



Prioritizing areas for action
in the field of population-based
prevention of

CHILDHOOD OBESITY

A SET OF TOOLS FOR MEMBER STATES

to determine and identify priority areas for action



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Abbreviations and acronyms

ACE	Assessing Cost-Effectiveness
ANGELO	Analysis Grid for Elements Linked to Obesity
BMI	Body Mass Index
DALYs	Disability-adjusted life years
DPAS	Global Strategy on Diet, Physical Activity and Health
FAO	Food and Agriculture Organization
ICERs	Incremental Cost Effectiveness Ratios
IOTF	International Obesity Task Force
NCD	Noncommunicable Disease
NGO	Nongovernmental Organization
mPAST	Modified Problem and Solution Tree
RCT	Randomized Controlled Trial
SES	Socioeconomic Status
SMART	Specific, Measureable, Achievable, Relevant, Time-bound
UNICEF	United Nations Children Fund
WHA	World Health Assembly
WHO	World Health Organization

Explanation of terms

Evidence-based (medicine/practice/policy):

This term is derived from the definition of evidence-based medicine which is the “conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence-based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research” (1). Evidence-based practice and evidence-based policy both have the meaning of bringing the evidence from systematic analyses of the literature to decision-making for practice and policy.

Evidence-informed approach:

Evidence alone is not sufficient to guide appropriate decision-making (2) and true evidence-based policy-making can be rare (3). Rather, evidence-informed approaches involve a process in which evidence is used to inform the formulation and implementation of policy, balanced with a number of other interests e.g. stakeholder considerations, funding limitations, costs and cultural factors. The direct links between the evidence in the literature and a policy decision are more apparent in a true evidence-based approach compared to an evidence-informed approach, where multiple other considerations may dominate. A true evidence-based obesity prevention plan based only on the limited published trials available would be incomplete and most likely, ineffective; thus other inputs to the plan may dominate, including those providing less traditional forms of evidence (4).

Practice-based and stakeholder informed:

This term refers to the process of decision-making that takes into account the practical realities of implementation and the views of a wide variety of stakeholders (preferably having engaged stakeholders from the start of the decision-making process).

Practice-based evidence:

This term reflects a step up from seeking practitioners’ opinions to explicitly using evidence (in its widest meaning) (4) from practice (which is not captured in a literature review) to inform decision-making.

Policy:

Several concepts relating to the term “policy” are used throughout this document. Generally, the term “policy” is used to refer to “a statement of [government] intent, and its implementation through the use of policy instruments” (5).

“Policy tools” or “policy instruments” refers to the methods used to achieve the objectives of a policy (5). These policy tools may include, for example, taxes, health promotion programmes, laws and regulations or advocacy.

“Policy interventions” are the specific actions implemented in order to achieve set objectives. In this report we include all intervention options under this term including programmes, social marketing, education, and events, as well as legislation, regulation, rules and other enforceable policies. For example, in relation to fruit intake at school, the policy interventions could include curriculum activities, specific policies or rules about fruit in the canteen, fruit-related events, and social marketing campaigns.

Whereas in some contexts, the term “policy” is used to refer to a specific set of rules (e.g. for food served in a school canteen), in this document these are designated as “specific policies” to distinguish them from the broader statement of intent mentioned above.

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Executive summary

The prevalence of overweight and obesity has increased substantially over the past three decades. Due to this rapid prevalence increase and the associated health consequences, obesity is considered one of the most serious health challenges of the early 21st century. While the need for preventive action is increasingly recognised, policy implementation often occurs in a non-systematic, ad hoc manner. Policy actions are likely to be more cohesive and comprehensive if decision processes are more systematic, evidence-based and stakeholder-informed.

The purpose of this document is to provide a set of tools for Member States to determine and identify priority areas for action in the field of population-based prevention of childhood obesity. The tools presented are intended to facilitate a prioritization process that is both systematic and locally relevant.

A number of approaches exist for setting priority areas for action. The following steps are common to all approaches:

1. Problem identification and needs analysis
2. Identification of potential solutions
3. Assessment and prioritization of potential solutions
4. Strategy development

Three priority-setting approaches are described in this document: the WHO Stepwise framework for preventing chronic disease, the Modified Problem/Solution Tree (mPAST) process and the ANGELO (Analysis Grid for Elements Linked to Obesity) process.

While these priority-setting approaches all contain common elements, the contexts in which they are used, the processes they involve, and the technical analyses differ. Selection of the most appropriate tool is dependent on the purpose, desired outcomes and criteria to be used for assessment (for example, population impact or effectiveness, costs, cost-effectiveness, feasibility, relevance, strength of evidence base, effects on equity, sustainability, acceptability to stakeholders), level of resources (including financial, technical expertise and time) and data available.

The WHO Stepwise framework for preventing chronic diseases considers feasibility, impact and affordability, and has been developed for use mainly in low- and middle-income countries with limited resources and funding. The Modified Problem/Solution Tree process has been used for identifying barriers to action and solutions to overcome them, and uses factors such as relevance, feasibility, acceptability and effectiveness during the priority-setting process. The ANGELO process has been used to develop community action plans, and takes into account importance (which incorporates both relevance and impact) and feasibility as part of the prioritization process. All the approaches apply “due process” by working with stakeholders as an integral part of prioritization, and use the best available evidence to inform decisions. Detailed explanations of the WHO Stepwise framework for preventing chronic disease, Modified Problem/Solution Tree process and the ANGELO process are given, including examples and sample worksheets.

Throughout the document, it is stressed that, regardless of the tool selected, due consideration must be given to local, regional or country-specific factors when analysing potential areas for action. It is also essential to take into account all relevant sectors and settings in order to identify areas for action in a comprehensive way. Finally, the identification of key stakeholders and the outlining of their

potential roles and responsibilities is critical for the prioritization process. Each of the priority-setting approaches will require facilitation expertise to manage the process of working with the relevant stakeholders so that the priority actions to recommend are realized.

Priority-setting to create a set of recommended, promising policy interventions is an essential part of evidence-informed policy-making; however, it is only the beginning of the process. The recommendations need to be accepted by the community leaders or politicians who make the decisions and this usually takes an advocacy effort. Once endorsed, the actions need to be funded and implemented requiring project or programme management skills.

Introduction

1.1 Childhood obesity

Over the past three decades the prevalence of overweight and obesity has increased substantially (6). Globally, an estimated 170 million children (aged < 18 years) are estimated to be overweight (7), and in some countries the number of overweight children has trebled since 1980 (8). The high prevalence of overweight and obesity has serious health consequences. Raised body mass index (BMI) is a major risk factor for diseases such as cardiovascular disease, type 2 diabetes and many cancers (including, colorectal cancer, kidney cancer and oesophageal cancer) (9, 10). These diseases, often referred to as noncommunicable diseases (NCDs), not only cause premature mortality but also long-term morbidity. In addition, overweight and obesity in children are associated with significant reductions in quality of life (11, 12) and a greater risk of teasing, bullying and social isolation (7). Due to the rapid increase in obesity prevalence and the serious health consequences, obesity is commonly considered one of the most serious health challenges of the early 21st century (6).

1.2 The Global Strategy on Diet, Physical Activity and Health

The *Global Strategy on Diet, Physical Activity and Health (DPAS)* was developed by the World Health Organization (WHO) in 2004 to address the increasing prevalence and burden of NCDs (13). More specifically, the strategy focuses on improving global diet and physical activity patterns, two of the main risk factors for NCDs.

The four main objectives addressed by DPAS are:

1. To encourage the implementation of public health action and preventative intervention to reduce the risk factors which result from unhealthy diet and physical inactivity.
2. To increase recognition of the implications of unhealthy diet and inadequate physical activity levels and knowledge of preventative measures.
3. To promote policies and action plans at all levels to address diet and physical activity behaviours.
4. To encourage monitoring, evaluation and further research.

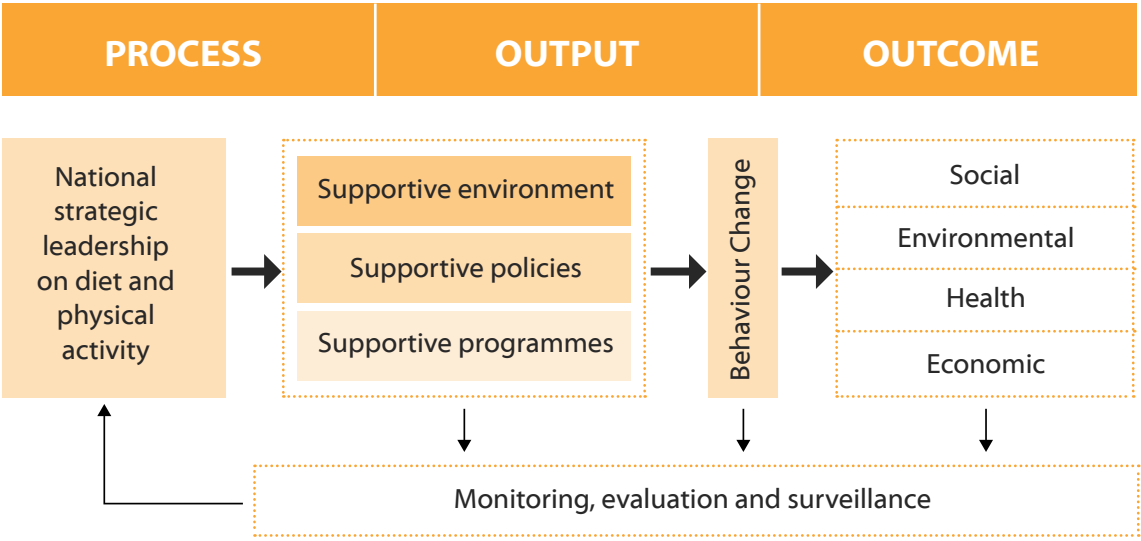
DPAS calls for priority to be given to the socially, economically and politically disadvantaged, and for the unhealthy diet and physical activity behaviours of, in particular, children and adolescents to be addressed (13).

1.3

WHO framework for the implementation of DPAS at country level

WHO developed a framework to assist Member States in monitoring and evaluating the implementation of DPAS (see Figure 1) at country level (14). The framework proposes that national governments demonstrate leadership and facilitate collaborative action in the implementation of policies and programmes to promote supportive environments for health. These actions are expected, in turn, to facilitate positive changes in diet and physical activity behaviours. The framework indicates that immediate- short- and long-term health, social, environmental, and economic outcomes should be measured regularly to assess changes. Furthermore, monitoring, evaluation and surveillance are core aspects of the implementation framework.

Figure 1 Schematic model demonstrating DPAS implementation framework at country level



The original schematic model developed by WHO for monitoring the implementation of DPAS has subsequently been modified to focus specifically on areas for obesity prevention action. This modified model, with a related series of analysis grids, is outlined in Appendix 1. The model enables a comprehensive and systematic analysis of potential obesity prevention action areas in multiple sectors and settings and incorporates three public health promotion approaches for tackling the issue: “Upstream” or socioecological, “Midstream” or behavioural and “Downstream” for health services (15).

1.4 Purpose and structure of document

In December 2009, WHO held a forum and technical meeting on population-based prevention strategies for childhood obesity. Participants of this meeting proposed a series of actions for addressing childhood obesity, including the development of suitable tools to be adopted by Member States (16).

This document aims to provide a set of tools for Member States to determine and identify priority areas for action in the field of population-based prevention of childhood obesity. The information provided is to guide stakeholders in conducting a systematic, evidence-informed approach to identifying priority areas for action.

In section 2, an overview of the priority-setting process is given, as well as guidance on selecting the most appropriate approach. The likely sectors and settings and relevant stakeholders in the area of childhood obesity prevention are then outlined. Examples of common criteria used in the priority-setting process are described, and three priority-setting tools are detailed in sections 3, 4 and 5 as potential approaches for prioritizing possible options.

The processes outlined in this document are provided in the context of childhood obesity prevention; however, they can be used by Member States to identify and determine priority areas for action in relation to other NCDs.

Setting priorities

2.1 What is amenable to priority-setting?

It is important to recognise that the priority-setting processes outlined within this document are readily applied to specific actions which have a direct effect on people or environments, such as health promotion programmes to promote physical activity or policies to restrict food marketing to children. However, a large number of more indirect measures exist, and these strengthen the infrastructure and systems upon which the more direct actions depend. These “back of house” systems are critically important, if not more so than the more visible “front of house” policies and programmes, and must form part of any comprehensive plan. Approaches for setting priorities among these systems interventions are not well developed and are therefore at risk of being forgotten in the process of setting the priorities for the visible “front of house” interventions. A list of “back of house” systems to consider for inclusion in a comprehensive plan is shown in Box 1.

Box
1

Systems needed to support specific interventions

- | | |
|---|---|
| • Leadership support | • Evidence (monitoring, evaluation, research) |
| • Policy development and implementation | • Knowledge exchange |
| • Workforce development | • Allocation of resources (capacity) |
| • Organizational relationships | • Communications and advocacy |
| | • Networks |

2.2 The priority-setting process

A number of approaches exist for setting priority areas for action in obesity prevention. As illustrated in Figure 2, the following steps are common to all approaches:

- Problem identification and needs analysis
- Identification of potential solutions
- Assessment and prioritization of potential solutions
- Strategy development

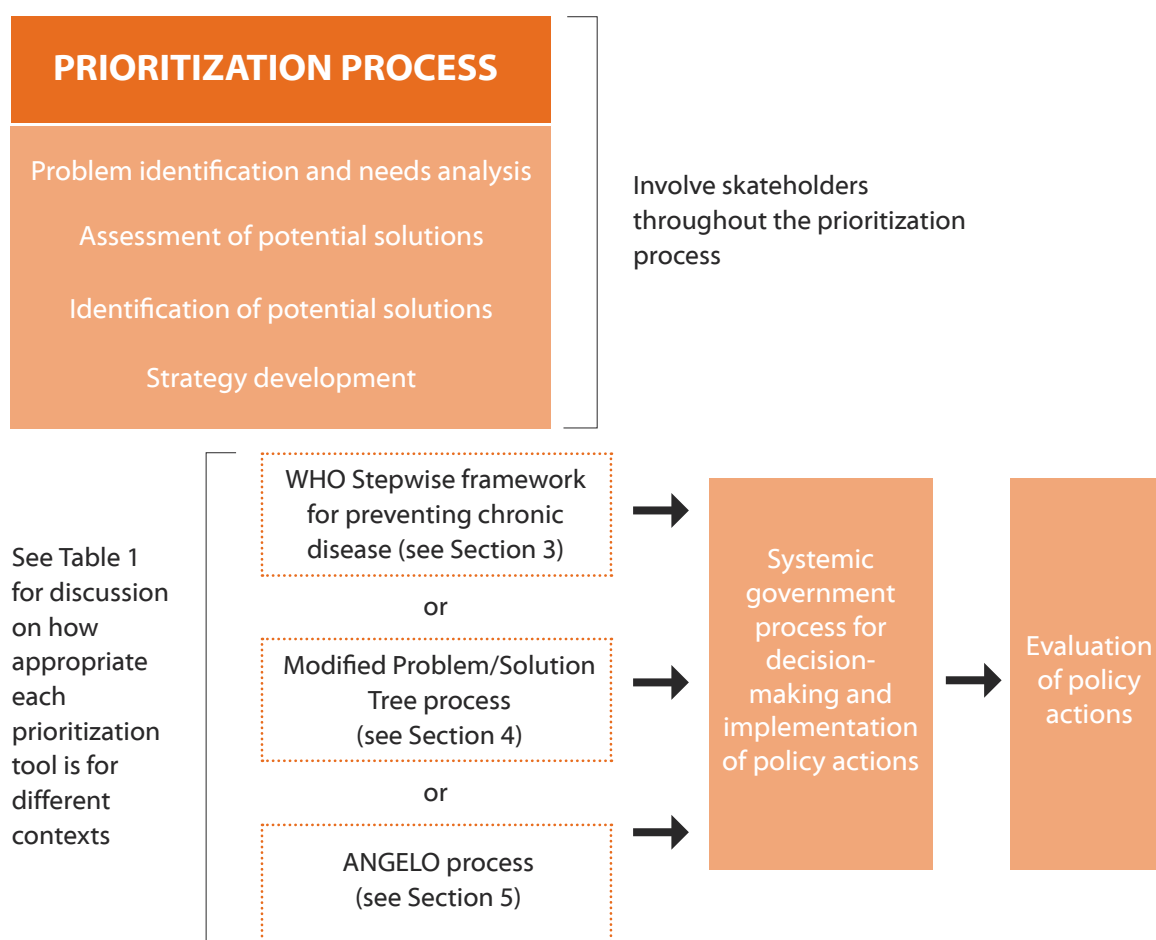
In addition to the three different priority-setting approaches detailed in this document (the WHO Stepwise framework, the Modified Problem/Solution Trees process, and the ANGELO process), references have been provided on the Assessing Cost-effectiveness (ACE) process (17–19). The ACE process is a highly rigorous approach that considers many factors within a two-step process incorporating both quantitative and qualitative measures¹.

