical locality, health visitors decided to undertake a needs assessment of the whole population, then choose priorities for the health of children and their families in order to plan action. This was because:

- they were aware of their emerging role of leading public health action locally

- in refining this role they had to involve others in the planning process, but also to be able to take action themselves

- as children and families were such a core target population for all of them, they decided to focus on this population to start their new public health role and become proficient, then tackle wider issues for the whole population; this also allowed the less enthusiastic health visitors to engage in this changing role.

Before starting Task 1a, think about...

Why is it important to be clear who the population is?

- The population's perceptions of impact can be gathered only if you know who they might be. Specifically, the health status of a population can only be established by asking them – remember the definition of health, and Bradshaw's 'expressed needs'.
- Consulting the profiled population in order to choose priorities and create or amend solutions will share ownership of the programme, and may uncover important and helpful ideas.
- To collect valid data for the profile, you need a clear, shared definition of the population.
- To choose priorities and plan for changes, the population whose health is affected must be clear.
- You can only monitor the effect of a change if you know who it should affect.
- If a programme ignores the impact on its target population and only focuses on the people providing the service or the organisations involved, then the programme will be much weaker in its impact and may fail, with negative consequences for the organisations involved.

Other issues to think about

The population you define at this stage may change as you work through the assessment, so by the end of the assessment the definition may have been refined further, subdivided, or even changed altogether.

There are three major traps to try and avoid when defining the population, as these can lead to actions being focused on secondary or tertiary prevention, not tackling primary prevention.

1 Being 'woolly' – using a definition that is too broad and ill-defined, which can make it difficult to collect valid data.

2 Being data-driven – defining a population we know a lot about already, for example, service-users only, or artificial boundaries such as electoral wards.

3 Focusing on people with the problem – excluding groups where there might be significant potential for improving health and reducing inequalities. This could happen if you do not include:

- those who are 'at risk' of a particular health problem, eg mental health – defining the population as those with established mental health problems excludes significant numbers with undiagnosed problems or those with major risk factors

- those who are not currently 'in the system', eg housing – owner-occupiers and private tenants would be excluded if the definition is based on public and social housing.

The boundaries set for the assessment will affect the population definition, and *vice versa*, so you may need to redefine the boundaries once you have agreed your definition.

Example 1.2 Physical activity

Lack of physical activity has been accepted as a major contributor to ill health. It appears significantly in the National Service Framework for Coronary Heart Disease, and also as a major objective in the local Transport Plans. By joint working between the NHS and local transport planners, a range of factors could be tackled to improve physical activity levels.

School-age children were the first target group for plans to promote and enable physical activity beyond involvement in sports – due to close working between the school health service and local schools to tackle health issues, and the known low levels of physical activity in this group which has such long-term consequences.

Deciding which population should be assessed may depend on which services can be changed, rather than which population appears to have the most need.

Example 1.3 Taking action about asthma factors

A primary healthcare team recognised that, because of who it was feasible to involve in their HNA of asthma, the factors they could address were limited to improving detection and treatment, and influencing housing.

COMPLETE CONTROL	INFLUENCE	NO INFLUENCE or CONTROL
detection treatment	housing	traffic

Task 1a Who is the population to be assessed?

- Why is this population a priority?
- Are there any specific issues about this population that make them significantly more important for HNA than others?
- Does this population have significantly worse health than others locally – do they have significant health inequalities?

Check:

- Is the definition of the population too narrow or too broad?
- Is the definition understandable to people who have not been involved in devising it?
- Is it precise enough to identify individuals? So that:
    - it is feasible to contact the population to involve them in the process?
    - changes in their health could be monitored?

Write up the working definition to ensure that all participants have agreed it.

Step 1b Improvement, integration and involvement

Background information and definitions for Step 1b

1 Improvement

What is the aim for the health needs assessment?

2 Integration

Why are we doing this assessment?

What are the boundaries of this assessment?

What are the fixed points of the assessment?

What is happening locally that is relevant?

The sources of priorities must include local plans such as the HIMP and the Community Strategy, and national documents such as the national service frameworks, National Priorities Guidance, and DH publications such as *Saving Lives: Our Healthier Nation* (1998). The list of priorities and fixed points may become shorter or longer as your assessment progresses, and it will become clearer which are most important and which will provide opportunities or constraints to making change happen.

3 Involvement

Are the appropriate partners/agencies who lead the population involved – those who can make change happen for the population?

Are key players signed up at a strategic level in the relevant organisations, in order to be able to implement change?

Any HNA will result in changes for organisations in terms of what programmes they deliver, or how existing programmes are delivered. Gaining strategic-level support for the assessment at the earliest possible stage is crucial to improve the likelihood of being able to make real changes happen.

Who are the key people in the following groups?

Who is not signed up to this assessment, and does this matter? What should be done to sign them up?

How will the key people be involved in the assessment?

Any assessment should balance between gaining commitment to overall health priorities, and enabling groups to tackle the issues about which they can make a difference. Although each group will be able to contribute something about each set of needs, they will have a specific area on which they are best placed to comment:

- the profiled/target population and the wider community (*expressed* needs, eg activists in a population group)
- the people delivering the current or planned programmes (*normative* needs, eg GPs, health visitors, housing officers)
- those commissioning and managing the activity (*corporate* needs, eg primary care managers, health authority or social service strategic planners).

One way of thinking about who to involve is to use the maxim:

- who *knows* about the issue?
- who *cares* about the issue?
- who can *make change happen* related to the issue?

The list of people who should be involved will be different for each assessment, but could include:

- people affected by the issues being assessed
- community leaders
- elected members
- heads of community organisations
- religious leaders
- informal leaders
- staff of non-governmental organisations
- owners of local shops and entertainment establishments
- GPs and primary healthcare teams
- teachers and social workers

- local authority officers from any of the various departments
- regeneration initiatives
- health promotion services
- other healthcare providers
- police, probation, community safety
- community health council
- colleges and universities
- managers of services
- commissioning bodies, including HNA and primary care teams.

However, it is seldom possible or desirable to involve everybody fully in every stage of the process. Who should be involved, and how, will be determined by:

- which criterion is being looked at
- what stage of the process you are at
- what has been done before (particularly to avoid 'consultation fatigue')
- the circles of control and influence of each individual, group or organisation.

Before starting Task 1b, think about...

These may be useful prompts for the discussion in Task 1b.

While the questions alone may appear daunting, the important thing is to consider the issues they raise, and focus effort on the areas that are most likely to cause you problems later if they are not sorted out before you start. The crucial things to remember are:

- don't get into too much detail too early – you might never get started!
- satisfy yourself you have addressed all the core questions (and are confident about your answers) before the end of Step 3 – otherwise your action planning could be fundamentally flawed.

By the time you have reached the end of Step 2, you need to have clear, agreed answers to all these questions for the profiled population; and by the end of Step 3 you should have answers for the target populations. These can be built up as you progress through the assessment. To help with this, all the core questions should be used as part of progress checking at the end of each step.

These questions cannot be answered in isolation: for example, who is involved might affect your overall aim and the boundaries of the assessment. Similarly, the order in which the questions should be tackled will depend on the assessment being done, and the particular focus of the assessment will dictate how much effort needs to be put into addressing each question:

- if the assessment is about a geographical population, then which geographical population should be decided first; but if it is about an issue, such as housing or physical disability, agree the boundaries first then define the population more precisely
- the relevant national service framework may provide answers to the integration questions, but how the target populations could be involved might need more thought
- a locality based team may have well established ways of involving people, but be less clear about the connections they need to make with national and local priorities.

Potential sources of information for needs assessment include: PCTs, NHS trusts, primary healthcare teams, health visitors/school nurse profiles, local authority.

There is often a gap between an organisation being signed up to a priority and the issue being actively tackled by people within the organisation. It is important to get a feel for the real level of commitment to the priority by asking 'what is being done by this organisation to address this priority?'

The overall health priorities will be used to make decisions about specific priorities and actions for the profiled population.

Action taken by specific groups involved with the population (eg a primary healthcare team) will be influenced by these overall priorities; they may well have a specific role to play in taking action to make change happen for specific priorities. However, they may also identify health needs within the sections of the population they serve, which they can take action to address, but are outside the overall priorities. So the process needs to bring people together to tackle the big issues for the profiled population, but recognise that groups will also want to take action to address the needs of smaller target populations.

When thinking about how to involve people, it is important to recognise that partnership working and involving communities are major themes in current public policy. Using the mechanisms that already exist locally will not only save a lot of time and effort, but will also ensure that the assessment can exploit the links that are already in place. This will:

- make the profiling more robust, as you should be able to draw on a wider range of sources of information
- ensure the prioritisation is informed by and informs wider local priorities
- increase the range of potential effective actions
- make life easier for the next assessment you do.

When involving the target population:

- don't forget Bradshaw's grouping of needs (page 22) and the importance of understanding the perceptions of the target population in planning
- there are different levels of involvement, from informing people about services, issues and proposals, to devolving responsibility for decision-making to people (Arnstein, 1969).

Blocks to community engagement in health needs assessment

There are blocks to engaging the community. The following is not a definitive list, but should help ensure some common problems are addressed:

- using inappropriate fora for public dialogue
- poor communication between government agencies and community organisations
- constraints on shared and credible information between interpretation of scientific information and the lay public due to:
    - unhelpful levels of simplification
    - confusion in language, use of jargon
    - possible misrepresentation of technical and scientific data and debate
    - alarmist media reporting

- an adversarial climate which blocks collaborative efforts for problem-solving
- little collective wisdom about effective methods for disseminating information, especially through planning and consultative processes
- information that is fragmented or scattered across institutions: government agencies, community organisations and academic departments with commercial sensitivities possibly also being present.

(National Health and Medical Research Council, 1994)

Task 1b Preparation

Before the group session, the key people involved in planning the assessment need to discuss, agree and draft:

1 an aim for the assessment and underlying principles, eg improving health inequalities, why collaborate, evidence-based action…
2 some ideas about:
- why this population is being assessed
- what the boundaries and fixed points of this assessment are
- any work that has already been done to assess needs.
3 proposals about who should be involved, when and how – this is to identify who should be invited to the first meeting and who needs to be supporting the overall process.

Task 1b Improvement, integration and involvement

1 Improvement

? *What is the aim of the health needs assessment?*

• What improvements in health and inequalities are you trying to achieve and for whom?

Discuss the initial draft aim prepared before this session, which should sum up what you are trying to achieve by undertaking this HNA. Remind people that HNA is about health improvement and reduction of inequalities.

You need to develop an aim that is specific to the assessment you are undertaking. Make sure you get something down on a flip chart to focus your thinking and provide a catalyst for debate – you can come back to this later and shape it to reflect the changes in your thinking.

Example 1.4 Examples of possible aims of your assessment

'creating and maintaining healthy housing in Kirklees'
'to reduce the mortality and morbidity due to coronary heart disease in Batley'

At the very least, you need to review the aim again once you have completed the rest of this step to make sure there is agreement about:

• why this assessment is being done
• what the boundaries and fixed points of this assessment are.

2 Integration

Briefly discuss and note the answers to the following questions.

? *Why are we doing this assessment?*

• Why has this population/programme been identified as a priority locally?
• Are there relevant national or local priorities?
• Is the priority significant enough to undertake the assessment?

? *What are the boundaries of this assessment?*

- What is the remit of the key agencies involved in this assessment?

It is important to be clear about the boundaries of this assessment to keep it focused on what is achievable locally.

? *What are the fixed points of the assessment?*

- What are the relevant policies (eg a national service framework, a white paper, etc)?
- Are there specific actions, targets or required ways of working?

? *What is happening locally that is relevant?*

- What are the relevant local planning processes and activities, and how will the assessment link to these?
- What work to identify needs for this population has already been done, or is in progress, locally and nationally?

Think how your work could link with relevant local planning processes, for example by cross-representation, formal reports, informal networks, etc.

Example 1.5 Fixed points and local activity			
Relevant policies	**Specific actions, targets, ways of working**	**Relevant local planning process**	**Existing work**
National Service Framework for coronary heart disease (CHD)	Reduce risk factors for CHD: increase levels of physical activity. Reduce deaths	Strategic health authority Local implementation groups	Protocols for diagnosis management of angina, MI standard data set for PHC with Read codes

This brief analysis is the rationale for undertaking a full HNA for this area. It also gives a check on what and who should be involved. This should be reviewed throughout the process to make sure you keep on track and keep people on board.

3 Involvement

? *Are the appropriate partner agencies involved?*

Who can make change happen?

? *Are key players signed up, especially those at the strategic level of the organisation who are able to implement change?*

Identify:
- the key players at senior level in each organisation, particularly those responsible for commissioning and managing activity
- which of these key players must be supportive of the overall process
- which of these key players have a high potential contribution, but are not currently engaged with the area being assessed (ie you do not feel, or know, that they are not particularly committed to the area, or that they are not involved in much action in the area).

? *Who is not involved, and does this matter? If so, what is being done to sign them up?*

The scope and boundaries will be dictated to some extent by who is actively involved, so it is important to be clear who is *not* involved.

? *Who should be involved, when and how?*

For each of the following three groups, brainstorm the key people:

- the profiled/target population and the wider community?
- the people delivering the current or planned programmes linked to the issue being assessed?
- the organisations commissioning and managing the activity?

Remember the maxim:

who knows, who cares, who can

At this point it is important to prioritise who is involved, and at what stage. From this brainstormed list, using the grid below, identify who from each of the three groups **must** be involved in: profiling, choosing priorities, action planning.

It is useful to recheck this at every group meeting, to ensure that the right people are there and that people recognise the perceptions that are (or are not) being used to make decisions.

| | Step 2 | | Step 3 |
	Profiling	Choosing priorities	Action planning
Population			
People delivering programmes			
Commissioning and managing			

Step 2 Identifying the health priorities for the population

Summary

Now that you have a working definition of the population you will be assessing (Step 1a), and have clarified the aim of the assessment and its boundaries (Step 1b), the next step is to identify the health priorities for that population.

The process of choosing priorities is at the heart of the HNA process. It involves making hard decisions. Involving people in the debate that leads to these is crucial if the decisions are going to be carried through and acted upon. This highlights the need to check that the right people are involved before you start (see Step 1b).

Within any population there are potentially a huge number of issues that could be tackled in order to improve health and reduce inequalities. This step is all about making sense of these issues through identifying the priorities for the profiled population.

In choosing priorities, you are trying to screen out those issues that do not meet the first two HNA criteria. This is best done by using each criterion in turn to narrow down the list of issues that could be tackled. Therefore, if an issue is not seen as having a significant impact, it is not assessed for changeability.

Outcomes

By the end of this step you should have:

1 identified the aspects of health functioning, conditions and factors that might have a significant impact on the health of the profiled populations
2 developed a profile of these issues
3 used this information to decide a limited number of overall health priorities for the population, using the first two HNA explicit criteria:
    A   IMPACT   they have a significant impact in terms of their severity and size
    B   CHANGEABILITY   they are changeable by those involved in the health assessment process.

Within this step there are three sub-steps. At the end of each sub-step there should be a written summary of what has been agreed – these are summarised below (see).

Step 2a Developing a profile of the population

- *Step 2a.1 What are the most important aspects of health functioning for the profiled population?*

    Rank order of aspects of health functioning

- *Step 2a.2 What are the conditions and factors that might have a significant impact, in terms of severity and size, on health functioning of the profiled population?*
    A   IMPACT

✏️ **Health Triangle for the profiled population**

Step 2b Choosing overall priorities according to impact on the health of the population

- *Step 2b.1 Assessing IMPACT for severity – what are the conditions and factors that have a significant IMPACT, in terms of severity, on health functioning of the profiled population?*

✏️ **List of conditions/factors with a significant IMPACT**

- *Step 2b.2 Assessing IMPACT for size – which of the conditions/factors affect the health functioning of a lot of people in the profiled population?*

✏️ **Data about the conditions/factors in the Health Triangle**

✏️ **Final list of issues with the most significant IMPACT on health**

Step 2c Choosing overall priorities according to changeability

✏️ **Overall priorities which have made significant IMPACT on health and are CHANGEABLE**

How to do these is given in the 'Tasks' sections, but please read through the things to think about before undertaking these tasks. The tasks have procedures that are provided for your guidance, but you may answer the core questions for the step using different procedures. Please be clear about what you are doing before you do it!

> 🕐 Estimated time for **Step 2** is **220–280 minutes**, not including preparatory work.

💡 *Before starting Step 2, think about…*

The methods used to gather and assess information will need to be tailored to the demands of each assessment, and each phase within this task. The procedures given below assume most of the work will be done by a team that includes a range of people, with a range of backgrounds and expertise relevant to the assessment. The main method used is a series of meetings, with team members undertaking necessary work outside the meetings. This work will need to include a range of methods – examples of appropriate methods include:

Task 2a	Focus groups*
	Telephone interviews*
Task 2b	Survey*
	Routine data*
Task 2c	Meeting (of co-ordinating/planning group)

(*see Appendix 1 for details of method)

Methods such as rapid appraisal (Annett and Rifkin, 1995) can be used for all phases of this step. This method relies on asking a wide range of 'key informants' who are familiar with the population to provide their perceptions. These are drawn from all three groups: the population, service providers, and managers/commissioners. This provides a broader base for gathering information and making decisions about priorities than just the team working on the assessment and their immediate contacts. This may be done using structured interviews or focus groups. The key questions (in italics) provide the structure (see

Example 2.1, page 38). A meeting must be called for those who have been interviewed (the informants) to present the aggregated results of the interviews, and to find consensus about the key health issues for the population.

Advice and guidance from people with research and/or market research skills is essential in choosing and using appropriate methods for collecting data. If you do not have access to these skills in your group, you should contact the local authority or PCT for advice.

The final phase is different, as it is about reviewing the information that has been collected and producing a consensus about the overall priorities. The most practical way of doing this is to get all the key players in the same room together.

