

Health Impact Assessment: Concepts and Guidelines for the Americas



**Pan American
Health
Organization**



**World Health
Organization**
REGIONAL OFFICE FOR THE **Americas**

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Abbreviations

CEQA	California Environmental Quality Act
CGE	Computable general equilibrium
CSDH	Commission on Social Determinants of Health
EC	European Commission
ECPH	European Centre for Health Policy
EHIA	Environmental and health impact assessment
EES	European Employment Strategy
EPHIA	European Policy Health Impact Assessment
EU	European Union
ExIA	Extended impact assessment
HIA	Health impact assessment
HiAP	Health in All Policies
IA	Impact assessment
IAIA	International Association for Impact Assessment
IDB	Inter-American Development Bank
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
IIA	Integrated impact assessment
INDEC	National Statistics and Censuses Institute (Argentina)
INEC	National Statistics and Censuses Institute (Costa Rica)
INEGI	National Statistics, Geography, and Informatics Institute (Mexico)
LAC	Latin America and the Caribbean
MDGs	Millennium Development Goals
NEPA	National Environmental Policy Act (United States)
NGO	Nongovernmental organization
NRM	Natural resources management
ODI	Overseas Development Institute (United Kingdom)
OECD	Organization for Economic Cooperation and Development
OMB	Office of Management and Budget (United States)
PAHO	Pan American Health Organization
PIA	Preliminary Impact Assessment
RA	Risk assessment
SDH	Social determinants of health
SEA	Strategic environmental assessment
SMEs	Small- and medium-sized enterprises
UK	United Kingdom
UNDP	United Nations Development Programme
WHO	World Health Organization
WHO-EURO	World Health Organization, Regional Office for Europe

I. Introduction

I. Introduction

Health, both individual and collective, always has been essential for both human and social development; this is why the debate on the best way to protect and care for it is so broad, and why there are several approaches proposed on how to do so. Health impact assessment (HIA) is one of these approaches, where the objective is to improve and safeguard individual health by offering a practical, evidence-based tool that enables governments to improve their planning processes.

It has been 60 years since the Constitution of the World Health Organization (WHO) went into effect. It defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1948: 1). It also pointed out that the “enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition” (WHO, 1948: 1).

Furthermore, there are other milestones and documents—such as the Ottawa Charter for Health Promotion (1986), the establishment of Health21: Health for all in the 21st century in WHO’s European Region (WHO-EURO, 1998), the report on Health in all policies (Ståhl et al., 2006), and the report of the Committee on Social Determinants of Health (CSDH) (WHO, 2008)—to name just a few. These documents proposed that the health of individuals and societies cannot be the exclusive responsibility of the health sector (WHO, 1986; WHO, 1999; Ståhl et al., 2006; WHO, 2008). This implies that responsibility for a population’s health improving, worsening, or remaining stable is shared by the different sectors interacting in society. Nowadays, the challenge does not limit itself simply to a society maintaining acceptable health indicators, since evidence has proved that marked health inequities exist both among countries and within each country.

Recently, in the declaration emanating from the World Conference on Social Determinants of Health held in Rio de Janeiro, Brazil, in October 2011, WHO reaffirms the principle of equity. This means that equity should exist in the form of equitable rights to health as well as equitably shared duties and responsibilities, with everyone doing their part (WHO, 2011). In addition, the declaration recognizes that improving people’s health and well-being is the main objective of social and economic development. It also affirms that changes in the global health situation call for putting into practice the principle of Health for all in the 21st century, through relevant policies and strategies at the regional and national levels (WHO, 2011).

In the Region of the Americas (hereafter referred to as “the Region”), all this implies a need to apply practical tools that contribute to achieving all these commitments and objectives. This document invites not only considering but also adopting health impact assessment as a practice in the Region. Each country has its own specific context, which means each should consider the most appropriate mechanism for application. Nevertheless, what is most important is increase its application to create lessons learned and improve this tool that has a lot to offer the Region.

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II. Impact Assessment (IA)

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II.1 Origin and Definition of Impact Assessment (IA)

"The oldest, most well-established aspect of IA is Environmental Impact Assessment (EIA). Increasing concerns in developed economies about the impact of human activities on human health and on the biophysical environment led to the development of the concept of EIA in the 1960s, and to its adoption as a legally-based decision-support instrument later in that decade to assess the environmental implications of proposed development. The National Environmental Policy Act (NEPA) in the USA, which was created in January 1, 1970, was the first of many EIA laws and procedures in countries around the world. The European Union approved a Directive on EIA in 1985. Currently, EIA is a requirement in most countries of the world. In some countries, there are often both national/federal and state/regional EIA systems and regulations." (De Jesus, 2009: 1-2).

As a result, all impact assessments as we know them today have their origins in EIA. At present, there are also other kinds of IA that go beyond the biophysical environment, since they include an assessment of the possible social and economic impact of the different measures proposed.

"Some systems (e.g., African Development Bank) use the expression 'Environmental and Social Impact Assessment' to emphasize the inclusion (and the importance) of the social impacts.

