A Planning Framework For Public Health Practice
PUBLIC HEALTH PLANNING AND PRACTICE IMPROVEMENT

A Planning Framework for Public Health Practice
Endorsement

This document was endorsed by the Australian Health Ministers’ Advisory Council on the 1 June 2000, for jurisdictions to incorporate, adapt and apply to their respective public health planning, management and quality assurance systems.

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The overall planning cycle described herein has been adapted from A Framework for Environmental Health Risk Management. The US Presidential Congressional Commission on Risk Management 1997.

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Contact the National Public Health Partnership Secretariat, 120 Spencer Street, Melbourne 3000, Victoria, Australia. Telephone: (61 3) 9637 5512 Facsimile: (61 3) 9637 5510 Email: nphp@dhs.vic.gov.au Website: www.nphp.gov.au
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PRINCIPLES

The following principles should underpin the implementation of the “Planning Framework for Public Health Practice”

- each community or population sub-group should have access to strategies, services and activities which optimise their health;
- each community or population sub-group should have access to a healthy and safe environment including clean air and water, and adequate food and housing;
- public health efforts must proceed in partnership with non-health sectors and in collaboration with international partners;
- a supportive legal and political environment is integral to the public health effort;
- improvements in knowledge about current and emerging health determinants and risks are vital to effective public health efforts;
- priority setting and decision making should be based on scientific evidence as far as possible and on criteria that are open to public scrutiny and debate;
- optimising population health outcomes requires effective linkage between public health and health system planning; and
- an ongoing capacity to scan and monitor the social and environmental trends likely to impact on future health status is essential for long term planning to prevent ill health.

1 As stated in the Memorandum of Understanding between members of the National Public Health Partnership.
The Planning Framework for Public Health Practice (the framework) is a tool to improve planning and management in public health. It complements existing planning processes\(^2\) in public health and draws them together under a common, over-arching approach. Public health is a diverse field. However, there is enough commonality in public health issues, methods and practice to make a general planning framework both possible and necessary.

The framework is not a new definition of public health but a method for continually defining and reviewing what public health does. It promotes a rigorous, strategic and collaborative approach to planning. The method can be used both within specific areas of public health, and as an overarching process to integrate planning across different public health areas. In the latter sense, the framework promotes planning from a systems perspective.

### The challenges in planning

The focus of public health planning has generally been on longer-term health outcomes. Whilst improved health outcomes are the ultimate measure of success, greater attention needs to be paid to the means by which these are to be achieved. Long lead times make it hard to link many public health interventions with health outcomes. Practice evaluation needs to focus on the intermediate indicators of success as well as the ultimate health outcomes. The framework is concerned with ensuring that public health action is as effective as possible.

In simple terms the planning task entails: defining the problem; working out what to do about it; acting; and evaluating what impact this has had. In the real world of public health however, it is more complex. It requires partnerships between government, communities and organisations, and collaboration across levels of government and between different sectors. The often multiple causes of public health problems need to be understood and judgements made about what can be changed. Judgements also need to be made about what levels of evidence are needed before action can be taken. Expertise from a diverse range of disciplines needs to be harnessed for effective action. Decisions may also need to be made about allocating resources between different public health needs.

The framework is a method for working through these issues systematically and collaboratively. It aims to contribute to public health planning in three broad ways.

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\(^2\) Various generic and issue specific planning models are used in public health to address different aspects and levels of planning. The framework is intended to complement existing models.

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**Levels of planning and practice**

The framework is intended to assist planning and management at all levels of the public health system. Its primary target audience is public health decision-makers and managers.

Although the basic planning method proposed by the framework has universal application, the specific planning and management issues will vary at different levels of the public health system. The different types of issues could include:

- deciding what is to be done about a specific problem;
- deciding, within an area of public health which set of problems should be given priority;
- balancing investment between different areas of public health; and
- coordinating action at a local level.

In this document, the framework is explained in terms of its application to national planning\(^3\). The focus is on specific public health problems, their determinants and the interventions needed to address them.

The framework approach to planning can also be applied to other levels of the system. However, a population or settings-based approach, rather than a problem-based one may be more appropriate to planning public health activity at local and state/territory levels. Local application of the framework can draw on the information about interventions generated at the national level but will need to adapt this to local circumstances.

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\(^3\) How the framework can be applied at other levels of the system is being explored through pilots in a number of public health areas.
Decide portfolios

Once potential options have been identified, the effectiveness, feasibility, benefits and costs of each option must be assessed, along with their potential impact (cultural, social, legal, economic and political implications – ie context). Key questions include:

- What are the option’s expected benefits?
- What are the options expected costs?
- Who gains the benefits and who bears the costs?
- What are the equity implications?
- How feasible is the option given the available time, resources, context?

There are a number of economic tools available to custodians when analysing options. Like many such tools they have limitations and should be viewed as one source of information available to decision makers. Economic tools can assist with analysis of cost effectiveness and to complement other assessments.

Intervention portfolios are developed through appropriate decision-making processes involving relevant stakeholders. All information on the problem and the identified interventions is considered from a ‘real world’ perspective in order to decide priorities and the intervention mix. The information is evaluated, not only in terms of the evidence collected, but also from the point of view of the values of the decision-making group and the context in which the interventions are to be implemented.

Portfolio decision-making

Agreeing on priorities and selecting interventions for the portfolio is a complex task. One pitfall to avoid is to assume that the decision will “fall out” of the evidence. In reality, information on interventions is only a building block of the decision-making process. This needs to be filtered through a set of agreed criteria for selecting between candidate interventions. Arriving at agreed decision-making criteria is an important step in the process. Whilst the criteria should be established prior to considering the interventions, the process is an iterative one. The following is an illustration of possible criteria which could underpin portfolio decision-making.

- **Effectiveness.** Will the intervention:
  - achieve the desired result?
  - also achieve other benefits?
  - be sustainable?
  - increase capacity to respond to future problems?
- **Equity.** Is the intervention:
  - selective, does it reach high priority groups?
  - evenly distributed, does it affect a few people a great deal or a lot of people only slightly?
- **Costs.**
  - how expensive will it be, will it save resources overall?
  - is it affordable?
  - is it feasible, are the required human skills and resources available?
- **Acceptability.**
  - is the intervention politically and socially acceptable?
- **Timing.**
  - how soon will the benefits be realised?
  - can expenditures be delayed?
- **Uncertainty.**
  - to what extent are the benefits guaranteed?
- **Sustainability.**
  - of action, and the capacity/infrastructure required.

The planning cycle

The overall process of the framework is illustrated in Figure 1. The steps in summary are:

- identify the determinants of the health problem, the context in which they operate and the population groups affected;
- assess the risks and benefits posed by each determinant to identify what should be addressed;
- identify intervention options and appraise them including the level of evidence;
- decide the portfolio of interventions which can address the problem;
- implement the portfolio; and
- evaluate the portfolio.

The framework process can begin at any point in the cycle and can be used in different ways. It can be applied to define responses to new and emerging issues, and can also be a way to review what is being done about existing problems.