¹ Due to the more complex and technical nature of the ACE process it is not presented in this document; however references which outline its methods and use can be found in “Additional sources of information” at the end of this document

In undertaking a prioritization exercise, it is important to recognise that no single intervention is likely to prevent obesity. The determinants of obesity are complex and varied (20) and solutions will need to be multifaceted. Depending on the area, region or country, certain actions or specific policy options will be more important, appropriate and feasible than others, hence, it is imperative that decisions regarding policy options and priority areas for action are made “locally.” Potential areas for action must be carefully analysed, and local, regional or country-specific factors considered. Similarly, historical, political, cultural, social and economic factors or constraints need to be taken into account, as do existing and available resources, policies and systems. It is recognised furthermore that preventive action and policy implementation often occurs in a non-systematic, “ad hoc” manner.

However, actions are likely to be more cohesive and comprehensive if decision processes are more systematic, evidence-based and stakeholder-informed. The tools presented in this document are intended to facilitate a prioritization process that is systematic and locally relevant.

Figure 2 Schema for a systematic approach to prioritizing areas for action



While the priority-setting approaches described in this document all contain common elements, differences exist in the contexts in which they are used, the processes they involve, and in the criteria and technical analyses:

The WHO Stepwise framework considers feasibility, impact and affordability, and has been developed for use mainly in low- and middle-income countries with limited resources and funding.

The Modified Problem/Solution Tree (mPAST) process has been used for identifying solutions and barriers to action, and uses factors such as relevance, feasibility, acceptability and effectiveness during the priority-setting process.

The ANGELO process has been used to develop community action plans, and takes into account importance (which incorporates both relevance and impact) and feasibility as part of the prioritization process.

All approaches involve working with stakeholders throughout, and use evidence in varying forms (dependent on the availability of data in the specific country, region or area) to inform decisions.

2.3 Selection of the most appropriate approach

Table 1 describes several characteristics of three prioritization approaches and is intended to assist stakeholders in different regions to select the most appropriate approach, or range of approaches, for their specific circumstances. In selecting the approach most appropriate or most fitting, it is recognised that whichever is chosen, it will always be necessary to adapt it to the specific needs of the country, region or area to which it is being applied.

It should be noted that the tools can be adapted for use in other situations. Although the ANGELO process has been used primarily to develop community action plans, the framework has been adapted for use by policy-makers at national level in Europe (ministries of health and other) to prioritize strategies for effective food and nutrition initiatives. (The STEFANI model is an example of this (21)). The mPAST process can be used similarly at national as well as subnational and local levels.

Table 1 Characteristics of three priority-setting approaches

Priority-setting approach			
Characteristic	WHO Stepwise framework for preventing chronic disease (see section 3)	Modified Problem/ Solution Tree process (see section 4)	ANGELO process (see section 5)
Purpose	For ministries of health (national and subnational policy-makers) to develop a unifying course of action (for example, an NCD plan of action)	To identify barriers and potential policy solutions for various government portfolios	To develop a community action plan
Outcomes	Action plan or strategy with specific activities and timelines	List of problems and solutions	Community action plan with agreed objectives and strategies
Key criteria used	Feasibility Impact Affordability Area of impact	Relevance Feasibility Acceptability Effectiveness Costs	Importance (including relevance and impact) Feasibility
Level of financial resources required	Low	Low	Low
Level of human resources required: Time	Low	Low	Low
Level of human resources required: Technical level	Some expertise in similar processes	Some expertise in running process, some expertise in assessing basic effectiveness and costs	Some expertise in running process
Level of data required	Low	Low to medium (for basic costs and effectiveness)	Low
Timeline (based on working examples)	Can be completed in less than three months – Two workshops	Can be completed in less than three months – Two to three workshops	Situation analysis and stakeholder engagement (few months depending on size of community) – Two day prioritization workshop (plus follow up period of refinement with key stakeholders and those unable to attend workshops)
Stakeholders	Representatives of all sectors and settings	Policy advisors from all sectors	Community leaders and stakeholders from multiple sectors and settings

2.4 Consideration of sectors and settings

There are many sectors and settings relevant to action in the area of population-based childhood obesity prevention. In order to systematically identify all areas for action and to create a comprehensive list of potential options, it is essential to consider all sectors and settings.

Upstream or socioecological approaches to obesity prevention will need to consider a range of sectors. These include all aspects of the food system (such as agriculture, food processing, food distribution, marketing, retail and food service sectors) and sectors that influence the physical activity environment (such as the infrastructure, transport, and education sectors). In addition, policy actions directed at the underlying determinants of health could target the finance, trade and education sectors. (See Appendix 1 for more details.)

Midstream or behavioural approaches to obesity prevention will typically be targeted at the settings level, where programmes, social marketing, education, and other initiatives to motivate individuals to change diet and physical activity behaviours can be implemented (15). These settings may include childcare centres, schools, community and recreational facilities, households, churches or villages.

Downstream approaches are typically directed towards supporting health services and medical interventions. With respect to the prevention of childhood obesity, these approaches occur predominately in the primary care setting, whereas treatment of obesity may also occur in secondary and tertiary care settings.

2.5 Relevant stakeholders

The *Global Strategy on Diet, Physical Activity and Health* states that a combined, collaborative approach is required to address and change diet and physical activity habits effectively (13). In light of the complex and diverse determinants of obesity and the varying influences that many stakeholders and sectors and settings have on food and physical activity environments, simultaneous action is required.

The identification of key stakeholders is an essential step in the prioritization process. Table 2 outlines key stakeholders in the area of childhood obesity prevention and their potential roles and responsibilities. A key factor in engaging the different stakeholder groups is strong leadership from national governments. This leadership is essential to ensure that all stakeholders are working towards common aims and objectives and also to ensure coordinated and sustained action (22). By working with key stakeholders to derive a plan of action, public health advocates can increase the relevance, ownership, and the likelihood of their recommendations being implemented. Coordination, not only between government departments but all relevant stakeholders, will contribute to the effectiveness and efficiency of obesity prevention actions.

Table 2 Roles and responsibilities of potential stakeholders

Stakeholder	Rationale for engagement	Potential roles and responsibilities
Government (National, subnational, local)	Government is pivotal in achieving a comprehensive approach to the prevention of childhood obesity. Government has responsibility for health protection and preventive action from a societal level to community level (23).	There is potential for governments to take action in four main areas: 1. Leadership – across all tiers of government and across all relevant ministerial departments, for example health, infrastructure and industries, treasury and agriculture. 2. Regulatory policy – for example; “hard” policy approaches, such as fiscal tools (e.g. taxes or subsidies), laws, legally-binding policy and regulations (24) or self-regulation agreements in which governments and industry reach mutual agreements whereby laws and regulations are not imposed if industries agree to change their practices in order to meet objectives (5). 3. Funding – for infrastructure (e.g. public transport), research institutions, training, provision of programmes, monitoring population health and evaluation of research strategies 4. Advocacy (25) – ensuring a collaborative approach across multiple sectors and engagement of all interested stakeholders including citizens, the private sector, civil society, international organizations and other governments who have influence. Also ensuring platforms are available for the sharing of knowledge, evidence and best-practice examples.
International and regional organizations e.g. WHO; UNICEF; World Bank; FAO; World Trade Organization; European Union	Relevant goals of international organizations include: the promotion of health, creation of fair and equitable societies (23), improvement in living standards, reduction in poverty and contributing to the economic growth and development of nations. Collaborative action and knowledge sharing between countries globally is beneficial given the common risk factors.	All international and regional organizations that impact on the food system or physical activity environments should promote and support strategies which address public health, and aim to ensure that their actions do not unintentionally impact negatively on food or physical activity. International and regional organizations which have appropriate jurisdiction such as the World Trade Organization, the World Bank or the European Union need to ensure that public health protection (including direct, indirect or potential unintended impacts) is considered and incorporated into all international agreements, for example, agricultural trade, health and environmental agreements, and international standards/codes. WHO and other United Nations bodies, such as UNICEF, have important roles in promoting a coordinated approach across all relevant international agencies.

Private sector Includes the food industry, media/communication industry, car and transport industry, entertainment industry and consumer retailers	The private sector is highly influential and can act either as a promoter or a barrier to healthy diet and physical activity behaviours.	The private sector has core responsibilities for ensuring that the actions which are directly under their control, are increasingly health promoting. For the food industry², this includes formulation of healthier food products and being responsible about marketing and the provision of nutrition information. For the media, it includes responsible reporting about obesity and body size. For the commercial weight loss industry, it includes responsible marketing and information for clients. There are also responsibilities for the private sector to not undermine the development of public health policies through its lobbying efforts. The private sector can also substantially contribute to monitoring systems by sharing databases with public institutions in a way that protects commercial sensitivity but informs governments' efforts to improve the healthiness of the food environment. Additionally, all private organizations and businesses should be promoting healthy eating and physical activity to their employees.
Civil society and non-governmental organizations e.g. unions; civil society groups; scientific organizations; academia; public interest organizations	These organizations can help to protect public interests and can have an influential role when working with governments and the private sector by acting as a "voice for the people."	The role of civil society and nongovernmental organizations (NGOs) is largely one of advocacy, i.e. "arguing the case" and monitoring progress. They should advocate for the creation and maintenance of healthy diet and physical activity environments and for the provision of programmes and policies to address obesity. They also play an important role in reporting and campaigning on performance of other stakeholders. Additionally, civil society and NGOs can implement strategies to promote healthy eating, increased physical activity levels and healthy body weight. This can occur through programmes, social marketing and education. The financial capacity of stakeholders in this sector is limited – often due to relatively small budgets in comparison to governments and the private sector. These bodies can also contribute to research, evaluation and monitoring (e.g. supporting research programmes at universities).

² The food industry includes primary production, food processing sector, food distribution sector, food marketing/information, food retail sector and food service sector.

2.6

Selection of priority-setting criteria

Many criteria can be considered in the priority-setting process. In reality, only a subset of the potential criteria is likely to be used due to the practical constraints associated with considering all factors. Examples of possible criteria are shown in Box 2 below, and discussed, in turn, in this section with practical examples of their use in the priority-setting process provided where possible.

Box
2

Examples of priority-setting criteria

• Population impact or effectiveness • Costs (affordability) • Cost-effectiveness • Feasibility • Relevance	• Strength of evidence base • Effects on equity • Sustainability • Acceptability to stakeholders • Other positive or negative effects of the intervention
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Population impact or effectiveness

The details of population impact or effectiveness of a given intervention can be assessed at various levels:

At a highly detailed or technical level, the effectiveness of an intervention can be modelled to the total number of disability-adjusted life years (DALYs) averted, thereby taking into account total deaths and years of illness saved as a result of the intervention. The ACE process typically adopts this approach and gives the best estimates (and associated levels of confidence around those estimates) of the population impact of the intervention relative to a comparator (typically, “standard practice” (17)). The use of DALYs as the metric has the advantage of enabling comparison of results across multiple interventions for other conditions, e.g. an obesity prevention programme can be compared with drug treatment for hypertension, a cataract operation, or an immunisation programme.

A less detailed approach is to use a cruder measure of effectiveness such as estimated reductions in BMI or reductions in mortality. Where there is insufficient information to calculate these measures, informed stakeholder assessments of likely effectiveness can be used as an alternative – although this approach is likely to be the least accurate. In Fiji and Tonga, for example, when assessing the likelihood of effectiveness and level of effect of policy interventions on diet, a simple scoring system was adopted (26) (further information is given in section 3 under Stage 3).

Costs

The costs of interventions are very important for political decision-makers. Costs can be assessed in many ways, but mostly they are considered as incremental or additional costs of the intervention, over and above current practice. Various levels of costs need to be considered. The *financial* costs are the direct costs of the intervention (e.g. the costs of getting health promotion materials developed, printed and used by the intervention programme staff). The *economic* costs take into account other people's time involved in the intervention, i.e. time that could have been spent on other activities (opportunity costs). For example, the amount of time primary care nurses, teachers or volunteers spend in delivering and explaining the health promotion materials is included. The perspective is also important – e.g. who is paying? A health care perspective is perhaps the narrowest perspective – nurse time is included but not teacher or volunteer time; the government perspective includes the nurse and teacher time; the societal perspective includes everyone's (including volunteers') time allocated to the intervention. The costs can be combined with effectiveness to give cost-effectiveness (see following point) but alone they give important information on the *affordability* of the proposed intervention. Some interventions, such as bariatric surgery for obesity, may be cost-effective (27, 28) at the same time as being unaffordable for most countries. In other words, bariatric surgery has a high cost and a high impact and this makes it cost-effective when described in terms of dollars per DALY averted. However, it is the absolute cost of providing a bariatric service in terms of dollars used from the health budget which might be the critical factor in deciding whether or not it should be funded.

Cost-effectiveness

As previously noted, the outcomes for an obesity prevention intervention can be measured in terms of its BMI or DALY impact on the population. When combined with costs, these create cost-effectiveness results, or more technically, Incremental Cost Effectiveness Ratios (ICERs) (17). This metric speaks to how much impact can be expected for a given investment, i.e. value for money. Some health systems use ICERs as a central part of the process of determining which new drugs, operations, or health programmes should be funded by the public purse.

Feasibility

Feasibility addresses whether or not it is realistic or possible to implement an intervention. There may be clear technical, legal, trade-related or workforce capacity barriers that could have a major influence on whether or not an intervention can go ahead. While this can be complex and time-consuming, it is an important component of priority-setting (29, 30).

In Fiji and Tonga, stakeholder groups facilitated by Snowden et al (26) assessed policy interventions for improving diets using the following criteria: technical feasibility, cost feasibility, trade-related legal feasibility, political acceptability and cultural acceptability. Each criterion was given a weighting by the stakeholder group based on how important they considered the criterion to be in decision-making. This allowed the scores to be multiplied by the weightings, in order to provide a single score with which to compare interventions.

Relevance

This criterion is often applied early in the prioritization process. As an example of relevance, if the majority of children already walk or cycle to school, or if they mostly come by bus because they live far away from the school, an intervention that aims to increase walking and cycling to school is not very relevant.

Strength of evidence base

This criterion relates to the level of confidence that stakeholders have in the evidence that is used to judge effectiveness and costs of an intervention (18). Estimates that use high quality trial data (31–33) will have a higher level of confidence in the evidence. Various approaches can be used to assess the strength of evidence including the Grading of Recommendations Assessment, Development and Evaluation (GRADE) system, the Australian National Health and Medical Research Council evidence hierarchy (34), the American College of Chest Physicians approach (35), the Oxford Centre for Evidence-Based Medicine approach (36), the Scottish Intercollegiate Guidelines Network approach (37), the US Preventive Services Task Force approach (38) and the US Task Force on Community Preventive Services approach (39).