Other forms of IA focus on the specific type of impacts (e.g., Social IA, Health IA, Ecological or Biodiversity IA). These may be carried out independently, but also in a joint exercise with other IA. To emphasize such integration of different forms of impacts, some professionals and institutions use the expression Integrated IA. For others, the integration of the environment, social and economic dimensions of assessment justifies the adoption of a distinct term: Sustainability Assessment." (De Jesus, 2009).

With the exception of environmental impact assessment, impact assessments have no legal framework in most countries—while in others, there is not even a coordinated system for putting them into practice.

At the international level, there are many types of impact assessments.

"Impact Assessment (IA) simply defined is the process of identifying the future consequences of a current or proposed action. The 'impact' is the difference between what would happen with the action and what would happen without it." (IAIA, 2011).

It is also defined as "a set of logical steps ... that prepares evidence for political decision-makers on the advantages and disadvantages of possible policy options by assessing their potential impact" (EC, 2009). The results of these analyses are summarized and presented in an impact assessment report.

It is very important to emphasize that impact assessment is nothing more than an "impact evaluation" or "impact analysis," which are the terms used in Latin America. Its purpose involves a prospective exercise capable of influencing decision-making before making the actual decisions. In any case, it is a prospective evaluation.

"The use of impact assessment tools has become widespread in OECD countries over the past two decades. Countries that successfully introduced a culture of impact assessment in their regulatory processes include, most notably, the U.S., U.K., Canada, Australia and New Zealand—all of which share, not surprisingly, common law legal systems." (Renda, 2006).

In terms of health impact assessment, the United Kingdom is one of the countries with the most experience, together with Finland and the Netherlands, among others (Renda, 2006; Wismar et al., 2007).

“The first, complete procedure for assessing the costs and benefits of a proposed regulation was introduced in 1981 in the U.S., under the administration of President Ronald Reagan, although other attempts had been made in previous years ... The U.S. model of impact assessment is nowadays so pervasive in U.S. administrations that every year the U.S. Office of Management and Budget (OMB) publishes a comprehensive calculation of the costs and benefits of regulations enacted over the previous year.” (Renda, 2006: 7).

As expected, this has also given rise to a heated debate on the quality of government cost--benefit calculations, as well as on reliability of the methodology used to prepare prospective analyses (Renda, 2006: 62).

The European Union (EU), on the other hand, has recently been making moves to comprehensively examine its economy. Such attempts have proliferated—especially since 2003, when the European Commission (EC) began to prepare a list of structural indicators for monitoring the progress made by its Member States towards reaching the goals of the Treaty of Lisbon. Moreover, the EC has endeavored to specifically detect the relationship that exists between sectoral reforms and general progress. For example, the EC has its own impact assessment system (EC, 2009); and before proposing any new initiative, it requires an assessment of the possible economic, social, and environmental consequences. The EC includes (not explicitly in an official document, but certainly on its Impact Assessment website) the different types of impact assessment for 27 major categories, which are listed in Annex 1 of this document (EC, 2011). This list is subject to continuous updates, since it depends on the different policies submitted for impact assessment.

The International Association for Impact Assessment (IAIA) describes itself as being “the leading global network on best practice in the use of impact assessment for informed decision making regarding policies, programs, plans and projects” (IAIA, 2011). At the same time, the stated mission of this association is “to provide the international forum for advancing innovation and communication of best practices in all forms of IA, so as to further the development of local, regional, and global capacity in impact assessment” (IAIA, 2011).

As can be observed, impact assessment is a necessary practice not only for decision-making but also for improving policies, programs, or projects implemented in the countries. This assessment can refer to any specific issue of importance to a country's growth and development, as is clear in the case of the European Commission previously cited (EC, 2011).

Impact assessment is important because all policy decisions should be based on a solid evaluation grounded in the best information available. According to the European Commission, any system that coordinates and follows up on IAs seeks to meet the following objectives:

- “helps the EU institutions to design better policies and laws;
- facilitates better-informed decision-making throughout the legislative process;
- ensures early coordination within the Commission;
- takes into account input from a wide range of external stakeholders, in line with the Commission's policy of transparency and openness towards other institutions and the civil society;
- helps to ensure coherence of Commission policies and consistency with Treaty objectives such as the respect for Fundamental Rights and high-level objectives such as the Lisbon or Sustainable Development strategies;

- improves the quality of policy proposals by providing transparency on the benefits and costs of different policy alternatives and helping to keep EU intervention as simple and effective as possible;
- supports the principles of subsidiarity and proportionality are respected, and to explain why the action being proposed is necessary and appropriate." (EC, 2009: 6).

It is also important to mention that a strategy of "integrated impact assessment" (IIA) already exists, which the European Commission introduced in 2002. It incorporates the economic, social, and environmental impact of the proposals submitted (Renda, 2006: 53). All initiatives proposed by the EC for inclusion in its annual strategies and programming should be submitted to a "preliminary impact assessment" (PIA); those with a greater expected impact are submitted to an "extended impact assessment" (ExIA) (Renda, 2006: 59-66).

In other countries, it has not been easy to implement an integrated impact assessment system. However, once more considering the example of the European Union, this process has implied making positive use of other countries' experiences—especially the United States and the United Kingdom—and adapting them to their national context.