For new areas of public health, the focus might be on understanding the determinants of the problem in order to design interventions. Well established areas might focus on reviewing existing practice to assess whether the interventions are still meeting a justifiable need. Areas, where national collaboration would be desirable, but is yet to be developed, can use the framework to map and link practice between jurisdictions.

The framework cycle is explained in more detail in the subsequent sections.
This section describes the following concepts which are the key elements of the framework planning cycle:

- determinants of health
- health risks and benefits
- public health domains and action areas
- public health interventions
- intervention portfolios
- custodianship

**Determinants of health**

Public health is concerned with the determinants of health and their management. The focus on determinants clearly delineates public health from clinical health services which are designed to manage episodes of illness or disease. The framework is based principally on the identification, analysis and management of the determinants of health.

A detailed understanding through rigorous and comprehensive analysis of the causes or determinants of ill health and good health is essential for effective action. The following are important distinctions to be made when analysing the determinants of a health issue.

**Characterising determinants by the type of causal link - proximate or contributory**

Analysis of determinants needs to consider both proximate and contributory effects. The effect of the determinant can be immediate or proximate for example a toxic substance which causes a child poisoning. At the same time there may be several contributory determinants - e.g. access to the poison, lack of supervision etc - which you need to understand to design effective interventions.

Contributory determinants create the conditions for, or increase the effect of, the proximate determinant.

Tobacco smoking is recognised as the proximate determinant for several diseases. However the propensity of an individual to smoke, and therefore the prevalence of smoking in the community is determined by a range of contributory factors including, age, gender, social class, price, advertising, peer pressure, outlet density and smoking opportunities. Often it is only possible to act on the contributory determinants rather than the proximate cause. For example, sun protection targets contributory determinants (i.e. degree of sun exposure) not the proximate cause (ultraviolet light).

**Specifying the level of determinant**

**Social and environmental**

These are broader, “upstream” factors external to the individual. They may have a proximate or a contributory effect. For example an economic recession may lead to an individual losing their job. The “proximate” effect on health may be that job loss in itself causes worry and anxiety and a number of adverse physiological responses to stressors. The “contributory” effect may be that with less resources the individual cannot afford a healthy diet: a poor diet has, over time, a bio-physiological impact.

Social and environmental determinants can have either a hazardous or protective effect on health. Strong networks of social support, for example, may act as a buffer to the stresses caused by job loss. There is growing research evidence of the fundamental influence of these determinants, and growing understanding of the ways in which they affect health.

Examples of the social and environmental determinants include the physical environment, family, school and economic environments, housing, transport and health and welfare services.

**Specific determinants**

These relate to “downstream” health events more closely associated with individual causes of ill health. Specific determinants encompass both behavioural and biomedical factors, such as driving dangerously, smoking, not exercising and high blood pressure. They also can have a proximate or contributory effect.

Examples of specific determinants can include genetic susceptibility, obesity, mental health, tobacco and drug use.

**Characterising determinants by their effect**

**Protective/promotive factors and hazards/risk factors**

Determinants can also be distinguished by whether they have a positive or a harmful effect.

Public health is concerned both with minimising or preventing the risk of illness and injury and also with maintaining and improving health for its own sake. It therefore deals both with determinants which pose a risk to health - hazards and risk factors - and with determinants which are beneficial for health - protective and health promoting factors.

Traditionally, the term hazard in public health refers to factors in the physical environment whilst the term ‘risk factors’ is used for biomedical and behavioural
determinants. Essentially the meaning is the same. In the framework the term *hazard* is used to refer to determinants which pose a threat to health whether they are from the physical environment, or are social, biomedical or behavioural in nature.

*Protective factors* provide a defence against adverse health events or states, or they can enhance well being. Examples are immunisation, healthy diet, healthy weight and good oral hygiene. *Promotive factors* also play a protective role but are also desirable in their own right - for example physical activity, good nutrition and good mental health. An example of a protective factor that has an established place in public health policy is folate supplementation. An established promotive factor is breastfeeding. Some examples of promotive and protective factors for which public health policy is emerging include: physical activity; environmental sustainability; good mental health and resiliency.

Sometimes a protective/promotive factor is just the inverse of a hazard. For example poor diet and lack of exercise is hazardous, but looked at from the other side, a healthy diet and moderate exercise can be protective and promote quality of life.

Social and environmental determinants can have either a hazardous or protective effect on health. Strong networks of social support, for example, may act as a buffer to the stresses caused by job loss.

**Determinants in context**

Isolating individual determinants and understanding how they “cause” a problem is useful, but not sufficient in itself. The interaction between determinants and how they operate in context are equally important in problem analysis to avoid simplistic models of causation which may lead to simplistic solutions.

Contextual analysis also needs to consider whether some population groups are more affected than others by a particular problem and therefore need special or even priority attention. Proper identification of priority population groups and key stakeholders that need to be engaged to address the problem, are key aspects of effective planning.

**Summary**

A comprehensive analysis of the causes or determinants of a public health problem would consider:

- whether the determinant has a proximate or contributory effect;
- broader social and environmental factors as well as specific ones;
- both hazards and determinants which have a positive effect on health;
- the way determinants operate in context and interact; and
- whether some population groups are more affected, at risk or in need than others.

The example of a sexually transmissible disease illustrates the analytical distinctions which could be made to arrive at a comprehensive understanding of the determinants of a health problem.

In this case the *proximate* determinants comprise the coincidence of two *hazards*, namely unsafe sex and the fact that one partner is already infected. However, these hazards may in turn depend on other *contributory* determinants such as impaired judgement due to alcohol (*specific*) and unequal power in gender relations (*social and environmental*). Acting on the contributory determinants may be the only way of intervening. This may involve strengthening *protective* and *promotive* factors such as the skill to negotiate safe sex which in turn may depend on raising individual self-esteem.

**Health risks and benefits**

Determinants in themselves don’t tell you whether they need to, or can be, addressed. The mere existence of a determinant is an insufficient basis upon which to plan public health activity. Whether a determinant becomes a focus of public health activity should be a function of the measurable or estimated *risk* or *benefit* associated with it.

*Risk* refers to the probability a hazard will result in an adverse health event. *Benefit* refers to the probability a protective/promotive factor will result in a positive health event.

The decision whether to act depends on the evidence linking the determinant with the health event and, assessing the actual or potential size of the impact on health - both the risk and the benefit. It also depends on the effectiveness of action and the capacity to intervene effectively. Other considerations include the importance given to the issue by the public.

The assessment of risks or benefits associated with a particular determinant is important to make judgements about which determinants should be addressed.

The risks and benefits to health posed by determinants can be distinguished as being either *expressed*, *potential* or *perceived*. An *expressed* risk or benefit is one where the link between the determinant and the associated health event is consistent and can be measured. In other words the more prevalent the
determinant, the more frequent is the resulting risk or benefit. A potential risk or benefit is one where the associated health event is sporadic, unreported or non-existent and therefore the prevalence of the determinant can only be estimated. A perceived risk or benefit is one where action may be required because there is a strong public perception that it would be desirable to intervene, despite the lack of supporting scientific evidence.

Public health action areas and domains

The rigorous analysis of individual determinants (and their interactions) is important to ensure the determinants which need to be addressed are correctly identified. However, in practice it is often not realistic or effective to act on determinants individually. Rather they need to be addressed as groups of determinants. The framework denotes groups of determinants as public health action areas.