The GRADE system, used by WHO to develop guidelines, rates evidence according to quality of evidence (four levels: high, moderate, low, and very low) and strength of recommendation (strong: high quality evidence that an intervention's desirable effects clearly outweigh its undesirable effects, or do clearly not, or weak: uncertainty about the trade-offs due to low quality evidence or because desirable and undesirable effects are closely balanced) (40).

Effects on equity

An intervention which relies on end-user engagement and uptake (such as social marketing or health promotion programmes) risks having a higher uptake within the more advantaged groups and therefore increasing social inequalities. This can be mitigated by targeting more specifically the intervention towards the more disadvantaged populations. For example, social marketing messages can be more tightly segmented or delivered to ensure higher uptake by these subpopulations and similarly, the roll out and support systems for health promotion programmes can be targeted at groups with greater needs. The advantage of regulatory interventions, such as restrictions on food marketing to children or enforced school food policies, is that they apply across the board and thus may decrease inequalities.

Sustainability

Sustainability refers to the durability of the intervention and considers such factors as:

- the level of ongoing funding support required;
- the community empowerment and capacity building and level of policy support likely to be achieved;
- the likelihood of required changes in behaviours, practices and attitudes being achieved on an ongoing basis.

Regulations and environmental changes tend to be more sustainable than health promotion and social marketing programmes targeting individuals to change behaviours because of the ongoing need for funding to maintain the effect. Once a practice becomes a social norm (as has non-smoking in countries with strong tobacco control policies), this social reinforcement of healthy behaviours significantly increases sustainability. Achieving a new social norm (for example what is considered appropriate food to give to children in day care) should be a target of interventions.

Acceptability to stakeholders

This criterion refers to the anticipated acceptability of proposed interventions to the various stakeholders affected by the intervention (patients, parents and carers; the general community; third-party funders; health service providers; government and the private sector). Acceptability, by its nature, is a difficult criterion on which to find empirical data. It may be linked with the feasibility criterion as outlined in the example in "Feasibility" above.

Other positive or negative effects of the intervention

This refers to side-effects – both positive and negative – arising from an intervention. These might include impacts such as other health consequences (for example, anxiety or depression stemming from stigmatisation); environmental consequences; social capital (for example, from empowered communities or improved social networks); increased household costs; or other economic consequences (for example, impact on industry). These can be assessed using health, environmental or social impact assessment methods (41, 42). Care would need to be taken to ensure that any consequences noted under this criterion were not already captured in the outcome measures of effectiveness or cost-effectiveness. A health and social impact assessment screening tool has been developed and used with stakeholders in Fiji and Tonga and was found to be extremely important in influencing prioritization of interventions (26).

Other considerations

- **“Lighthouse” effects**

It is important to recognise that some interventions will not score well based on the criteria outlined above, but there may still be a rationale for including them in a comprehensive plan as a “lighthouse” to show the way. One example might be in relation to school canteens. In Australia, approximately 2–3% only of a child’s total annual energy intake comes from the school canteen (43), thus a change to serve healthier food in school canteens will have a negligible effect on a child’s energy intake. However, if there is going to be a major effort to improve child nutrition, it makes no sense to allow the school canteen to be filled with unhealthy food, and indeed there are strong grounds for using the school canteen as the lighthouse to show the way on how to improve healthy food choices (44). Another example might be programmes promoting active transport to school. If there is a broad strategy to increase active transport (to reduce pollution and congestion), reducing car trips to take children to school is thus an obvious target and some lighthouse programmes may be warranted to highlight the issue and role model the solutions. If some of these programmes for example, “Walking School Buses” prove to be very cost-ineffective (45), they still may be recommended for inclusion in a comprehensive plan as a lighthouse intervention, *provided* that is the reason for inclusion and not because they are considered effective or cost-effective in their own right.

- **Mitigating barriers**

The identification of problems with potential interventions does not necessarily mean that the strategy/policy should not be adopted. If there are aspects of the assessment that indicate its value (such as high likely effectiveness) but one or more other assessments were negative (such as high cost, unacceptable to stakeholders), consideration can be given to either modifying the policy (to deal with the problems) or developing mitigating approaches. For example, the policy might be high-cost to implement, but funding from external sources might be viable. The policy might be unpopular with stakeholders, but there may be a mitigating approach which would make it acceptable, such as a form of support for affected stakeholders.

- **Synergistic effects**

Some interventions may not be cost-effective or reach a high priority status on their own, but as a package that might be expected to have synergistic effects, they could be recommended. The following interventions could be considered individually or as part of an integrated package around healthy school food: national policy for school food; social marketing about healthy food choices for children; canteen support organization; traffic light labelling system; school curricula incorporating education on healthy eating; fun, healthy food events at school and so on. It is important to recognise that priority-setting processes can “split” the interventions to consider each one individually or combine them and consider them as a whole. Splitting runs the risk of each component not getting to a high priority and combining runs the risk of large interventions with boundaries which are difficult to define and uncertain potential synergies, overlaps, or redundancies which might occur among the elements.

The WHO Stepwise framework for preventing chronic diseases

The WHO Stepwise framework for preventing chronic diseases (46) was developed to assist ministries of health – particularly in low- and middle-income countries – in their efforts to develop unified policy action for chronic disease prevention across sectors, and ensure that actions at all levels and sectors of government are mutually supportive. Most importantly, the approach aims to assist governments in prioritizing interventions to address the specific population needs given the availability of human and financial resources. It is designed to be flexible and practical in balancing diverse needs and priorities while implementing evidence-based interventions.

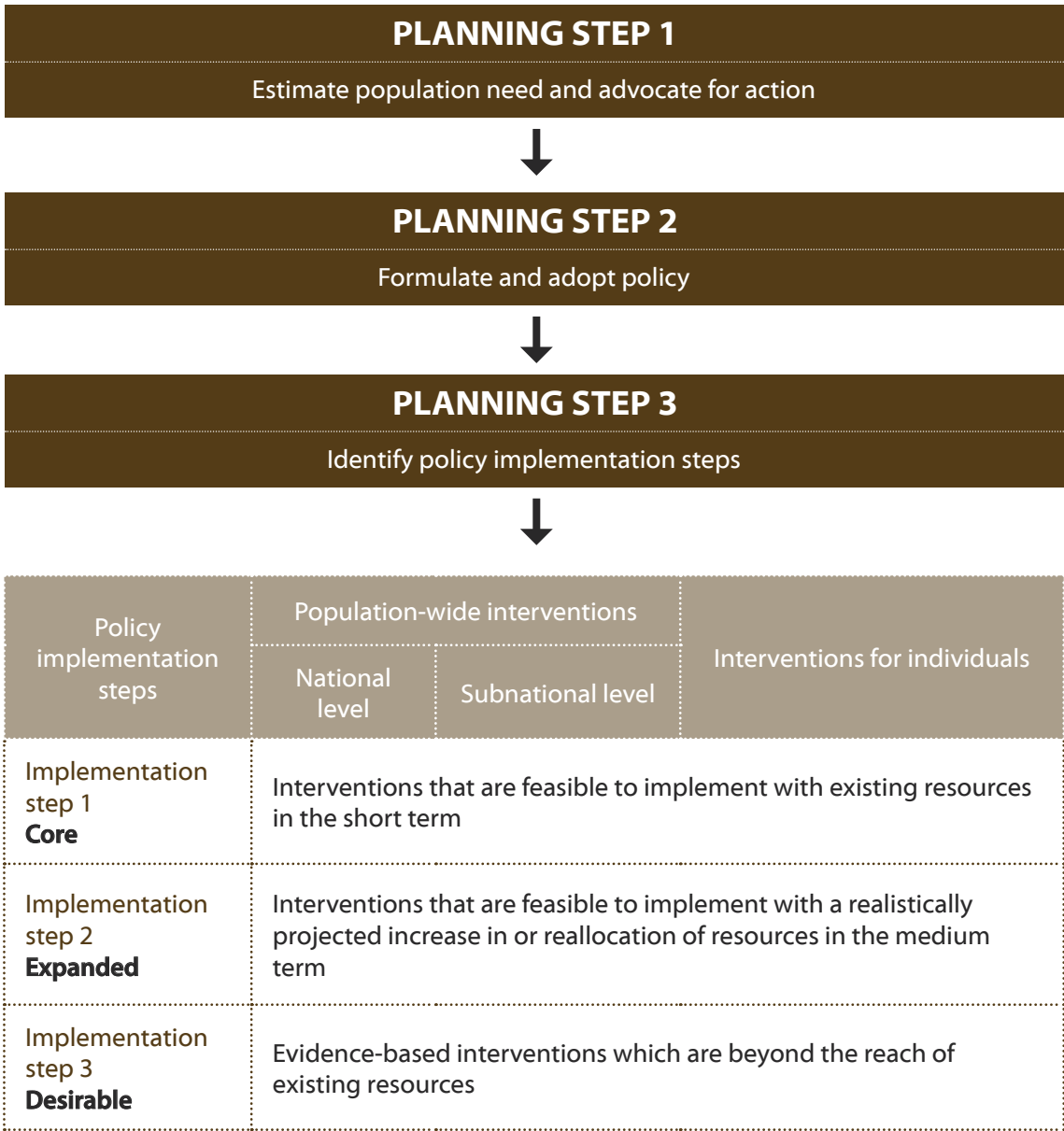
3.1 Prioritization principles

The Stepwise approach relies on governments providing, at national level, the overarching policy for chronic disease prevention, with specific actions covering all sectors. Central to this approach is the recognition that most countries do not have the resources to immediately do everything implied by the overall policy. Consequently, activities that are immediately feasible and likely to have the greatest impact for the investment are selected for implementation first. Interventions that are feasible to implement in the medium term, once there has been a realistic reallocation of resources, are implemented next. Desirable interventions that require resources beyond the current levels are scheduled for implementation last.

Details and structure of the Stepwise approach

Figure 3 outlines the key steps of the Stepwise approach. These include the three principal planning steps and the three principal implementation steps.

Figure 3 The WHO Stepwise framework for preventing chronic diseases³



³ Source: Preventing chronic diseases: taking stepwise action (46)

Planning step 1: Estimate population need and advocate for action

The first planning step is to assess the current risk factor profile and burden of chronic diseases of a country or subpopulation. The distribution of risk factors among the population is the key information required by countries in their planning of prevention and control programmes, and can be assessed using WHO STEPwise approach to Surveillance (47). In regards to efforts to prevent childhood obesity, this implies that governments should not look at risk factors for obesity in isolation but should rather consider a broad range of chronic disease risk factors e.g. fruit and vegetable consumption and alcohol intake.

This information must then be synthesised and disseminated in a way that successfully argues the case for the adoption of relevant policies.

Planning step 2: Formulate and adopt policy

The second planning step is to formulate and adopt a chronic disease policy that sets out the vision for prevention and control of the major chronic diseases and provides the basis for action in the next 5–10 years (48). Policy addressing chronic disease should be based on the following principles: a comprehensive and integrated public health action; intersectoral action; a life course perspective and stepwise implementation based on local considerations and needs (48).

Depending on the configuration of each country's governance, complementary policies also can be developed at state, province, district, or municipal levels.

The policy developed at this stage is similar to the first step of the DPAS implementation framework (see section 1.3).

Planning step 3: Identify policy implementation steps

The third planning step is to identify the most effective means of implementing the adopted policies. At this stage the analysis grids (presented in Appendix 1) can prove useful as an initial scanning tool to identify a comprehensive range of policy areas for specific action. Health financing, legislation and regulation, improving the built environment, advocacy initiatives, community mobilization and health services organization and delivery are some of the levers by which health policy may occur (48). (See Appendix 1 for example worksheets.)

The Stepwise approach then requires that a range of interventions are implemented in a stepwise manner, depending on their feasibility and likely impact in the local conditions, and taking into account potential constraints and barriers to action (48). This step involves consultation, coordination and cooperation with all government partners, civil society, and the private sector.

The chosen combination of interventions for core implementation forms the starting point and the foundation for further action. Each country must consider a range of factors in deciding the package of interventions that constitute the first, core implementation step, including capacity for implementation, likely impact, acceptability, and political support. The philosophy is that selecting a smaller number of activities and doing them well is likely to have more effect than tackling a large number haphazardly. The approach recommends that countries try to ensure that any new activities complement those already underway locally, provincially, or nationally (46).

The planning stage is then followed by a series of implementation steps.

3.4 Implementation steps

Implementation step 1: Core

The chosen set of activities that are immediately feasible and likely to have the greatest impact for investment are selected for implementation first. It is expected that these interventions would be carried out within a 2-year timeframe.

Implementation step 2: Expanded

Expanded interventions are next in terms of importance. They should be introduced as soon as possible but have a slightly lower priority than the core strategies. These interventions are feasible to implement in the medium term, once there has been a realistic reallocation of resources.

Implementation step 3: Desirable

Finally, desirable interventions that require resources beyond the current levels are scheduled for implementation to be continued. These interventions are those to which every country should be aiming in the long term, but are expected to have a longer timeframe (at least 5 years).

For each priority of intervention, countries need to develop three types of activities:

1. Interventions aimed at the whole population taking a national approach.
2. Interventions aimed at the whole population taking a community approach.
3. Interventions at an individual or clinical level.

3.5 Successful adopters of the Stepwise approach

A number of countries, such as Viet Nam and Tonga, have successfully used the Stepwise approach for policy formulation and implementation (46). These countries demonstrate that the Stepwise approach has general applicability to solving chronic disease problems without sacrificing specificity for any given country. While there cannot be a universal prescription for implementation, the strength of the Stepwise approach is that it allows each country to consider a range of factors in priority-setting.

The following table (Table 3) illustrates use of the WHO Stepwise framework for preventing chronic diseases. The recommendations were sourced from the meeting in 2003 of ministries of health for countries of the Pacific Islands (49).

Table 3 Example of use of the WHO Stepwise framework for preventing chronic diseases⁴

Policy implementation step	Population-wide interventions		Interventions for individuals
	National	Subnational	
Core	A national nutrition policy consistent with DPAS has been developed and endorsed at Cabinet level; sustained multisectoral action is evident to reduce fat intake, reduce salt (with attention to iodized salt where appropriate), and promote fruit and vegetable consumption. Health impact assessment of public policy is carried out (e.g. transportation, urban planning, taxation, pollution, and others).	Local infrastructure plans include the provision and maintenance of accessible and safe sites for physical activity (such as parks, and pedestrian-only areas). Health-promoting community projects include participatory actions to audit and address the environmental factors that predispose to NCD risk: inactivity, unhealthy diet, alcohol misuse, etc. Active Healthy Islands⁵ programmes addressing NCDs are implemented in different settings: villages, schools, and workplaces.	A standard set of management guidelines for priority NCDs (such as diabetes and hypertension) have been adopted and used in health care centres, outpatient clinics, and hospitals. A sustainable accessible supply is assured (in the Essential Drug List) for appropriate medication for priority NCDs. A system for consistent, high-quality application of clinical guidelines, and for the clinical audit of services offered. A system for call and recall of patients with diabetes and hypertension is in operation. Palliative services for persons with terminal illness (end-stage renal failure, etc.) are consistently provided, to allow control of pain, other symptoms, and to permit death with dignity.
Expanded	Food standards legislation is enacted and enforced and includes capacity to monitor standards. Legislation also includes provisions for nutrition labelling and for the taxation of less healthy foods (e.g. high fat foods, soft drinks) and the subsidy of fruits and vegetables.	Sustained, well-designed, programmes are in place to promote: • Healthy diet, e.g. cooking skills, promotion of low-cost low-fat foods; water, as opposed to sodas; dietary diversity (e.g. “five-a-day” or “five plus” fresh fruit and vegetables, promotion of local foods). • Physical activity, e.g. movement promoted in different domains (occupational and leisure); movement as opportunity; setting of cumulative daily movement standards; promotion of cultural activities, such as dancing.	Systems are in place for selective and targeted prevention aimed at high-risk populations (e.g. reduction of overweight, identification and treatment of co-morbidities of obesity, follow up of gestational diabetes).