In June 2002, the European Commission launched its Action Plan: Simplifying and Improving the Regulatory Environment (EC, 2002).

"The new impact assessment model was introduced as part of the wider Action Plan, together with a communication aimed at simplifying and improving the regulatory environment and measures aimed at promoting a 'culture of dialogue and participation' within the EU legislative process" (Renda, 2006: 52).

The EC decided to integrate all existing forms of prospective assessments by developing a model for IIA, which went into effect on 1 January 2003.

"Such [a] model bears the heavy responsibility of ensuring that adequate account is taken at an early stage of the regulatory process of both the competitiveness and sustainable development goals, which rank amongst the top priorities in the EU agenda" (Renda, 2006: 52-53).

For any proposal under study, this IIA model incorporates not only its economic impact, but also its social and environmental impact. Furthermore, as mentioned earlier, the system adopts a two-phase strategy:

"All Commission initiatives proposed for inclusion in the Annual Policy Strategy or the Commission Legislative and Work Program ... must undergo a 'preliminary impact assessment'. Moreover, a selected number of proposals with large expected impact are subjected to a more in-depth analysis called 'extended impact assessment.'" (Renda, 2006: 53).

The European Commission describes what it considers to be an economic, social, or environmental impact:

- "The economic impact includes both the macro- and micro-economic impact of the selected option, mostly in terms of economic growth and competitiveness, i.e., changes in compliance costs, including administrative burdens to businesses/SMEs (small- and medium-sized enterprises) and implementation costs for public authorities, impacts on the potential for innovation and technological development, changes in investment, market shares and trade patterns as well as increases or decreases in consumer prices, etc.
- The social impact includes the impact of the proposal on human capital, on fundamental/human rights, the compatibility of the proposal with the Charter of Fundamental Rights of the European Union, but also prospective changes in employment levels or job quality, changes affecting gender equality, social exclusion and poverty, impacts on health, safety, consumer rights, social capital,

security (including crime and terrorism), education, training and culture, as well as distributional implications such as effects on the income of particular sectors, groups of consumers or workers, etc.

- The environmental dimension concerns positive and negative impacts associated with the changing status of the environment such as climate change, air, water and soil pollution, land-use change and bio-diversity loss, changes in public health, etc.” (Renda, 2006: 54-55).

The private sector has also made attempts to introduce the practice of IA, although their follow-up and use in that sector is still not clearly established. A 2002 IAIA publication indicates the importance of incorporating impact assessment into the private sector. This includes the IAIA framework for Impact Assessment, Sound Business Operation, and Corporate Responsibility for Sustainable Development (IAIA, 2002: 1), as well as the Policy and Performance Standards on Environmental and Social Sustainability, and Access to Information Policy of the International Finance Corporation (IFC), affiliated to the World Bank group (IFC, 2011: 1). This latter approach, in the context of IFC-funded private-sector investment projects, constitutes IFC’s attempt to adapt them to a framework of sustainable development, without actually conducting an impact assessment per se.

In Latin America and the Caribbean (LAC), there is currently no knowledge of an impact assessment system existing in any of the countries, or of such assessments being systematically carried out, or of their generalized and continuous use for decision-making. However, this applies neither to the use of EIAs, which should also be evolving towards greater use in LAC, nor to the need to understand that environmental impact assessment or strategic environmental assessment need to take on a more instrumental function in strategic decision-making (Oppermann and Montaña, 2011: 4).

II.2 Impact Evaluation or Impact Assessment?

This section attempts to briefly explain the difference between impact evaluation and impact assessment/analysis, with respect to this document.

As was already commented, impact assessment is defined as “process of identifying the future consequences of a current or proposed action” (IAIA, 2011). In contrast, impact evaluation could be defined as “a process that generates knowledge of the effects of a project or program with regard to the goals proposed and resources mobilized” (Liberta Bonilla, 2007). There are various definitions of impact evaluation, but the following stands out: “an evaluation which looks at the impact of an intervention on final welfare outcomes, rather than only at project outputs, or a process evaluation which focuses on implementation” (Independent Evaluation Group, 2006).

The main point from the aforementioned definitions is that, while impact assessment implies future consequences, the definitions of evaluation and of impact evaluation respectively refer to the effects of the proposed goals and to end results. To this can be added the noteworthy fact that in LAC, the term “impact evaluation” is frequently used to refer to studies focused on demonstrating the impact (in the sense of results or outcomes) of interventions that have already been implemented.