The whole process is a balance between perceptions and data. It is always important to be explicitly aware of the three principles (page 9) and remember the three sources of needs information:

- perceptions of the profiled population of the impact of the issue – *expressed* needs
- perceptions and expectations of the service providers delivering – *comparative* or *normative* needs
- perceptions and expectations of the managers in organisations managing and commissioning services – *comparative* or *corporate* needs.

Consensus is the key – establishing a consensus between different expert opinions and community perceptions is crucial. So keep checking that discussions and decisions are based on evidence wherever possible, or at least represent an informed consensus.

Whether you should think about the data – comparatively (the size and severity of any issue in your population in comparison with a similar population), or absolutely (that the health problem exists at all) – depends on your perception of impact. For example, if the population has the sixth highest suicide rate in the country consistently over time, even though the rate is less than 20 per year, then should reducing suicide be a priority? Given the current support from the DH (1998) and the Mental Health National Service Framework, then the answer is probably yes – the absolute need is more important than the comparative.

Bradshaw's *felt* and *expressed needs* – you can only truly establish the health of the population by asking them, therefore it is crucial to consider how you can involve the community (page 30). How this will be done must be clarified and agreed:

- whatever approach is agreed should reflect the locally agreed strategy for community engagement
- real consultation takes a lot of time and effort – building on what already exists and focusing on key issues is crucial
- use key informants or focus groups to identify potentially significant issues before undertaking wider-scale consultation, to make sure you are asking the right questions
- some teams have felt it was only feasible to work with the consensus developed within the team for this step, and then involved the target population directly in working through Step 3.

Example 2.1 Using structured interview of key informants in a geographical area for Steps 2a.1 and 2a.2

Interview schedule:
(The questions in italics are the ones that must be covered, those not in italics are prompts.)

Which section of the community can you describe?
- *What age group/gender?*
- *Any specific ethnic/religious group?*
- *People who live in a specific area?*
- *Are there any other defining characteristics of the group?*

So the 'group' we will focus on in answering the following questions is...

....
(summarise definition to ensure agreement)

(If the respondent can describe more than one group ask all the questions about the first group, then all the questions about the second group, etc.)
From the six aspects of health functioning, which do you think would be most important for the group you can describe?

Which diseases/conditions do you feel have a significant impact on this group?
If the four national priorities are not mentioned ask:
Do any of the national priorities have a significant impact on this group?
- *Heart disease*
- *Cancers – any cancers in particular?*
- *Mental health – any conditions in particular?*
- *Accidents – any types of accident in particular?*
(Access to services is an important issue for many. There is a separate question about this issue later in the interview.)

Which other things do you feel have a significant impact on the health of this group?
These could be about
- people's behaviours (eg smoking, exercise, diet, use of drugs, etc)
- the local social and community networks
- people's living and working conditions (including income, employment, education, housing, transport, food).

From the things you have already identified, which do you feel are the five most important, bearing in mind:
- *how many people does the issue affect?*
- *how much does the issue affect their health?*

Are there any of those five issues that cannot be changed? Changes could be made by
- individuals themselves
- statutory or voluntary groups in the area or local authority district.

Are there any particular issues in relation to access to services that you feel are very important for this group?
Who else knows about what is going on in this group?
Who can make changes happen for this group?

We are planning a session to feed back to interviewees what we have found from the numerical data and interviews. This will be an opportunity to influence the final health priorities for this area. *Will you be able to attend the session?*

Step 2a Developing a profile of the population

Background information and definitions for Step 2a

What is a population profile?

It is a systematic review of the information about health issues facing the profiled population.

A population profile combines:	
Perceptions of the population	Expressed needs
Data about the severity and size of the health issues and population characteristics	Normative needs using an epidemiological assessment
Perceptions of service providers – this might include the NHS, local authority, voluntary organisations and others, including relevant national, local or organisational priorities	Normative/corporate needs
Perceptions of the organisations commissioning and managing services within the profiled population	Normative/corporate needs

Population characteristics, including age, gender and ethnicity, are important to help describe the population being assessed and put the other information in context.

The aim of developing a profile is to identify priorities for a population by:

- systematically reviewing the health issues for all the population
- reviewing all the population affected, not just those receiving services
- being explicit about what information is used in selecting priorities.

This ensures the obvious priority issues are not automatically selected, or that someone's 'hobby horse' is not given disproportionate weight.

A set of health indicators has been developed to create a profile of Calderdale and Kirklees (Appendix 2). This could be used as a prompt for the data items to be included in the profile of a geographical area. These data can then be used to check and challenge perceptions of the population, service providers and commissioners/managers.

What are the important issues for the health of this population?

The Health Triangle

Health functioning

Levels of prevention:
Occurring
Recurring
Consequences

Conditions

Factors:
Biological
Personal behaviours
Social and community networks
Living and working conditions
Socio-economic, cultural and environmental conditions
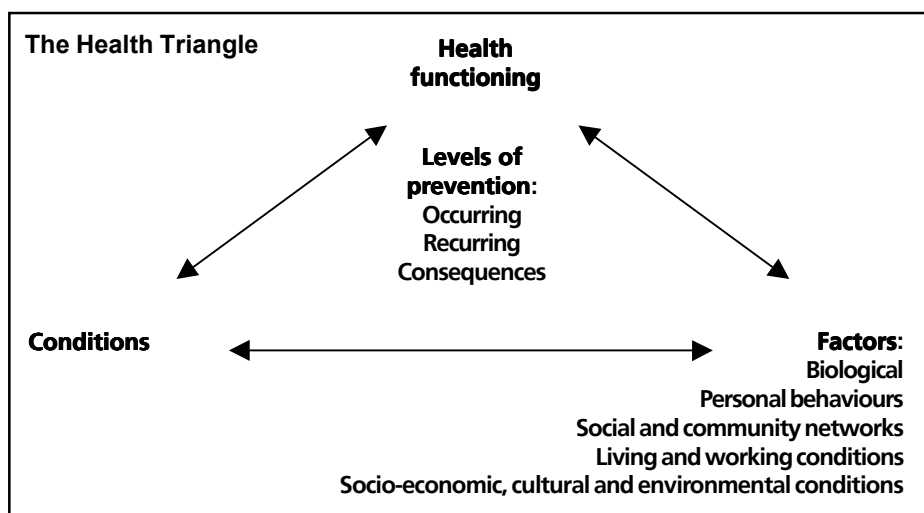
Developing a 'profile' for a population must be approached in a systematic way, otherwise it can become just a ragbag of facts and opinions.

The Health Triangle (page 39) can provide a structure and logic by using it to:

- identify the potentially important health issues for the population
- critically review the associations between health, conditions and factors
- structure the collection and presentation of the data into a useful profile.

The Health Triangle provides a way of thinking through the issues that might be profiled. It can be used to clarify issues that are either broad in scope, or very specific. Similarly, it can help set the boundaries for gathering the perceptions of the population and service providers and the corporate needs of the key organisations.

Using and understanding the Health Triangle is crucial if you are to make real progress. In using the triangle it is important to:

- involve a range of people from differing backgrounds to get as wide a view as possible – this could include the wider population and the target population, people directly involved in providing the programme and representatives of the organisations responsible for providing the programme
- share ideas so they can be discussed – check them later for validity and accuracy
- engage in debate to share perceptions, challenge assumptions and generate support for the final outcomes.

Example 2.2 Questions to develop a Health Triangle for different profiled populations

Geographical area, eg ward:
- what are the most significant aspects of health functioning for them?
- what are the conditions that affect those aspects of health?
- what are the factors that affect such conditions and aspects of health?

Physical disability:
- what is the impact of physical disability on other aspects of health functioning?
- what are the conditions that cause or worsen physical disability?
- what are the factors that cause or worsen such conditions, or physical disability itself?

Housing:
- what is the impact of housing on health functioning?
- what impact can housing have on conditions?
- are there factors that aggravate the impact of housing on health or such conditions?

Asthma:
- what is the impact of asthma on health functioning?
- which factors have the main impact on asthma occurring, recurring, or its consequences?
- are there other conditions that worsen asthma or are caused by these factors?

Social isolation:
- what is the impact of social isolation on other aspects of health functioning?
- what are the conditions that cause or worsen social isolation?
- what factors make social isolation occur, recur, or worsen its consequences?

Data are not used at this stage; rather, consensus is reached between the population being assessed, service providers and experts/key informants about what might be important conditions and factors, and the consequences for the health of the profiled population.

Remember to consider all three levels of prevention – occurring, recurring, consequences (page 19). Whether something is a factor in preventing the problem occurring at all, detecting and dealing with the problem, or preventing the consequences of the problem, can make a significant difference across all four HNA criteria and any subsequent action plan.

Health functioning

The social model of health has several key aspects. Health is at the apex of the triangle because it is the focus of any assessment. Therefore it is important to establish the most important aspects of health functioning for the profiled population (page 18).

Conditions and factors

Having identified the key aspects of health functioning for the population, the potentially important conditions and factors can then be identified using the first HNA criterion:

? *A IMPACT: What are the conditions and factors that might have a significant IMPACT, in terms of severity and size, on health functioning of the profiled population?*

At this stage the emphasis is on what might be important for that population. This will then be used to collect data and views to identify what is really important – the overall priorities.

Sources of information for the profiling

The Health Triangle is used to identify the sources of information for the profile. The information sources for any profile include:

- **perceptions of the population**
- **perceptions of service providers and managers**
- **relevant national, local or organisational priorities**
- **data about the size of the potentially important aspects of health functioning/conditions/factors and population characteristics.**

Population perceptions

Any HNA must draw on the populations' perceptions of the important issues affecting their health (page 18).

The Health Triangle can be used to provide some guidance and boundaries to this process. The issue of who to involve at this stage should have been discussed in Task1b.

At the very least, any assessment should use existing local or national research into the populations' perceptions of their health in the area covered by the assessment. If there are the commitment, time and resources to undertake work to uncover the current issues which the community see as important, this should be done through the locally agreed mechanisms for community engagement.

Community dynamics

What are the community groups? Whose interests do they represent? In any population, people with similar interests will come together, whether formally as a specific group or attending a specific service, or informally in social groups. Such organisations give shape and strength to a community, forming ideas and behaviours. They provide an invaluable source of data about what is happening in the population, and what the priorities are for their group. They also have capacity to take

action on problems they perceive. So working with these groups is essential in deciding what are the overall priorities for a population.

What are the important issues for service providers and commissioners?
No HNA takes place in a vacuum. Step 1 identified the major priorities and fixed points which the organisations involved might have to address. These may or may not coincide with what emerge as potentially important issues from the perceptions of the population. However, if they are major issues for the organisation they should be considered for inclusion in the profile.

When discussing the Health Triangle with people who are involved in providing or managing services, or commissioning them, it must be clear whether an issue has a significant IMPACT on the health of the profiled population, or whether it is an organisational priority that relates to service needs. It is important to distinguish between the two, otherwise the profile could become swamped with measures of demand as opposed to need.

Example 2.3 Profiling and national priorities – teenage pregnancy

In an HNA to identify the major health issues for children, teenage pregnancy was not seen as an important issue from the perspective of:

- the Health Triangle, as the size of the problem is so small
- the profiled population.

However, it is a major government priority and so was included in the profile, and subsequently was included in the overall priorities for this reason.

Data about size and population characteristics
Using the Health Triangle and the first HNA criterion – IMPACT – is essential to ensure the data collected about the size of potentially unimportant aspects of health functioning/conditions/factors are relevant, and that you do not become buried under data. See Appendixes 1 and 2 for more information on collecting data.

These data about population characteristics provide the overall context within which other aspects of the profile can be understood. Such data would normally be included about:

- size of population and any important sub-groups
- age and sex structure
- ethnic groups.

Any major trends in the data should also be described if possible.

Task 2a Developing a profile of the population

Task 2a.1

? ***What are the most important aspects of health functioning for the profiled population?***

This task is described below for a group of people. An alternative is to combine results from individual interviews, which cover Tasks 2a.1, 2 and 2b.1 (see Example 2.1, Interview schedule, page 38). This is presented to a meeting of those interviewed for discussion in Task 2b.2.

* With the group, re-check the definition of the profiled population from Step 1.
* Each person individually ranks the six aspects of health functioning in terms of their importance to the profiled population (page 18).
* Share their rankings with the rest of the group, and aggregate the rank scores.
* Discuss any differences between individuals' rankings and the aggregate ranking, and come to a consensus about the final ranking.

The health functioning issues identified here will act as a focus throughout the whole HNA process – this is to ensure that any changes made have an impact on those aspects of health functioning which are seen as most important, and are the aim or purpose of the assessment.

Example 2.4 Aspects of health functioning for people with ischaemic heart disease

The most significant aspects of health functioning for people with ischaemic heart disease were agreed by four multi-disciplinary groups all working within the same locality.

	Group				Total	Final
	A	B	C	D	score	rank
Physical activity	2	1	5	1	9	1
Role function	1	4	1	2	8	2
Social function	4	3	1	4	12	3
Vitality	3	2	4	6	15	4
Mental health	5	5	3	3	16	5
Pain	6	6	6	5	23	6

Task 2a.2

? *A IMPACT: What are the conditions and factors that **might** have a significant IMPACT, in terms of severity and size, on health functioning of the profiled population?*

This task is described below for a group of people.

Either A:

1 Combine results from individual interviews, which cover Tasks 2a.1, 2 and 2b.1 (see Example 2.1, Interview schedule, page 38). This is presented to a meeting of those interviewed for discussion in Task 2b.2.

2 If the population being assessed is a geographical area, the list of indicators developed by Calderdale and Kirklees Health Authority in Appendix 2 will be a useful checklist to use in Task 2b.1, rather than developing your own by working through Task 2a.2.

But you should check:
- are there any issues felt to be important by the group that are missing from the indicators in Appendix 2?
- are there any issues on the checklist that are felt to be unimportant and can be deleted?

Then amend the list and go on to Task 2b.1.

Or B:

1 Transfer the final rank order of aspects of health functioning from Task 2a.1 to the Health Triangle template on page 45.

2 Brainstorm the conditions and factors that *might* have a definite or agreed IMPACT on the most important aspects of health functioning. Use the categories of factors (page 20) to check nothing has been missed – you don't need to allocate factors to specific categories.

3 Review all the ideas that have been produced, and delete any for which the group feel:
- the evidence of relationship is unknown, or there is no agreement
- there is no evidence of relationship
- the conditions/factors are relatively unimportant in terms of their severity and size.

Remember to add any corporate priorities, whether national or local (see Step 1b).

4 Following the session, write up the proposed Health Triangle and circulate to group members to check for accuracy and completeness. This checking process should also include at least a brief review of:
- the major literature – in case any major conditions/factors have been overlooked, or the evidence people were drawing on in the debate was out of date, biased or wrong
- any available data about the perceptions of the population, or the actual population itself, or any comparable populations.

The Health Triangle
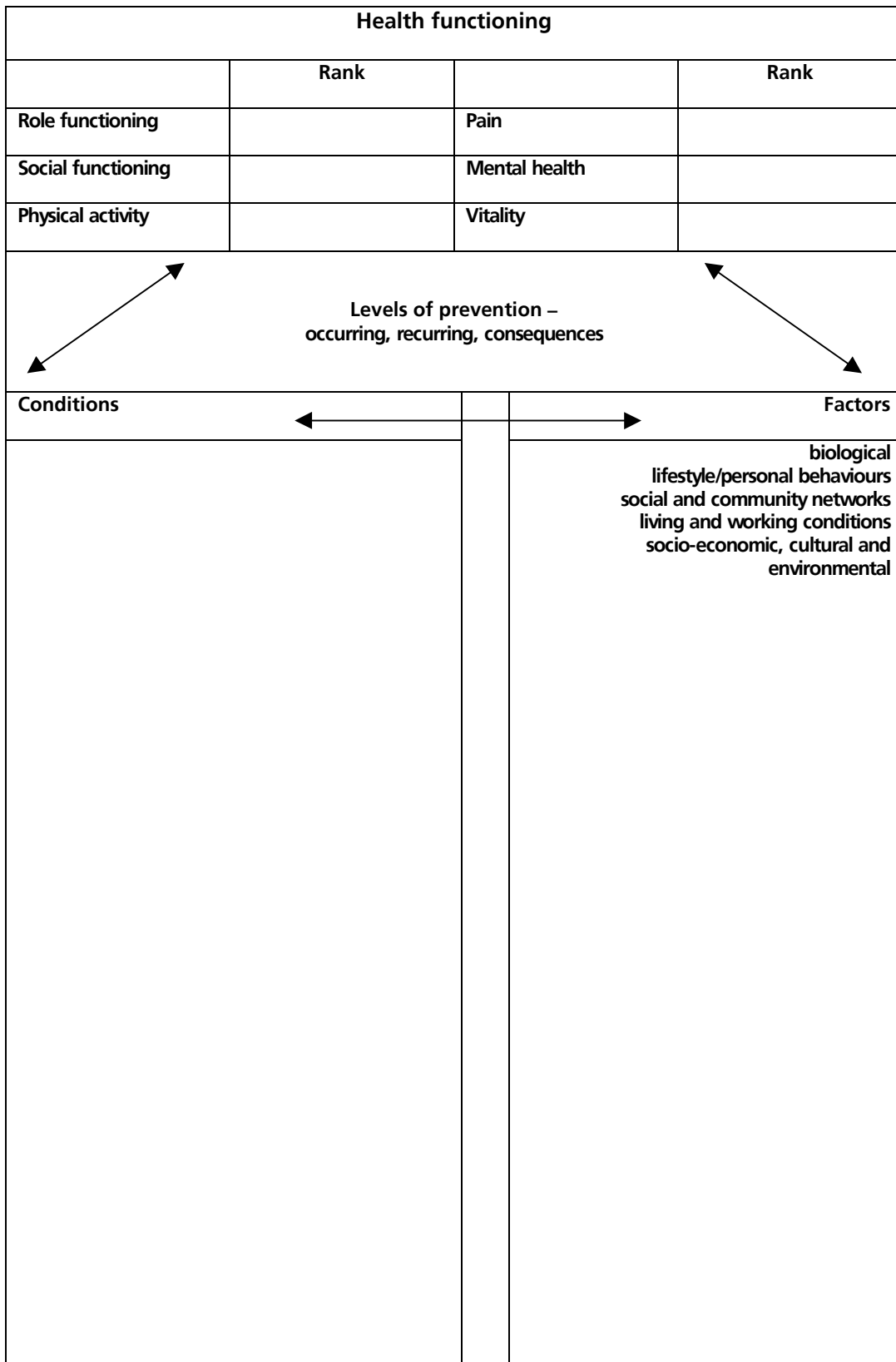
Health functioning			
	Rank		**Rank**
Role functioning		Pain	
Social functioning		Mental health	
Physical activity		Vitality	

**Levels of prevention –
occurring, recurring, consequences**

Conditions	**Factors**
	biological
lifestyle/personal behaviours
social and community networks
living and working conditions
socio-economic, cultural and
environmental

Step 2b Choosing overall priorities according to IMPACT on the health of the population

Background information and definitions for Step 2b

This section uses the first HNA criterion to identify the issues that are felt to have a significant IMPACT on the population locally.