A possible categorisation of public health action areas is given in the Appendix. Each action area is characterised by overall management objectives. The idea of action areas combines an understanding of determinants with the best practical way of organising action. Related action areas can be further grouped into public health domains as in the table below.

<table>
<thead>
<tr>
<th>Public Health Domains</th>
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<tbody>
<tr>
<td>Environmental Health</td>
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<tr>
<td>Communicable Disease</td>
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<tr>
<td>Healthy Growth and Development</td>
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<td>Lifestyles and Health</td>
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<tr>
<td>Oral Health</td>
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<tr>
<td>Injury Prevention</td>
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<tr>
<td>Substance Abuse</td>
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<tr>
<td>Sexual and Reproductive Health</td>
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<tr>
<td>Mental Health and Wellbeing</td>
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</table>

Table: Public Health Domains

The concept of a public health domain denotes a broader grouping of public health issues. They represent major areas of health gain which require a public health response. The groupings are based on commonalities in aetiology or other factors, together with the type of public health response required to manage the problem.

To a certain extent each domain represents a sphere of activity with distinct constituencies, workforce skills etc. Thus the application of the planning cycle will usually tend to occur within a particular domain, or in the subcategories (action areas) within the domain. However, the domains are not mutually exclusive. Indeed integrating action across public health domains may be desirable in some cases.

The classification of domains proposed (Appendix) is only one of a number of possible approaches. “Settings” might also be seen to constitute domains – for example workplace health promotion, infection control in acute care settings, or preventive clinical practice in primary health care, are also important public health issues. Domains may need to be conceived in different ways depending on the context of the planning exercise. Population groups, settings, health issues or a combination of these could all be appropriate in different circumstances.

Public health interventions

The term interventions can refer to all the possible actions that can be identified to address a health issue. It is the answer to the question “what could be done about the problem”. At this point the interventions have not been considered from a planning perspective – they have simply been identified as the set of possible things to choose from.

The framework attaches a specific meaning to “intervention”. An intervention is one which is delivered to specification. Interventions need to be specified, as a minimum, with regard to the evidence of their effectiveness, the population group to be targeted, the context and vehicle for delivery, and quality. The intervention should be based as far as possible on scientific evidence, expert opinion and practical experience.

In deciding what action to take on a public health issue, the full range of intervention types need to be considered. A comprehensive approach to intervention planning should cover policy and program interventions and the infrastructure required to support them.

The following 10 public health intervention types, are a possible checklist for the comprehensive design of interventions.

1. Public policy development
2. Legislation and regulation
3. Resource allocation
4. Engineering and technical interventions
5. Incentives (financial and non-financial)
6. Service development and delivery
7. Education (financial and non-financial)
8. Communication (including social marketing)
9. Collaboration/partnership building (community & intersectoral)
10. Community & organisational development (including organisational policy)
Interventions need to be supported by infrastructure. Decision-makers need to ensure that the required infrastructure is identified. The following list is a guide to ensuring the capacity is there to carry out the interventions.

1. Identification and surveillance of determinants
2. Information systems
3. Workforce
4. Research and development capacity
5. Plant and equipment
6. Key commodities (eg vaccines)
7. Management infrastructure
8. Leadership

**Intervention portfolios**

Each public health action area requires a clear statement of objectives on the determinants to be addressed. These are specified as management objectives. A balanced mix of interventions needs to be specified to meet these objectives. The statement of the objectives and the interventions required to address them are termed an intervention portfolio.

*Intervention portfolios* are best developed through a collaborative decision-making process by the relevant decision-makers and stakeholders. These consider all the available information on the health problem and the known interventions against the objectives to be met. The values of the decision makers and the context in which the action has to take place are also important.

Portfolios are not strategies or programs. They are intended to set out comprehensively, the full range of interventions required and the standard to which they should be implemented. They are the “building blocks” of a strategy or program.

The development and oversight of national intervention portfolios, while not the only way to apply the framework, is a critical one. *National intervention portfolios* are intended as the primary information resource for public health planners at all levels of the system. Whilst they are not action plans in themselves, they specify the essential things to be done. The tailoring of these interventions for specific circumstances is a task for local strategic planning.

**Management objectives for portfolios for three public health action areas (illustration only)**

**Vectors**
- To detect, in a timely fashion, virus activity in insect populations which pose a hazard for human infection.
- To control, in the long term, insect and animal populations which constitute a hazard for arbovirus disease in humans.
- To protect humans from infection during periods of virus activity.
- To control vehicles which may import novel viruses and vectors or transfer them between regions in Australia.

**Drinking Water**
- To provide a plentiful and sustainable supply of water for personal use.
- To protect human water supplies from toxins, xenobiotics, and microbial contamination.
- To achieve chemical and microbial levels in water consumed by humans which comply with NHMRC health-related guidelines.
- To achieve a high level of public confidence in the safety of public water supplies.

**Waste**
- To reduce the contamination of the human environment by human waste.
- To reduce the physical, chemical, radiation and microbial hazards in waste generated by human activity.
- To protect humans from hazardous exposure to waste generated by human activity.

National intervention portfolios can serve a number of purposes. As a “state-of-the-art” statement of best practice, according to the available evidence and opinion, they support local planning, and can help to promote consistency of effort in public health.

The concept of *portfolios* is a flexible tool which can be used at different levels - national, state and local. The perspective and content at each level will differ. At a national level, portfolios will tend to be organised for public health action areas and will define the interventions in boarder terms. National portfolios should also describe the role of each level of the system in portfolio implementation.

Local portfolios can draw on the interventions described in national portfolios but will need to adapt and refine these for local circumstances. In doing so, assessment of the local context and the input of local experts and stakeholders will be critical in achieving an appropriate portfolio mix. For example, a national portfolio may identify “quit smoking education” and specify the aims and basic content to be covered. However, to undertake
this action with a specific group such as young aboriginal women, the form of the intervention will need to be tailored to what works for them.

At a local level the *portfolio* approach may provide a useful process for deciding the best distribution of resources across different *action areas* which are relevant to a geographical area or population. It can also serve as a method for reviewing what is currently being done.

**Domain: Communicable Disease Action Area: Vaccine preventable disease**

The control of vaccine preventable diseases is often thought of as a single intervention - i.e. vaccination. However an effective program to control vaccine-preventable disease comprises an array of interventions which could include:

- a vaccination service or services;
- social marketing to promote acceptance and uptake of vaccinations;
- health promotion in a clinical setting to assess, promote and administer individual vaccinations;
- analysis to identify target populations;
- evaluation of performance;
- a vaccine supply and deliver infrastructure; and
- overarching public policy and legislation.

Proper performance of all these interventions and the necessary supporting infrastructure is needed to achieve the *portfolio objective* of vaccine induced immunity.

**Custodianship - managing portfolios**

The notion of *custodian* implies a “caretaking” or “guardian” role in applying the framework and developing a portfolio for a particular public health action area. Custodianship can be established at different levels of the system - national, state and local. However the nature of custodianship at each level is a matter for further investigation.