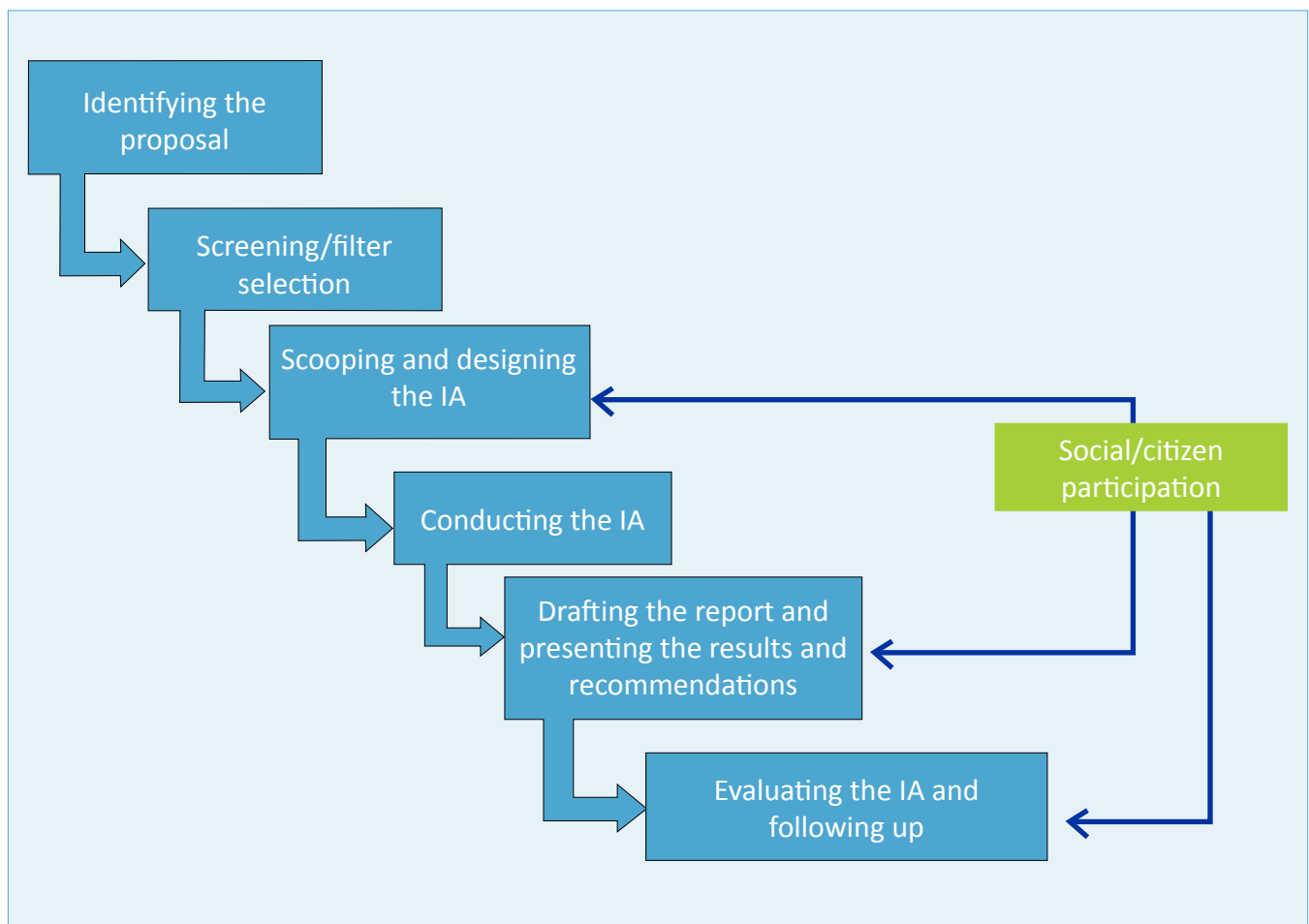
II.3 Methods for Health Impact Assessment

As HIA has its origin in environmental impact assessment, the vast majority of methodologies include the following five basic steps:

1. Screening / filter selection,
2. Scoping and designing the impact assessment,
3. Conducting the impact assessment,
4. Drafting the report and presenting the results and recommendations,
5. Evaluating the impact assessment and following up.

Some methodologies may change with regard to specific details; but in general, every single process of impact assessment consists of the above steps. In addition, the number of stages is not as important as is the content and what should be done in each area (WHO, 2011).

Figure II.1 Basic steps for carrying out an impact assessment



Source: Espinoza, 2007:47.

Social/citizen participation is a very important practice that HIAs attempt to promote and include in the process.

In the context of the European Commission, HIAs should examine “the likely economic, social and environmental impacts—both intended and unintended—for each option, as well as potential trade-offs and synergies” (EC, 2009: 31).

In this context, the purpose of a HIA is:

“to provide clear information on the impacts of the policy options as a basis for comparing them both against one other and against the status quo, and possibly for ranking them in relation to clearly identified evaluation criteria. In presenting the impacts of different policy options the HIA should assess the impacts of policy options as net changes compared to the ‘no policy change’/baseline, ... show[ing] how each policy option differs from the baseline scenario, in terms of their characteristics and of the results that they would produce. The more quantification you can provide, the more convincing the analysis will generally be.

You should keep in mind that the credibility of a HIA depends to a large extent on providing results that are based on reliable data and robust analysis, and which are transparent and understandable to non-specialists. This exercise will usually require an inference from the collected data, either formally through statistical analysis or model runs, or more informally by drawing on an appropriate analogy with measured impact or activities. This assessment should go beyond the immediate and desired aspects (the direct effects) and take account of indirect effects such as side-effects, knock-on effects in other segments of the economy and crowding out or other offsetting effects in the relevant sector(s).” (EC, 2009: 32).