? A IMPACT: What are the conditions and factors that do *have a significant IMPACT, in terms of severity and size, on health functioning of the profiled population?*

Severity

Having identified what *might* be significant in severity, now those that *are* significant are identified, using the following criteria for severity:

- does the condition/factor significantly affect the most important aspects of health functioning? eg asthma affects social functioning of children
- does the condition/factor significantly affect other issues that affect health? eg educational attainment affects most other health issues for children
- does the condition/factor significantly affect long-term health?
- is it a transient or long-term impact? eg smoking in children has a significant health impact only later in adult life
- does it cause death?

Death (mortality) is important in larger populations, and death rates are often used as proxies for health data because the information is available. For many issues affecting health, death is only part of the picture – it is the extreme, and relatively small, end of the impact. So death rates are very dependent on the size of the population being assessed. (See Glossary, page 115, for an explanation of death rates.)

? *Size – does the condition/factor significantly affect a lot of people in the profiled population?*

This can be measured in two ways:
1 prevalence – how many people have the issue within a defined population?
2 incidence – how many new cases occurred in the defined population in a specific time period?
You should be able to gather some data about the size of the health issues to include in the profile. These data will enable you to compare:

- between populations, eg there are more unemployed people in this locality than the district average
- populations over time, eg there are more people receiving housing benefit in this area now than there were five years ago.

Before starting Task 2b, think about...

Data, information and evidence

- Should be used to check the accuracy and validity of people's perceptions – some things might have been forgotten in the heat of the debate, or given unwarranted significance.
- Their role is to inform the priority-setting process, not dictate it.
- Information from different sources is invaluable in confirming trends and themes.
- Much of the data for the issues you are likely to be interested in is not routinely available, if at all. So epidemiological assessment alone is inadequate, but useful to check perceptions.
- Using the district-wide health indicators, where appropriate, can help with monitoring and measuring change and the data collection process (Appendix 2). The lack of agreed national health indicators is problematic, but there are numerous sets of national indicators developed for other purposes that could be useful (Appendix 3).
- The main function of data is to act as a check for the results of the preceding discussions about perceptions. So do not get buried under data – only work on those things that are absolutely crucial; use what you have; and be aware of gaps and bias. The information required should follow three principles:

    1   sticking to the knitting – information not relevant to the objectives of the profiling must be ignored, do not waste time on validating information of little use

    2   know your caveats – all information is subject to bias – it may be incomplete, not timely, have varied definitions, etc – this is fine so long as this is known and recognised

    3   triangulation – assemble the data from a range of sources, and if similar results or themes emerge, these will be reasonably real; if not, then are their biases quite different?

As profiling involves using valid data from various sources and pooling ideas from the different perspectives of participants, it may seem daunting if valid information is not readily available. Collect the easily available data first, and then prioritise what data to collect next in terms of their importance and how easily they can be collected or generated.

You will need to consider which of the missing data need to be collated regularly, and how this can be done.

Task 2b Choosing overall priorities according to IMPACT on health of the population

Task 2b.1

? *Assessing IMPACT for severity – what are the conditions and factors that have a significant IMPACT, in terms of severity, on the health functioning of the profiled population?*

There are two ways of deciding what issues are important for *severity* of IMPACT. Whichever procedure you follow, use the list from Tasks 2a.1 and 2a.2 of aspects of health functioning, conditions and factors that might be important to profile.

Defining a limited number of issues to profile, 15 for example, makes people focus on identifying the most important issues. This is essential if the process is to be kept manageable.

An alternative: you will *not* need to undertake this task as described below if you are using individual interviews which cover Tasks 2a.1, 2 and this Task (2b.1).

Either A:

1　Using a piece of flip chart paper, list the issues (from 2a.2) down the left-hand side of the paper.
2　Assess each issue for the significance of its severity of IMPACT using the criteria for severity:
　　-　does the condition/factor significantly affect the most important aspects of health functioning from Task 2a.1?
　　-　does the condition/factor significantly affect other issues that affect health?
　　-　does the condition/factor significantly affect long-term health?
　　-　does it cause death?
　　Its IMPACT could be at any of the three levels of prevention, and it could be either positive or negative.
3　Then check whether the issues also address national or local organisational priorities (from Task 1b).
4　Put these into a list of high, medium or low severity, and include whether they are positive (+ve) or negative (–ve), as in the grid below.

	IMPACT – *severity*		
	High **(–ve/+ve)**	**Medium** **(–ve/+ve)**	**Low** **(–ve/+ve)**
Conditions			
Factors			

5　Are there any issues whose strength of evidence about the IMPACT is unknown – having unclear, little, unknown or no IMPACT? Delete these from the list.
　　Are there any remaining issues whose evidence of severity of IMPACT is agreed, but is not measurable or less significant? Should they remain on the list?
6　Those felt to have definite IMPACT – measurable and significant – should be included in the list of issues to be profiled.
7　Proceed to Task 2b.2 before ending the meeting.

Or B:

This procedure is useful if there are many potential issues.

1 **Using a piece of flip chart paper, draw a grid as below.**

Example 2.5 Assessing IMPACT for severity – procedure B						
Issue	**A**	**B**	**C**	**D**	**E**	**Total**
A	x	✔	✔	✔	✔	4
B		x	✔		✔	2
C			x		✔	1
D			✔	x		1
E	✔		✔	✔	x	3

2 **Put the issues, identified in 2a.2, down the left-hand column and along the top row.**
3 **Assess each condition/factor for its IMPACT on the others. This could be at any of the three levels of prevention, and could be either positive or negative. Work along each row and put a tick where the issue in the row has a significant IMPACT on the issue in the column (in the example above, A impacts on B, C, D and E; B impacts on C and E, etc).**
4 **Sum the ticks in the right-hand column. This is now an order of priority of issues for their IMPACT on health – the issue with the most ticks has the greatest IMPACT, the lowest number of ticks indicates the least IMPACT. So the order of priority for issues in their IMPACT on others is:**
   A, E, B, C, D.
5 **Now check this order using the criteria for severity:**
   - **does the condition/factor significantly affect the most important aspects of health functioning from Task 2a.1?**
   - **does the condition/factor significantly affect other issues that affect health?**
   - **does the condition/factor significantly affect long-term health?**
   - **does it cause death?**
   Also check which are national or local organisational priorities identified in Step 1b. Should they be emphasised?
6 **Re-order if necessary – but make sure you can justify it if challenged!**

Example 2.6 Assessing IMPACT for severity – children's health

A health authority and coterminous local authorities collaborated to identify priorities for the health of their local children, using the HNA process.

At an initial workshop of over 120 people, 41 issues for the health of their children were identified using Step 2.1b. Before a second large workshop, a series of smaller workshops were held for the core planning groups to decide on the priorities for local action in respect of size and severity of impact on the local children, using Step 2.2a. As so many issues were identified, a grid for assessing each priority against the others was used.

Conditions/ factors	Develop-ment disorders	Birth trauma	Learning disability	Physical disability	Behavioural problems	Self-harm	Teenage pregnancy	Infections	Accidents	Diabetes
Develop-ment disorders	X									
Birth trauma		X								
Learning disability			X							
Physical disability				X						
Behavioural problems					X					
Self-harm						X				
Teenage pregnancy							X			
Infections								X		
Accidents									X	
Diabetes										X

Working across the rows, the impact of the issues in the rows on those in the columns was assessed across the three levels of prevention. This resulted in a score in the final column for each of the issues in the row. The scores were then put into descending order, and this order was discussed to check if it agreed with the perceptions of the group, and whether there were crucial issues that should be addressed due to national policy direction. Teenage pregnancy had a low score, so was low in the order, but as it is a national priority it had to be included. Accidents were low in the order, but were noticeably high in size in one part of the health authority area, so were moved up the order.

The next step was to check this revised order of priorities against what could actually be done by those involved – so genetic disorders were felt to have significant impact on the other issues, but little could be done to tackle them directly rather than working through the other issues, so they were not identified as a final priority.

At a second large workshop involving over 160 people, a final list of 14 priorities for the health of local children was identified. The whole process meant the decision on priorities was explicit and widely owned, although it took considerable effort, time and organisation to complete. The process also helped to identify who should take the lead in assessing each of the priorities, why them, and who else should be involved.

Task 2b.2

? *Assessing IMPACT for size – which of the conditions/factors affect the health functioning of a lot of people in the profiled population?*

This task uses the table on page 52.

1 Using the list of conditions/factors identified in Task 2a.2:
- identify the issues for which data are known or not known (column A in the table on page 52)
- agree who will collect the available data for each issue – there must be time outside the meetings for people to collect the data.

2 Work outside the group meeting to collect data, then reconvene the group meeting.

3 Pool all the data you have managed to collect, and the perceptions of participants and others. Write down as much as you can for future reference in column B (page 52), or reference it logically so you can track down the data later. You probably will not have all the possible information, but you need to work with what you have got. Remember:
- try and describe the population as if to an outsider
- do not omit things because they are obvious.

4 There will be gaps in the data you have access to, so discuss what information that is currently not available is essential in order to complete your understanding of the health of the profiled population. Mark these data in column A as 'needed'. You will probably have to accept that these data will not be available for this HNA, but you should investigate how you can obtain this information for future work in this area.

5 Review any known data or information about your population, or extrapolated from other similar populations, that directly concerns incidence or prevalence. There are two aspects of *size* to think about:
- Absolute numbers, for example, that any cases of suicide occur at all is important.
- Comparative ratings – the conditions/factors for which your population has a low rate nationally should be lower priority than those for which your population has a high national rate. For example, the suicide rate of your population may be among the lowest nationally, and the severe accident rate may be among the highest, so the latter is more important.

6 Review the data in the profile and identify the implications (so what? – what are the important messages from this data?) for the population's health, the team, other services/organisations, etc. Note these implications in column C of the profile.

7 Identify the issues that have the greatest IMPACT in terms of their *size*, and note these in column D of the profile. This may be either comparative or in order of size.

8 Now compare this *size* list against the list of issues that had the most significant IMPACT based on *severity* (from Task 2b.1):
- issues that are **high** impact in terms of both ***severity*** and ***size*** (both positive and negative) should be included in the final priority list
- issues that are **high** *severity* but **low** *size* need to be discussed, to achieve consensus about whether or not they should be included
- issues that are **high** *size* but **low** *severity* should not be included unless a solid case with robust evidence can be put forward.

9 Write up a final list of issues that have the most significant IMPACT, and ensure everyone can sign up to that list.

Choosing priorities according to *size*				
Category/indicator	A Data known Yes/No (needed?)	B What are the data?	C Implications of the data – so what?	D Most important issues in terms of *size*

Step 2c Choosing overall priorities according to CHANGEABILITY

Background information and definitions for Step 2c

By now you have selected priorities based on IMPACT (*size* and *severity*) on the health functioning of the population. In this step, the second criterion is used to select priorities that are amenable to change.

? *B CHANGEABILITY Which of the significant conditions/factors can be effectively improved by those involved?*

Having identified the conditions and factors that have the most significant IMPACT on health, the next stage is to identify if there is something that can effectively be done to improve their impact – if they are amenable to change. As before, consider actions across the three levels of prevention, and whether existing policies identify actions.

The overall aim of HNA is to make changes happen locally. The potential for change needs to be assessed in the light of what can be done by local players involved in the assessment (see Step 1b). Selecting a priority issue which can only be tackled by a national policy change means success in improving health locally will be less likely.

Gaining commitment

The final list of priorities should be agreed by the most senior planning group involved, if not at the assessment meetings. This is to ensure the right people tackle the priorities in Step 3.

On uncertainty

Any HNA will involve a degree of uncertainty, caused by:

- factors with multiple and complex effects
- concerns about the effects of low-level, long-term exposure to a combination of factors
- perceived risk creating individual and community concerns, even when the objective risk is negligible
- a lack of consistent information about either the health of the profiled population or evidence of impact on health which could be extrapolated to this population
- using information from several sources that can create conflicting messages.

These uncertainties can be dealt with by:

- clearly stating assumptions and scientific judgements
- outlining the type and size of any uncertainties, eg bias in representation, validity of statistics, etc
- explaining the methods used in the assessment
- making clear the role of risk assessment in making decisions
- ensuring it is clear who makes decisions and how they are accountable for them.

(National Health and Medical Research Council, 1994)

Before starting Task 2c, think about...

Brainstorm potential actions across all three levels of prevention (see page 19) and check for professional or organisational policies which set out what should be done.

This is more an art than a science – the assessment needs to be 'good enough' rather than perfect, and it needs to be revisited in light of experience. The process cannot be solely objective science, as measurement of levels of ill health and risk, and for whom, are so imprecise. There are no easy answers.

Don't re-invent the wheel – has someone else already done any of this work?

Ensuring those involved in the discussion represent all the relevant disciplines is essential to pool experience and knowledge. People and organisations are more likely to be committed to making change happen if they have been involved in deciding priorities and subsequent actions. So the decisions taken in Step 1b about who needs to be involved might need to be revisited during this step.

Limit the number of priorities:

- how many priorities can you reasonably expect to take action on?
- limiting the number to 10, for example, can help participants focus on what are really the most important issues for the population.

Encourage people to challenge (constructively) any suggestions they feel are unclear or incorrect.

To complete this step as a large group (more than eight to 10 people) may inhibit participants from contributing. So split into smaller groups of four to eight to work through the step, then pool the results. This enables a discussion of the differences that may arise from differing knowledge, experience or interpretation.

In working through the changeability criteria, it is important not to go into great detail about specific interventions – this will be done in Step 3d. But do not assume that things can be changed by local players.

Task 2c Choosing overall priorities according to CHANGEABILITY

B CHANGEABILITY: Which of these significant conditions/factors can be effectively improved by those involved?

1 Using a flip chart, put the list of issues that have been selected as having most significant IMPACT in Task 2b.2 down the left side. Review the list and ask 'are any of these not amenable to change at all?' This might include biological factors such as age, gender and ethnicity; these might be used to identify target groups for action later – but at this stage delete these from the discussion.

2 Assess each issue which can be changed for its amenability to change as:

high	definitely changeable, with good evidence
medium	some aspects significantly changeable but not overall, or generally agreed as changeable
low	little, no or unknown changeability.

Are all three levels of prevention assessed for action?
Are there relevant professional/organisational policies that define actions?

Those assessed as highly changeable are clear priorities. Those as medium should be discussed, whether or not they are included as priorities. Those classed as low should be excluded. Issues that are already being tackled should be included – the actions being taken still need to be assessed against any known effective actions.

3 The discussion about CHANGEABILITY might mean that several issues can be grouped together because the actions that make them amenable to change would tackle all the issues. For example, alcohol, drugs and smoking could be grouped together as 'substance use', as the actions you could take might be similar.

4 Final check:
- from your earlier review of boundaries and priorities, are there any issues that are a major priority but are not included (see Step 1b)? eg teenage pregnancy may not appear as a priority for the health of children, but it is a major national priority
- are any issues included that have not appeared anywhere else as a priority, eg in the local HIMP or other specific local planning mechanisms such as joint planning, service, workforce and financial frameworks (SWAFFs), etc, and can you justify this?
- are those with most to gain being targeted?

What is the final list of priorities? Write it up and make sure everyone can sign up to it.

Who is going to take forward each health priority?

Finally, the agreed list of priorities should be discussed in the most senior local planning group, and this must be organised *as appropriate*. It is necessary to identify which organisation or group will take action about each priority (that is, who will undertake Step 3 onwards).

See Example 2.7 overleaf.

Example 2.7 Choosing priorities – older people

In planning to improve the health and independence needs of older people, some sessions were organised to agree priorities and actions to tackle those priorities. The sessions included older people as well as practitioners from Social Services, the NHS and voluntary sectors.

Using Task 2.1a, the health objectives for older people were agreed as:

- Role/social functioning
  - what role does an older person have?
  - relationships, eg within family/friends
  - society attitudes, eg respect of elders
- Mental health – mood, memory, thoughts, personality characteristics
- Physical activity – self-care and being able to do activities of daily living
- Bodily pain.

Then the conditions and factors contributing to these health objectives were identified and classed as either high or medium impact on the objectives, and then according to their amenability to change.

This resulted in 19 priorities for older people. It was suggested by the group that as a number of these had common actions that were required, then the list could be reduced by placing these actions as priorities, so the final list was reduced to 15. These priorities were then tested out with a wider range of older people who attended a large local event. Each older person attending was asked to vote for the five issues they felt had the most significant impact on the health of older people in the district. The voting was used to inform the plans being developed – the issues which received most votes were developed first.