At the national level, custodians would be responsible for pooling, analysing, and reviewing information on a public health action area. There are bodies which already act, to varying degrees, as de facto custodians for many public health areas.

*Custodianship* of national portfolios by appropriate bodies can be brought together under the umbrella of the National Public Health Partnership. This can provide both an overall management instrument and a communication vehicle between different public health areas.

Decisions about which is the most appropriate custodian for a particular area will depend on the nature of the issue and whether there is an existing group which already carries some responsibility. Nationally, there are a number of committees and forums to address particular public health issues or with responsibility for strategies related to specific population groups. The roles of these groups vary. Custodianship suggests greater consistency in the range of responsibilities between different groups. The custodian role of overseeing a public health domain or a set of action areas could include:

- analyzing and evaluating risks and benefits associated with key determinants;
- identifying priority populations and partners for collaboration;
- recommending risk and benefit management objectives;
- assessing intervention options and an appropriate mix of interventions;
- recommending ideal investment portfolios and specification of key interventions;
- advising on preferred delivery mechanisms and infrastructure support;
- advising on appropriate monitoring mechanisms and measures for program performance;
- developing mechanisms for systematic review of new evidence and incorporation of new information and knowledge into practice; and
- reporting on efficiency and quality of performance and program outcomes.

The management tasks of custodians should not add to or duplicate what is already being done by existing national committees. Rather the aim is to encourage all groups to develop best management practice. Wherever national responsibility for action areas has not been defined, custodianship offers a model for doing so.
Identify the determinants - define the problem and its causes

Improved health status and outcomes provide the ultimate rationale for public health action. Establishing this rationale involves the following elements:

- identifying and measuring health outcomes, events and states and their impact;
- identifying and characterising the determinants which account for these outcomes;
- assessing potential returns from reducing or preventing adverse outcomes, or promoting health;
- engaging stakeholders in developing an understanding of the problem and finding the solutions; and
- identifying ‘custodians’ for the action area.

Define the health problem to be addressed.

This involves clearly setting out the rationale as to why the problem needs to be addressed. What burden does the issue impose on the community in both health and economic terms, and what benefits are to be reaped? Are particular population groups more severely affected?

Information and knowledge from a number of sources will need to be gathered to determine the extent of the health problem and the burden posed. Where the health problem is a disease, surveillance and data on population health from other sources can be used. Also, Burden of Disease studies can provide measures of the impact on health.

If the problem is a potential one - for example the possible consequences of poor sanitation or bad water quality, or of unsafe products - the impact on health outcomes can be assessed either with reference to previous times when the problem occurred, or by use of modelling or other methods.

For perceived but not actual problems, the outcome of interest is usually reducing the level of public concern about a particular issue.

Identify and characterise the determinants of the problem

Comprehensive and correct identification of health determinants is necessary to design effective interventions. Also important is understanding the interaction between determinants, their context and identifying population groups most at risk. The analysis should be comprehensive and as accurate as possible to ensure the interventions are properly targeted.
The key concepts for analysing determinants have been described in the previous chapter. These are further elaborated below.

**Proximate and contributory determinants.** An exhaustive attempt should be made to identify all the determinants of a health problem or issue. Literature searches are an obvious starting point but also unpublished sources of information including expert knowledge and surveying those affected by the problem are important in this regard. Identifying all the possible causes and categorising them according to whether their effect is proximate or contributory is necessary to begin to identify which causes should be addressed.

While the proximate determinants may normally be evident, this may not be so for all the contributory ones. Special studies may need to be commissioned and the pooling of knowledge through group exercises such as “brainstorming” may also be useful.

**Social and environmental determinants.** National and international evidence suggests that the physical, social and economic circumstances that people find themselves in, strongly affect their health throughout life. Analysis of the social and environmental determinants requires developing an understanding of aspects of social location such as: unemployment, socio-economic status, education, class, gender or age and their impact on health. This type of analysis attempts to examine the complex inter-relationships between social and environmental determinants, specific determinants and health as well as how the relationship differs among various sub-groups. While historically the health sector has not taken a lead role in addressing social and environmental determinants, increasingly public health is assuming responsibility to advocate for their importance and management.

In identifying social and environmental determinants of health, it may be useful to ask:

- What is it about a population group’s experience of these determinants that leads to poor health outcomes eg what is it about being a woman from a particular culture, living in a particular location with a set income/employment/housing status at a particular point in time that manifests itself as poorer health status?
- Does the social and environmental determinant impact directly on health or are the effects more subtle?
- What types of adverse effects might be caused by the social and environmental determinant? Are they reversible, avoidable?
- Or are the effects protective/promotive?
- Are the effects likely to appear in the near future, later in life or be replicated for future generations?
- Are the impacts of these social and environmental determinants disproportionately distributed amongst certain population groups?
- How do stakeholders perceive the social and environmental determinant and do different groups have different perceptions and/or different levels of concern? What are people’s experiences of the determinant and how do they perceive it affects their health?
- What other factors mediate between social and environmental determinants and health status? For example what is the impact of, literacy, information access, neighbourhood programs, employment and training programs etc.
- What are the positive influences of social and environmental determinants and how can they be realised?

Identification of social and environmental determinants also requires identification and characterisation of priority populations and settings. It may be useful to ask whether there are characteristics about particular settings (for example workplaces) or the social location of particular population groups (for example Aboriginal and Torres Strait Islanders) that result in poorer health outcomes.

Priority populations are defined as identifiable populations with a significant health disadvantage and specific access problems, whether it be to knowledge or services. Examples may be Aboriginal and Torres Strait Islander peoples, people with a high level of socio-economic disadvantage and geographic sub-groups. In addition a focus on infant and child health populations may also be necessary due to the lifetime effects of early childhood health problems and the global impact of family and social disadvantage in childhood.

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**The Australian Institute of Family Studies and the World Health Organisation have identified at least fourteen interrelated indicators to consider in characterising the impact of social and environmental determinants:**

- Social and economic circumstances
- Employment status
- Early life experiences
- Social exclusion and social support
- Housing
- Public health access
- Education
- Recreation
- Physical environment
- Transport
- Social participation
- Political participation
- Access to information
- Family relationships and personal well being
Specific determinants. In identifying and characterising specific determinants the following questions might be useful:

- Is the specific determinant proximate ie the direct cause of a health problem or is it contributory?
- Is it a hazard or is it a protective/promotive factor?
- Are the effects of the specific hazard reversible, avoidable? Alternatively is it worthwhile to pursue the benefits of protective/promotive factors?
- Are the effects likely to appear in the near future, later in life or future generations? How urgent is the need for action?
- What is the magnitude of exposure to the specific determinant?
- How do stakeholders perceive the determinant and do different groups have different levels of concern?
- Who may be exposed? Are different groups affected in different ways? Will promotive action increase health status differentials?
- What are the sources of exposure and how does each contribute to the overall problem?
- Why do some people who are exposed to hazards remain healthy and others do not?
- What influences individuals to take up protective and promotive factors (eg healthy behaviours) that they can control?
- What evidence exists to support the protective or promotive nature?
- What preconditions are necessary to ensure that the protective or promotive factor will protect and promote health?
- Does the protective or promotive factor require a long-term investment or is it a one off short-term investment?
- How can the presence and the impact of the protective or promotive factor be monitored?
- What are stakeholders’ perceptions of the protective and promotive factor?