There are various models and tools for HIA. Below is a non-exhaustive list of a few of them:

- Systematic reviews and use of available publications to back up certain data,
- Surveys,
- Expert consultations,
- Problem trees and causal models,
- Cost-effectiveness, cost-usefulness, and cost-benefit,
- Quantitative models,
 - Models of computable general equilibrium (CGE)
 - Models of environmental impact assessment (EIA)
 - Sectoral models
 - Macroeconomic models
 - Microsimulation models
 - Risk assessment/analysis
- Project evaluation exercises.

Also of note is the use of key indicators proposed at the international, national, or local level (such as the Millennium Development Goals, or MDGs). The basic rule of thumb is to use indicators relevant to the proposal in question.

Here is an example for this process following the recommendations of the European Commission, where the elaboration stage of “analysis of impacts consists of three major steps:

1. Identification of economic, social and environmental impacts.
2. Qualitative assessment of the more significant impacts.
3. In-depth qualitative and quantitative analysis of the most significant impacts.

The sources of information and data you need for the three steps will vary. You may be able to carry out steps 1 and 2 by drawing on expertise available in the Commission, desk reviews of existing research, studies and evaluations, possibly enriched by involving outside experts, and by using the results of consultations with stakeholders.” (EC, 2009: 32)

For Step 3, you will need to carry out a more in-depth assessment, which calls for the “In-depth analysis of expected impacts over time, which typically requires a case study/scenario approach: This type of analysis can be implemented on its own, though in reality it is generally used in conjunction with a quantitative analysis of impacts.

- Quantitative estimation of impacts: the impacts are estimated using quantitative techniques, varying from simple extrapolation, based for instance on previously derived coefficients... through statistical inference” based on very elaborate quantitative modeling ... Essentially, the aim is to understand the extent of the impacts of the policy options and to estimate the costs and benefits in monetary form when this is feasible.” (EC 2009: 39).

As shown in the above, many issues can be submitted for HIA. Moreover, with the system currently used in the European Union and in such countries as the United States, some HIAs go much further and end up being combined with analysis tools—such as cost-effectiveness tools and their variants—aimed at improving decision-making. Thus, you can prioritize existing proposals so as to make more efficient use of public resources and maximize the population's well-being. The most suitable method for HIA depends on the subject being assessed and the information available, which means that it is possible to use one or more tools or techniques according to context.

II.4 Health Impact Assessment in the Public Policy-Making Process

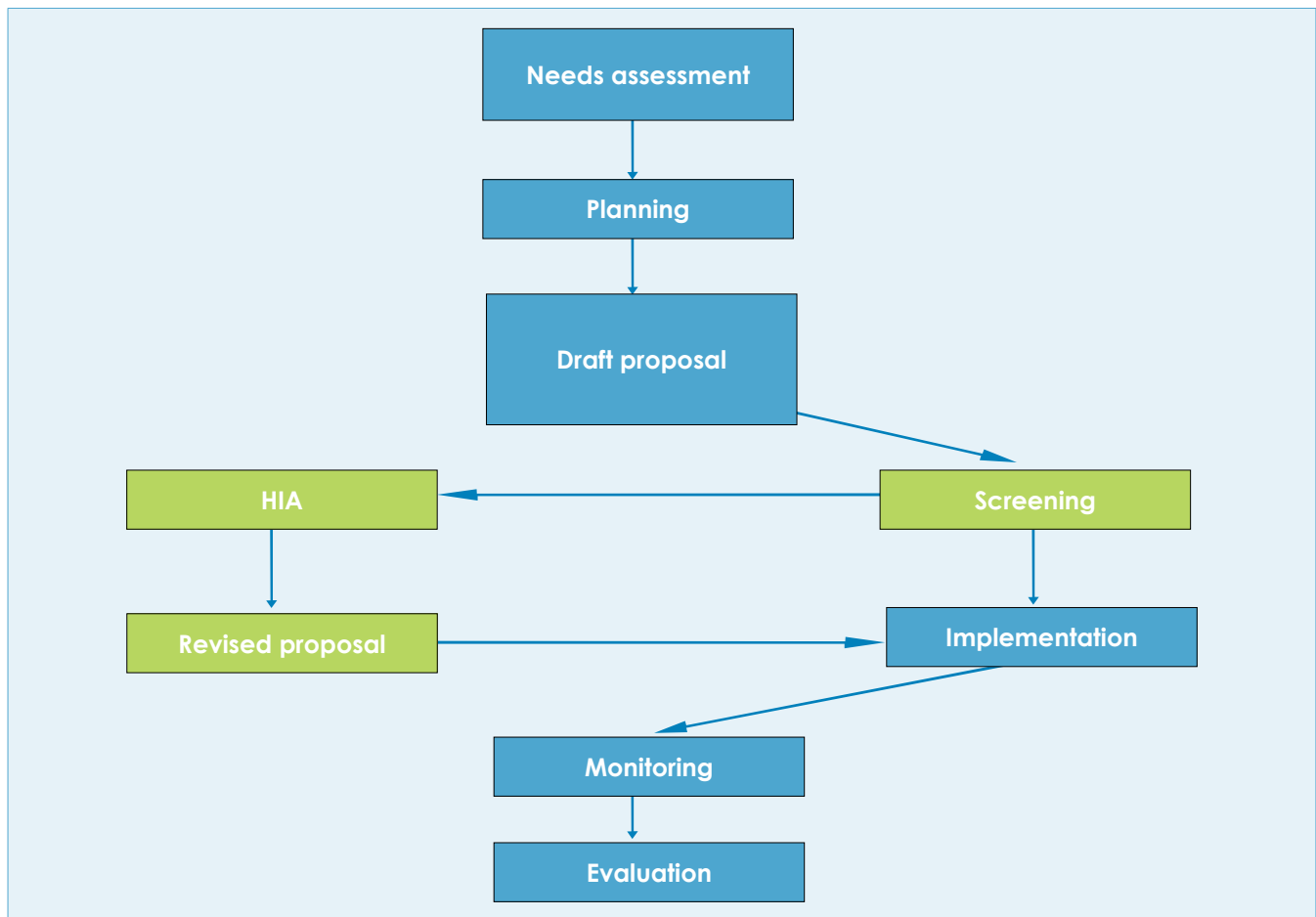
In any government (national, regional, or local), institution, or organization, there are planning and programming cycles. The purpose of these cycles is mainly to organize activities and construct a timetable for meeting the proposed objectives. HIA is part of the planning cycle before policies, programs, or projects are initiated. Furthermore, a HIA should be carried out before any policy, program, or project proposal is accepted.