⁴ Source: Report: Meeting of Ministers of Health for the Pacific Island Countries (49).

⁵ Source: Healthy Islands in the Western Pacific – international settings development (50).

Policy implementation step	Population-wide interventions		Interventions for individuals
	National	Subnational	
Desirable	Country standards are established that address marketing of unhealthy food (particularly those high in energy, saturated fat, salt and sugar, and poor in essential nutrients) to children. Legislation is enacted to control or ban sales of foods that do not meet national standards of nutrient content. Capacity for health research is built within the country by encouraging studies on NCDs.	Recreational and fitness centres are available for community use (possibly set up as a local initiative by communities).	Opportunistic screening and case-finding programmes for diabetes, hypertension and overweight are implemented. An information system for registration of patients with cancer, diabetes and hypertension is operating. Support groups for overweight people and breastfeeding are fostered. Appropriate tertiary diagnostic and therapeutic interventions are implemented. Overseas referral for diagnostic and therapeutic interventions.

The Modified Problem/Solution Tree Process

In order to identify what policy interventions are relevant for a country or area to pursue, there is a need to understand the key issues affecting diet and physical activity levels. Once consideration of the local options has been completed, this can then lead to a process of prioritization.

The Modified Problem and Solution Tree (mPAST) approach (51) is a slightly modified version of the traditional problem and solution tree approach – the main tool used to identify areas for action in the “logical framework analysis” method (52, 53). The mPAST approach was developed as a more efficient means of arriving at the same end and was adapted for use with diets.

The mPAST approach has been used in a number of Pacific Island countries to assist with identifying policy interventions to improve the food environment related to NCDs (Fiji, Tonga) and to identify all types of potential interventions to improve fruit and vegetable intake (Samoa, Solomon Islands and Tuvalu) (51).

4.1 Selecting the stakeholder group

The key to running a successful mPAST process is securing a diverse and interested set of stakeholders with which to undertake the process. It is recommended that representatives from multiple government sectors are included, such as from ministries of Health, Education, Agriculture, Transport, Planning, Trade, Commerce and Treasury/Finance. In addition, it is recommended that representatives from relevant NGOs and the private sector (e.g. food manufacturers) are also included. (For more details on the rationale for involving multiple stakeholders see section 2.5).

4.2 Details and structure of the mPAST process

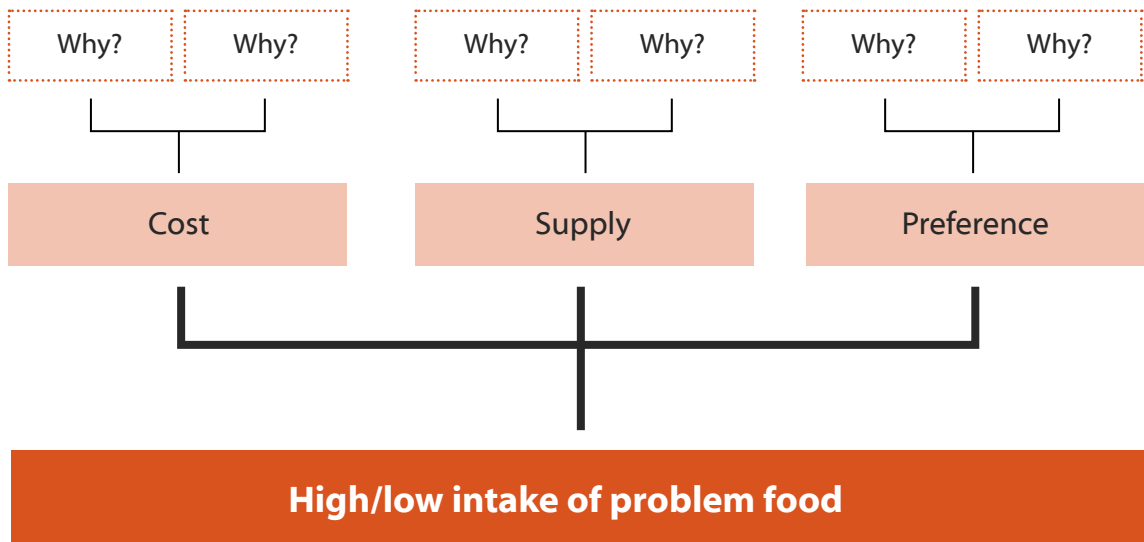
Stage 1: Develop Modified Problem Tree

The process of developing a problem tree entails a workshop-style setting involving the various stakeholders. The mPAST method begins with identification of the key problem – for example, the underconsumption of fruit. In some cases, a specific problem, such as the need to increase fruit and vegetable consumption, may already have been identified. When the problem to be tackled is wider in context (such as unhealthy diets linked with obesity), the specific dietary factors critical to addressing the problem need to be identified prior to using the mPAST process. This should involve consideration of available evidence such as surveys, food balance sheets, import data, sales data, and research related to factors influencing diet and physical inactivity). Ideally the identification of critical problem areas needs to be undertaken by local experts such as nutritionists, NCD officers and relevant academics. The available evidence should be discussed and food categories that present certain problems (such as fruit, sweetened drinks, cooking oils) or critical physical activity factors (such as public transport, recreational facilities) identified accordingly. Consideration should

be given to whether international evidence indicates that these foods are linked with obesity, and whether the eating patterns of population subgroups reflect obesity rates. Based on these assessments, a manageable number (e.g. up to 10) of critical categories should be prioritized for further consideration using the mPAST process.

The development of the “trees” can then begin with the multisectoral stakeholders. Using a large sheet of paper, the starting layers of the tree are drawn, as shown in Figure 4, with the lowest level being e.g. “Low intake of fruit,” and the next level being possible factors associated with low intake of fruit, e.g. “Cost,” “Supply” and “Preference.” From this, stakeholders are asked to consider the question “Why?” – why is the situation occurring? The causal chain is then mapped backwards until the barriers are identified. For example, starting from the left of Figure 4, “Cost” – why might fruits be expensive? Stakeholders may identify “High taxes” as a problem. This barrier is then put into the next level of the tree (i.e. in the empty box on the level up from “Cost”). From “High taxes” the question “Why?” would be asked again. Thus more levels can be added to explain why this occurs? Another reason for the fruit being too expensive may be “Not enough supply.” Once this is entered into a box, above “Cost,” again the question “Why?” is asked – why is there not enough fruit for sale? The process continues until lines cannot be further progressed (see Figure 5). This is the completed Problem Tree.

Figure 4 Starting layer for Modified Problem Tree⁶



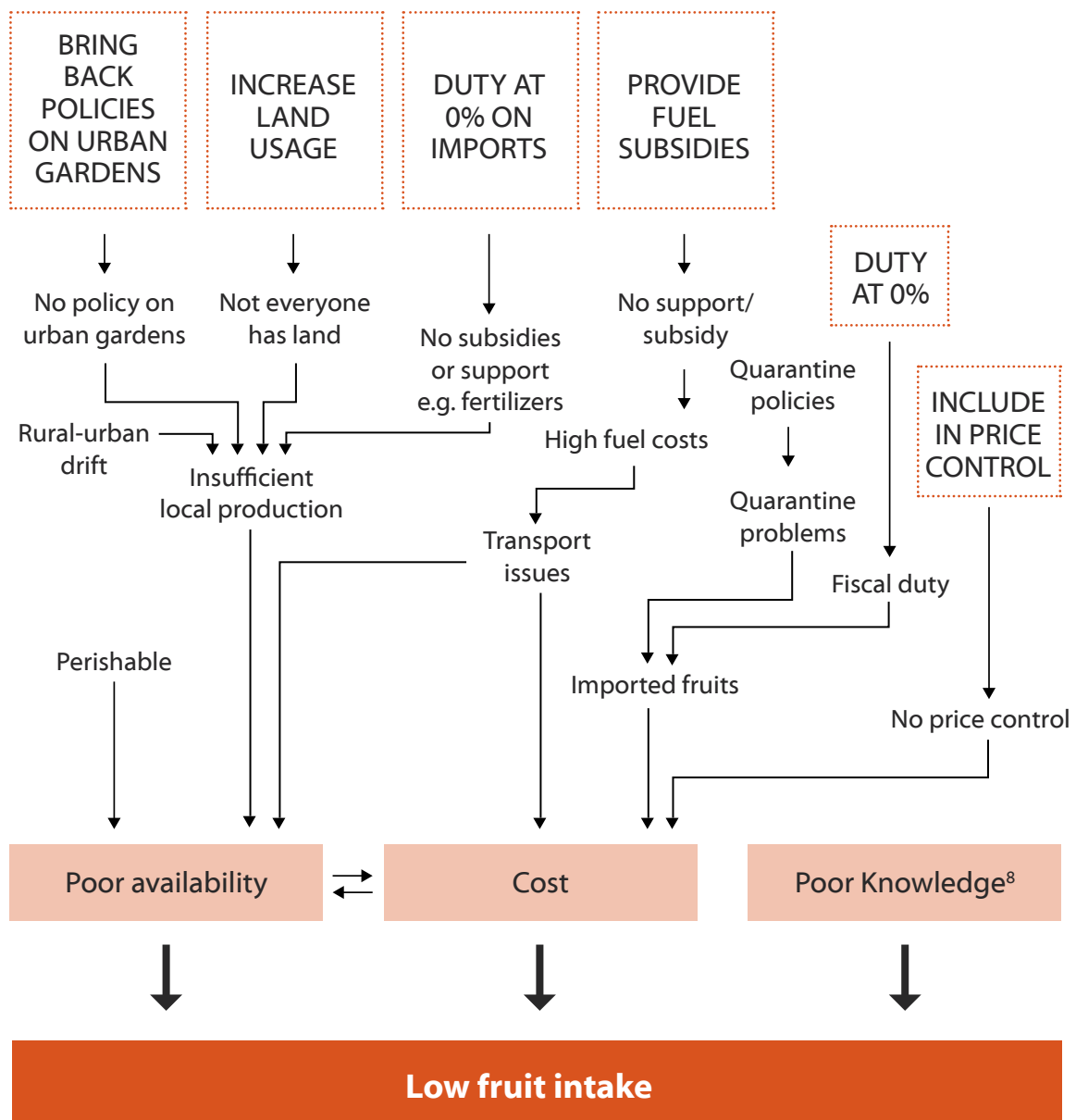
⁶ Source: Problem and solution trees: a practical approach for identifying potential interventions to improve population nutrition (51)

Stage 2: Modified Solution Tree

Each problem area identified is considered, in turn, to see what solutions are possible. For example, a solution to “No price control” on cost of fruit (as seen on the right hand side of Figure 5) would be “Include in price control.” These are then affixed next to the problem that would then be tackled (shown in boxes in Figure 5).

A complete combined Modified Problem and Solution Tree is shown in Figure 5.

Figure 5 Example of combined Modified Problem and Solution Tree⁷



⁷ Source: Problem and solution trees: a practical approach for identifying potential interventions to improve population nutrition (51)

⁸ “Poor knowledge” is shown with no further tree structure since only policy interventions were considered in this example, and solutions to “poor knowledge” are mainly educational rather than policy based

Outcomes of the process

Undertaking this process produces a clear outline of the main factors influencing the key dietary or physical activity problem behaviours. The process can be used to identify policy intervention solutions (and their associated problems) only, or more general actions. The participatory process is likely to pinpoint the more critical and influential factors involved in poor diets and physical activity levels, and as such, is a useful way of identifying which policy changes are likely to be most relevant for that community.

Stage 3: Further prioritization: applying criteria

In order to assess which of the policy options would be the most promising, some prioritization criteria are needed. The key criteria used in this approach have been: Effectiveness; Feasibility; and Other impacts (26). Other criteria, for example those listed in Box 2, can also be chosen.

Effectiveness

Stakeholder perceptions of effectiveness were combined (where possible) with modelled effectiveness analyses. A lack of data for modelling is often a barrier to deriving good effectiveness estimates; however stakeholders are generally clear on the likely impact of any interventions, in terms of likelihood of impact and size of effect (26).

In Fiji and Tonga, a simple scoring system was used when assessing the likelihood of effectiveness and level of effect of policy interventions on diet (26). The system used is as follows:

- **Likelihood of effect:**
Definite (DF); Probable (P); or Speculative/maybe (SP)
- **Size of effect:**
Very positive effect/improves health (++); Positive impact (+); No impact (0); Negative impact (-); Very negative impact (—)

For example, if considering lowering the import tax on fruit, how likely is it that this would cause an increase in fruit consumption? And what is the size of effect likely to be? Stakeholders might perceive that it is probable (P) that it would cause an increase in consumption and would also have a very positive impact (++).

Feasibility

While there are many ways of assessing feasibility, the approach used with an informed group of stakeholders in Fiji and Tonga is given as an example. The approach combined a simple scoring system with a weighting system, and specified criteria to allow stakeholders to consider how practical or feasible an intervention or policy change might be.

The process used is as follows:

1. The specific criteria to be considered within “feasibility” are agreed. In Fiji and Tonga, the following criteria were used: technical feasibility, cost-related feasibility, political acceptability, cultural and community acceptability, and trade-related legal feasibility (an important barrier for change in some countries).

Definitions for each of these are then clearly written and agreed to by all stakeholders. Box 3 shows suggested definitions of each of the criteria.

Box
3

Suggested definitions of criteria used in the weighting system

Suggested definitions (discussed with stakeholders):

- *Technical feasibility*: expertise (workforce), equipment and infrastructure availability (quality and quantity).
- *Cost-feasibility*: affordability. How much will it cost and who will pay for it?
- *Political acceptability*: will government be supportive of the approach? Is it in line with government policy (e.g. general directions, NCD strategy)?
- *Cultural acceptability*: acceptability to stakeholders and community.
- *Legal feasibility*: is this possible in view of trade agreements and other commitments?

2. A weighting system is agreed for these criteria. What this means is that the importance of each criterion in relation to the others is agreed by stakeholders (26). One simple method that can be used to apply a weighting to criterion is to split 100% points between each of the five criteria above. For example, if cost-related feasibility is the most important criterion, a weighting of 40% might be given, whereas only 10% weighting might be given for a less important criterion.

In Tonga, weightings of 20% technical feasibility, 15% cost feasibility, 30% political acceptability, 10% cultural acceptability and 25% trade-related feasibility were used (26). "Cultural acceptability" was thus considered the least important and "political acceptability" the most; "technical feasibility" was considered of greater importance than "cost-related feasibility" and "trade feasibility."

3. Once all the stakeholders have agreed to this weighting system, they move on to look at each policy action under consideration and score it for each of the five criteria. For example, when considering "lowering import tax on fruit," how technically feasible is it? Is it feasible from a cost-perspective? Is it feasible from a technical perspective etc? A scoring system is applied to each of the five criteria, as follows:

Score 1: impossible/not acceptable/very difficult

Score 2: difficult/mostly unacceptable

Score 3: slightly difficult/mostly acceptable

Score 4: easy/acceptable

For example, as shown in Table 4, "lowering import tax on fruit" is easy from a technical viewpoint (score 4), mostly acceptable to the community (score 3) and is easy legally (score 4). However, politically it is not acceptable (score 1), and the cost implications can present problems (score 3). As shown in the table, a similar process is completed for all the policy options under consideration.