Assess the possible returns from investing.

Understanding the disease or injury burden posed on the community and the likely returns are important in putting the issue in perspective. A number of economic tools are available for calculating potential return on investment. The assessment of potential returns depends on the availability of information on the cost of outcomes - adverse or positive. An estimate of cost/benefits together with some judgement on the modifiability of the determinants and the impact that such modification might have on the health outcome, are important considerations.

Engage stakeholders and put the problem into context

Stakeholders need to be engaged from the outset to ensure ownership and partnerships for effective action.

Stakeholders can include groups that are affected or potentially affected by the health issue, the people concerned with addressing the health issue and any groups that will be affected by efforts to manage the determinants. Active stakeholder involvement is critical to all stages of the planning cycle but is particularly important in this first stage as interpretations and understanding of the health issue and its determinants may differ amongst stakeholders.

Decisions made in collaboration with stakeholders are more likely to be durable and effective. Australia’s effort to curb the spread of HIV/AIDS is a good case example. Stakeholders bring to the table important information, knowledge, expertise and insights both in understanding the health issue and its determinants and in developing solutions. Stakeholders are also more likely to accept and implement a decision when they have been involved in the process. Encouraging collaboration between stakeholders provides the opportunity to bridge gaps in language, values and understanding of health issues and their determinants. While there is often considerable cost involved in stakeholder engagement, there are also costs involved when stakeholder engagement is not undertaken or where it is undertaken badly.

Identifying and engaging stakeholders is a precursor to formal assignment of custodianship as discussed in the next section.

Questions that might help identify potential stakeholders include:

- Who might be affected by the health issue, the determinant of health and any intervention that may be taken to manage them?
- Who has information and knowledge that might be useful?
- Who has been involved in managing similar health issues?

<table>
<thead>
<tr>
<th>SOCIAL &amp; ENVIRONMENTAL</th>
<th>SPECIFIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximate &amp; Contributory</td>
<td>Proximate</td>
</tr>
<tr>
<td>Availability of a variety of fruit and vegetables.</td>
<td>Adequate and regular daily intake of fruit and vegetables.</td>
</tr>
<tr>
<td>Quality and affordability of fruit and vegetables</td>
<td>Contributory</td>
</tr>
<tr>
<td>Media and community attitudes on fruit and vegetables in the diet</td>
<td>Eating habits of family and peers</td>
</tr>
<tr>
<td></td>
<td>Personal knowledge of the importance of fruit and vegetables in the diet</td>
</tr>
<tr>
<td></td>
<td>Personal skills in the purchase and preparation of fruit and vegetables</td>
</tr>
<tr>
<td></td>
<td>Perceptions of cost of fruit and vegetables</td>
</tr>
<tr>
<td></td>
<td>Age-related decline in fruit and vegetable consumption observed for adolescents and young adults.</td>
</tr>
</tbody>
</table>

• Who has expressed interest in being involved?
• Who might be reasonably annoyed if not involved?
• Who is going to be involved in implementing any intervention?

Stakeholders should be identified as early as possible and an optimal process for their involvement determined. There are no hard and fast rules on how to do this. What works in some areas may not in others. Nonetheless, there are some principles that may be useful to bear in mind. The nature and complexity of stakeholder involvement should be consistent with the:

• complexity, uncertainty, impact and level of controversy associated with the health issue;
• urgency with which the health issue must be addressed; and
• extent to which participants can have a genuine influence on the decision. If the decision is not negotiable, stakeholder’s time should not be wasted.

A full understanding of the context in which determinants affect health is also essential for planning interventions to manage them. The framework includes an explicit step in all stages, to consider the context in which determinants affect health. Contexts encompass the values, beliefs and traditions of individuals, communities and societies and include such things as political, economic and cultural factors.

**Develop custodianship**

Custodianship is central to the framework’s proposal for national public health development. In order to effectively advise on and coordinate activities to address the determinants of health at the national level, someone needs to take responsibility for pooling information and knowledge about the determinants, the interventions to address them and for taking a decision as to the best options to manage them.

Who or what group is the most appropriate custodian in a particular situation will depend upon the health issue, its context and the level at which the issue is being addressed. In some situations such as a regulatory context, it will be obvious that the responsible regulatory agency should or must manage the health issue. For example in the case of drugs and poisons regulation, the Therapeutic Goods Administration has the ultimate responsibility (although reaching a decision generally involves stakeholders). In other cases, it may not be as obvious. At the national level there are currently a number of committees and forums based on particular health issues and populations.
determinants. Essentially the meaning is the same. In the framework the term hazard is used to refer to determinants which pose a threat to health whether they are from the physical environment, or are social, biomedical or behavioural in nature.

**Protective factors** provide a defence against adverse health events or states, or they can enhance well being. Examples are immunisation, healthy diet, healthy weight and good oral hygiene. **Promotive factors** also play a protective role but are also desirable in their own right - for example physical activity, good nutrition and good mental health. An example of a protective factor that has an established place in public health policy is folate supplementation. An established promotive factor is breastfeeding. Some examples of promotive and protective factors for which public health policy is emerging include: physical activity; environmental sustainability; good mental health and resiliency.

sometimes a protective/promotive factor is just the inverse of a hazard. For example poor diet and lack of exercise is hazardous, but looked at from the other side, a healthy diet and moderate exercise can be protective and promote quality of life.

Social and environmental determinants can have either a hazardous or protective effect on health. Strong networks of social support, for example, may act as a buffer to the stresses caused by job loss.

**Determinants in context**

Isolating individual determinants and understanding how they "cause" a problem is useful, but not sufficient in itself. The interaction between determinants and how they operate in context are equally important in problem analysis to avoid simplistic models of causation which may lead to simplistic solutions.

Contextual analysis also needs to consider whether some population groups are more affected than others by a particular problem and therefore need special or even priority attention. Proper identification of priority population groups and key stakeholders that need to be engaged to address the problem, are key aspects of effective planning.

**Summary**

A comprehensive analysis of the causes or determinants of a public health problem would consider:

• whether the determinant has a proximate or contributory effect;

• broader social and environmental factors as well as specific ones;

• both hazards and determinants which have a positive effect on health;

• the way determinants operate in context and interact; and

• whether some population groups are more affected, at risk or in need than others.

**Health risks and benefits**

Determinants in themselves don’t tell you whether they need to, or can be, addressed. The mere existence of a determinant is an insufficient basis upon which to plan public health activity. Whether a determinant becomes a focus of public health activity should be a function of the measurable or estimated risk or benefit associated with it.

**Risk** refers to the probability a hazard will result in an adverse health event. **Benefit** refers to the probability a protective/promotive factor will result in a positive health event.

The decision whether to act depends on the evidence linking the determinant with the health event and, assessing the actual or potential size of the impact on health - both the risk and the benefit. It also depends on the effectiveness of action and the capacity to intervene effectively. Other considerations include the importance given to the issue by the public.

The assessment of risks or benefits associated with a particular determinant is important to make judgements about which determinants should be addressed.