High impact	Medium impact
Vascular disease stroke/hypertension	Substance misuse
Ischaemic heart disease peripheral, vascular	Alcohol, prescribed drugs
Depression, dementia	Psychoses
Cancers breast, bowel, prostate	Neurological conditions, eg Parkinson's
Osteoarthritis	Diabetes in specific groups
Injury falls, osteoporosis	
Visual impairment cataract, glaucoma	Hearing impairment
Malnutrition (including obesity)	Chronic respiratory disease
Incontinence	
Bowel dysfunctioning	
Hypothermia	
Diet	Smoking
Physical exercise	Low income
Loss	Risk of exploitation/fear of crime

Final list

- Relationships
  - carer, friends, local
- Community
  - cultural/religious networks
- Spiritual
- Ageism
  - in service providers
  - in wider society
- Access to amenities
  - information
  - cost
  - physical access to buildings
  - transport
- Housing
  - safe, dry, warm
  - access in home

Step 3 Assessing the specific health priority

Summary

Now you have reached this stage you should have a profile of the important aspects of health, conditions and factors for your profiled population, and have agreed the overall health priorities. However, you may be starting with this step because a priority has already been identified without profiling (without completing Step 2). For example, an obvious priority for many NHS planners is coronary heart disease, which is both a national and local priority. If this is the case, it is crucial to work through Step 3a thoroughly to ensure local ownership and involvement.

This next step is to assess each specific health priority for change. The needs-led approach requires being clear about the *what* and *why* before the *how*. So by completing this step you should be much clearer about:

- why this specific health priority is important for the profiled population, and
- what changes you can make that will have a positive impact on the most significant issues affecting the priority.

This will ensure that the detailed action planning in Step 4 is based on sound information and clear assumptions. So this step starts with working through the same questions as you did for Steps 1 and 2 for this specific priority, but in much more detail, as Step 3 is about one priority only. Then, the two final HNA criteria are used to identify changes required:

C ACCEPTABILITY
What are the most ACCEPTABLE changes required for the maximum positive IMPACT?

D RESOURCE FEASIBILITY
Are the RESOURCE implications of these changes FEASIBLE?

Note: 'Conditions' is the term used throughout for both diseases and conditions.

Outcomes

By the end of this step you should have:

- identified who should be involved in making change happen, and got them involved in this process of choosing actions to tackle this health priority
- reached a clear, shared understanding of the health priority by identifying the aspects of health, conditions and factors that have significant impacts on that priority
- identified effective interventions to tackle this health priority
- defined your target population
- identified the changes that are required
- confirmed that the proposed changes will benefit those with most to gain.

Within this step there are seven sub-steps. At the end of each sub-step there should be a written summary of what has been agreed – these are summarised below.

- *Step 3a Revisiting the issues of improvement, integration and involvement*

  Who will be involved at what point? What are the boundaries?

- *Step 3b Identifying conditions and factors with a severe IMPACT on this health priority*

  Health Triangle for this priority profile

- *Step 3c Choosing the conditions/factors with the most significant IMPACT on this health priority*

  List of priority conditions/factors

  Target population

- *Step 3d Identifying effective action for this health priority*

  List of effective actions

- *Step 3e Identifying acceptable CHANGES for this health priority*

  List of acceptable changes

- *Step 3f Are the RESOURCE implications of the proposed changes FEASIBLE?*

  List of feasible changes

- *Step 3g A final check*

  Final list of specific priorities and changes

The exact processes associated with these steps are detailed in the 'Tasks' sections, but please read through the background information before undertaking these tasks.

> **Estimated time for Step 3 is 270 minutes,**
> not including preparatory work.

Step 3a Revisiting the issues of improvement, integration and involvement

Background information and definitions for Step 3a

For the overall HNA, you have already agreed the profiled population, aim, rationale, boundaries of the assessment, and who is involved (Step 1). This step is the assessment of a specific health priority identified either by going through profiling (Step 2), or from immediate pressures to review a specific issue.

Step 3a aims to clarify the issues addressed in Step 1 for the population affected by the specific health priority you are now focusing on.

Before starting Task 3a think about...

Be clear, and reach agreement about, what the definition of the specific priority is before you start – it can be reviewed as you proceed, but at least start with a common definition.

At this stage the process is neither exact, highly scientific, nor static. The participants have to pool their joint knowledge and experience with the available evidence. The aim is to make the process explicit in deciding what should change in this health priority, so that participants know why these specific changes have been chosen.

Common language is critical throughout the process, so keep checking this with participants.

Target populations

It is important to agree who should be included from the community or target population, and how they will be involved. This may feel more feasible now as the issue and population may be more focused than at the beginning of the overall assessment.

Providers and managers

The main organisations to be involved should have been identified before starting profiling, but now others might emerge as this health priority is being assessed.

As the group of people involved may have changed to reflect the focus on the specific health priority, you may need to spend some time ensuring that people understand the HNA process, how you have got to this point, and how they can contribute.

Example 3.1 Involving the target population – carers

One of the overall priorities identified by a primary healthcare team undertaking Steps 1 and 2 was that carers of dependent patients needed some help. So group sessions were organised to offer a break-away from caring. After three sessions, virtually no-one came.

When the carers were asked why they didn't come, most felt guilty at leaving their dependent person, and wanted a chance to talk through their problems individually. Group sessions were not wanted. So the project changed to setting up a visiting service from both the team and a local voluntary group to carers. Eventually the carers themselves began to contact and support each other.

Example 3.2 Involving the target population – young people

Promotion of good health in their teenage population was the priority for an urban primary healthcare team. Smoking and teenage pregnancies were felt to be major local priorities.

The primary healthcare team involved the local school nurse, the local branch of a leading natural health-and-beauty chain, and other businesses donating product displays, samples and raffle prizes.

The aim was to improve self-esteem and perceived self-image through health and beauty.

To find out how the target group felt, the school nurse used her networks with the teenagers to run discussion sessions in the local library – which was felt to have a less institutional image than schools or health centres. A one-day event was then planned to:
- promote beauty care
- enable the participants to learn how to care for their looks
- obtain feedback on what the target group felt the local primary healthcare team could do to help them.

Invitations were placed in the local press, with a specific invitation slip to send back to the practice.

Personal image consultants gave individual and group advice sessions, and displays of products and samples were available. The raffle was used to draw interest in coming, and also to pay for some of the cost.

Task 3a Revisiting the issues of improvement, integration and involvement

This task involves repeating the tasks for Steps 1a and 1b, but focusing on the health priority. Much of the work may already have been done, particularly in relation to 'integration, improvement and involvement'.

The group should work through Tasks 1a and 1b, pages 27 and 32.

Step 3b Identifying conditions and factors with a *severe* IMPACT on this health priority

Background information and definitions for Step 3b

This step involves using the process used for Tasks 2a and 2b to address the following questions for the specific health priority:

? *What is the definition of the health priority?*

This must be agreed, and should be as unambiguous as possible – for example, 'stress' is vague; 'anxiety' is better as this is defined by a set of symptoms.

? *Which aspects of health functioning, conditions and factors affect this health priority?*

The Health Triangle is now used to assess the aspects of health functioning, conditions and factors that might have a significant IMPACT on the population with this health priority, or at risk of having it (as in Step 2a).

? *A IMPACT: Which of these has the greatest IMPACT in terms of size and severity?*

In order to narrow down this list, A – IMPACT is used (as in Step 2b) to identify the issues that are felt to have a significant impact on the population with this health priority locally. Step 3b focuses on *severity*, and Step 3c focuses on *size.*

Before starting Task 3b think about...

Ensure those involved in the discussion are representative of all the relevant organisations – it is essential to pool experience and knowledge.

Encourage people to constructively challenge any suggestions they feel are unclear or incorrect.

To complete this step as a large group (more than eight to 10 people) may inhibit participants from contributing. So split into smaller groups of four to eight to work through the step, then pool the results. This enables a discussion of the differences that may arise from differing knowledge, experience or interpretation.

Check that you have:

- clarified the boundaries of the assessment – are there national or local policies that set specific conditions/factors to be tackled? (*corporate* needs)
- used the Health Triangle and levels of prevention to identify the conditions/factors
- used the categories of factors to check nothing has been missed – you don't need to allocate factors to specific categories.

Your discussions at each stage will probably highlight ideas or conditions/factors which you need to remember to inform your thinking in subsequent steps. As these things crop up, make a note of them so they are not lost.

Rather than just relying on the knowledge and expertise of the group, it is useful to check the major literature for evidence of relationships. This can be done as preparation and/or as a check on what the group produces.

The importance attached to any disease/factor should be judged in light of both:

- the size of the impact it has on other conditions/factors, for example, smoking causes lung cancer; air pollution has a small impact on the risk of coronary heart disease
- the strength of the evidence for that impact – definite, agreed or unknown (see Glossary, page 117).

The estimated cause or association between factors, conditions and health functioning is rarely clearly quantified. In reality, a number of types of bias make this unclear:

- multiple factors have different impacts on different populations
- research studies suffer from non-responders, small sample sizes, short length of follow-up, multiple factors operating to confound the effect being studied
- little relevant local data may be available, especially for health indicators. So the data used will have to be proxy or generalised from elsewhere, which is acceptable as long as the problems in doing this are explicit.

So deciding which conditions/factors have the most significant impact is a balance between the views of expressed, normative and comparative needs – that is, from the community, data and organisations – and the weight each type of information carries in decision-making should be clear.

If the programme of sessions does not allow a break between Tasks 3b and 3c, someone will have to collect the easily available data about issues that are likely to be identified as high/medium severity for this priority.

Task 3b Identifying conditions and factors with a severe IMPACT on this health priority

Task 3b.1 Defining the priority: the Health Triangle

1 Agree the definition of the health priority as far as possible.
2 Using the Health Triangle, identify the following:
   - For people affected by this priority, what are the most important aspects of health functioning? Ask each member of the group individually to rank the six aspects of health functioning in terms of their importance to the health priority.
   - Reach a consensus about the final ranking by sharing their rankings with the rest of the group, and discussing any differences. Write the aspects in the Health Triangle template on page 45.
   - Brainstorm the conditions and factors that might have a significant IMPACT on the most important aspects of health functioning, across the three levels of prevention.
   - Use the factor groups and the levels of prevention in the triangle to check that important things have not been overlooked.
3 Write up the proposed Health Triangle (page 45), and check for accuracy and completeness. This checking process should also include at least a brief review of:
   - any available data about the perceptions of the actual population itself, or any comparable populations
   - the major literature – just in case any major conditions/factors have been overlooked, or the evidence people were drawing on in the debate was out of date, biased or wrong.

Task 3b.2 Which conditions/factors have the most significant IMPACT in severity on health functioning?

1 Using a piece of flip chart paper, list the issues, conditions and factors from the Health Triangle down the left-hand side of the paper.
2 Assess each issue for the significance of its *severity* of IMPACT using the criteria for *severity*:
   - does the condition/factor significantly affect the most important aspects of health functioning?
   - does the condition/factor significantly affect other issues that affect health?
   - does the condition/factor significantly affect long-term health?
   - does it cause death?

   Its impact could be at any of the three levels of prevention, and it could be either positive or negative.
3 Then check whether the issues also address national or local organisational priorities, from Task 3a.
4 Put the conditions and factors into a list of high, medium or low *severity*, whether positive or negative.

	IMPACT – *severity*		
	High (–ve/+ve)	Medium (–ve/+ve)	Low (–ve/+ve)
Conditions			
Factors			

5 Are there any issues whose strength of evidence about the IMPACT is unknown – having unclear, little, unknown or no IMPACT? Delete these from the list.

Are there any remaining issues whose evidence of *severity* of IMPACT is agreed, but are not measurable or less significant? Should they remain on the list?

6 Those felt to have a definite IMPACT (measurable and significant) should be included in the final list of issues for the specific priority.

7 Tasks 2b and 2c will have produced some of the data relevant for this specific priority, but other data may also be needed. Agree what is needed, and who will be responsible for getting hold of it. Focus on data that will be essential to undertake the next step, and are easily available.

Step 3c Choosing the conditions/factors with the most significant IMPACTS on this health priority

Background information and definitions for Step 3c

In this next step, conditions and factors with a *severe* IMPACT are assessed for their *size*, to agree a final list of specific changes for this health priority. Those most at risk from the negative health impacts are then identified – the target population.

Size: Which conditions/factors affect a significant number of people with the health priority?

It is important to relate the evidence you have gathered in doing this part of the step to your profiled population. So data and information about that population should be used to support these discussions (see Task 2b.2, page 51).

Example 3.3 Identifying significant conditions/factors affecting depression in an adult population aged 16–64 years

Aspects of health functioning affected mental health, role and social functioning

Factors		Level of prevention
Biological	Symptom detection Appropriate treatment	2
Social isolation	Confiding relationship Transport Telephone	1, 3
Life events	Bereavement Divorce Loss of key role, eg unemployed	1, 3
Personal behaviours	Recreational drugs	1, 3
Lack of resources or little control over future	Low income Appropriate skills	1, 3
Living environment	(a) Housing: unfit for purpose – damp, cold, invasion of space, overcrowding, noise, security (b) Outside: noise, rubbish, dogs, access to services	1
Workplace		1, 3

Whose health is likely to be most at risk?

Once the health priority has been assessed for the important conditions and factors that affect it, then specific target populations can be identified – those who are most at risk of these conditions or factors. A 'target population' may be defined by age, gender, ethnicity, conditions, or have one of the main factors.

Example 3.4 Data and consensus – childhood accidents

In using the HNA process for agreeing priorities for the health of local children, accidents came low in the order, according to impact. However, as one area had a high accident rate, and (unlike a number of the other priorities) most accidents are primarily preventable, it was decided that accidents should be a priority.

Task 3c Choosing the conditions/factors with the most significant IMPACTS on this health priority

Task 3c.1 Size

1 Review any known data or information about your population, or extrapolated from other similar populations, that directly concerns incidence or prevalence. There are two aspects of *size* to think about:
-   Absolute numbers, for example, that any cases of suicide occur at all is important.
-   Comparative ratings – the conditions/factors for which your population has a low rate nationally should be lower priority than those for which your population has a high national rate. For example, the suicide rate of your population may be among the lowest nationally, and the severe accident rate may be among the highest, so the latter is more important.

2 Group the conditions/factors into high, medium and low *size*.
You can do this in two ways:
-   (a) Put the list of issues with severe IMPACT to one side for the moment. On a new flip chart list the conditions/factors, and allocate each to high, medium or low for *size* in your population. Then compare the two flip chart groupings for *severity* and *size*, and agree the final groups for high, medium and low IMPACT.
-   (b) Look at the flip chart for high, medium and low *severity*. Should any of the conditions or factors move group when you consider their *size* in your population? If so, move them to agree the final list.

Whichever way you choose, the following should be used to guide your decisions about the final list:
-   Conditions/factors that are **high** IMPACT in terms of *severity* and high in *size* should be in the final list of specific priorities.
-   Conditions/factors that are **high in *severity*** but **low in *size*** should be discussed to reach consensus about whether they should be included.
-   Conditions/factors which are **high in *size*** but **low in *severity*** should *not* be included unless a solid case with robust evidence can be offered.

3 Finally, check back against priorities identified by:
-   the population whose health is being assessed – have you any information about their *expressed* health needs?
-   the review of conditions/factors arising from national or local policies (*corporate* needs).

Should any of the conditions/factors move group, for example from medium to high, because of these *expressed* or *corporate* needs?

Task 3c.2 Whose health is most likely to be at risk?

1 Write up the list of conditions/factors that have the highest IMPACT on the health priority.
2 Identify whose health is most likely to be at risk from the negative IMPACT of these conditions/factors. These target populations may be defined by age group, gender, ethnic group, or as having a contributory condition or factor.
3 Check that everyone can sign up to this final list of conditions/factors that have the greatest IMPACT on this health priority and their target populations.

Step 3d Identifying effective actions for this health priority: B CHANGEABILITY

Background information and definitions for Step 3d

Being clear about what is known to work, in order to improve the IMPACT of the health priority, is important *before* assessing what is already happening (Step 3e).

? *What are effective actions that improve the significant conditions/factors across the three levels of prevention? What should be happening?*

? *What is the strength of their evidence of effectiveness?*

? *Are there professional or organisational policies that set out what should be done (eg national service frameworks, Social Services Inspectorate or DTLR Guidance, etc)?*

In this step, the plan for real action is being developed, so involving the key players is critical (see Step 1b, Involvement).

Before starting Task 3d, think about...

The levels of prevention are a prompt to ensure that you consider the full range of potential effective interventions – don't get bogged down in academic debate about whether it's primary or secondary!

Keep checking that the potential interventions target those with the most to gain.

Bring key literature reviews or policies to the discussion to check evidence of effectiveness, or make sure this is done before the next step. There may be professional or organisational policies that set out what should be done, such as national service frameworks.

Capture some detail about the nature of the intervention, so that:

- all those involved in the prioritisation process are clear about the intervention
- if the intervention is selected, any ideas collected here will inform the action-planning process.

Do any of the interventions link together in a logical package of actions? For example, information will recur for a number of conditions/factors, so all the information needs could be grouped together for taking action.

Trying to identify specific interventions might lead you to reject some of the priorities which met the impact/changeability criteria, because there is nothing to suggest that those involved could make the necessary change happen.

Given the list of high-impact conditions and factors affecting the health priority, have you involved all those who can make change happen? If not, can you involve them now?

Task 3d Identifying effective actions for this health priority: B CHANGEABILITY

1 Draw a blank grid as below. List the conditions/factors identified from Task 3c in the left-hand column of this grid.

Identifying effective actions for this health priority				
Priority factors/conditions	**Action**	**Action**	**Action**	**Action**

2 Brainstorm the potential actions for each issue across the rows. Indicate whether each intervention is for *primary* (1), *secondary* (2) or *tertiary* (3) prevention – some might be more than one. This will:
- act as a prompt to make sure you have considered all three levels of prevention
- remind people that an intervention will have different target populations at different levels of prevention
- help ensure that people are clear about the nature and purpose of the intervention.