Table 4 Example of scoring policy options for five feasibility criteria*

Policy option	Technical feasibility	Cost feasibility	Political acceptability	Cultural acceptability	Legal feasibility (e.g. trade)
Policy 1: e.g. Lowering import tax on fruit	4	3	1	4	4
Policy 2: e.g. Provide fuel subsidies for transportation of fruit	4	2	2	4	4
Policy 3					
Policy 4		Process completed for all policy options			
Policy 5					

*Scoring: 1–4 where: 1=Impossible/Unacceptable; 2=Difficult/Mostly unacceptable; 3=Slightly difficult/Mostly acceptable and 4=Easy/Acceptable

In order to get one total score for feasibility for each option, the weightings are then combined with the scores. The weighting for technical feasibility is thus multiplied by the score for technical feasibility, and so on. For example, using the scores in Table 4, and weightings of 20% for technical feasibility, 15% for cost feasibility, 30% for political acceptability, 10% for cultural acceptability and 25% for trade-related feasibility, an overall score for each component of feasibility can be calculated. The total score for that policy option is then calculated by adding all scores (see Table 5).

A higher total score indicates a higher feasibility, with a maximum score of 4.

Table 5 Calculating total score for feasibility for each policy option

	Technical feasibility	Cost feasibility	Political acceptability	Cultural acceptability	Legal feasibility (e.g. trade)	Total score
Weightings	20%	15%	30%	10%	25%	
Policy 1: e.g. Lowering import tax on fruit	4x20% =0.8	3x15% =0.45	1x30% =0.3	4x10% =0.4	4x25% =1.0	0.8+0.45+0.3+0.4+1.0= 2.95
Policy 2: e.g. Fuel subsidies	4x20% =0.8	2x15% =0.3	2x30% =0.6	4x10% =0.4	4x0.25% =1.0	0.8+0.3+0.6+0.4+1.0= 3.10
Policy 3						
Policy 4						
Policy 5						

Process completed for all policy options

A higher total score indicates higher feasibility. In this example, fuel subsidies (score of 3.10) is *more* feasible than lowering import taxes (score 2.95).

Other impacts

Assessment of the wider social impacts of the proposed policy changes was made using an environmental or social impact assessment method. Impact assessments can be time-consuming, however screening tools can be used in the prioritization process in place of full assessments (26). Screening tools are more time-efficient to implement and can identify areas of potential problems; this information is highly valuable in identifying which policies should be prioritized.

For example: in Fiji and Tonga, when assessing side effects of policy interventions on food (26), a simple scoring system was used as follows:

- **Likelihood of effect:**
Definite (DF); Probable (P) or Speculative/possible/maybe (SP)
- **Size of effect:**
Very positive effect (++); Positive effect (+); No impact (0); Negative effect (−); Very negative effect (—)

This was applied across key areas of impact (e.g. economic development, employment) and across key sectors of the community (e.g. children, the elderly) (see Table 6 and 7). For example, would a reduced import duty on fruit be likely to cause any side-effects other than change in price of fruit on any group or area? It might for example reduce the sales of local fruits by local farmers, and so impact on their employment and incomes. This might be considered to be unlikely to occur (SP) but a definite negative impact (−) (see Table 6 and 7). It is also probable (P) that a reduced import duty on fruit would particularly have a positive effect (+) on poorer community members and urban dwellers who are more likely to purchase rather than grow fruit (see Table 7).

Table 6 Example of assessment of possible impacts on other areas

Policy: Reduce import tax on fruit and vegetables			
Areas of impact	Sub-areas/examples	Likelihood of effect	Size of effect
Physical environment	e.g. water, housing, pollution		
Economic conditions	e.g. local industry, local businesses		
Community and cultural	e.g. family, community		
Socioeconomic conditions	e.g. employment, household budgets	SP	–
Political	e.g. local policies, regional relations		
Access to facilities and services	e.g. markets, hospitals, schools		
Other areas of health	e.g. tobacco, alcohol, physical activity, nutrition, communicable diseases		
Other?			

Table 7 Example of assessment of impacts on community subgroups

Policy: Reduce import tax on fruit and vegetables		
Stakeholder group	Likelihood of effect	Size of effect
Population overall		
Children		
Youth		
Elderly		
Urban dwellers	P	+
Rural dwellers		
Poor	P	+
Women		
Other?	Farmers – SP	–

By applying the above criteria, different aspects for the specific policy options become apparent to stakeholders, and consensus on the most promising portfolio of interventions can be readily achieved (see Table 8).

Table 8 Example of assessment of policy options*

	Effectiveness		Total feasibility score	Other impacts		
	Likelihood of effect	Size of effect		Impact	Likelihood of effect	Size of effect
Policy 1: Lowering import tax on fruit	P	++	2.95	1. Employment/ income of local farmers	SP	–
				2. Poorer and urban community members	SP	+
Policy 2: Fuel subsidies for transportation of fruit	SP	+	3.10	1. 2. 3.		
Policy 3						
Policy 4						
Policy 5						

*Other criteria, for example those listed in Box 2, could have been chosen

Stage 4: Presentation of recommendations

These recommendations would then be presented to those who have jurisdiction over their implementation. For example, in Fiji and Tonga, a list of 20 to 30 most promising, specified policy options have been finalized for each country for presentation to their respective governments.

4.3 Putting the mPAST process into operation

The following table outlines the main tasks, the approximate timeframe and the human resources required for running the mPAST prioritization process.

Table 9 Main tasks, timeframes and human resources required for the mPAST prioritization process

TASK	TIMEFRAME	HUMAN RESOURCES
Gathering background information on diets, physical activity, NCDs	Approximately 1 month. The time required may be reduced if some of the required background data has already been collated.	These tasks could be completed by a student (e.g. a health or nutrition student), research assistant or a project worker.
Organization of stakeholder workshops - including representatives from multiple government sectors – e.g. health, education, agriculture, transport, planning, trade, commerce and treasury/finance), the private sector and civil society (e.g. relevant NGOs)	Ideally stakeholders should be approached 1 month or earlier prior to the first workshop. At least 2 (but up to 3) workshops will be required over a 2–3 month period.	It is recommended that, in order to get “buy-in” from stakeholders, initial contact with stakeholders be led by a senior member of the project team or community leader. The remainder of the tasks to organize and run the workshop could be completed by a student, research assistant or a project worker.
Completion of mPASTs with the stakeholder group	The completion of mPASTs can be completed in a single workshop of approximately 2–3 days, or could be extended over 2 workshops of approximately 2 days each. This includes approximately: • half a day of training on the tool • 2–3 days completing the mPASTs	• Facilitator with knowledge of running the process. • Multisectoral stakeholder group. • At least 2 research assistants or students to take notes throughout the process.
Gathering background information on evidence for effects, and further local data	Approximately 1 or 2 months, conducted after the completion of the mPASTs. The time required may be reduced if some of the necessary background data has already been collated.	These tasks could be completed by a student (e.g. a health or nutrition student), research assistant or a project worker.
Prioritization process and recommendations	A separate workshop of approximately 2 days will be required to complete the prioritization process and formulate the recommendations. This should be conducted within approximately 2 months of the initial workshops to develop the mPASTs.	• Facilitator with knowledge of running the process. • Multisectoral stakeholder group. • At least 2 research assistants or students to take notes throughout the process.

The ANGELO process

5.1 Background to the ANGELO process

Framework for analyzing environments

The framework for the ANGELO (Analysis Grid for Elements Linked to Obesity) process was first developed for use as a practical tool for categorizing and scanning the environment for potential environmental barriers to healthy eating and physical activity (54). The basic framework is a 2x4 grid which divides obesogenic environments in two sizes of environment on one axis – micro (settings) and macro (sectors) – and four types of environment on the other axis – physical, economic, policy and sociocultural (54) (see Figure 6).

Figure 6 ANGELO grid with settings, sectors and environmental elements

Environment size Environment type	Micro-environment (settings)		Macro-environment (sectors)	
	Food	Physical activity	Food	Physical activity
Physical		What is/is not available?		
Economic		What are the financial factors?		
Policy		What are the rules?		
Socio-cultural	What are the attitudes, beliefs, perceptions and values?			

Classifying environments: Environment size

1. *Micro-environment: settings*

A micro-environmental setting is one where groups of people gather for specific purposes which typically involve food, physical activity, or, frequently, both. These settings are usually geographically distinct, are relatively small, and are potentially influenced by individuals. For example; schools, workplaces, homes, and neighbourhoods.

2. *Macro-environment: sectors*

A macro-environmental sector relating to obesity is a group of industries, services, or supporting infrastructure which influence the food eaten and/or physical activity carried out within the various settings, for example, the education and health systems, all levels of government, the food industry, and a society's attitudes and beliefs. A micro-environmental setting such as a supermarket will be influenced by a number of supporting macro-environmental sectors such as the food production, manufacturing, distribution, and marketing sectors. These sectors are common to the wider population, often operating at regional, national, and international levels, and tend to be geographically diffuse. Macro-environmental structures are largely beyond the influence of individuals and even governments often have difficulty in influencing these sectors because of their size, complexity, and other priorities. For example, it is a long, complex task reorienting the education sector towards providing and promoting healthy food, or the urban planning and transport sectors towards providing and promoting active transport environments, or the food industry towards responsible marketing practices, or cultural belief systems about body size. There is embedded inertia within large systems which make them difficult to influence, but there may also be active, powerful drivers against healthier environments and the drive by the food industry to increase profits from unhealthy foods is an obvious example.

Classifying environments: Environment type

1. *The physical environment: availability*

The physical environment includes the natural and built environments but also physical access to opportunities such as organised sport, professional training or fruit and vegetables.

In relation to food, the physical environment refers to what is available in a variety of food outlets including restaurants, supermarkets, vending machines, schools, worksites, and community, sports, and arts venues.

For physical activity, the physical environment includes the opportunities for participation in leisure, occupational, or incidental activity. Environmental factors which influence the use of active transport (walking, cycling) over motorized transport (cars, lifts, escalators) include the availability of cycle paths, footpaths, street lighting, public transport, and accessible stairs in buildings. Factors which influence participation in active leisure activities include the availability of quality recreation spaces, parks, sports grounds, and community clubs.

2. *The economic environment: the financial factors*

The economic environment refers to the costs related to food and physical activity. In relation to food, the major economic influences are the costs of food production, manufacturing, distribution, and retailing. These costs are determined largely by market forces, but some opportunities exist for public health interventions. The relative cost of healthy choices can be reduced by reducing the actual costs (e.g. by subsidising vegetables) or by increasing the ability to pay (e.g. by reducing income tax for low-income earners).

3. The policy environment: related rules

The political environment refers to the rules related to food and physical activity and includes laws, regulations, policies (formal or informal), and institutional rules such as school and household rules.

When considering food, for example, at the micro-environmental level of the school, the political environment includes the school nutrition policy and school rules related to food. At the macro level, the political environment refers to government food and nutrition policies, regulations and laws, and food industry policies and standards.

When considering physical activity, at the micro-environmental level, the political environment influencing physical activity in the home could be family rules on the amount of involvement in active games. At a macro level, the regulations, laws, and town planning policies which give priority to active transport (e.g. cycling or walking) or use of public transport over car use will increase physical activity levels.

4. The sociocultural environment: attitudes, beliefs, perceptions, values

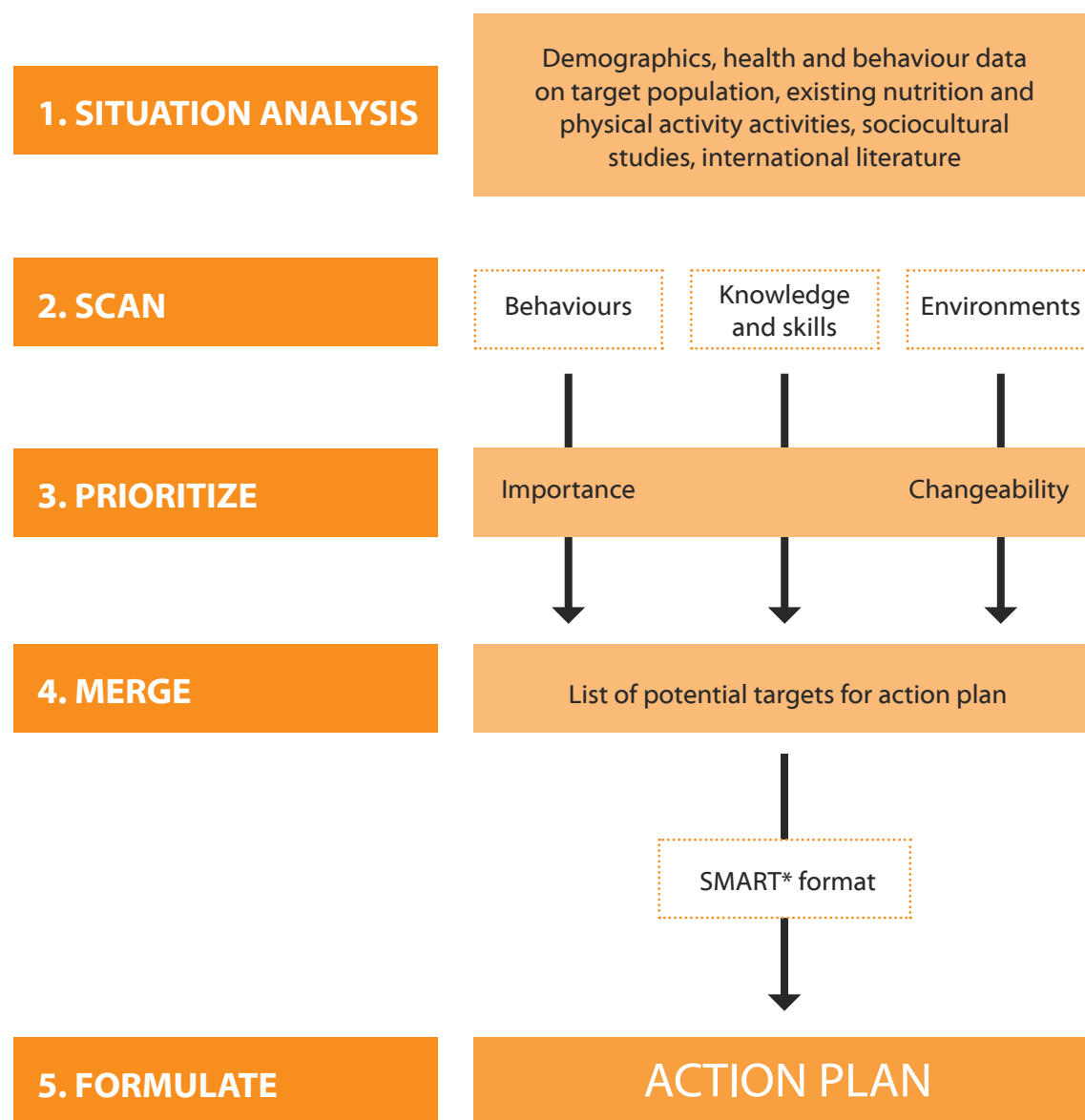
The sociocultural environment refers principally to the attitudes, beliefs, and values related to food and physical activity of a community or society. It includes many aspects around food such as hospitality, food status and food meanings as well as cultural values on physical activity and perceptions of body size.

From framework to process: creating a community action plan

The ANGELO *framework* evolved to become the ANGELO process so that it could be used for priority-setting for obesity prevention action in communities (55). The process has been used across several “whole-of-community” obesity prevention projects for children and adolescents in Australia, New Zealand, Fiji, and Tonga (55, 56).