The risks and benefits to health posed by determinants can be distinguished as being either expressed, potential or perceived. An expressed risk or benefit is one where the link between the determinant and the associated health event is consistent and can be measured. In other words the more prevalent the

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**Assess the risks and benefits posed by the determinant to decide what to address**

To make an effective decision on whether a health determinant should be acted upon, the potential harm or benefit the determinant poses and how likely it is to occur must be known. An assessment of the risks and benefits provides information to help decide whether the determinant should be managed and to prioritise between determinants. Risks and benefits are determined by considering the nature, likelihood, and severity of adverse effects and positive factors on human health.

**Risk and benefit assessment generally involves steps to:**

• evaluate, by quantitative or qualitative means the impact of the determinant on the health of populations or sub-populations;

• analyse the conditions (ie contributory determinants) under which people become exposed to or affected by the determinant;

• calculate the health risk involved if it is a hazard, or the likely benefit if it is a protective/promotive factor.

The range of considerations in risk and benefit assessment could also include:

• stakeholder perceptions of the risks and benefits posed;

• which individuals and groups are at risk or will benefit the most;

• the severity of the harm, or the extent of the expected benefit;

• whether the effects are preventable;

• the strength of the evidence used in the assessment;

• the level of informed views or uncertainty about the nature or magnitude of the risks and benefits;

• other sources causing the same type of risk;

• distribution of the risks and benefits in relation to other risks and benefits in the population; and

• whether there are other impacts beside health ones, such as social or cultural consequences.

Stakeholders play an important role in providing information that should be used in risk and benefit assessment and in identifying specific concerns they would like to see addressed. However their perception of risks and benefits can vary substantially depending on whether they are directly affected, their level of risk acceptance, whether the risks and benefits are externally imposed or result from their own behavioural choices.

Decisions on how to manage risks and promote benefits should be as far as possible informed by scientific assessment. However science alone is not sufficient. Public values, equity, benefits and costs, among other considerations, will also be used to decide whether and how to manage risks. Assessment also has subjective, cultural and comparative dimensions and can be highly controversial, reflecting the important interplay between evidence and judgement in drawing conclusions about the likelihood of effects on health.

Sometimes risk and benefit assessment will need to deal with uncertainty because information is lacking. Action may still need to be taken by exercising the 'precautionary principle'. This means that decisions to act must be taken even if the information about the potential risks is incomplete or is lacking. The best ways to manage risks and benefits will in this instance reflect a preference for avoiding unnecessary health risks rather than unnecessary economic expenditures.

The level of detail in a risk or benefit assessment should be commensurate with the size of the health problem, its impact, urgency and level of controversy.
Risk and benefit assessment is but one, albeit important, input into the decision making process. It does not constitute the decision, but provides one source of information to be evaluated against other considerations.

The process of making decisions, informed by risk and benefit assessment, about the determinants to be addressed, should result in a clear statement of portfolio management objectives. These objectives will guide the next stage of the process which is to consider what are the options for acting on the problem.

Portfolio management objectives might aim to:

- reduce or eliminate risks from hazards;
- reduce the incidence of an adverse effect; and
- introduce or increase the effect of a protective or promotive factor.

At the national level, portfolio management objectives will need to be comprehensive and should identify at a high level and preferably quantitatively, the level of risk reduction or benefit increase necessary or feasible. The involvement of stakeholders in setting management objectives will help ensure the eventual intervention portfolio is relevant and widely supported. Advice from people with technical expertise will also assist to improve the quantification of the risk management objectives.
Appraise intervention options

This stage of the framework involves identifying, from the literature and current practice, the range or “long list” of interventions that could address the portfolio management objectives. Any available information on their effectiveness, feasibility, costs, benefits, unintended consequences and impact is collected and compared.

Ideally, options appraisal should be based on the highest level of evidence, preferably systematic review of scientific studies that demonstrate a strong link between the intervention and the desired outcome. It is important to recognise however, that it may be difficult to attain this ideal in all cases. This should not prevent action from being taken, if there is reasonable confidence that whatever evidence is available (limited scientific information, current experience, etc) justifies further exploration of the intervention.

As well as the evidence of effectiveness, options appraisal will also consider the impact on groups most affected or most at risk and the need for a multi-intervention approach.

Levels of evidence

Systematic review of randomised controlled trials - the golden standard in clinical medicine - is not always possible or appropriate to evaluate public health interventions.

“Other forms of evidence such as well-designed controlled studies and time series analyses may be the most appropriate and feasible method. Although there is currently no agreed separate grading for assessing the level of evidence in relation to public health interventions, the primary objective is to strive for evidence derived from a study design that is the most practical and feasible available in order to maximally control for potential bias”

The NPHP is developing guidelines on levels of evidence relevant to public health.

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Detect portfolios

Once potential options have been identified, the effectiveness, feasibility, benefits and costs of each option must be assessed, along with their potential impact (cultural, social, legal, economic and political implications – i.e. context). Key questions include:

- What are the option’s expected benefits?
- What are the expected costs?
- Who gains the benefits and who bears the costs?
- What are the equity implications?
- How feasible is the option given the available time, resources, context?

There are a number of economic tools available to custodians when analysing options. Like many such tools they have limitations and should be viewed as one source of information available to decision makers. Economic tools can assist with analysis of cost effectiveness and to complement other assessments.

Intervention portfolios are developed through appropriate decision-making processes involving relevant stakeholders. All information on the problem and the identified interventions is considered from a ‘real world’ perspective in order to decide priorities and the intervention mix. The information is evaluated, not only in terms of the evidence collected, but also from the point of view of the values of the decision-making group and the context in which the interventions are to be implemented.

Portfolio decision-making

Agreeing on priorities and selecting interventions for the portfolio is a complex task. One pitfall to avoid is to assume that the decision will “fall out” of the evidence. In reality, information on interventions is only a building block of the decision-making process. This needs to be filtered through a set of agreed criteria for selecting between candidate interventions. Arriving at agreed decision-making criteria is an important step in the process. Whilst the criteria should be established prior to considering the interventions, the process is an iterative one. The following is an illustration of possible criteria which could underpin portfolio decision-making.

- **Effectiveness.** Will the intervention:
  - achieve the desired result?
  - also achieve other benefits?
  - be sustainable?
  - increase capacity to respond to future problems?

- **Equity.** Is the intervention:
  - selective, does it reach high priority groups?
  - evenly distributed, does it affect a few people a great deal or a lot of people only slightly?

- **Costs.**
  - how expensive will it be, will it save resources overall?
  - is it affordable?
  - is it feasible, are the required human skills and resources available?

- **Acceptability.**
  - is the intervention politically and socially acceptable?

- **Timing.**
  - how soon will the benefits be realised?
  - can expenditures be delayed?

- **Uncertainty.**
  - to what extent are the benefits/guaranteed?

- **Sustainability.**
  - of action, and the capacity/infrastructure required.

The planning cycle

The overall process of the framework is illustrated in Figure 1. The steps in summary are:

- identify the determinants of the health problem, the context in which they operate and the population groups affected;
- assess the risks and benefits posed by each determinant to identify what should be addressed;
- identify intervention options and appraise them including the level of evidence;
- decide the portfolio of interventions which can address the problem;
- implement the portfolio; and
- evaluate the portfolio.