3 Now ask the following questions:
- What is the strength of evidence of effectiveness for each action?

Use the following categories and symbols:

definite	the evidence is definite and quantifiably significantly effective	✔ positive
		X negative
agreed	the evidence is not quantifiable precisely, but generally accepted	**?**
unknown	there is no evidence of effectiveness, or it is unclear	**0**

Example 3.5 Actions for ischaemic heart disease by a primary healthcare team

Factor, condition	Action	Action	Action	Action
Obesity	Info diet (1) ?	Promote exercise (1) ✔?	Self-help (3) ✔?	Monitor weight (1) ✔
Diabetes	Info diet (1) ✔ disease (1) ✔	Promote exercise (3) ?		Self-monitor (1) ✔ reg. checks (1) ✔
High blood pressure	Info diet (1) ✔	Promote exercise (1) ✔		Monitor BP (1) ✔ weight (1)
Cholesterol	Info diet (1) ✔	Promote exercise (1) ?		
Stress	Info diet (1) ? causes (1) ✔	Promote exercise (1) ✔?		
Maternal health	Info diet (1) ✔			
Alcoholism			Self-help ✔ long-term support (1) (3)	Monitor reg. check (1) ✔
Exercise	Info at school (1) ✔	Promote exercise (1) (3) ✔		
Smoking	Info at school (1) ✔		Self-help ✔ motivation change (1) (3)	Monitor reg. check (1) ✔

Are there professional or organisational policies that set out what should be done (eg national service frameworks, Social Services Inspectorate or DTLR Guidance, etc)?

4 Keep those actions with definite positive evidence (✔) or 'have tos' from policy, even though they may not have definite evidence. Delete those actions whose evidence of effectiveness is unknown or negative. Discuss whether those actions whose effectiveness is agreed should stay in, or be deleted. Agree the final list of effective actions.

Step 3e Identifying acceptable changes for this health priority: C ACCEPTABILITY

Background information and definitions for Step 3e

This step focuses on the third HNA criterion: C ACCEPTABILITY.

What should be happening – the effective actions – are compared against what is already happening, in order to identify the changes required. This may mean new actions should be started, and current ones amended or stopped.
The acceptability of these potential changes is then assessed.

Which of the effective actions are already happening?

What else is happening to tackle this priority?

What changes are required to achieve the maximum positive IMPACT on the health priority?

Are the changes acceptable from the perspectives of:
- *target population and wider community?*
- *people providing the service?*
- *commissioners and managers involved?*

In reviewing what is required to maximise the health benefit and reduce or mitigate risk, potential changes will address one or more of the three levels of prevention:

- can the negative IMPACTS be stopped or reduced?
- can those most at risk be protected, or the consequences quickly detected and dealt with?
- can the effects on those suffering from negative health impacts be ameliorated?

Before starting Task 3e, think about...

This step will take some work in auditing present activity, and will test information systems for their data quality (see Appendix 1).

If data about existing actions are limited, consensus will have to be used in order to make decisions about action. What should be done to improve the data quality?

Comparing where you want to be against where you are now may show that your priority problem is no longer such a priority because no real change is possible due to:

- a lack of control over any desired changes
- all that could be done is being done
- a lack of evidence or consensus about effective actions.

So the problem might now be ranked medium or low in CHANGEABILITY, as scope for change is exhausted. Do not be afraid to select a different health priority at this stage – it will be better than wasting time on a project that cannot make a real impact on the health of your population. How will you test out the acceptability of potential changes with the necessary people?

Your discussions will probably highlight ideas or issues that you need to remember to inform your thinking at subsequent stages. As these things crop up, make a note of them so they are not lost.

Stick to what matters most – do not make things over-complicated by trying to do everything possible. The costs (in terms of time and money) of the audit should not outweigh the expected benefits.

Task 3e Preparation

Someone should review the evidence gathered for the list of effective actions from Step 3d as preparatory work for this step.

Task 3e Identifying acceptable changes for this health priority

C ACCEPTABILITY

1   Having checked the evidence base, should the list of effective actions be modified? If so, then make the changes.

?   *What effective actions are happening now?*

2   Write down all the identified effective actions in a grid (see opposite).

For each action note:

?   *Who is involved?*

This should include other groups/organisations involved in similar activity, whether or not it is having a positive or negative effect on health, in your view.

?   *Who is the target population for these actions?*

At which section of the population is the specific activity targeted? How many are affected by the action?

?   *Are these actions reaching those with the most to gain?*

If not, what should change to improve this coverage?

?   *Are the actions of the required quality?*

- •   Are the people doing the action competent?
- •   Are the right actions occurring?
- •   What are the review mechanisms?

Example 3.6 Identifying target group for coronary heart disease

Identifying the factors for coronary heart disease in one locality enabled the following target groups for action to be identified:
- parents
- young people
- people with close family history of heart disease (starting aged under 60)
- smokers
- overweight
- expectant mothers
- high alcohol consumption.

What effective actions are already happening for:					
………………………………………………………………………………… (health priority)					
What effective actions are happening now?					
Amended list of effective actions	**Already happening? (Y/N)**	**Who is involved?**	**Who is the target population?**	**Target pop. receiving action?**	**Desired quality?**
1					
2					
3					
What else is happening?					

? *What else is happening for this priority?*

3 Then complete the grid for other actions that may also be happening which tackle this health priority.
For each activity ask the following questions, and use the same categories and symbols as in Step 3d.

? *What is the evidence of effectiveness of these activities?*

Definite (✔/**X**), agreed (**?**), or unknown (**0**)?
If little evidence exists, should they be stopped?
Can their negative effects be mitigated or lessened?

? *What changes are required to achieve the maximum positive IMPACT on the health priority?*

4 Compare the information about what is actually happening against what should be happening, then:

- delete actions that are already happening adequately and targeting the right people (*OK*)
- note the actions that:
  - should be changed to improve targeting or quality (*improve*)
  - are effective but not happening at all so should be implemented (*implement*)
  - should be stopped as there is no evidence that they work (*stop*).

This should be written up as a list of possible changes.

Example 3.7 Ischaemic heart disease: action by primary healthcare teams

What effective actions are happening now?

Actions	Activities	Who is involved?	Who is the target population?	Target population receiving action?	Desired quality?
Information: healthy diet	leaflets available	doctors, nurses	*ad hoc*	not recorded	contents checked two years ago
diet for diabetes	dietitian at Diabetic Clinic	dietitian only	those who attend clinic	65% of clinic attendees	assume so
cooking skills	nil				
exercise	nil				
smoking	advice, patches offered	doctors, nurses	*ad hoc*	60% population status known	
benefits	nil				
Self-help groups: alcohol	local Alcoholics Anonymous (AA)	AA only	not known	not known	
stress	local community psychiatric nurse	community psychiatric nurses	those identified in surgery	not known	
diet	none				
obesity	none				
smoking	none				

? *Work through the possible changes and identify if they are acceptable from the perspectives of:*
- *target population*
- *wider community*
- *people delivering current/proposed actions.*

Changes which are totally unacceptable to one or more of these groups should be deleted from the list.

5 Discuss the other proposed changes, and agree a final list of acceptable changes.

Step 3f Are the resource implications of the proposed changes feasible?
D RESOURCE FEASIBILITY

Background information and definitions for Step 3f

The final criterion – **D RESOURCE FEASIBILITY** – is about the resources needed to deliver the changes.

It is important to clarify the resources that can be assessed. This is influenced by who is involved, and how committed they are to this assessment. The potentials for real health improvement are far greater if existing or mainstream resources directed at the health priority are included. This will also affect the final choice of actions, as the cost/benefit of a change in mainstream practice might far outweigh those of a new project.

Deciding which potential changes to drop or amend because of resource issues is, like many other parts of the HNA process, both an art and a science.

Any changes that would need low resource levels to implement should be taken on to Step 4.

Discussion needs to concentrate on those that require medium or high resource levels to implement, so an informal decision can be taken about whether or not these changes should be taken forward to Step 4.

Two important aspects of resources are:

1   **Timescales for the programme:**

- How long will it take to get the right people in the right places, doing the right job?   *People*
- Are possible funds recurrent or non-recurrent?   *Money*
- When might any savings from stopping ineffective actions be available?   *Money*
- When is physical space available for the actions?   *Space*
- What equipment is required and is it available?   *Equipment*
       If not, how and when can it be acquired?   *Equipment*

2   **Seeing the programme through: what is going to be evaluated?**
- How will the lessons learnt be incorporated into mainstream services?
- Is there commitment to long-term implementation, or at least to accepting the evaluation?

Task 3f Are the resource implications of the proposed changes feasible?

D RESOURCE FEASIBILITY

1 Discuss briefly the resources required to enable each proposed change to happen using the following questions.

General:

? *What resources are required to implement the proposed changes?*

? *Can existing resources be used differently?*

? *What resources will be released if ineffective actions are stopped?*

? *Are there other resources available that have not been considered before?*

? *Which of the actions will achieve the greatest impact on health for the resources used?*

(a)   People?
- Do we have enough people with the right skills to make the proposed changes?
- How long will it take to get the right people in the right places doing the right job?

(b)   Space?

- What physical space is required?
- Is the space required available? If not, where can it be found, and when can it be used?

(c)   Equipment?

- What equipment is required for the proposed changes?
- Is the equipment available? If not, how and when can it be acquired?

(d)   Money?

- What is the overall cost of the proposed changes?
- Are possible funds recurrent or non-recurrent?

2 Should any proposed changes be dropped or amended in light of RESOURCE FEASIBILITY?

Any acceptable changes which will have a significant IMPACT on health, and would need low resource levels to implement, should be included in the action plan (Step 4). Discussion needs to concentrate on those changes requiring medium or high resource levels to implement.

Two of the main considerations should be:

- the impact of the change on the health priority, particularly in terms of the potential for addressing health inequalities
- where the need was identified – for example, if it was a need expressed by the community, but did not figure as a corporate need, it will probably be difficult to gain access to the resources controlled by the organisations involved.

3 Summarise the discussion to ensure there is a consensus, and write up the list of feasible changes.

Step 3g A final check

Background information and definitions for Step 3g

In all the analysis of CHANGEABILITY, ACCEPTABILITY and RESOURCE FEASIBILITY, it is easy to lose sight of what you originally set out to do – to improve health and reduce inequalities.

Therefore it is essential to check the following.

? *Are the conditions/factors that have the greatest IMPACT on health being tackled?*

? *Are those with most to gain – those experiencing inequalities – still included in the target population?*

Before starting Task 3g, think about...

Implementing the first changes often markedly influences the original order of priorities. This is because the action taken about one priority often overlaps with others. The further detailed work in planning the interventions may reveal previously unknown information that would alter the outcomes of using these criteria – for example, better or worse evidence about the interventions found in an authoritative review.

It is probably useful to implement the action plan for this problem before repeating the review of the population profile and choosing the next priority, but this depends on the motivation, the experience of the participants, and who else can be involved.

Do not agonise over small questions, but remember why you are doing this.

Finally, don't forget how to eat an elephant...

Task 3g A final check

You should now have a list of changes that are both acceptable and feasible, but as a final check:

? *Go back and check Task 3c.1 for the conditions/factors with the most significant impact. Are these being tackled?*

? *Are those with most to gain still included as the target population? See Task 3c.2.*

1 Are there any conditions or factors with a significant impact that you are not tackling, or effective actions that are not included in the proposed changes? Does this really matter? Will this significantly lessen the improvement in health you are trying to achieve?

2 Agree a definitive list of priorities and changes which will be used as the basis for the next step – action planning.

Step 4 Planning for health – pulling it all together

▤ Summary

Steps 2 and 3 have identified priorities for improving the health of the target population. Changes to improve the priorities have been identified by comparing what *should* happen against what *is* happening, and assessing potential changes for their ACCEPTABILITY and FEASIBILITY.

The final list of changes now has to be turned into a coherent action plan.

✓ Outcomes

By the end of this step you should have:

1 a clear action plan for implementing changes to address the health priorities
2 a clear set of aims, objectives, action points, indicators and targets with timescales for implementation
3 reviewed this against the original identification of issues to tackle from the Health Triangle to ensure the real health priorities and target populations are being addressed, where possible
4 an understanding of who the target populations are, and why.

Within this step there are two sub-steps.

- *Step 4a Developing an action plan*

    A written action plan for your HNA

- *Step 4b Developing an implementation plan*

    A written structure to aid implementation of the actions necessary to complete your HNA

The exact processes associated with these steps are detailed in the 'Tasks' sections, but please read through the background information before undertaking these tasks.

> **Estimated time for Step 4 is 120–180 minutes,** not including preparatory work.

Step 4a Developing an action plan

Background information and definitions for Step 4a

Principles

The values of the main organisations involved and their overall purpose provide a context within which the action plan is developed.

For example:

- For the NHS, improving overall health, reducing health inequalities, improving the quality of care/services through effective actions, planning and delivering services in consultation with users as described in the Performance Assessment Framework. The six principles of the NHS are: health improvement, fair access, effective delivery of care, efficiency, user/carer view, health outcome of care.
- For local authorities there are the four parts of Best Value: *challenge* what is happening, *consult* with the target populations, *compare* performance against the best, *compete* in respect of efficiency, and the new power to promote the economic, social and environmental wellbeing of their area.

These principles are the fundamental checks for any programme or plan.

In general they can be summarised as:

- have we targeted the appropriate group of people – those with the most inequalities?
- is the outcome having the desired impact on the health of those people?
- have we involved the target group in this planning?
- have we involved the key people?
- are actions effective and carried out properly?
- is there value for money?

Aim

The aim of a specific programme identifies:

? *What are we trying to achieve overall?*

Objectives

Objectives describe the specific outcomes of an action for the target population – a visible or practical result or effect.

Setting objectives
Often objectives are muddled with actions – the *what* is confused with the *how*. Actions are how you are going to achieve what you are trying to achieve, and may cover more than one objective.

Key questions for agreeing objectives:

? *What are you specifically trying to achieve for the target population?*

? *If the actions are successful, in what ways will the target population have changed compared to before?*
- *what will they do differently?*
- *what do they say differently?*
- *what will you see in them that is different?*

Objectives should be:

- clear, specific and positive statements containing one idea, and there should not be too many of them
- important to those carrying out the programme and those receiving it
- owned by those involved.

(With apologies to Patton, 1997)

Objectives are essential for evaluating progress – whether you have achieved what you wished to. Being clear about objectives, what you specifically want to achieve for the target group, helps keep any actions focused on why you are doing them. So keep checking: how will this action affect the target population (that is, which objective is being addressed by this action). This is especially true in planning for health, where Bradshaw's grouping of needs reminds us that there has to be a balance between the needs of the target populations (the objectives) and the needs of the service providers and organisations. The effective action will also help shape the final objectives, as the change that the action can bring about should be in those objectives.

What is important is to agree the objectives first, then think about how they might be evaluated, or how targets might be set. Otherwise, objectives are chosen just because they can be measured, and really important outcomes are ignored. While objectives to be used in the evaluation of an action plan must be assessed in some way, not all objectives need be directly measurable themselves. In assessing progress towards an objective, it may be more useful to consider the feelings and perceptions of all those involved, rather than a less relevant piece of data. Otherwise, a proxy may be used to assess whether such an objective has been achieved.

Example 4.1 Objectives – back pain

A primary healthcare team decided to tackle back pain in their population, so identified the following objectives:

- **to reduce the time off work due to back pain**
- **to reduce the level of pain**
- **to increase mobility**
- **to reduce accidents and injury**
- **to improve posture.**

Actions

These are the specific changes required in service provision to achieve the objectives.

? *How can the objectives be achieved?*

Actions fall into one of the following categories.

- **Doing things differently**   *increase or stop*
- **Doing different things**   *implement*

Indicators

These are the most important issues, changes in which over time should be checked to assess progress towards the objectives and targets:

? *Where are we going and how well are we doing?*

Indicators have two main uses:

* to set a baseline for future comparisons over time for that indicator, and inform progress towards targets
* to enable priorities to be identified by comparison with other indicators and populations.

Indicators do not answer why differences exist, but suggest where problems may exist. The information given in an indicator should enable people to think about what actions should be taken as a result of this indicator.

So, in planning for health, indicators should be of two types.

1 Reflect the objectives – *high-level* or *headline* indicators that reflect the outcomes of the plan; for example, the proportion of low-birth-weight babies born annually in a specific population. Achieving these objectives may involve a range of actions by different agencies. This type of objective should be used for issues that:
  - are important and have a relevant impact on health for that population
  - are amenable to change, so measuring over time will reflect the results of action
  - galvanise action to be taken at all levels, from individuals to organised groups, public sector and national government
  - can be understood by the people who should act – the indicator should be easy to understand in respect of what can be done to improve it.

2 Show how the objectives are to be achieved – *operational* or *service delivery* indicators specific to the organisation providing the service. Using the example of improving the proportion of low-birth-weight babies, for a primary healthcare team the operational indicator might be the proportion of mothers attending antenatal care in the first trimester.