The ANGELO process is evidence- and practice-based (2, 57). It follows the principles and action areas of health promotion (58) and the processes of priority-setting where technical assessments (i.e. evidence from the literature, local evidence and experience, specific analyses or targeted research) are included in a due process (engagement with the key stakeholders, joint and transparent decision-making) so that agreed priorities are reached (17). An overview of the ANGELO process is shown in Figure 7 and each stage is then described in detail.

Figure 7 The ANGELO process to identify priority elements for an action plan



* SMART = Specific, Measurable, Achievable, Relevant, and Time-bound (attributes of good objectives)

Stage 1: Situation analysis

The situation analysis needs to identify the important characteristics of the community, the culture, the problem areas and the existing activities or local programmes so that these contextual factors can be incorporated into the action plan and its implementation. For populations with strong sociocultural influences on food, physical activity and body size perceptions, specific studies may be needed to characterise these factors. For example, qualitative interviews have been completed with populations in the Pacific region involved in community interventions (55).

Situation analysis also includes summarizing the evidence from the literature about the effectiveness of obesity intervention programmes (59, 60) to present to stakeholders.

Stage 2: Scan – Behaviours, Environments, and Knowledge and Skills

In this stage the stakeholder group is invited to apply the ANGELO framework at a community or setting/sector level. Participants should include representatives from key stakeholder organizations such as local government, relevant NGOs and the private sector (e.g. food manufacturers). Participants should also include adolescents if they have been the target group for the programme.

The ANGELO worksheets are used to list the potential behaviours to target (approximately 20–25 specific behaviours), knowledge and skills gaps to address (approximately 10–20 gaps) and environmental barriers to overcome (approximately 20–30 barriers per setting). These need to be verified with community members (55). For example, the following lists, shown in boxes 4–8, have been compiled with a target group of children aged 5–12 years.

Box
4

Potential Behaviours to target

1. Increase the amount of fruit eaten
2. Increase the amount of vegetables eaten
3. Increase the amount of whole grain cereals eaten
4. Increase water intake and decrease high sugar drinks including fruit juice
5. Eat breakfast every day
6. Improve lunchbox contents
7. Decrease i.e. food high in fat and/or sugar in lunchboxes and in after-school snacks
8. Eat dinners that are lower in fat
9. Eat fast foods less frequently
10. Increase walking or cycling (and less car use)
11. Increase involvement in informal physical activities (e.g. skateboarding, shooting basketball hoops)
12. Increase participation in organized physical activities other than sport (e.g. dance, martial arts)
13. Increase hours of Physical Education in schools
14. Decrease TV viewing time
15. Decrease electronic games time
16. Increase walking or cycling (and less car use)

Physical environment:

Food

1. More fruit available
2. More vegetables and healthy choices for evening meals
3. More healthy options for snacks after-school and other times
4. Less high sugar drinks available
5. More healthy choices for breakfast available
6. More options at home to make healthy lunches

Physical activity

1. More activity gear (e.g. balls, bats, nets, bicycles) at home to play with
2. Bigger backyards to play in
3. Parents providing more transport to activities

Economic environment:

Food

1. Reduce pocket money used for foods high in sugar, fat and salt
2. Increase food budget spent on healthier foods

Physical activity

1. Increase money spent on sports and activities
2. Reduce money spent on entertainment choices such as movies, DVDs, etc.

Policy environment:

Food

1. Tighter rules on pocket money and consumption of foods high in sugar, fat and salt
2. More rules on food and drink to promote healthy choices in lunch boxes

Physical activity

1. Tighter rules on TV viewing and playing of electronic games
2. Fewer restrictions on participation in sports, games and playing outside
3. More relaxed rules on walking and/or cycling in the streets

Sociocultural environment:

Food

1. Parents to be better role models for healthy eating
2. Families to be more supportive of healthy eating
3. Parents to perceive school canteens as an extension of the classroom, in terms of rules applied, and not as a food treat shop

Physical activity

1. Parents to be better role models for physical activity
2. Families to be more supportive of sport and exercise
3. Perceptions of safety and security

Other options:

Box
6

Potential areas for improving Knowledge and increasing Skills

1. To know that eating breakfast promotes learning
2. To know what healthy lunch choices are
3. To know that takeaway foods and fatty snacks like chips are unhealthy
4. To know that high sugar drinks are unhealthy
5. To know that fruit juices are not a health drink
6. To know what healthy snacks are
7. To know that eating plenty of fruit and vegetables helps to keep you healthy
8. To know that at least an hour of moderate to vigorous activity is recommended each day for children and adolescents
9. To know that walking to school can be fun and healthy
10. To have good road sense
11. To know that watching too much television decreases health and fitness
12. To know that the recommended recreational “screen time” (i.e. TV + electronic games) is less than 2 hours per day
13. To improve cooking skills
14. To have a wide taste for fruit and vegetables
15. To have road safety and/or bicycle skills
16. To have good sports skills e.g. ball skills

Physical environment:**Food**

1. More healthy choices in the canteens
2. Having more curriculum on nutrition/foods

Physical activity

1. Better outdoor facilities
2. Better indoor facilities
3. More games and Physical Education equipment
4. More Physical Education available
5. More sports available to participate in
6. More non-sport physically active options (e.g. dance, karate)

Economic environment:**Food**

1. School less dependent on junk food for fundraising
2. Healthy choices to be less expensive in canteens
3. Have strategies to maintain profits with a healthy canteen

Physical activity

1. Sports programmes to be less expensive
2. Schools have a higher budget for Physical Education and equipment

Policy environment:**Food**

1. More effective policies on canteens and lunch orders
2. More effective policies on morning snacks
3. Policy of water bottles available in class
4. More effective school policies on food and fundraising
5. Lunchbox guidelines to parents

Physical activity

1. More relaxed rules on using equipment at lunchtime
2. More effective policies to promote sport and activities
3. More relaxed rules on use of school grounds

Sociocultural environment:**Food**

1. Higher priority on healthy eating in the school
2. Teachers as better role models for healthy eating

Physical activity

1. Higher priority on being physically active
2. Teachers as better role models for physical activity

Other options:

Physical environment:

Food

1. More healthy choices available in snack bars, takeaways etc
2. Nutrition labels on fast food and restaurant food
3. More healthy options on children's menus at restaurants

Physical activity

1. More parks and open spaces nearby
2. Better facilities for being active at local parks (e.g. basketball hoops, skate ramps)
3. More local sports and recreation clubs
4. More paths for cycling and walking
5. Less traffic in suburban streets
6. Fewer dogs in the neighbourhood
7. Streets for girls to walk or exercise

Economic environment:

Food

1. Healthy food to be less expensive

Physical activity

1. Less expensive to join clubs or use recreation facilities (e.g. gyms, golf courses, swimming pools)

Policy environment:

Food

1. Policy on food served at community facilities
2. Policy on urban gardens

Physical activity

1. Vehicle speed restrictions

Sociocultural environment:

Food

1. Higher priority given to healthy eating in the community
2. Community elders as better role models for healthy eating

Physical activity

1. Higher priority given to physical activity in the community

Other options:

Stage 3: Prioritize

Prioritizing Behaviours and Environments

Prioritizing Behaviours” and “Environments involves each stakeholder in the group rating the list of elements for their importance (taking into account impact and relevance) and feasibility/changeability. For example, a five-point scale can be used where potential elements are scored as follows:

1. **Importance: “What is the relevance and impact of this in our situation?”**
1 = not important at all
2 = a little important
3 = somewhat important
4 = very important
5 = extremely important
2. **Changeability: “How easy or hard is this element to change in our situation?”**
1 = very hard to change
2 = hard to change
3 = possible to change
4 = easy to change
5 = very easy to change

A final ranking of elements is achieved by multiplying the scores for Importance and Changeability (IxC). No equal scores or “ties” are allowed in the final total, therefore if scores are equal between two elements, one must be chosen over the other.

The top five elements can then be prioritized by giving rank 1 to the element with the highest score; rank 2 for the next highest, and so on. Each rank is then assigned points as follows:

PRIORITY RANK	1	2	3	4	5
POINTS	5	4	3	2	1

The following table shows the scoring and ranking of Behaviours (using the list of behaviours identified in Box 4 as an example):

Table 10 Example of scoring and ranking: Behaviours

Potential behaviour patterns to target	Score (use full range of scores)			Rank (1–5)	Points (5–1)
	Importance (1–5)	Changeability (1–5)	Total (IxC)		
1. Increase the amount of fruit eaten	2	4	8		
2. Increase the amount of vegetables eaten	4	3	12	4	3
3. Increase the amount of whole grain cereals eaten	2	3	6		
4. Decrease high sugar drinks including fruit juice (and increase water intake)	5	4	20	1	5
5. Eat breakfast every day	1	3	3		
6. Improve lunchbox contents	3	4	12	5	1
7. Decrease foods high in fat, sugar and salt in lunchboxes and in after-school snacks	4	4	16	2	4
8. Have dinners that are lower in fat	3	2	6		
9. Eat fast foods less often	3	3	9		
10. Increase walking/cycling (and less car use)	3	3	9		
11. Increase informal activities that involve being active (e.g. skateboarding, shooting basketball hoops)	3	2	6		
12. Increase participation in organized physical activities other than sport (e.g. dance, martial arts)	2	2	4		
13. Increase Physical Education in schools	2	1	2		
14. Decrease TV viewing time	4	4	16	3	3
15. Decrease electronic games time	3	2	6		

Note:

1. The full range of scores is used – the scoring needs to discriminate.
2. There is a “tie” in scores – but no equal scores are allowed in the ranks, therefore one must be chosen over the other. In this example, “Decrease foods high in fat, sugar and salt” (rank 2) is prioritized over “Decrease TV viewing time” (rank 3)

Calculating total points for each target behaviour to determine priorities

Once each person has ranked and assigned points to the potential target behaviours, the group comes together to add the total points for each target behaviour. For example; in a group of five stakeholders and using “Increase amount of fruit eaten” as an example behaviour, stakeholder one may have given 5 points (ranked 1), stakeholder two, 0 points (not ranked as a priority), stakeholder three, 2 points (ranked 4), stakeholder four, 0 points (not ranked as a priority) and stakeholder five, 4 points (ranked 2). These points are summed to give a total score ($5+0+2+0+4=11$). This process is repeated for all target behaviours, resulting in the “top five” elements, i.e. the five behaviours with the highest points.

The ranking and points process is also completed on all relevant Environments.

As an example Table 11 is using the Homes/Families environment: What are the areas for potential change in the home environment that are related to the priority behaviours?

Table 11 Example of scoring and ranking: Homes/Families environment*

Environment type	Environment setting HOMES/FAMILIES	Score (use full range of scores)			Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)	Total (IxC)		
Physical What is/is not available?	Food					
	1. More fruit available	5	4	20	2	4
	2. More vegetables and healthy choices for evening meals	5	3	15		
	3. More healthy options for snacks after school and other times	5	3	15		
	4. Less high sugar drinks available	5	4	20	4	2
	5. More healthy choices for breakfast available	5	3	15		
	6. More options at home to make healthy lunches	4	3	12		
	Physical Activity					
	7. More activity gear (e.g. balls, bats, nets, bikes) at home to play with	4	4	16		
	8. Bigger backyards for playing in	3	1	3		
	9. Parents providing more transport to activities	3	4	12		
Economic What are the financial factors?	Food					
	10. Reduce pocket money used for foods high in sugar, fat and salt	3	5	15		
	11. Increase food budget spent on healthier foods	5	3	15		
	Physical Activity					
	12. Increase money spent on sports and activities	4	4	16		
	13. Reduce money spent on entertainment choices like movies, DVDs etc.	4	4	16		
Policy What are the rules?	Food					
	14. Tighter rules on pocket money spent on foods high in sugar, fat and salt	4	3	12		
	15. More rules on food and drink to promote healthy choices in lunchboxes	4	4	16	5	1

* The same process is used to prioritize other relevant environments, such as Schools and Neighbourhoods

Note:

there is a “tie” in scores – no equal scores are allowed, therefore one must be chosen over the other. In this example, “more rules on food/ drink to promote healthy choices/ lunchboxes” (total IxC=16; rank 5) is prioritised over other elements with totals of 16.

Environment type	Environment setting HOMES/FAMILIES	Score (use full range of scores)			Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)	Total (IxC)		
Policy What are the rules?	Physical Activity					
	16. Tighter rules on TV viewing and electronic games	5	5	25	1	5
	17. Fewer restrictions on participation in sports, games, and playing outside	4	4	16		
	18. More relaxed rules on walking/ cycling in the streets	3	4	12		
Sociocultural What are the attitudes, beliefs, perceptions, values, practices?	Food					
	19. Parents to be better role models for healthy eating	4	2	8		
	20. Families to be more supportive of healthy eating	5	4	20	3	3
	21. Parents to perceive school canteens as an extension of the classroom, in terms of rules applied, and not as a food treat shop	3	3	9		
	Physical Activity					
	22. Parents to be better role models for physical activity	3	2	9		
	23. Families to be more supportive of sport/exercise	4	4	12		
	24. Perceptions of safety and security	2	2	4		
Other options						

Calculating total points for environmental elements to determine priorities

Once each person has ranked and assigned points to the environmental elements, the group comes together to add the total points for each environmental element. This results in the “top five” environmental elements in each setting, i.e. the five elements with the highest points in homes, the top five in schools, the top five in neighbourhoods. This provides many potential environmental strategies, which is appropriate given that the intervention needs to have environmental change as its central strategies.

Prioritizing Knowledge and Skills

A similar process is then completed for Knowledge and Skills. Feasibility is not included as a priority-setting criterion. This is due to the feasibility of delivering any particular message generally being similar; the priority rating is thus based solely on “importance.”

The top five elements are prioritized by ranking them 1 to 5 in order of importance (1 being the most important; 5 being the least important). Each rank is then assigned points as follows (5 being the highest score and 1 being the lowest):

PRIORITY RANK	1	2	3	4	5
POINTS	5	4	3	2	1

What are the areas for improving knowledge and increasing skills (of parents or youth) related to the priority behaviours?

Table 12 Example of scoring and ranking: Knowledge and Skills

List of potential areas for improving knowledge and increasing skills	Rank (1–5)	Points (5–1)
1. To know that eating breakfast promotes learning	5	1
2. To know what healthy lunch choices are		
3. To know that takeaway foods and fatty snacks like chips are unhealthy	2	4
4. To know that high sugar drinks are unhealthy	4	2
5. To know that fruit juices are not a health drink		
6. To know what healthy snacks are		
7. To know that eating plenty of fruit and vegetables keeps you healthy	1	5
8. To know that at least an hour of moderate to vigorous activity is recommended each day for children and adolescents		
9. To know that walking to school can be fun and healthy		
10. To have good road sense		
11. To know that watching too much TV decreases health and fitness		
12. To know that the recommended recreational “screen time” (i.e. TV + electronic games) is less than 2 hours per day	3	3
13. To improve cooking skills		
14. To have a wide taste for fruit and vegetables		
15. To have road safety/bicycle skills		
16. To have good sports skills e.g. ball skills		

These prioritization processes result in five elements for each area.
Blank worksheets (which combine stages 2 and 3) can be found in Appendix 3.

Throughout the process, the research needs will become apparent and these should end up as a set of prioritized research projects to provide the evidence and baseline data for the intervention projects. The complete process provides an important mechanism for gaining the commitment of key stakeholders to achieve common goals.

5.3 Drafting and formulating an action plan

Stage 4: Merge

The merge pulls together the highest ranked behavioural, knowledge and skill and environmental elements in the key settings, as determined by group scores. Through this process, a set of prioritized options can be identified for the development of an action plan.

Table 13 Highest ranked elements

Behaviours	Knowledge/Skills	Environments
1.	1.	1.
2.	2.	2.
3.	3.	3.
4.	4.	4.
5.	5.	5.