The framework process can begin at any point in the cycle and can be used in different ways. It can be applied to define responses to new and emerging issues, and can also be a way to review what is being done about existing problems.

For new areas of public health, the focus might be on understanding the determinants of the problem in order to design interventions. Well established areas might focus on reviewing existing practice to assess whether the interventions are still meeting a justifiable need. Areas, where national collaboration would be desirable, but is yet to be developed, can use the framework to map and link practice between jurisdictions.

The framework cycle is explained in more detail in the subsequent sections.

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7 Deciding and Specifying an Intervention Portfolio* has been produced to assist with this step. Copies are available from the NPHP Secretariat.

8 Some of the main tools and approaches are described in “Resource Allocation in Public Health: An Economic Approach” (NPHP, 1999) by John Double available from the NPHP Secretariat.

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3
The mix of interventions in a portfolio should be as comprehensive as possible. The starting point always must be the analysis of present practice wherever this exists. The mix of interventions to be included in a portfolio should span policy/legislation and program categories and also pay attention to the infrastructure required. A checklist of intervention types is given on page 7.

The decision-making process may also draw attention to where information is lacking either about the problem or the interventions. Questions for further research and development are an important part of the intervention portfolio.

### Intervention Portfolio (illustration only)

<table>
<thead>
<tr>
<th>Determinant of health: Excessive exposure to sunlight</th>
<th>Management objective: Reduce episodes of painful sunburn in adolescents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interventions</strong></td>
<td><strong>Infrastructure support</strong></td>
</tr>
<tr>
<td>- Policy guidelines in local government, health and schools</td>
<td>- Sunburn incidence surveillance</td>
</tr>
<tr>
<td>- Sunscreen, clothing &amp; sunglass standards</td>
<td>- Workforce training</td>
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<tr>
<td>- Building standards</td>
<td></td>
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<tr>
<td>- Media campaigns</td>
<td></td>
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<tr>
<td>- Merchandising at recreational venues</td>
<td></td>
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<tr>
<td>- Audit of shade area availability</td>
<td></td>
</tr>
<tr>
<td>- Local health promotion initiatives eg.</td>
<td></td>
</tr>
<tr>
<td>shade area construction in schools</td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Intervention Portfolio (illustration only)

<table>
<thead>
<tr>
<th>Determinant of health: Access to fruit and vegetables</th>
<th>Management objective: Provide a variety of quality, affordable fruit and vegetables in institutional food service outlets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interventions</strong></td>
<td><strong>Infrastructure support</strong></td>
</tr>
<tr>
<td>- Policy guidelines in commonwealth, state and local</td>
<td>- Appropriate food transport, storage and preparation facilities.</td>
</tr>
<tr>
<td>government jurisdictions eg childcare, aged care,</td>
<td>- Information to demonstrate economic and other relevant benefits to management and staff.</td>
</tr>
<tr>
<td>schools, hospitals</td>
<td>- Workforce training.</td>
</tr>
<tr>
<td>- Supply tender specifications for type, quality and</td>
<td></td>
</tr>
<tr>
<td>price.</td>
<td></td>
</tr>
<tr>
<td>- Education of management and food service staff</td>
<td></td>
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<tr>
<td>- Awareness and advocacy campaign for clients of food</td>
<td></td>
</tr>
<tr>
<td>services.</td>
<td></td>
</tr>
</tbody>
</table>
Implement intervention portfolios

As previously discussed, intervention portfolios at the national level are not action plans but rather a statement of an effective, realistic and comprehensive approach to a problem given current knowledge. Implementation of intervention portfolios will require strategy development which translates the interventions into the particular action context (local, state or national) and takes into account the resources available, including local infrastructure and the special characteristics of the population or geographical area to be targeted.

An important link between national portfolios and their implementation in different contexts is the quality specifications of the interventions. Specification of public health interventions needed to manage a determinant or set of determinants will vary according to the:

- priority population served;
- delivery setting;
- type of public health activity to be utilised (eg health protection, health promotion or disease control);
- the management objectives;
- the determinant to be managed;
- the vehicle for delivery; and
- the specific attributes of the intervention.

There are a number of key ingredients for successful action including:

- involvement of stakeholders in strategy design;
- ensuring adequate infrastructure and resources;
- access to appropriate expertise;
- training and support for service providers to ensure workforce capability;
- linking with similar activities in other areas;
- establishing partnerships with relevant organisations and groups;
- the clarity of responsibility for leading, managing and maintaining operations;
- mechanisms to ensure community and client satisfaction; and
- building in evaluation from the start.

The Planning Framework for Public Health Practice

The Planning Framework for Public Health Practice (the framework) is a tool to improve planning and management in public health. It complements existing planning processes in public health and draws them together under a common, over-arching approach. Public health is a diverse field. However, there is enough commonality in public health issues, methods and practice to make a general planning framework both possible and necessary.

The framework is not a new definition of public health but a method for continually defining and reviewing what public health does. It promotes a rigorous, strategic and collaborative approach to planning. The method can be used both within specific areas of public health, and as an overarching process to integrate planning across different public health areas. In the latter sense, the framework promotes planning from a systems perspective.

The challenges in planning

The focus of public health planning has generally been on longer-term health outcomes. Whilst improved health outcomes are the ultimate measure of success, greater attention needs to be paid to the means by which these are to be achieved. Long lead times make it hard to link many public health interventions with health outcomes. Practice evaluation needs to focus on the intermediate indicators of success as well as the ultimate health outcomes. The framework is concerned with ensuring that public health action is as effective as possible.

In simple terms the planning task entails: defining the problem; working out what to do about it; acting; and evaluating what impact this has had. In the real world of public health however, it is more complex. It requires partnerships between government, communities and organisations, and collaboration across levels of government and between different sectors. The often multiple causes of public health problems need to be understood and judgements made about what can be changed. Judgements also need to be made about what levels of evidence are needed before action can be taken. Expertise from a diverse range of disciplines needs to be harnessed for effective action. Decisions may also need to be made about allocating resources between different public health needs.

The framework is a method for working through these issues systematically and collaboratively. It aims to contribute to public health planning in three broad ways,

i) A common language

Public health encompasses a wide variety of activities and structures within health and related services systems. It has evolved into a collection of vertical programs, which have a common focus on protecting and improving the health of the population, but which are quite distinct and separate in the way they are planned, funded and implemented. Many areas are well managed and effective, but a system to promote consistency and quality of activity overall is needed. Improved communication and coordination between areas is also an issue since responsibility for public health is split between levels of government and between various agencies. The framework will help address these issues, by providing a common method and language of planning.