The prospective philosophy of HIA is that they take place prior to implementing any intervention (policy, program, or project). This allows for identifying any unintended impact that the intervention might have and then minimizing it before it is too late (Figure II.2).

In fact, in the countries where HIA is applied systematically, they anticipate and permit a certain amount of time to carry out the assessment. Furthermore, all proposals should be accompanied either by their respective HIA plan, or by an explanation justifying why the HIA will not be carried out. The time needed to carry out the HIA comes before the legislature is in session, so that the intervention proposal in question will be on the agenda for debate after completion of the HIA (EC, 2009; Renda, 2006).

Looking at HIA from the standpoint of the project cycle, it should accompany project development from its initial conception onwards (Espinoza, 2007). This means that, as the project is being implemented, the HIA will have fulfilled its prospective function and will then proceed to the impact evaluation of the project in the usual sense. This impact evaluation consists of verifying whether the original indicators and goals have been met.

Figure II.2 Impact assessment in the planning process



Source: Harris et al., 2007:6

In countries where a HIA system is already in use, one can see a well-defined process with specific dates that correspond to the respective legislative sessions. This process is not brief; in fact, the more complete the HIA is, the greater its complexity will be. This means that it is important to have clear criteria that define both relevance and depth when preparing a HIA. The depth of the HIA will depend on both the complexity and types of potential impacts of the intervention (program, project, plan, or policy) in question.

II.5 Culture of Evaluation and Health Impact Assessment in the Americas

Culture of Impact Assessment in the Region

Attempts to assess the impact or outcomes of interventions have a long history in the social sciences.

“All professional interventions in people's lives are subject to essentially the same questions about acceptability and effectiveness. As the social reformers Sidney and Beatrice Webb pointed out in 1932,

there is far more experimentation going on in “the world sociological laboratory in which we all live” than in any other kind of laboratory, but most of this social experimentation is ‘wrapped in secrecy’ and thus yields ‘nothing to science.’” (Oakley, 1998: 1239).

Nowadays, we know that such social experimentation makes a substantial contribution to the social sciences.

Furthermore, “the term ‘control’ entered scientific language in the 1870s in the sense of a standard of comparison used to check inferences deduced from an experiment. The main use of the term was in experimental psychology.” (Oakley, 1998: 1240) Since then, there has been a certain degree of curiosity about evaluating the impact of different types of interventions.

As can be expected, an effort was made in the Americas to obtain statistics before evaluating the impact of interventions on populations. One of the first countries in the Region that began to obtain statistics on its population was the United States (starting in 1790) (U.S. Census Bureau, 2011). However, since the 19th century, such countries as Argentina, Costa Rica, and Mexico, among others, began to compile their own population statistics (INDEC, 2011; INEC, 2010; INEGI, 2011). In the 20th century, the countries of the Region began to create institutions that are still in charge of coordinating and disseminating national statistics on various topics. Compiling statistics is carried out one step before impact evaluation; first, things must be measured so that afterwards changes in the values obtained can be analyzed, along with the possible causes of these changes.

“Impact evaluations have a long history in the health and agriculture/NRM (natural resources management) sectors, and thus a broader array of experiences from which to draw lessons, in terms of not only evidence about programme interventions that do and do not work, but also methodologies and practical implementation challenges. [...] In keeping with the broader literature on impact evaluations, there is little systematic analysis of how impact evaluations have been used in policy processes about human and social development and, in turn, the efficacy of such efforts.” (Jones et al., 2009: 47, 25).

Of more recent date, a report from the Overseas Development Institute (ODI) surprisingly makes the comment that the most influential example of impact assessment is Mexico's Progresá program (in English, the name means “Progressing,” though the program later changed its name to Oportunidades or “Opportunities”).