Stage 5: Formulate Action Plan

The format of the action plan may vary; the format may follow one that local implementers are familiar with, otherwise a basic structure can be as follows:

1. Overall aim (a simple, broad statement about the overall goal of the programme)
2. Objectives (what will be achieved)
3. Strategies (how the objectives will be achieved)
4. Action steps (who will do what, by when, and what stage has been reached)

Development of an overall aim or goal

The initial step is to develop an overall aim or goal which will be the expected overall outcome of the programme and which explains the project and states the target group. Goals usually express long-term changes in behaviour or health status or changes in economic or environmental conditions.

Forming objectives

A set of specific objectives to achieve the overall goal or aim will then need to be developed (which will be the measured impacts of the programme). Objectives effectively restate the goals in operational terms. They state what must occur for the goal to be achieved, and what the programme is intended to achieve immediately after its completion. A careful analysis of the determinants of the health issue provides a starting point for developing objectives, for example “behaviours” can be used to create the objectives.

Objectives should be “SMART” (61):

- Specific
- Measurable
- Achievable
- Relevant
- Time-bound

For the “whole-of-community” projects that have used this process, eight to ten objectives were developed for each action plan. Three of these were common across all plans: i) building community capacity (workforce development, leadership, partnerships/relationships, organizational development, resources), ii) communicating the project messages (social marketing), and iii) evaluating the project. The latter two usually required their own sub-plans. Four or five objectives stemmed from the priority behavioural elements obtained from the ANGELO process. The final one or two objectives in each action plan allows for innovative or exploratory interventions where the community want to try something new and untested. In Fiji for example, assessing the potential for churches to be health-promoting settings was included as an exploratory objective. The priority knowledge and skill gaps and environmental elements were developed into the strategies for action to achieve the behavioural objectives. Strategies typically consisted of social marketing, policy, programme actions or environmental changes.

Defining strategies

To achieve the objectives, a number of implementation strategies will need to be developed and following them a number of action steps. The associated knowledge gaps and environmental barriers can generally be used to identify the strategies.

Setting action steps

Action steps need to include information on timelines, persons responsible and have process evaluation indicators. Timelines, processes and accountability by project coordinators are assigned to the action plan as it evolves. Evaluation measures can be assigned once baseline data was analysed. The action plan is designed to be a “living” document, which guides implementation and can evolve through several versions (up to 15–20) during the life of the project. Once agreement has been reached on the draft action plan at the end of each workshop, each plan is then further refined. This is achieved by taking the plan back to the community and seeking input from those stakeholders unable to participate in the workshop.

An Example Action Plan is presented on the page following and a blank Action Plan Worksheet can be found in Appendix 3.

Example Action Plan

Goal:	To improve the health and well-being of individuals and strengthen the community through healthy eating and physical activity promotion.
Population group:	Children aged 2–12 years in the community and their families and carers.
Abbreviations:	LSC= Local Steering Committee; LAH= Local Area Health service; LAC=Local Area Council; Comm Plan= Communications plan (separate plan); POS=Point of Sale
Symbols:	✓ = completed, ➡ = in progress, ✕ = not commenced behind schedule, ● = not commenced as per schedule, ➡ = commenced ahead of schedule
Objective 1:	To achieve a high awareness of the healthy eating/physical activity messages among parents and children
Objective 2:	To build community capacity to promote physical activity and healthy eating
Objective 3:	To evaluate the process, impact and outcomes of the project
Objective 4:	To significantly decrease the time spent watching TV and playing on computers or electronic games
Objective 5:	To significantly decrease the consumption of high sugar drinks and to promote the consumption of water
Objective 6:	To significantly decrease the consumption of energy-dense snacks and significantly increase consumption of fruit
Objective 7:	To significantly increase the proportion of primary school children living within 1.5 km who walk/cycle to and from school
Objective 8:	To significantly increase the amount of active play after school and at weekends
Objective 9:	a) To investigate the potential for improving the quality (fat content and type of fat) of deep-fried chips b) To improve the quality of deep-fried takeaway chips
Objective 10:	a) To provide a service to improve the food and physical activity choices for children with, or at risk of, overweight b) To pilot a healthy lifestyle programme for parents and carers of children aged 2–12 years, focusing on healthy eating, physical activity and parenting skills

The actions plans for three of the objectives listed above are shown as examples (addressing Objectives 1, 4, and 6).

Objective 1: To achieve a high awareness of the healthy eating/physical activity messages among parents and children

Strategy objective	Strategies	By whom	Timeline	Status	Process evaluation
1.1 To engage parents, children and the community in the promotion of physical activity and healthy nutrition for children community in the promotion of physical activity and healthy nutrition for children	1.1.1 Engage with parents, children and the community via the project's social marketing campaign (see objective 1.2)	See Comm Plan Objective 1.2	May 03 onward	➡	1.1.1 See evaluation in Comm Plan
	1.1.2 Make links with established primary school parent and friends committees	Project Worker	Feb 03 onward	➡	1.1.2 Document visits/ correspondence with parent committees
	1.1.3 Invite parent representative members on to the steering committee	LSC	Sep 03	✓ 12/03	1.1.3 Parents on committee
	1.1.4 Plan and facilitate a parent focus group to ascertain a parent's perspective on the issue of healthy eating and physical activity for children.	Project Worker	May–Aug 03	✗ 8/03	1.1.4 Focus groups run and report produced
	1.1.5 Continue to engage with parents who attended the focus group	Project Worker	Aug 03 onward	➡	1.1.5 Document follow-up contact with parents
	1.1.6 Use the links and co-location to engage with parents and children	Project Worker	Sep 03 onward	➡	1.1.6 Document links with parents established
1.2 To develop and implement a communication plan for the project	1.2.1 Engage a social marketing consultant to up skill the project team in the area of social marketing	Team	Dec 03	✓ 2/03	1.2.1 Social marketer conducted training session
	1.2.2 Produce a communication plan for the project	Project Worker	Feb 03	✓ 5/03	1.2.2 Written and reviewed communication plan
	1.2.3 Continue to develop the communication plan over the duration of the project	Project Worker	Jun 03 onwards	➡	1.2.3 Versions of communication plan documented
	1.2.4 Implement the phase 1 of the social marketing plan	Project Worker	May–Nov 03	✓ 12/03	1.2.4 Number of newspaper articles, POS posters, billboards etc
	1.2.5 Implement phase 2 of the social marketing plan	Project Worker	Dec 03 onwards	➡	1.2.5 Number of newspaper articles, POS posters, billboards etc
	1.2.6 Implement phase 3 of the social marketing plan	Project Worker	Jul 03 onwards	➡	1.2.6 Number of newspaper articles, POS posters, billboards etc
	1.2.7 Develop the communication plan to include guidelines for the communication of project information and processes for distribution of information to the Colac community and wider community	Project Worker	Nov–Feb 04	➡	1.2.7 Communication plan documented with communication additions

Objective 4: To significantly decrease the time spent watching TV and playing on computers or electronic games

Strategy objective	Strategies	By whom	Timeline	Status	Process evaluation
4.1 Research existing programmes addressing screen viewing for children	4.1.1 Research and source existing parenting programmes addressing screen viewing for children	Project Worker	Dec–Mar 03	✓ 3/03	4.1.1 Number sourced and documented
	4.1.2 Source existing guidelines re min/max screen viewing time for children	Project Worker	Dec – Mar 03	✓ 3/03	4.1.2 Guidelines sourced and documented
	4.1.3 Research and source existing curriculum-based programs for primary schools	Project Worker	Dec 03	✓ 12/03	4.1.3 Number sourced and documented
	4.1.4 Research local work done with the target group on TV watching	Project Worker	Apr 03	✓ 4/03	4.1.4 Results of research documented
4.2 Raise parental awareness about the issues for children associated with excessive screen viewing time	4.2.1 See objective 1.2	Project Worker	May 03 onward	➡	
4.3 Develop and implement a programme to decrease children's screen viewing time	4.3.1 Consider employing a Project Worker to develop the programme	LAH	–		–
	4.3.2 Conduct a needs assessment (e.g. focus groups with parents and LSC)	Project Worker	Apr–May 04	■	4.3.1 Needs assessment conducted and outcome documented
	4.3.3 Develop a programme	Project Worker	May–Aug 04	■	4.3.2 Programme developed
	4.3.4 Pilot the programme	Project Worker	Aug–Oct 04	■	4.3.3 Programme piloted and evaluated

Objective 6: To significantly decrease the consumption of energy-dense snacks, and significantly increase consumption of fruit

Strategy objective	Strategies	By whom	Timeline	Status	Process evaluation
6.1 Develop or source "lunchbox guidelines" to promote to parents	6.1.1 Research existing lunchbox guidelines for parents	Project Worker	Dec 02–Feb 03	✓ 2/03	6.1.1 Number of guidelines sourced and documented
	6.1.2 Decide on a package of best information to use	Project Worker	Mar–Apr 04	■	6.1.2 Decision made on best approach
	6.1.3 Investigate best options for disseminating guidelines to parents in varying settings (schools, preschools, family day care)	LSC	May 04	■	6.1.3 List of options considered and decision made
	6.1.4 Disseminate guidelines via methods decided up in 6.1.3		June 04	■	6.1.4 Number of lunchbox guidelines distributed
	6.1.5 Communicate lunchbox guidelines to parents (links to objective 1.2)		Apr–Dec 04	■	
6.2 Facilitate and support the introduction of primary school nutrition policies	6.2.1 Source examples of school nutrition policies	Project Worker	Feb 03	✓ 2/03	6.2.1 Number of copies of policies documented
	6.2.2 Identify nutrition leaders within schools	Project Worker	Feb 03 onward	➡	-
	6.2.3 Convene a schools working party to discuss and support efforts to establish and implement policies	Project Worker	Apr–Dec 04	■	6.2.3 Minutes of working party meetings
	6.2.4 Present working party with options to include in school nutrition policies (e.g. canteen, water, fruit break, fundraising, curriculum etc policies)	Schools	Apr–Dec 04	■	6.2.4 Minutes of working party to reflect options
	6.2.5 Schools to decide upon direction for their nutrition policies	Schools	Apr–Dec 04	■	-
	6.2.6 Adoption and implementation of policies		Apr–Dec 04	■	6.2.6 Number of new or improved policies implemented

Strategy objective	Strategies	By whom	Timeline	Status	Process evaluation
6.3 Investigate the exact food handling requirements for schools with regard to fruit preparation	6.3.1 Contact relevant person at LAC	Project Worker	Mar 04	■	6.3.1 –
	6.3.2 Obtain information re food handling requirements	Project Worker	Mar 04	■	6.3.2 Information collected
	6.3.3 Pass information to school working party	Project Worker	Apr–Dec 04	■	6.3.3 Minutes of working party to reflect discussion of food handling requirements
6.4 Communicate to parents on energy-dense snacks versus fruit via social marketing plan	See objective 1.2	Project Worker	May 03 onward	➡	

Conclusion

Priority-setting to create a set of recommended, promising policy interventions is essential to evidence-informed policy-making. Several described processes for priority-setting exist and all have similar characteristics. These similarities include undertaking some needs assessment or scanning process to generate a list of possible interventions, and also of running a “due process” with stakeholders to take the relevant technical analyses into account in creating the portfolio of recommended actions. Each approach lends itself to particular purposes and in general requires facilitation expertise to manage the process of collecting the evidence and working with stakeholders to arrive at the priority actions to recommend. Priority-setting however, is at the beginning of the process. Community leaders or politicians making the decisions need to accept the recommendations, and this can require efforts of advocacy. Once endorsed, project or programme management skills are necessary for the actions to then be implemented.

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Additional sources of information

The CO-OPS Collaboration (the Collaboration of Community-based Obesity Prevention Sites – web link: <http://www.co-ops.net.au/>)

The CO-OPS Collaboration is an initiative funded by the Australian Government Department of Health and Ageing which: “aims to support community-based obesity prevention initiatives through a collaborative approach to promoting best practice, knowledge translation and by providing networking opportunities, support and advice.”

WHO Stepwise framework for preventing chronic disease

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The ANGELO framework and process

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ACE Process

Methods:

Carter R et al. Priority setting in health: origins, description and application of the Australian ‘Assessing Cost Effectiveness’ (ACE) initiative. *Expert Review of Pharmacoeconomics & Outcomes Research*, 2008, 8(6):593–617.

Obesity related:

Haby MM et al. A new approach to assessing the health benefit from obesity interventions in children and adolescents: the assessing cost-effectiveness in obesity project. *International Journal of Obesity*, 2006, 30:1463–1475.

Tool for scanning sectors/settings (Analysis grids)

Sacks G, Swinburn B, Lawrence M. Obesity Policy Action framework and analysis grids for a comprehensive policy approach to reducing obesity. *Obesity Reviews*, 2009, 10(1):76–86.

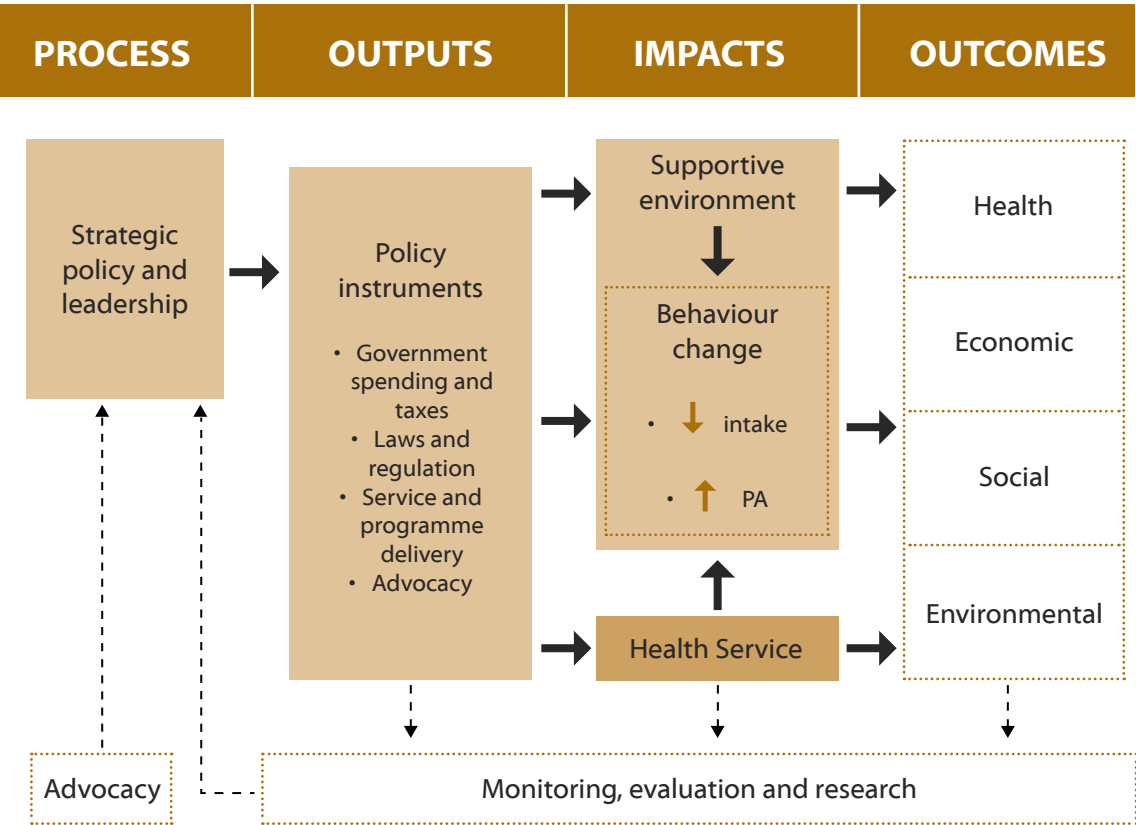
Sacks G, Swinburn BA, Lawrence MA. A systematic policy approach to changing the food system and physical activity environments to prevent obesity. *Australia and New Zealand Health Policy*, 2008, 5(5):13.