The rate of change possible for any indicator is important. Generally, indicators relating to conditions will be over a number of years, whereas the factors affecting those conditions will be over a shorter time. Specific operational indicators might be quite short (change occurs within a year), or longer term, see the diagram below.
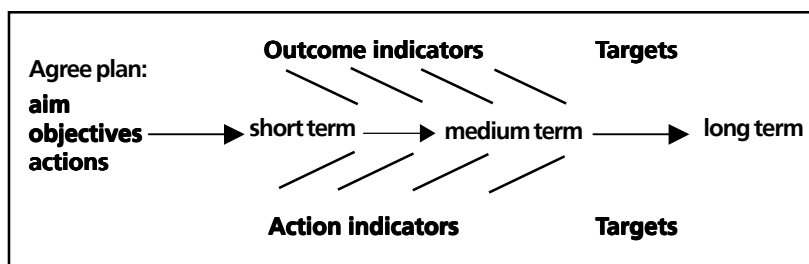
Relating outcome and process indicators to the timescale for plan and principles – why, what *and* when

For example, the incidence of cervical cancer will change slowly over time. The level of adequate uptake of cervical screening is an important operational indicator of effective action that reduces the incidence of that disease by early detection of abnormality. However, the headline indicator of incidence is still required to check that the action is having the desired impact, both in the target population and in the quality of that uptake as an action.

In Step 3, this was noted under coverage of action and quality. So headline or outcome indicators will be the outcomes affecting the population from priorities agreed using the Health Triangle – in this example, will reduce the incidence of cervical cancer. These lead to an overall process indicator for the organisation: level of adequate uptake of screening. In planning the detail of what should then happen to achieve this increase in uptake, a further set of detailed process indicators may be chosen – does an information sheet go with each invitation; how many women default their appointments?

Experience has shown that the following criteria are useful in selecting indicators. They should:
- be relevant – relate to the objectives
- be reliable over time and valid in measuring what they are supposed to – be comparable
- be complete (or at least have sound sampling), and timely
- be understandable and clear without ambiguity
- be attributable, so that action taken can influence the indicator; this also includes avoiding 'perverse incentives', for example, reducing waiting times might result in increasing the number of patients seen in a shorter time by less experienced staff – so waiting time is reduced at the expense of quality of care
- be manageable and realistic in number
- not depend solely on routine data, but reflect what matters.

(Audit Commission, 2000)

For sources of national indicators, see Appendix 3; for a list of health indicators for Calderdale and Kirklees, see Appendix 2.

Targets for health

Types of targets for health

Targets are levels of achievement of either objectives, or the associated actions to be aimed for.

? *What LEVEL of outcome do we want to achieve for WHOM by WHEN?*

Targets should reflect the objectives of the plan, and can be overall/headline or operational.

- **Overall or headline targets**
  These can inspire and motivate, encouraging greater cooperation between groups and agencies. For example, the national target is to reduce the death rate from accidents by at least one-fifth by 2010. For this type of target, it is important to assess what the contribution of the organisation will be towards achieving that target – to have gone through the assessment process in Step 3. Otherwise the target may be difficult to achieve, as there are too many other factors involved outside the remit of the organisations.
- **Operational targets**
  Focus effort and resources in a certain direction and provide a measure to evaluate progress. For example, by the year 2005 the uptake of breast screening by women aged 50–64 years will be greater than 80% in targeted wards A, B and C. The action plan should include both types of target – not just operational.

Setting targets

A useful checklist for setting targets is SMART:

Specific	about the objective being achieved and who the target population is
Measurable	data must be collectable somehow to assess progress towards those targets
Achievable	know what level to aim for – time trends of relevant information will help decide what level these trends might result in by the time set for the target; a decision then is, how much greater than these trends should the level be set?
Relevant	to the objectives of the programme
Timed	by when should the level of achievement occur?

Targets may be set either for the organisation to change in comparison to its baseline over a period, or for the organisation to improve against the performance of others over a period.

The target must include all the information required to check whether the desired change has been achieved – clearly stated outcome, clear target population, clear timescale with baseline and expected target figures. These should clearly relate to the objectives, so that you are clear where you want to be. It is also important to be clear what targets are already set nationally or locally that are relevant.

There should be enough historical data to check that the target for the future date is actually achievable – that the gap between now and the future can be closed by actions contained in the plan. Your agreed targets should be part of the action plan, so that it is clear how they will be achieved. One target may relate to a number of specific actions.

However, these might have to change over time, depending on the evaluation of the programme and as circumstances change, and also because targets should set challenges to the organisation and those delivering services.

Some objectives can be measured directly by setting a target. The trick is not to set a target that is difficult to achieve – for example, 'the smoking prevalence in the practice population should be reduced by 25% by the end of 2002'. This is overcome by knowing the level of change in the objectives over time, and predicting what is achievable by when. An equally unhelpful target might be 'smokers will understand the various options for stopping smoking', as this is so vague. So a proxy target might be 'that 50% of smokers are offered at least one option for stopping in 2002'.

In setting targets, there are specific points to remember about not worsening the health inequalities.

- Think about setting targets for the wider factors affecting the health priorities or programme, rather than just specific disease-based targets.
- Disease-based targets tend to be long term, whereas factors are often shorter term, for example reducing numbers of nuisance dogs on an estate, or modifying personal behaviours.
- A measurable narrowing in the health gap should not be achieved by worsening in the healthiest group.
- Avoid cherry-picking – choosing the easiest means of reaching a target – for example, setting a general target for immunisation or screening uptake may lead to resources being targeted at those more likely to take up the invitation.

The Department of Health has produced a *Technical Supplement on Target Setting for Health Improvement* (see Appendix 3).

Example 4.2 Aim, objective, indicator, target, action – breast screening

Aim: To increase the health and wellbeing of the people of Calderdale and Kirklees to improve health of the most disadvantaged groups to equal that of those most advantaged.

An Objective: To improve the detection of breast cancer in women of South Asian origin.

An Indicator: The uptake of screening for breast cancer in South Asian women.

A Target: By December 2000, the uptake of breast screening in South Asian women will have increased to 80% of those invited.

An Action: Use a link worker to community groups involving South Asian people to improve uptake.

Example 4.3 Falls in the elderly

Health functioning – physical activity, social functioning, mental health, pain
Conditions – osteoporosis, arthritis, dementia, vascular disease, failing eyesight, Parkinson's, etc.

Factors affecting health functioning and conditions associated with falls

Factors	Conditions	Level of prevention
Biological	Detection of underlying disease Appropriate treatment	1, 3
Health risk behaviours	Alcohol excess Diet lacking in calcium	1
Social support	Capacity of main carer Acceptance of outside help Security	1, 2, 3
Housing	Flooring Steps Lighting	1

Step 4 led to the following objectives for a primary healthcare team:

1 to be able to identify people at risk
2 to minimise hazards in the home
3 to enable people at risk and their carers to understand how to reduce that risk
4 to detect and treat appropriately osteoporosis and blood pressure

The target population became:

- over 75, risk assessment
- post-fall risk assessment
- post-menopausal women
- all adults (for blood pressure assessment)

Example 4.4 Promoting positive behaviours in schoolchildren

Aim: To enable schoolchildren to have healthy lifestyles or behaviours.

Original objectives:
- to identify and give advice about health-promoting behaviour
- to provide information and other sources of help
- to improve the communication and counselling skills of the school nurses.

BUT these include action points and are vague, not OUTCOMES or CHANGES, so:

Modified objectives:
- to ensure 80% of children have accurate knowledge about health-promoting behaviour
- to increase awareness of the school nurses about factors influencing the health behaviours of 80% of children
- to increase the decision-making skills of 50% of the children about such health behaviours
- to enable all the school nurses to become proficient in counselling and communication skills.

Pulling it all together into an action plan

? *Are all the important health issues being addressed in the action plan?*

? *If no action is taken to improve a specific health priority, then what are the consequences for the health of the population?*

Steps 2 and 3 resulted in a hierarchy of health issues, conditions or factors, using the Health Triangle, which arose out of assessing the health of a population.

Step 3 then identified a list of actions through reviewing the feasibility of real change.

? *Do the actions in the action plan tackle the main conditions/factors that impact on health arising from the Health Triangle analysis (Step 3b)?*

If they do not, then the overall improvement of health will be reduced, and probably those with most to gain will not be targeted.

Before starting Task 4a, think about...

Targets for one health priority may be included in a range of plans, for example, accident targets could be within plans for housing, transport, police, children, older people, or specifically from an HIMP for accidents.

Assembling information from differing agencies may produce:
- more data than you thought existed
- data applying to differing populations, by geographical area, age, ethnic group or differing topics. How can this be used most sensibly?

Indicators have already been identified nationally for a range of issues, including deprivation, stroke, coronary heart disease, etc. So use the websites listed in Appendix 3 to check these out. As most are based on routine data, there will be local and national data for comparison, but you may want to use other local targets as well.

How much conflict is there in this planning? Is it political, managerial, or due to deficits in resources?

Often SMART has been used to set objectives. This results in the only outcomes used being those that are measurable, and for which you have data. This will ignore changes in the target population that can be assessed qualitatively rather than numerically, which may be really important.

Example 4.5 Aim, objectives, action points, steps and indicators – assessing hypertension

Aim: to reduce the impact of hypertension on the practice population.

Objectives:

- to ensure hypertension is accurately and comprehensively diagnosed
- to reduce the blood pressure levels of those with hypertension to under 150/100 in 95% of patients, with minimal effect on their quality of life, that is, to achieve good control
- to enable prevention or early detection and treatment of complications in 80% of patients with hypertension.

Action points and specific steps:

To promote blood pressure screening every five years to opportunistically screen 75% of the population aged over 35:
- flags on the computer summary screen
- annotation on surgery appointment lists.

To ensure accurate detection of hypertension by all primary healthcare team clinicians:
- calibration of sphygmomanometer
- reading of blood pressure uniform between team clinicians.

Consensus guidelines for:
- risk factor management, for example, smoking, obesity
- diagnosis and drug therapy for control and prevention of complications
- recall system.

Standard recording system for screening, diagnosis, prescribing, monitoring, complications.
Audit of baseline measures:
- agree baseline data items
- random sample of total population aged over 35
- search computer for all with hypertension.

To ensure that all patients with hypertension are offered a review at least annually: set up a call and recall system.
Indicators:
- Target group: number of patients registered with practice with hypertension, by age and gender.
- Factors – percentage of practice population:
    - screened for hypertension in past five years, aged over 35
    - still smoking
    - obese.

- Target group – those with hypertension – percentage:
    - with ischaemic heart disease, cerebrovascular accident or transient ischaemic attack, and taking aspirin
    - with blood pressure recorded in past year
    - adequately controlled – blood pressure less than 150/100
    - of these on appropriate treatment, and the adequacy of control
    - with urinalysis in past year.

Task 4a Developing an action plan

1 Review the core principles or values of the main organisations involved in this plan. Note them on a flip chart to inform the action planning process.

2 Agree the aim for your priority problem and target population. Review Task 3b.1, identifying aspects of health functioning. The most important aspects of health functioning you agreed for this target population should be used to answer the question:

? *What are we trying to achieve overall?*

3 Agree the objectives:

• Remind the group of the outcomes from Tasks 3c1.1 and 1.2 – the Health Triangle, the profile, the specific priorities, and the target populations.
• Write the objectives by answering the questions:

? *What, specifically, are you trying to achieve for the target population?*

? *If the actions are successful, in what ways will the target population have changed compared to before?*
- *What will they do differently?*
- *What do they say differently?*
- *What will you see in them that is different?*

4 Do the actions reflect these objectives?
Go back to Tasks 3d and 3e – you have a list of changes or actions that you have decided are necessary. Compare these against the objectives you have just agreed:
- Do any objectives not have any actions?
- Will it be difficult to see how an objective will be achieved?
If the answer to either of these questions is yes, then re-check Tasks 3d and 3e. Can any of these actions be changed, or should the objective be changed? Use a grid like the one shown below.

Aim		
Objectives		
Actions	**Objectives being addressed by actions**	**Target population for actions**

5 **Setting indicators and targets**

- **Which objectives (health outcomes) will have the most significant impact on the population?**
- **Re-order your objectives to reflect the level of impact: those with the biggest impact should be at the top of the list.**
- **What data do you want to know (that is, what indicators) in order to assess a baseline or evaluate progress for these objectives?**
- **Can you set a target for the most important objectives? Are there sufficient data over time to know the trend and set a realistic future target? Is the target SMART?**

Targets should reflect short-, medium- and long-term progress, so apply to process/service delivery, factors being tackled, and long-term conditions and health improvements.

6 **Do the targets clearly set out all the information required to know if they are being achieved?**
A target sets the level of outcome achieved for *whom* by *when*: is each target clearly defined in relation to the:

- target population   *who benefits?*
- objective   *what outcome for the larger population?*
- specific geographical area *where?*
- timescale   *when?*

7 **A final check**
Check again the issues identified by using the Health Triangle in Task 3b.1: are there any aspects of health, conditions or factors that are not being addressed in this action plan? If so:

- will ignoring these reduce the impact of the plan significantly, or not?
- is action occurring somewhere else that compensates for this missing issue?
- are those most at risk being targeted for action – are inequalities being addressed?

Are the principles of the organisations reflected in the plan?

Step 4b Developing an implementation plan

Background information and definitions for Step 4b

Implementation planning

Knowing where you want to be and what actions are required – this step is *how*. Such an implementation plan clarifies:

- what action points and steps are required?
- who will do what, and when?
- what skills, and possibly training, are required for these steps?
- what administrative and managerial systems should be in place?
- what resources are required?
- how is the plan kept on track, and people motivated and involved?
- how is accurate, relevant information going to be used in the plan?

Checklist for successful project management

Project management is a commonly used approach, but it is useful to summarise the key factors of successful project management.

- Clear aim and objectives.
- Clear stages or milestones – which are timetabled and reflect action points – for example:
    - literature search complete
    - protocols agreed
    - baseline data agreed.
    These are useful to monitor progress.
- Adequate resources – such as time, equipment, space, etc – some will be one-offs, others a regular commitment.
- It is clear who does what – think about:
    - roles of differing disciplines
    - communications and relationships
    - existing skills and training resources
    - interests of different individuals involved.
- Commitment – how will you convince others who have not been involved to participate now if they are required?
- Regular progress meetings/reviews – meetings are for morale, team working, mutual learning, communication, problem solving, evaluating progress of plan. They are essential to keep the plan going and implemented. However, they need to include:
    - an umpire, chairperson or facilitator to keep the discussion relevant, positive and decisive
    - an agenda, shared with participants
    - a prompt start and finish time
    - a progress report, using previous minutes
    - time allocated for each agenda item
    - a record of what, who, when action is required, and important points of agreement and discussion
    - notes or minutes circulated as soon as possible afterwards.
- Collection and use of accurate, relevant information.

The final thing to do before you start in earnest is to pull together all your hard work. This will enable you to be sure that everyone in the team is clear about what is going to happen, and why.

Task 4b Developing an implementation plan

1 Having identified the action points, a plan for how they will be implemented must now be created. What steps are required to achieve each of the actions, for example:
- development of skills
- administrative/managerial systems
- computer systems for data collection.

2 Who will do which of these steps, and by when?

3 How will the programme be sustained and people kept motivated?

4 Create the implementation plan using the format overleaf. Use the Checklist for successful project management (left) to ensure that you have not overlooked any important action points or steps.

5 Identify any problems you can foresee and think through how to solve them.

(See sample implementation plan overleaf.)

The implementation plan

Aim

Objectives

Indicators

Targets

Action points	Steps	Resources	Action by: (name)	(date)

Step 5 Evaluation

Summary

You have now assessed the needs of your health priority; identified the changes required; and created an action plan with timescales.

The final step is saying so what?, will this plan work? and how will we know what has actually happened?

Knowing whether a programme succeeded or failed is important, but *why* it did so is much more important.
The purpose of evaluation is to assess the success of a programme by collecting and using information about the structure (features), process (activities), and outcomes.

Usually this evaluation of the benefits of a programme is comparative:

- against the programme's aim and objectives, or
- against more general criteria about outcomes such as improving health or reducing inequalities, or against process criteria such as working in partnership or evidence-based working.

In all cases, evaluation is used to show what should be changed to improve the programme. So evaluation requires using information that is systematically collected and analysed.

It is important to note that monitoring is not the same as evaluation. Monitoring is assessing performance against standards, indicators or targets, but does not indicate what might be done to change activities to improve performance.

✓ Outcomes

By the end of this step you should be:

1 clear about what is important to keep checking as the plan is implemented
2 able to adjust the plan as it proceeds
3 clear about how you will know if the plan has been successful
4 clear about how the information for evaluation is assembled.

> Estimated time for **Step 5** is **30 minutes**,
> not including preparatory work.

Background information and definitions for Step 5

? Who is the evaluation for?

Evaluation must be of use to those involved with the programme, and those who make decisions about the quality and continuation of the work (these might be the same people).

What do you really need to know from the evaluation?

There are two basic forms of evaluation:

Process evaluation

Process evaluation identifies opportunities to improve the programme through assessing what actually happened, or is happening, and why. This enables the original objectives and action points to be reviewed and possibly amended as the programme proceeds.

Useful questions for process evaluation include:

?   *Are the original aim and objectives being followed, or still relevant?*

?   *What is actually happening?*

?   *Are all parts of the programme proceeding as planned? If not, why not?*

?   *What do those implementing and receiving the programme think about it?*

?   *Are those receiving the interventions the original target groups?*

?   *What resources are being used, and are they adequate?*

Outcome evaluation

Outcome evaluation decides if the programme should continue by assessing whether the objectives were achieved – was it a success or failure? It is usually done at the end of important phases of the programme, for example, the end of the programme, or after a year.

Useful questions for outcome evaluation include (questions in brackets need to be addressed while you are planning the programme):

?   *Have the original aim and objectives changed?*

?   *Have the objectives been achieved? What are the reasons why, or why not?*

?   *Were the objectives assessed fairly? (What indicators are used to assess them by?)*

?   *Is the programme still tackling the priority issues from the Health Triangle that are changeable?*

?   *Did the programme actually occur as it was planned?*

?   *What happens if the evaluation shows the programme has failed?*

Revisiting Step 4 will help you decide what you are evaluating.

How are you going to collect the data?

The most important point to remember when deciding how to collect data for evaluation is to keep checking the agreed objectives – these will provide the focus you need to avoid collecting too much data, or the wrong data.