“Strikingly, when asked about examples of influential impact evaluations, almost all respondents referred to the example of Progresá, an evaluation of Mexico's cash transfer programme, which aims at promoting children's (and especially girls') educational, nutritional and health attainment through regular monthly cash payments to mothers. The evaluation is known for its positive contribution to the survival of the programme in the context of a major political upheaval in Mexico's history (a shift in power from a long dominant ruling party to the opposition), as well as for its demonstration effect and providing inspiration for similar types of programmes around the globe, including in other parts of Latin America (Nicaragua, Ecuador, Brazil), in Turkey, in New York and increasingly in Africa (e.g. Ghana, Kenya, Malawi).” (Jones et al., 2009: 27).

Progresá had several innovative characteristics, thanks to which the Mexican government was able to obtain funding from the International Food Policy Research Institute (IFPRI, in Washington DC) to carry out an evaluation on program results related to reducing poverty in the country (Skoufias, 2000). This program was launched in 1997, along with a process to obtain information for its evaluation; to date, periodic impact assessment reports have been issued.

In light of this, one could say that the culture of impact assessment in the Region has a long history, although it has only been recently (at the end of the 20th century) that impact assessments have generally carried greater weight in the policy agendas and scientific programs of Latin American and Caribbean

countries. This currently-existing IA culture in LAC is corroborated in two documents, both funded by the Economic Commission for Latin America and the Caribbean (ECLAC) and published in 2005: *Manual para la evaluación del impacto de proyectos y programas de lucha contra la pobreza* (Manual for the impact assessment of poverty reduction projects and programs) (Navarro, 2005) and *Evaluación del impacto* (Impact Assessment) (Aedo, 2005). Both contain a study and detailed comments on the implications of IA and how to conduct such an assessment

Today, the countries of Latin America and the Caribbean are undergoing a process to improve the quality of their impact assessments, making them increasingly compatible with the information needed by the country's authorities and by the agencies funding various social policy projects. In this context, it has been observed that obstacles to producing quality impact assessments are gradually being reduced. It has also been confirmed that learning and practicing IA varies from one country to another in LAC. This is another point that needs to be addressed, since not all countries have advanced at the same pace (Moreno et al., 2009).

Environmental Impact Assessment in the Americas

Environmental impact assessment (EIA) is very similar to health impact assessment (HIA) with regard to its philosophy, basis, and principles.

"Environmental impact assessment ... is the evaluation of the effects likely to arise from a major project (or other action) significantly affecting the environment. It is a systematic process for considering possible impacts prior to a decision being taken on whether or not a proposal should be given approval to proceed." (Jay et al., 2007).

The immediate purpose of EIA is to give decision-makers information indicating the probable environmental consequences of the measures they may adopt.

"The philosophy and principles of EIA can be traced back to a rationalist approach to decision-making that emerged in the 1960s. This requires a technical evaluation to be made which provides the basis for objective decision making (Owens et al., 2004). This 'technical-rational' model has been translated into a whole suite of assessment, or appraisal, tools ... [To date,] EIA has arguably become the most widely recognized and practiced of these." (Jay et al., 2007).

This has been due to the previous era of rapid industrialization and population growth, which is still observable in some parts of the Region and which resulted in an imbalance between the planet's environment and human activities. This has resulted in the majority of today's countries having a solid legislative basis for EIA (Jay et al., 2007). Furthermore, by the mid-1990s, two-thirds of the nearly 110 developing countries (as identified by the World Bank in 1997) had enacted some type of legislation for environmental impact assessment (Wood, 2003: 3). In recent years, this global trend towards having a legislative basis for EIA has apparently continued to grow (Wood, 2003: 8).

As mentioned earlier, the first country in the Region of the Americas to lay a legal foundation for environmental impact assessment was the United States, with the National Environmental Policy Act (NEPA) of 1969 (Jay et al., 2007). There is proof of EIA standards existing in developing countries from the mid-1970s onwards. However, their application varies from one country to another; and their performance tends to be below that of developed countries (Wood, 2003). Usually, in terms of EIA, there are differences between developing countries and developed countries.

"Despite these variations, it remains true that, on the whole, EIA in developing countries tends to be very different from EIA in the developed world. The most conspicuous difference relates to the fact that the first EIAs to be carried out in developing countries were usually demanded by development assistance

agencies on a project-by-project basis, not as a response to a widespread indigenous demand for better environmental protection." (Wood, 2003: 5).

Another factor that has influenced the positioning of EIA in some of the developing countries was the appearance of a sustainable development agenda (Wood, 2003: 5).

Similar to what happened in the majority of developing countries, the process of institutionalizing EIA in Latin America responded primarily to meeting the credit eligibility criteria of such international funding organizations as the Inter-American Development Bank or the World Bank. The first Latin American country to incorporate EIA into its natural resource legislation was Colombia (1973), followed by Mexico (1978), Brazil (1988), Venezuela (1992), Bolivia (1992), Paraguay (1993), Chile (1993), Honduras (1993), and Uruguay (1994), to mention just a few (Espinoza, 2007).