Appendix 1:

Analysis grids – scanning tools to identify a range of policy areas for action

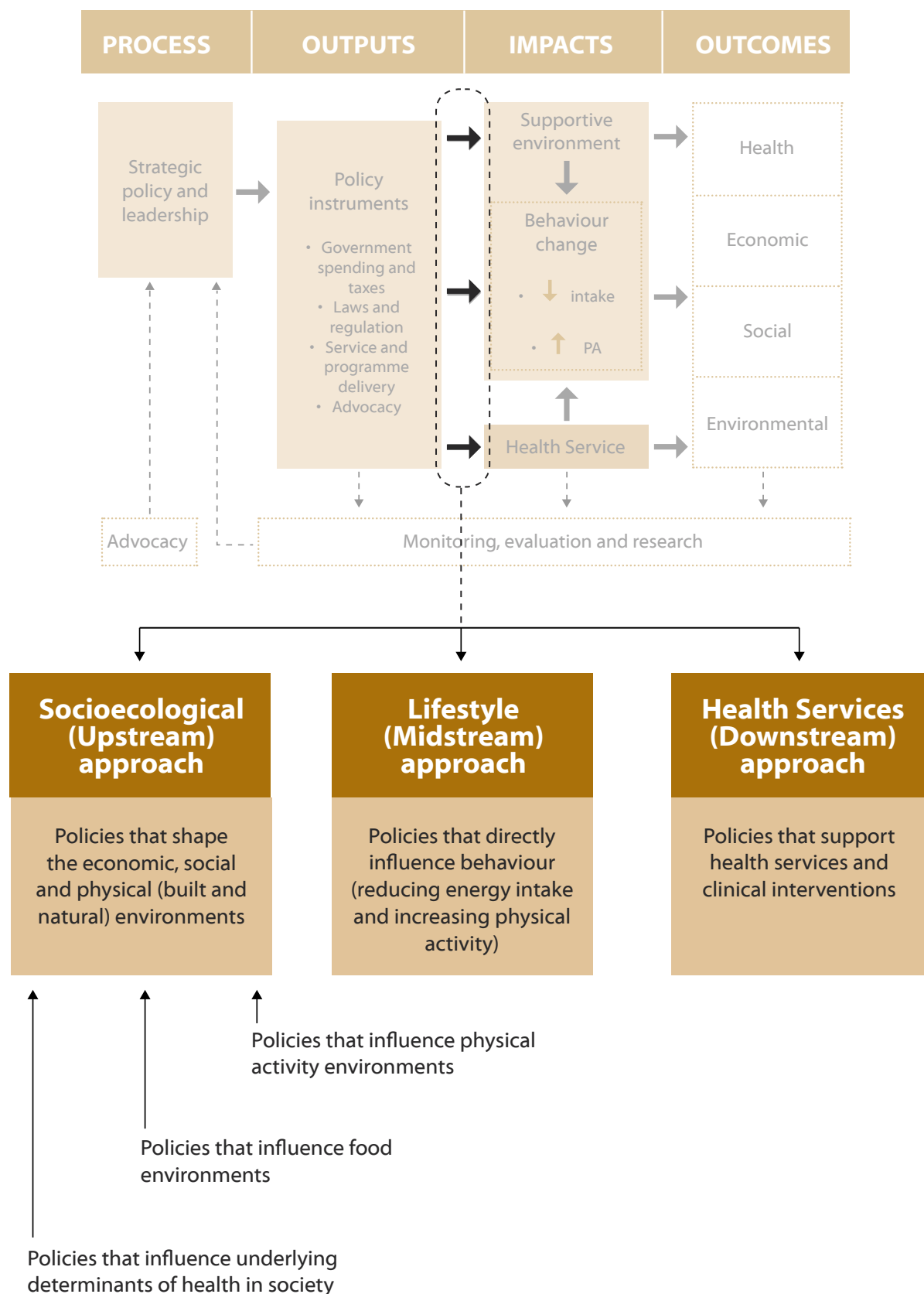
The modified DPAS *framework* (15) is illustrated in Figure 8 and Figure 9.

Figure 8 Modified DPAS framework focusing on areas for obesity prevention action⁹



⁹ Source: Obesity Policy Action framework and analysis grids for a comprehensive policy approach to reducing obesity (15) Adapted from: Global Strategy on Diet, Physical Activity and Health. A framework to monitor and evaluate implementation (8)

Figure 9 Expanded version of modified DPAS framework illustrating obesity prevention approaches¹⁰



¹⁰ Source: Obesity Policy Action framework and analysis grids for a comprehensive policy approach to reducing obesity (15)

For each of the three public health approaches identified in the expanded version of the Modified DPAS Framework (see Figure 9), analysis grids can be used to identify all relevant policy areas for obesity prevention classified across two dimensions: the sector or setting that the policy area best applies and the stakeholder that is primarily responsible for administering the policy. Use of the analysis grids facilitates a systematic approach in identifying all options and can be used to create a comprehensive list within every setting or sector. Example analysis grids, populated with a range of potential policy area, are provided below. It is noted that the examples given do not represent a complete list of all options. Furthermore, the examples presented do not necessarily represent “best-practice” or priority areas for intervention.

Table 14 Analysis grid presenting examples of policy areas influencing the underlying determinants of population health (Upstream/socioecological approach)

SECTOR	STAKEHOLDER			
	WHO and international organizations	National governments	Private sector	Civil society and nongovernmental organizations
Finance	• Co-ordinated debt relief • Co-ordinated aid activities • Health equity impact assessments on multinational economic agreements • International tax cooperation	• Strengthened revenue through domestic taxation	- Wage and salary rates paid - Employer-supported benefits (e.g. sick leave, health cover)	
Commerce and trade	• Fair international trade agreements • Regulation of goods and services with a major impact on health (e.g. tobacco, alcohol, food)	• Support for local agriculture • Regulation of goods and services with a major impact on health (e.g. tobacco, alcohol, food)	• Location of operations	
Education	• Interagency policy coherence related to early child development	• Compulsory primary and secondary education • National school curricula - Investment in school infrastructure and education facilities	• Educational and vocational training opportunities	

SECTOR	STAKEHOLDER			
	WHO and international organizations	National governments	Private sector	Civil society and nongovernmental organizations
Employment	• Core labour standards • Fair employment and decent working conditions	• Fair employment and decent working conditions • Gender pay-equity • Family-friendly working conditions • Living wages	• Child labour eradication • Compliance with labour codes and occupational health and safety standards	
Health		• Universal access to health care • Strong primary health care sector • Development of national health workforce • Health impact assessments of policies from other sectors	• Health cover for employees	
Social affairs and other sectors	• Health equity surveillance systems	• Health equity in policy responses to climate change and environmental degradation • Gender equity • Universal birth register • Availability of affordable housing • Investment in rural development • Urban slum upgrading • Universal access to telecommunications		

Table 15 Analysis grid presenting examples of policy areas influencing the food system (Upstream/socioecological approach)

SECTOR	STAKEHOLDER			
	WHO and international organizations	National governments	Private sector	Civil society and nongovernmental organizations
Primary production	Primary production subsidies and taxes	- Primary production subsidies and taxes - Land-use management - Community gardens		Criteria based endorsement systems
Food processing		- Product composition standards - Food safety	Product composition standards	Criteria based endorsement systems
Distribution	Trade arrangements	- Trade arrangements - Food transport - Importation restrictions, subsidies and taxes - Quarantine		
Marketing	International codes on restrictions on marketing of unhealthy food	- Nutrient content disclosures in marketing material - Consumer protection (e.g. misleading advertising) - Restrictions on marketing of unhealthy food - Promotion of marketing of healthy food - Marketing practices in schools	- Restrictions on marketing of unhealthy food - Promotion of marketing of healthy food	Criteria based endorsement systems
Retail	- Nutrition labelling - Health claims on food products	- Products sold in schools - Land-use management - Density of local fresh food retailers - Density of fast food outlets - Nutrition labelling - Health claims on food products - Incentive system for welfare recipients to buy healthy food - Food taxes/subsidies	Product placement in stores	Criteria based endorsement systems
Catering/ food service		- Policies on healthy food services in government departments and funded agencies (including schools, hospital, recreation facilities) - Nutrition information in restaurants - Food safety	- School food policies - Food procurement policies	- Food procurement policies - Criteria based endorsement systems

Table 16 Analysis grid presenting examples of policy areas influencing the physical activity environment (Upstream/socioecological approach)

SECTOR	STAKEHOLDER			
	WHO and international organizations	National governments	Private sector	Civil society and nongovernmental organizations
Infrastructure and planning		• Urban planning • Roads • Land use management (zoning) • Walking environment • Cycling environment	• Residential and urban development	
Education		• Physical education in schools • Facilities for physical activity in schools • School policies on physical education, physical activity and sport • School travel policies	• Physical education in private schools • Facilities for physical activity in private schools • School policies on physical education, physical activity and sport • School travel policies in private schools	
Transport	• Trade arrangements on motor vehicles	• Taxation policies on cars • Taxation incentives for using public transport • Public transport • Traffic control • Parking restrictions • School travel policies • Urban bicycle loan schemes • Import restrictions on cars	• School travel policies in private schools • Private mass transit • Incentives for using mass transit	
Sport and recreation		• Public liability • Access of general community to school sport facilities • Facilities for physical activity – built structures and open spaces	• Facilities for physical activity and sport	

Table 17 Examples of settings and policy areas for Midstream/behavioural approach*

Major childhood settings	Major policy interventions
• Early childcare settings • Education (e.g. preschools, primary and secondary schools) • Community and recreational facilities • Households • Other settings (e.g. churches, islands, villages)	• Policies in settings on food service and promoting healthy eating and physical activity • Campaigns and social marketing • Programmes promoting healthy diet and physical activity • Education and information

*An analysis grid has not been used for presenting Midstream policy areas since all stakeholders, across all settings, are able to implement interventions within the same policy areas

Table 18 Analysis grid presenting examples of policy areas for clinical intervention and health services (Downstream approach)

HEALTH SECTOR COMPONENT	STAKEHOLDER			
	WHO and international organizations	National governments	Private sector	Civil society and nongovernmental organizations
Primary care	• Primary care partnerships • Undernutrition child feeding programmes	• Healthy lifestyle counselling • Dietetic services • Professional training (workplace development) • Subsidies for healthy lifestyle counselling • Undernutrition child feeding programmes	• Primary care partnerships • Professional training (workplace development)	• Primary care partnerships
Secondary care		• Dietetic services • Professional training (workplace development)	• Professional training (workplace development)	
Tertiary care		• Dietetic services • Hospital waiting lists for treatment by specialists • Subsidies for treatment by specialists		
Therapeutic goods		• Subsidies for weight-loss medication		

Appendix 2:

WHO Stepwise framework for preventing chronic diseases worksheets

The following pages give the outline of the Stepwise framework for physical activity and diet. These are to be used for the group work.

Work with this framework to suggest interventions which may be successful in your country.

Diet

Policy implementation step	Population-wide interventions		Interventions for individuals
	National	Subnational	
Core			
Expanded			
Desiderable			

Physical activity

Policy implementation step	Population-wide interventions		Interventions for individuals
	National	Subnational	
Core			
Expanded			
Desiderable			

Appendix 3:

ANGELO process worksheets

Stage 2: Scanning and Stage 3: Prioritizing

BEHAVIOURS

- What Behaviours are the highest priority for action?

IMPORTANCE (what is the relevance and impact of this in our situation?)	CHANGEABILITY (how easy or hard is this to change?)
1 = not important at all 2 = a little important 3 = somewhat important 4 = very important 5 = extremely important	1 = very hard to change 2 = hard to change 3 = possible to change 4 = easy to change 5 = very easy to change

List of potential behaviour patterns to target	Score (use full range of scores)			Rank (1–5)	Points (5–1)
	Importance (1–5)	Changeability (1–5)	Total (IxC)		

KNOWLEDGE AND SKILLS

- What are the areas for increasing knowledge and skills related to the priority behaviours?

[illegible]

*Note that "Feasibility" is not included as a priority-setting criterion. In general the feasibility of delivering any particular message is similar and the prior rating thus based solely on "Importance."

ENVIRONMENTS Environment setting: Homes/Families

- What are the areas for potential change in the home and family environment related to the priority behaviours?

IMPORTANCE

(what is the relevance and impact of this in our situation?)

- 1 = not important at all
- 2 = a little important
- 3 = somewhat important
- 4 = very important
- 5 = extremely important

CHANGEABILITY

(how easy or hard is this to change?)

- 1 = very hard to change
- 2 = hard to change
- 3 = possible to change
- 4 = easy to change
- 5 = very easy to change

Environment type	Environment setting HOMES/FAMILIES	Score (use full range of scores)		Total (IxC)	Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)			
Physical What is/is not available?	Food					
	Physical Activity					
Economic What are the financial factors?	Food					
	Physical Activity					

Environment type	Environment setting HOMES/FAMILIES	Score (use full range of scores)		Total (IxC)	Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)			
Policy What are the rules?	Food					
	Physical Activity					
Sociocultural What are the attitudes, beliefs, perceptions, values, practices?	Food					
	Physical Activity					
Other options						

ENVIRONMENTS Environment setting: Schools

- What are the areas for potential change in the school environment related to the priority behaviours?

IMPORTANCE

(what is the relevance and impact of this in our situation?)

- 1 = not important at all
- 2 = a little important
- 3 = somewhat important
- 4 = very important
- 5 = extremely important

CHANGEABILITY

(how easy or hard is this to change?)

- 1 = very hard to change
- 2 = hard to change
- 3 = possible to change
- 4 = easy to change
- 5 = very easy to change

Environment type	Environment setting SCHOOLS	Score (use full range of scores)		Total (IxC)	Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)			
Physical What is/is not available?	Food					
Economic What are the financial factors?	Physical Activity					

Environment type	Environment setting SCHOOLS	Score (use full range of scores)		Total (IxC)	Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)			
Policy What are the rules?	Food					
	Physical Activity					
Sociocultural What are the attitudes, beliefs, perceptions, values, practices?	Food					
	Physical Activity					
Other options						

ENVIRONMENTS Environment setting: Neighbourhoods

- What are the areas for potential change in neighbourhoods related to the priority behaviours?

IMPORTANCE

(what is the relevance and impact of this in our situation?)

- 1 = not important at all
- 2 = a little important
- 3 = somewhat important
- 4 = very important
- 5 = extremely important

CHANGEABILITY

(how easy or hard is this to change?)

- 1 = very hard to change
- 2 = hard to change
- 3 = possible to change
- 4 = easy to change
- 5 = very easy to change

Environment type	Environment setting NEIGHBOURHOODS	Score (use full range of scores)		Total (IxC)	Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)			
Physical What is/is not available?	Food					
Economic What are the financial factors?	Physical Activity					

Environment type	Environment setting NEIGHBOURHOODS	Score (use full range of scores)		Total (IxC)	Rank (1–5)	Points (5–1)
		Importance (1–5)	Changeability (1–5)			
Policy What are the rules?	Food					
	Physical Activity					
Sociocultural What are the attitudes, beliefs, perceptions, values, practices?	Food					
	Physical Activity					
Other options						

Stage 4: MERGE

List the elements with the highest ranking in the table below.

Behaviours	Knowledge/Skills	Environments

Stage 5: ACTION PLAN

PROJECT NAME:

AIMS

Objective (impact)	Strategies and actions	Timeline	Status	By Whom	Process Evaluation Indicators

PRIORITIZING AREAS

for action in the field of population-based prevention of

CHILDHOOD OBESITY



A SET OF TOOLS FOR MEMBER STATES
to determine and identify priority areas for action



World Health
Organization



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