The common feature of the diverse programs and services labelled “public health” is the focus on the determinants of health and the systematic management of these determinants. This is the framework’s starting point in defining a common approach to planning in public health.

ii) A systematic approach

The framework is intended to assist individual public health programs to achieve rigour and consistency in their planning. It promotes a through problem analysis; soundly based and comprehensive intervention approaches; considered decisions on public health investment; setting practice standards and evaluating results; clarity about who is responsible for what; and infrastructure to support action.

iii) Integrating action by recognising commonalities

Public health covers diverse areas but there are common determinants (especially social ones) and population groups which could be better addressed by working across specific issue boundaries and working with other sectors. By emphasising thorough problem analysis and a search for comprehensive solutions, the framework encourages artificial boundaries of administration and barriers between disciplines and vertical programs to be overcome.
Review portfolios

Intervention portfolios need to be reviewed to ensure their continuing relevance. This is one of the responsibilities of custodian groups.

A critical source of information for reviewing portfolios will be the performance and outcomes of the programs or strategies which apply the specified interventions. Systematic portfolio review will in large part rely on information from the evaluation of local, state and national level action. Strong links therefore need to be in place between custodians and national, state and local bodies responsible for implementing programs.

Reviews can be conducted periodically but also may be initiated in response to new evidence which changes the understanding of either the problem or the ways of dealing with it. This may arise as a result of:

- the emergence of new health risks or issues;
- changes in the communities or individuals at risk;
- the development of new technology;
- changed capacity to respond due for instance to the availability of new resources or the need to better utilise existing ones; and
- experience with implementation.
The portfolio method described in this document can be applied at any level to enable an evidence-based and systematic approach to planning public health activity.

The NPHP is auspicing a number of pilots in different public health domains to help disseminate and refine the portfolio approach. Portfolio exercises have been undertaken in the nutrition, injury, physical activity and environmental health areas. These provide a basis of experience in portfolio planning from which other public health areas can draw.

The establishment of custodianships for public health domains and action areas is an important part of an overall system of public health governance.

The notion of custodianship, as previously discussed does not entail a new layer of organisation. Rather it is about clarifying and making more consistent the roles and responsibilities of existing (and future) national bodies that are charged in some way with overseeing or advising on national public health strategies. Public health governance through custodianships is also concerned with clarifying and strengthening relationships between national groups, the National Public Health Partnership, the Australian Health Ministers Advisory Council (AHMAC) and the Australian Health Ministers Conference.

Further system level developments also include performance monitoring and improvement; resource allocation; and building public health infrastructure and capacity. These are the subject of various NPHP initiatives underway.

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9 A report on the nutrition pilot is available – "An Intervention Portfolio to Promote Fruit and Vegetable Consumption – Part 1 & Part 2, 2000 – available from the NPHP Secretariat.
Public Health Domains and their related Action Areas

The table below presents the major domains of public health activity and the main areas within each domain on which public health action is focussed. The categorisation of “domain” and “action area” will depend on the needs of users of the framework, so the following table is not intended to be definitive.

Public Health “domains” reflect arenas of health gain, in many cases categorised by disease or health problem. Within each domain are specified “action areas” which reflect the real activity of public health. The action areas represent the primary determinants of health outcomes and the areas where prevention, health protection and health promotion are key interventions. “Action areas” are defined by assessing health risks and benefits, what can be done about them and how best to organise action. The action areas will therefore vary over time.

It is important to note that many of the “action areas” could themselves constitute a domain in their own right, given their health and societal significance. For example, “food and nutrition” could be seen as a domain with action areas in food safety, food policy, nutrition education, breastfeeding etc. In the following table this area is divided up on the basis of the different areas of health gain represented – for example, food borne illness and communicable disease, nutrition and chronic, non-communicable disease, infant feeding and “healthy growth and development”, with food supply as an action area for environmental health.

The boundaries between the domains are not hard and fast, as many public health problems are interconnected. For example, while substance abuse can be seen to constitute a “domain” made up of subcategories such as illicit drug use, alcohol abuse, etc., substance abuse in turn is frequently a contributing factor to both intentional and unintentional injury and, similarly, can be both a cause and result of mental health problems. Thus it is important to see the domains as overlapping groupings.

Table: Major Domains of Public Health Activity

<table>
<thead>
<tr>
<th>PUBLIC HEALTH DOMAINS</th>
<th>PUBLIC HEALTH ACTION AREAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental health</td>
<td>· Water quality&lt;br&gt;· Air quality&lt;br&gt;· Food safety and quality&lt;br&gt;· Contaminated land&lt;br&gt;· Health aspects of waste management&lt;br&gt;· Vector-borne diseases&lt;br&gt;· Hazards in the built environment</td>
</tr>
<tr>
<td>Communicable disease</td>
<td>· Blood-borne disease&lt;br&gt;· Food-borne disease&lt;br&gt;· Water-borne disease&lt;br&gt;· Air-borne disease&lt;br&gt;· Vector and animal-borne disease&lt;br&gt;· Microbial resistant disease&lt;br&gt;· HIV/AIDS and STDs&lt;br&gt;· Vaccine-preventable disease&lt;br&gt;· Nosocomial infections</td>
</tr>
<tr>
<td>PUBLIC HEALTH DOMAINS</td>
<td>PUBLIC HEALTH ACTION AREAS</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Healthy growth and development              | - Antenatal and perinatal care<br>- Care in infancy and early childhood<br>- Infant feeding<br>- Parenting effectiveness<br>- Early life experiences |}
| (focus on childhood)                        |                                                                                          |
| Lifestyles and health                      | - Food and nutrition<br>- Physical activity<br>- Tobacco control<br>- Alcohol use<br>- Sun protection<br>- Cancer screening and early detection |
| (focused on health gain in the area of non-communicable disease - includes cardiovascular disease, diabetes, obesity, renal disease, cancers, respiratory diseases, musculoskeletal disease) |                                                                                          |
| Oral health                                 | - Dental caries<br>- Fluoridation<br>- Oral hygiene                                     |
| Injury prevention                           | - Transport-related injury<br>- Work-related injury<br>- Fall injury among children and older people<br>- Sport and recreation-related injury<br>- Interpersonal violence, intentional injury, self-harm and firearms<br>- Consumer safety - Burns and scalds injury<br>- Poisoning in children<br>- Water safety |
| Substance abuse                             | - Hazardous and harmful alcohol consumption<br>- Opiate use and dependency<br>- Cannabis use and dependency<br>- Use of amphetamines<br>- Use of other drugs<br>- Inappropriate use of therapeutic drugs and other poisons<br>- Tobacco use |
| Sexual and reproductive health              | - Contraception (with respect to teenage pregnancy, family planning etc)<br>- Female genital mutilation<br>- Sexual health |
| Mental health and wellbeing<sup>1</sup>     | - Depression<br>- Suicide<br>- Social support & social networks<br>- Building community capacity<br>- Sense of control & self efficacy<br>- Resilience |
| (includes focus on psychosocial factors eg social support, social capital) |                                                                                          |

<sup>1</sup> In this categorisation, the domain “Mental Health and Wellbeing” includes the psychosocial determinants of health such as “sense of control”, supportive social networks and community capacity. It is acknowledged that psychosocial determinants are relevant to most (if not all) of the other domains. The table above reflects the emerging nature of psychosocial determinants as an area of public health action and the current interest in addressing these as risk factors in mental health. It also reflects the need to maintain the classification as simple as possible. The assessment of risks and benefits in all of the above domains, would need to consider the effect of psychosocial determinants wherever relevant.