Evaluation involves collecting both quantitative and qualitative data using different methods (see Appendix 1). Two important data sources are:

- Basic work records:
    - data created by routine recording of activity, provision of services, etc
    - notes or minutes of programme meetings explain what decisions were made, or what happened when, and often why
    - diary of activities or key events, including who was involved and critical incidents
    - budgets
    - correspondence.
- Information from those involved: this includes opinions of those giving and receiving care, as well as outcomes. Progress can be reviewed by using, for example:
    - notes of meetings
    - interviews
    - specific group discussions
    - questionnaires.

Task 5 Evaluating your programme

There are three questions you need to address:

1 Who is the evaluation for?
2 What do you really need to know from the evaluation?

? What is actually happening?

See Process evaluation questions on page 94.

? Was the programme successful?

See Outcome evaluation questions on page 94.

3 How are you going to collect the data?

+--+

And finally... Celebrate!

Quite when to celebrate is often not clear, as this is a cyclical process, and things are always happening.
But take some time to step back and give all those involved space to reflect and enjoy the process.

Remember elephant-eating – but as the *process* of HNA is often the real benefit, think of it as a gourmet meal!

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Appendix 1 Data required and collection methods

Introduction

Information for any HNA is needed:

1 **To identify health priorities from the population for:**
- the population profile
- baseline information about what is happening before the programme starts
- evaluating the process of the programme – what's actually happening
- evaluating the outcome – are the original objectives being achieved?

2 **To agree evidence of association between the Health Triangle (aspects of health functioning, conditions and factors) and interventions in the programme. This information will often be from published reports, and can be used to:**
- clarify the size of the health priority and who the target population might be for any intervention
- establish what the factors affecting the health priority are (including the severity of the issue)
- identify what can effectively be done about the health priority.

What data are relevant?

Remember the golden rules of data when thinking about collecting it:

- data should be consistent (reliable) and complete; accurate; relevant; accessible; timely; and valid
- only collect what you need, and be clear about what you need at the start
- keep checking data needs as the HNA proceeds, this will identify gaps and excess data
- do a trial run (pilot) using questions used by others, for validity, and avoid re-inventing wheels.

Data are items that can be measured; *information* is a combination of useful data.

Data should relate to the objectives of the programme; be relevant to the health priority; and be consistent (reliable) over time and between different people.

Validity is also important – a piece of data measures what it is supposed to. It is best to use measures validated from other research wherever possible. This gives a comparison, and also minimises inconsistency (unreliability) and poor validity.

Example A1.1 Data needed for assessing hypertension

The number and percentage of patients registered with the practice with hypertension, by age and gender.

- Percentage of these on treatment and percentage with adequate control.
- Percentage with blood pressure recorded in the past year.
- Percentage still smoking or obese.
- Percentage with ischaemic heart disease, transient ischaemic attack or cerebrovascular accident, and percentage taking aspirin.

Data collection methods

Data collection helps make sense of what is happening. This is done by identifying and assessing associations between various data items of relevance (see Glossary: Epidemiological Studies, page 116). There are three levels of collection method.

1 To describe apparent associations from snapshot surveys, focus groups, interviews, case studies.

2 To observe the strength of such associations through careful review or study of people with the problem, comparing those with the factor or intervention to those without, for example, case control or cohort study.

3 To test the strength of such an association through an experiment – the randomised control trial. This is the only study design where chance and bias can be clearly minimised by using 'blindness' in the selection of study and control groups. So it is the gold standard for the assessment of effectiveness in healthcare interventions, especially for drug trials. However, it is not a viable methodology for most community-based interventions, as here it is not possible to minimise bias or control for factors.

The first level identifies apparent associations between A and B using qualitative methods – what is A, and how does B vary in different circumstances, and why?

The second and third levels assess the association at any one time between factor or intervention A and problem B, minimising the effects of any other factors, often using quantitative methods. These test chance by statistical analysis – in how many cases of B is A present?

Qualitative   identifies what the factors might be for a problem, then

Quantitative   counts how many people have those factors, and the strength of their association with the problem.

Often there are a range of factors influencing the effects of any intervention, and how people respond. By exploring issues in detail with the relevant people, qualitative methods can identify the depth and range of factors that are important, and record what people actually mean when they describe their experiences, attitudes and behaviours. This gives richness and a depth to results that can provide:

- ideas for further investigation with many more people, using quantitative data methods (which test the element of chance providing the results)
- evaluation and assessment of bias.

Key elements of systematic and detailed qualitative data collection are:

- getting close enough to the people and their situation to understand the depth and detail of what is going on
- recording what actually occurs and what people actually say – the facts
- pure description of people, activities and interactions
- direct quotations from people.

Key questions about data and collection methods

Think about these key questions before collecting data.

What do you want to know?

- Is it for profiling, or the specific health issue?
- Do you need broad perceptions about where the population lives, the services they receive, and how they feel about these; or detailed information about specific aspects of their health, experience of services, ideas for improving services?

- What data items can be used to measure progress towards your objectives, either directly or indirectly?
- Are they reliable or valid? Who else would know of valid data items?
- What is the strength of association, whether for evidence-based actions or profiling?

Whose views?

- Just representatives, or a sample or all of the population being profiled, or those with the problem being assessed? A balanced sample of the population is usually enough.
- If it is just people accessing services, then what should be done about 'non-attenders' – those not accessing services?
- Having agreed what data you want, then:
    - record a considerable amount of data from a few people to identify issues, experiences and ideas
    - record a small number of data items from a lot of people to check how widespread such responses are.

Has someone else got the data you want?

Check the existing data with the partners involved. This might include, for example, the PCT Public Health Department, the research or communication department of the local authority, the primary healthcare team, or the Council for Voluntary Services. If they cannot help, they may know who else has relevant data.

Have you the resources you need?

Data collection methods are easy once you know how. Check your ideas for collecting the data with local sources of help such as the PCT Public Health Department, the research or communication department of the local authority, or academic centres.

- Data collection must be acceptable to the population being asked – for example, a diet diary for patients usually is not acceptable.
- Keep recording methods simple.
- Using existing systems where possible increases the accuracy and completeness of data.
- Computer-based analysis systems are widely available, such as EPI-INFO, a public domain computer questionnaire design and analysis programme – it has some limitations, but is very user-friendly.
- Triangulation is the use of different methods, and is important to check results (validation), reduce bias, and add richness to the data obtained from one method alone – but do not overdo it.
- Decide what data you want, and why, before collecting or analysing it.
- Ask people at the PCT or local authority who have experience of different methods for advice before you start – it will save a lot of pain and wasted effort!

Different data collection methods: advantages and disadvantages

Choosing the right method for data collection is vital, and while one method on its own may not be enough, it is important to understand the most appropriate uses of the various tools for data collection.

An overview of the different methods is given on the following pages. If you do not have someone with specialist skills in data collection and interpretation in your team, you should always seek expert advice.

Routine data

Features	Pros	Cons
Data regularly collected at population sizes much larger than any one team/service	Reliable, valid as measures Little effort in collection as often available from other agencies Tends to be reasonably complete	Usually retrospective, so how timely is it? eg census data is 1991 Limited in scope How relevant is it? How specific for the practice? Causes 'fishing trips' – is used because it exists, rather than being of much use

Collecting specific data from team/service records

Features	Pros	Cons
Record sampling/searches through records or computer database Patient/client registers to identify populations Audits of guidelines/protocols Activity Prevalence Interventions	Easy to retrieve Can identify groups with clearly definable characteristics	Timeliness, consistency and accuracy of recording Records what presents to team/service, so underestimates prevalence, and not fully representative of population Completeness may vary – issues outside remit of team/service not recorded

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Example A1.2 Specific data items from records

- proportion of practice population aged over 75 with assessment fully recorded
- proportion of diabetic population with parameters of care recorded

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Questionnaires for service users

Features	Pros	Cons
Postal or to patients attending the practice	**Time required (minimum)**	**Return rate variable but reasonable, eg from own GP, 65%+**
Useful for:	**No observer bias**	
- prevalence of ill health - functional dependency - socio-economic factors - knowledge, perceptions	**Cost low per respondent contacted**	**Costs involved for translation**
	Quantifiable data	**No explanations as to why people think in such a way**
Use of services in a period of time, user perspective can link all activity	**Identify groups otherwise difficult to find, eg carers**	**Representativeness is known**

Receipt of advice about specific issues	**Whole practice population available, even those who are remote**	**Selection bias:**
		   - young men tend not to respond
		   - only applies to English-speakers
		   - may exclude physically and mentally disabled
		   - those with damaging health behaviours tend not to respond, especially smokers
		   - those with higher educational attainment and social class tend to respond

	Requires issues to be identified first – is a checklist against pre-set items, so useful in audit	
	Standardised data agreed by practice	
	Comparable with other surveys using same questions	**Actual responder is not known, but assumed**
	Can cover embarrassing or sensitive issues	**Complex data collation and interpretation**
	Wide range of issues possible, including ill health unknown to the practice	
	Assesses size of issues, doesn't identify them	

Example A1.3 Using questionnaires

A team serving a village community of 5,000 wished to establish the healthcare needs of their community. For two years, the village had produced a community newspaper which was delivered to every household in the village. This team included in the newspaper a questionnaire that had been devised for health services research by a local university. The questionnaire had been carefully validated, and included questions on lifestyle and perceptions of health needs. In total, 3,000 questionnaires were delivered, and the team received 106 replies.

A health authority used a similar questionnaire of 16 pages to explore the health needs of 4% of its population – 18,000 residents aged over 18. The questionnaire was mailed directly to each person sampled. After two reminders, the response rate was 73%. This questionnaire was also used by a primary healthcare team serving a community of 14,000. After one reminder, the response rate was 69%.

Perhaps the lesson here is: _contact the sample population directly._

Rapid appraisal procedures

Features	Pros	Cons
Involves key informant interviews, focus groups, observation of area, etc	Good as a complementary mechanism for uncovering qualitative issues	Time, coordination
Requires the involvement of the local team	Relatively quick	Needs local practitioners to assist data collection, skills and time – possible?
Useful for:	Focused on work in the field	Time commitment required from the local team; often not felt to be rapid
- assessment of health and development needs of a community	Semi-structured nature offers flexibility	Only really scratches the surface – no real explanations as to *why* people say the things they do
- early stages of project planning	Examines health in a socio-cultural context	Should not be used in isolation – subjectivity
- social relationships and structure	Allows identification of issues beforehand by team and during process from participants, so should be used before a survey	Observer and selection bias possible

- culture
  - behaviours, attitudes
  - knowledge, perceptions
  - defining problems
	Participants can partly set the agenda	Training requirements

- assessing strength of feeling on key issues	Gives richness behind numbers, eg perceived predisposing factors for asthma, drug abuse, user views of services, etc	Requires input from a multi-disciplinary team to ensure action
- can identify resources and solutions not just problems	Consensus can occur, eg priority rating	Wide-ranging needs – too many?
- just doing it can elicit change	Direct input by key people	
- identifying characteristics of area	Interview and/or group	
- targeting groups or individuals eg team members, carers		

General market research tools

Features	Pros	Cons
Focus groups **Discussion groups of eight to 15 people, facilitated by trained moderator and assisted by observer**	**Good for exploratory work or testing theories/concepts**	**Time and costs involved can be high**
	Useful for exploring *why* **people think in such a way**	**Often criticised as being subjective**
	Useful as a means of backing up quantitative data	**Training requirements: language and interpreting skills need to be well planned**
	Good in complex situations or where straight answers are not possible	**Small numbers of respondents involved**
	Good for sparking off individual views within a group – stimulates debate	**Not for use when:** **- respondents are geographically dispersed** **- eliciting the views of the very young** **- around personal, sensitive issues**
Telephone interviews	**Cost low**	**Lack of rapport with interviewee**
	Speed of response – quick	**High refusal rates**
	Ability to target people living in different geographical patches	**Training required to ensure all interviewers using the same approach to reduce interviewer bias**
	Useful when simultaneous interviews required	
	Useful when consulting with specific groups of population	**Interviewees need a telephone**
One-to-one or paired interviews	**In-depth exploration of views possible**	**Time-intensive**
		Interviewer bias
	Possibility of exploring *why* **people say what they do/behave in certain ways**	**Training/skills required**
	Useful where target group is localised	**Cost per respondent much higher than for questionnaires and focus groups**
Observational techniques **Observing how people behave and what they do in everyday scenarios, eg, the data recorder is the mystery patient within waiting rooms observing what happens**	**Useful for studying more detailed behaviour patterns – what people do in certain situations**	**Time and costs involved in training and carrying out the work can be high**
		Limited geographically
	Good for identifying problems and inconsistencies in people's routines – especially when they are not aware that they exist	**Only a report on** *what* **happens, not** *why*

The standing panel and public meetings

Features	Pros	Cons
Standing panel **Based on a representative sample of local individuals, to collect their views on a range of issues at regular and frequent intervals**	**High response rates; 80–90%** **Good for opinions on general issues** **Good as a `test bed' for proposed service changes** **Potentially useful as a tool for measuring attitude and/or behaviour change over time** **Relatively low cost per respondent**	**Depth of analysis of results can be limited** **Some degree of self-selection, so poor representation of more vulnerable groups** **Not good for exploring views on very specific issues, or issues limited to the experience of one small group of the population** **Can sometimes be difficult to get `ownership' and thus `action'**
Public meetings **An ongoing programme of meetings: this could involve local voluntary and community groups, and representatives from local services including PCT, community health council, local authority and trust**	**Opportunities to meet with individual users/carers/potential service-users and the general public within localities** **Opportunities for comparing like groups across districts/patches** **Open agenda opportunities for local people to highlight their own concerns** **Opportunity for partner agencies to ask specific questions of `host' audience (e.g. during specific consultation periods)** **Multi-agency approach gives opportunities for joint working, information exchange** **Feedback system in place for issues raised and action taken**	**Limited to those already involved in voluntary or community groups** **Limited number per year** **Limited to groups who agree to host the forum** **Can be difficult to separate individual complaints from broader issues** **Feedback and action can be slow for some issues**

Appendix 1

Example A1.4 Public meetings

At a health forum for young people, inappropriate times of family planning clinics were raised, and that no 'drop-in' session was available. So the local trust set up drop-in sessions at the youth club, two or three times a week. Now more time for sessions is requested.

A primary healthcare team holds monthly open meetings for patients and staff. Usually a speaker talks for up to 30 minutes, followed by a discussion. The speakers have been from a wide range of organisations such as the primary healthcare team, local trust, health authority, self-help and voluntary groups, community health council, local commerce, and local council departments.

The attendance depends on the topics: when a local self-help group for a specific condition talks, usually only those people with direct experience of the condition attend. When the local health authority's chief executive talked about bed reduction in local hospitals, people overflowed into the corridors.

The primary healthcare team has used these meetings along with other methods, and has found them very helpful in finding out what their populations think on a range of services and issues.

Example A1.5 Using community/bilingual interviewers and focus groups to understand the health and related service needs of local minority ethnic groups

Using bilingual interviewers, members of a local, tightly knit community were trained to facilitate focus group discussions with local people. The aim was to identify actions required to address health needs in this community.

Method: The one-day training course included listening skills, focus group facilitation skills, and data collecting and analysis methods. The community interviewers recruited groups of local residents into focus groups. Discussions lasted 90 minutes. The results were used to inform the local service plans of various local agencies to tackle priority issues in the area.

Lessons learned: It was a very positive experience for agencies, interviewers and the community. Everyone felt involved; local people felt more confident to meet and talk to local services representatives; agencies felt they had a better understanding of the local issues; and the interviewing team gained new skills.

- Time-consuming – training and advice for the focus groups, and analysing the results.
- Using local interviewers was a really positive way of getting into a community that agencies were not able to reach before.
- Appropriate venues for women – most of the discussions were held in people's homes.
- Making the group sessions more sociable – providing food was an incentive.
- Transport and crèche facilities need to be provided.
- Good value for money.

Example A1.6 Rapid appraisal procedures for health needs assessment in a geographical area

This practice-based project aimed to identify the health needs of the practice population in a housing estate.

Method: An outside expert told the practice about rapid appraisal procedures. Then the practice staff and two health authority staff discussed the process. It was agreed that the process was not going to be 'rapid', and would require considerable time from practice staff over several weeks.

The rapid appraisal procedure recognises that health is affected by other issues, such as housing, social and environmental issues. Local 'key informants' on the estate were interviewed, including the local vicar, schoolteacher, shop-owners, school nurse, local councillor and patients.

The practice and health authority staff conducted the interviews using a semi-structured questionnaire on a range of issues. Then the interviews were analysed, which identified issues to develop into a postal questionnaire. This asked responders to choose priorities from issues under the following headings: community capacity; community's non-valuable resources; physical environment; disease and disability; socio-economic environment; health services; social services.

Results: Response to the questionnaires was good. Issues were ranked in order of priority under each of the headings above. The practice team then analysed the results. The chosen priorities were:
- isolated families, poor parenting skills
- a few people trying to build community spirit
- vandalism and crime
- smoking, respiratory disease and diet problems
- unemployment
- lack of help or advice for young people
- no local advice centre.

The results of the process confirmed many subjective perceptions of the primary healthcare team, but the priorities focused their attention constructively. The process has resulted in a local community centre being set up, run by a multi-disciplinary group including key community people. The primary healthcare team also recognised a need to review other data, to build a better picture of needs in the area.

Lessons learned
- Time commitment from practice staff (and others) must be considered at the start.
- As a method, the rapid appraisal procedure is useful in highlighting issues affecting a practice population, but merely 'scratches the surface' of those issues.
- The interview questioning must be consistent between interviewers, otherwise the accuracy of the data will be reduced.
- Postal questionnaires used for the ranking/prioritising stage of this exercise were not a good option – personal interviews would have been more useful (but more time-consuming).
- The project team should include members from other agencies, as issues wider than healthcare were involved. They can take forward those policy implications relevant to their own service.
- Choosing the key informants was vital. Criteria should be agreed for who, and how many interviews.
(See also Murray *et al*, 1994)

Appendix 2 Sources of data and information

Examples of indicator sets which could be used in profiling are given in the list below, and in the following table of health indicators used since 1998 in Calderdale and Kirklees. A summary of sources of indicators linked to national strategies is given in Appendix 3.

Indicators to include in a primary healthcare team profile

Potential practice and health visitor profiling data

Population characteristics
- Age/gender
- Geographical area
- Vulnerable people/carers:
  - aged under 16 years
  - single parents with children aged under five years

Health description
- Births:
  - total number
  - birth weight under 2.5 kg, breast-feeding
- Contraception: number of pregnancies in women aged under 16 years
- Disease prevalence: acute and chronic levels of functioning or complications of a range of diseases by cause, gender and age (eg under 65, 65–74, over 75)
- Deaths: place of death – home, hospital, residential care (including hospice), etc

Factors affecting health
- Health risk behaviours:
  - smoking prevalence/exercise levels/body mass index/alcohol misuse
  - drug misusers
- Family environment:
  - number of children on Child Protection At-Risk Register, or being supervised

Appropriate care
- Births: type of antenatal care, complications and type of delivery
- Immunisation rates: for children
- Number of terminations of pregnancies
- Repeat prescribing prevalence:
  - of some conditions
  - costs
- Guidelines: what is appropriate care?
- Audit results: what is the level of appropriate care?
- Health service use:
  - team consultations (all types)
  - referrals to other agencies and reasons why
  - hospital out-patient/in-patient episodes

Data available from public health departments

Population characteristics
Census data:
- ethnicity, age, gender by ward and practice
- number of people living alone
- single parents with children aged under five

Health descriptions
- Communicable disease: number of notifications by disease and age
- Prevalence of disease/dysfunctioning:
    - limiting long-term illness (census)
    - from other local practices
    - chronic disease management, health promotion
    - incidence and survival rates of cancers locally, regionally, nationally
    - national and regional prevalence rates of disease from the annual Health Surveys of England (Office for National Statistics)
- Deaths:
    - by cause, gender and age (eg under 65, 65–74, over 75)
    - standardised mortality ratios and rates

Factors affecting health
- Housing: ownership, overcrowding, unfit, rooflessness (by enumeration district, ward, practice from the census)
- Health behaviours (from the Health Surveys of England, Office for National Statistics)
- Water quality
- Crime, including domestic violence

Appropriate care
- Screening: cervical and breast cancers – percentage ceased; uptake
- Nursing homes
- Specific healthcare interventions: eg coronary artery bypass graft; hip replacements; orchidopexies in boys aged under five years (from the NHS performance framework)

Data from community trusts/units

Caseload profiles: of health visitors and district nurses

Child health surveillance data

Data available from local authority

Population characteristics
Number of vulnerable people:
- in B&B accommodation or hostels, travellers
- residential care homes
- council tax benefit/housing benefit claimants
- educational attainment

Factors affecting health

Environment:

- local employment and unemployment (over 12 months)
- child protection register
- quality of housing (see above)
- transport systems
- shopping facilities
- access to recreation areas and facilities
- air quality

Appropriate care

Social, housing, voluntary sector/childcare availability

Health indicators for 1999 in Calderdale and Kirklees

Area of focus	Indicator	Age groups	Info level	Data source
Population characteristics				
Birth rates			PCT	PH
Age/gender groups	**<16, 65+ and 2006 projection**	5 year group	PCT, C&K	LA
Ethnicity	**White and non-white**	all ages	CDH, ward	Census
		school ages	C&K	LA
Health functioning				
Mental illness	**Psychological distress**		CK	HSE
	Postnatal depression incidence		CDH?	Trusts
	Dementia?		CDH?	Trusts
	Severe mental illness (Care Programme Approach levels)		CDH?	Trusts
	Self-harm: admissions, A&E attendances		CDH	Trusts
Physical disability	**Disability living/incapacity allowance**		Ward	LA
Back pain			no data	
Limiting long-term illness			CK, ward	HSE, Census
Fair, poor or bad health			CK	HSE
Health status	**Physical activity, role/social functioning, etc**			
Disease				
Asthma	**Doctor diagnosed or wheeze**		CK, PCT?	HSE, GP
	Sleep disturbance		no data	GP, HV
Diabetes	**Prevalence**		PCT	GP
	Complications		PCT	GP
Percentage low birth-weight babies			CDH	PH
Cancers	**Registrations: lung, colon, stomach, breast, cervix, melanoma**		PCT	NYCRIS
	5-year survival of breast, cervix		PCT	NYCRIS
Accidents	**Rate of accidents (contact with NHS)**		CK, CDH	HSE, Trust
	Fracture, neck or femur	>65 years	CDH	PH
	Home, work, recreation		no data	
	Road traffic accidents: severe, moderate and slight		Ward, PCT	LA
Ischaemic heart disease	**Myocardial infarction hospital admissions, incidence**		PCT	Trust
	Prevalence		PCT	GP
Hypertension	**Prevalence**		PCT	HSE, GP
Dental health	**Decayed, missing, filled**		CK	PH
Death rates	**Cancers**	<65	PCT	PH
	Heart attack, stroke and vascular	<65	PCT	PH
	All causes	15–64, 65–74	PCT	PH
	Infant deaths		PCT	PH
	Still births		PCT	PH
	Suicide		PCT	PH
	Accidents		PCT	PH

Continued...

Health indicators for 1999 in Calderdale and Kirklees (continued...)

Area of focus	Indicator	Age groups	Info level	Data source
Factors affecting health				
Behaviours				
Breast-feeding	Percentage of infants breast fed at	6 weeks, 6 months	CDH	Trusts
Smoking	Prevalence		CK, PCT	HSE, GP
Physical activity	Walk less than 30 min, five times a week		PCT	
Alcohol	Percentage exceeding limit		CK, PCT	HSE, GP
	Mean consumption		CK, CDH	HSE, GP
Body mass index >30 (obese)			CK, PCT	HSE, GP
Diet	Five fruit/veg items per day		PCT	GP
Sexual health	Emergency contraception (PC4)		PCT	PACT?
	Terminations of pregnancy, pregnancies	<16	CK	PH
Drugs	Known heroin use		CDH	
	Percentage injecting heroin		C&K	
	Percentage sharing needles		C&K	
	Percentage using drugs	aged 14	CDH	Trusts
Vulnerable children	Carers aged	under 16		LA
	Statement of special needs		PCT	LA
	Child protection		CDH	LA
	Looked-after children, residence, site of care			LA
Socio-economic				
Income	Gross household income		K	LA
	Council tax benefits		PCT	LA
	Income support		PCT	LA
	Family credit (low-income employed)		PCT	LA
Unemployment	Long-term, ie >12 months		Ward	LA
Occupation	Healthy workplace			LA
Vulnerable people	Lone parents claiming Council Tax benefit			LA
	Single parent allowance			LA
	Old people claiming Council Tax benefit			LA
	Claimants of Council Tax benefit with dependent children			LA
	Availability of childcare		Ward	LA
	Carers	<16	Ward	LA
	Child protection		CDH	LA
Education	GCSE, SATs		School	LA
	Special needs (statemented)			LA
	No pre-school education			LA
	Percentage 17-year-olds with no resources			LA

Health indicators for 1999 in Calderdale and Kirklees (continued...)

Area of focus	Indicator	Age groups	Info level	Data source
Environment				
Housing	Insulation in houses (energy efficiency)		C&K	CMC, KMC housing needs survey
	Overcrowding, 1 person/bedroom		CDH	Census
	Homeless		K	
	Unfit		CK	
Crime	Domestic violence		CDH	Police
	Violent crime		CDH	Police
	Racial incidents			Police
	Household burglary			Police
	Other theft			Police
Water	Lead levels		CK	Water Co
	Frequency of compliance with EC standards			Water Co
Air	Frequency of compliance with EC standards		CDH	LA
Accessible public transport	Transport routes at least every 30 min		PCT	LA
	Percentage of GPs, dentists, pharmacists, clinics <500 m from public transport routes with one service every 30 min		PCT	PCT
	Mode of transport to work		LA	LA
Access	Local food shops and transport routes		PCT	LA
	Post offices		PCT	LA
Neighbourhood	Domestic noise complaints		CDH	LA
	Dogs complaints		CDH	LA

Key
CDH   **Calderdale, Huddersfield, Dewsbury separately**
CK   **Calderdale and Kirklees LA Areas**
C&K   **Calderdale, Kirklees separately**
CMC   **Calderdale Metropolitan Borough Council**
HSE   **Health Survey of England**
K   **Kirklees**
KMC   **Kirklees Metropolitan Council**
LA   **local authority**
NYCRIS   **Northern and Yorkshire Cancer Registry**
PACT   **general practice prescribing data**
PCT   **primary care trust**
PH   **public health**

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Calderdale and Kirklees Director of Public Health's Annual Health Report 1999 (Inequalities; Indicators): www.geocities.com/HotSprings/4202/ahr99/ahr99.html

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Sources of evidence about effectiveness

ScHARR Netting the Evidence: Guide to Resources. www.shef.ac.uk/~scharr/ebhc/ Appendix1.htm#ARESOURCEoverview

Indicator sources

NHS Plan: Technical Supplement on Target Setting for Health Improvement. www.doh.gov.uk/nhsplantechnicalsupplement/ index.htm

Compendium of Clinical and Health Indicators. http:// nww.nchod.nhs.uk/ (accessible only to those on the NHS net).

Opportunity for All: Tackling Poverty and Social Exclusion. www.dss.gov.uk/hq/pubs/

A Better Quality of Life. www.environment.detr.gov.uk./ sustainable/quality/monitor/index.htm

Best Value. www.local-regions.detr.gov.uk//bestvalue/indicators/ bvaudit/index.htm

NHS High Level Indicator Set. www.doh.gov.uk/indicat

CHD NSF. www.doh.gov.uk/nsf/chdexecsum.htm#setting

Mental Health NSF. www.doh.gov.uk/nsf/ mhexecsum.htm#progress

Smoking Kills. www.doh.gov.uk/smokexec.htm

Road Safety. www.roads.detr.gov.uk/roadsafety/strategy/ tomorrow/index.htm

Appendix 4 Glossary

ACTION POINTS   **page 81**

AIM   **page 80**

ASSESSING ARTICLES   **Step 3**

Golden rules for critical assessment of articles:

Title:	**is it relevant to the issue?**
List of authors:	**track record?**
Read the summary:	**is the conclusion important to you?**
Setting of the work:	**is it similar to yours, to be valid for you:**
	- availability of skills
	- technology
	- population

Reviews and meta-analyses

Is the following clear:

- what problem, therapy... is being reviewed?
- in which population?
- what consequences (clinical outcomes)?
- were the search methods used to locate relevant studies comprehensive?
- were explicit methods used to determine which articles to include in the review?
- were the selection and assessment of the original articles reproducible and free from bias?
- was the quality of the research methods in the original articles assessed?
- were the results of the original articles combined appropriately?
- were differences in the results of original articles adequately explained?
- were the reviewer's conclusions supported by the data collected?

(From Sackett *et al*, 1991)

BIAS

A systematic error in the method of a research or evaluation study leading to wrong estimate of association.

Bias can arise both in selecting participants, and from the observer. Bias is the most important aspect to consider when reading reports or articles, or collecting data.

Selection bias may arise:
- from non-responders
- because the definition of disease may be imprecise

- because the population consists only of survivors
- if the selection is hospital patients, they may not represent those attending primary healthcare
- if the population selected is part of a group with other influencing factors, for example, unemployed.

Observer bias may arise from:
- inaccurate recall
- the interviewer not being consistent
- drop-outs being difficult to follow up
- misclassification into groups.

Prevention of bias can be achieved by considering:
- the choice of population – check characteristics of the population you are investigating – are they the right people for the questions you want answers to?
- data collection check:
    - protocols are clear and all staff are trained
    - use triangulation – multiple methods of data collection
    - ask valid questions – measure what is necessary.

COMMUNITY ENGAGEMENT; LEVELS OF INVOLVEMENT   page 28

CORPORATE NEEDS   page 22

DATA AND INFORMATION

Data are items that can be measured. Information is combined data.

DATA QUALITY   page 96

This can be usefully summed up as CARAT: **Complete and consistent (reliable)**
                                                  Accurate
                                                  Relevant and valid
                                                  Accessible
                                                  Timely

DEATH RATES

- over time, such as three, five or 10 years depending on the rarity of death and the size of the population – for example, the annual case fatality rate for cervical cancer is 48% – 257 cases and 123 deaths in the same period
- case fatality rates are the association between the issue and death – worked out by dividing the number of deaths during a time period by the incidence of the issue in same period for the same population, for example, the case fatality for lung cancer is 85%, and for heart attacks 45%.

EPIDEMIOLOGICAL NEEDS   page 22

EPIDEMIOLOGICAL STUDIES – DESCRIPTIVE STUDIES

Useful for suggesting an association between factors and problems/conditions which then needs further study.

Correlation

Uses data from entire populations to compare disease occurrence between different groups during the same period, or for the same population over differing periods.

Useful	Problems
Cheap	Population-based, so difficult to assess importance of factors for disease in individuals Bias impossible to assess

Cross-sectional surveys

A snapshot, so exposure to condition and factors are present simultaneously – there is no temporal relationship. So does a possible factor cause the condition, or is it a result of the condition? If the factor is fixed, such as gender or race, then association can be assessed.

Useful	Problems
Quick Very useful for snapshot of what is happening now, eg prevalence for chronic conditions	Bias Poor for rare, short-duration or recurrent problems or conditions, as may not be present at time of survey

Case reports, focus groups, interviews

Can be a source of rich material, but have similar issues to the above. They may be prone to bias in selection of individuals or observer.

EPIDEMIOLOGICAL STUDIES – OBSERVATIONAL STUDIES

Can assess an observed association at any one time between a factor or intervention and problem/condition, minimising the effects of other factors. Temporal relationship may be prospective – before condition appears – or retrospective.

Case control

A case group of patients with the problem/condition being studied are compared to a control group without the problem/condition for the differences in factors. Otherwise the comparative group is very similar.

Useful	Problems
Rare conditions Wide range of factors Quick and cheap Assesses strength of association	Bias – selection and observer Selective survivors – typical? Can the results be applied to other groups – be generalised?

Cohort

An observational study of a group of people defined by the presence or absence of an exposure to a risk factor for a condition. At the time of starting the study, all participants are free from disease.

Useful	Problems
Temporal	Very subject to drop-out
Useful for rare factors	bias
Multiple outcomes	Hawthorn effect*
Little selection bias	Useless for rare
Not just survivors	conditions
Assesses strength of	Long-term, so factors
association	may vary
	Expensive

*Participating in a trial, even as a control, can influence the factors measured.

EPIDEMIOLOGICAL STUDIES – EXPERIMENTAL STUDIES

A type of prospective cohort study, but participants are allocated randomly to groups with differing factors – a randomised control trial. Selection is defined randomly, so can control for bias.

These will assess the strength of association by checking via statistical analysis for the results being by chance.

Useful	Problems
Bias is minimised	Ethics
Strength of association	Compliance
can be assessed	Bias in volunteers, non-
	participants, observation
	bias (if not double-blind)
	Hawthorn effect*
	Need to pilot

*Participating in a trial, even as a control, can influence the factors measured.

Randomisation can be of various types, all to minimise selection bias for the intervention (Henneken and Buring, 1987):

- simple, random
- systematic, for example, patients are selected in a numerical order: odds get the intervention and evens are the controls
- crossover – patients as own controls...

EVIDENCE OF RELATIONSHIPS

The relationship between any issue in the Health Triangle and any other issue needs to be tested. This relationship could be positive – the factor improves health, or negative – the factor reduces health. Anything that is included in the triangle must have a negative or positive impact – those with no impact should not be included.

The strength of evidence for any relationships within the Health Triangle is another important issue to be aware of. The strength of the evidence can be either:

- definite   the relationship is definite and quantifiably significant
- agreed   the relationship is not precisely quantifiable, but is generally accepted
- unknown   there is no evidence of the relationship, or it is unclear.

Issues that have a definite relationship should be included. Those that have an agreed relationship need to be discussed and included if there is consensus; those that have an unknown relationship should be left out.

EVALUATION

QUALITATIVE METHODS

Describes what A is, how A varies in differing circumstances, and why.

Uses descriptive methods of data collection, such as focus groups, interviews and case studies. It is useful for making decisions or identifying links between factors or interventions and problems.

QUANTITATIVE METHODS

Describes in how many cases of B is A present.

Uses comparative methods, such as case control studies, to observe the strength of any association identified by qualitative methods, or tests the strength of such an association through a randomised control trial.

RATES – INCIDENCE

$$\frac{\text{number of new episodes of the issue occurring}}{\text{total population at risk}}$$

For example, 'annual incidence of asthma episodes = 2.5%'
that is, all the times people have had an asthma episode in a year of those in the practice population.

RATES – PREVALENCE

$$\frac{\text{number of people with the issue during a time period}}{\text{total population at risk}}$$

For example, 'prevalence of ever had asthma in a GP practice population = 10%'
that is, all the people who have ever had asthma in the practice population.

RELIABILITY

Reliability of data is how consistent the data items are over time and between people.

STRENGTH OF EVIDENCE OF EFFECTIVENESS

definite   the evidence is definite and quantifiably significantly effective
            ✔ is positive, X is negative in effect
agreed   the evidence is not quantifiable precisely, but is generally accepted   ?
unknown   there is no evidence of effectiveness, or it is unclear   0

TARGETS

UPSTREAM ACTION

VALIDITY

Validity of data is how well they measure what they are supposed to.