One study reviewed the current situation of the use of environmental impact assessment in LAC. It came to the conclusion that in order to strengthen the use of environmental impact assessment, we need to promote a global improvement—but one that respects the special case-by-case features of managerial capacities, understanding that the problem is not only legal or regulatory, but rather conceptual and related to practical application (Espinoza, 2004). This study looked at 26 LAC countries, though it did not specify which ones.

The aforementioned study reviewed four key aspects of environmental impact assessment (Espinoza, 2004: 12):

- The legal and procedural framework related to environmental policy and to laws and regulations on EIA in the different countries.
- The application framework, linked to a set of indicators showing the utilization of EIA systems.
- The perceptivity framework, in which a set of EIA experts in the countries state their respective positions on the performance of EIA systems.
- The sustainability framework, which analyzes the consistency of an EIA sample.

With regard to the legal framework, the greatest difficulties observed to date were those related to two fundamental aspects: weaknesses in recognizing, classifying, and ranking impact, and the absence of procedures for document review and qualification that allow for determining the projects' environmental relevance. Noteworthy is the absence of standardized methods for issuing an objective, transparent score utilizing recognized, accepted criteria and minimum discretion (Espinoza, 2004: 12).

Regarding the EIA application framework, it is important to take into consideration the restricted scope of the general results obtained in the studies from the aforementioned 26 countries, since in the majority of them, the available statistics were poor and incomplete. Despite the limited quality of the information, the author nonetheless was able to draw the conclusion that 24 out of the 26 LAC countries analyzed had EIA requirements in effect. However, results showed that EIA was not sufficiently consolidated and that some adjustment was necessary to make them more useful for decision-making and environmental protection processes. The available files with information on EIAs were incomplete in most of the countries, so that it was impossible to obtain details on such aspects as the types of projects evaluated, the volume of investment, and participatory processes. Furthermore, some countries did not have any information on the real situation with respect to environmental impact assessment (Espinoza, 2004: 14).

The perceptivity framework surveyed 691 experts (representatives from academia, consultants, nongovernmental organizations (NGOs), and the public and private sectors). In general, it was apparent that the experts perceived EIA systems as a bureaucratic transaction but recognized the need to make sustained efforts to truly prevent given impacts. Results indicated that, in general, the majority

of respondents (29%) considered that EIA systems were running all right; 28% responded that they were running between insufficiently and poorly; and 25% responded that they were running well to excellently (the remaining percentage responded with “don’t know, no answer”). (Espinoza, 2004: 15-16).

Regarding the sustainability framework, some 200 environmental impact assessments already approved by the authorities were analyzed, in their most complete and exacting categories, for a subset of 10 countries. This review assessed the relevance of their formal aspects (compliance with legal and regulatory requirements), technical aspects (quality of the information and methodology), and environmental sustainability aspects (suitability of the project and its adaptation to environmental policy). Only 4% of the cases studied could be rated as totally complete, by virtue of having documents that showed environmental impact management. It is important to emphasize the low score (under 30%) given to specific topics for the amount of detail devoted to mitigation, compensation, and monitoring measures, as well as to citizen consultation procedures (Espinoza, 2004: 17-18).

Espinoza's 2004 study allows for identifying two points of major importance to Latin America and the Caribbean:

1. The fact that EIA is legislated or regulated in the countries does not guarantee that its practice is appropriate. This is due to the fact that stakeholders and those carrying out the assessment do not share the same concepts, that they still need to be more aware of the increased number of practical tools for preparing EIAs, and that there are no clear “game rules.”
2. Though more than two decades have passed since the introduction of EIAs, there is still no definitive setup of a solid system for them.

Impact Assessment in the Region

In addition to the aforementioned official use of impact assessments in the United States since the 1980s, evidence shows IAs have been used in Canada for some time now. This goes back to 1974, with the creation of a federal cabinet to review the repercussions of environmental decisions. Nowadays, Canada assesses several types of impacts to identify the inadvertent effects of public and private enterprises on human health or the environment. Currently, four different types of IA are the most common: “Health Impact Assessment (HIA), Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), and Risk Assessment (RA)” (Mendell, 2010: 3).

Aside from the United States and Canada, evidence to date shows that no other country of the Americas is either implementing an IA system, systematically carrying out impact assessments, or contributing to the national debate on their use. However, this does not take into account any previously reviewed EIAs, since the environment is the only topic formally considered for IA within the Region. Besides continuing to make progress in terms of impact assessment, it is important for countries to start adopting IA in a way that works best in Latin America and the Caribbean.

“The existence of a large variety of impact assessments has led to a certain amount of confusion ..., as there are no definite separations between approaches. For example, Environmental Impact Assessments may (or may not) evaluate impact on human health or on the social determinants of health; Health Impact Assessments may (or may not) address issues of equity, while Equity-focused Health Impact Assessments explicitly evaluate this dimension.” (Mendell, 2010:3).

In LAC, countries might profit from observations such as these—as well as other knowledge already acquired in Europe and North America—as they start using impact assessment more efficiently in their own settings. Thus, they can contribute not only to the debate but also to the learning process.

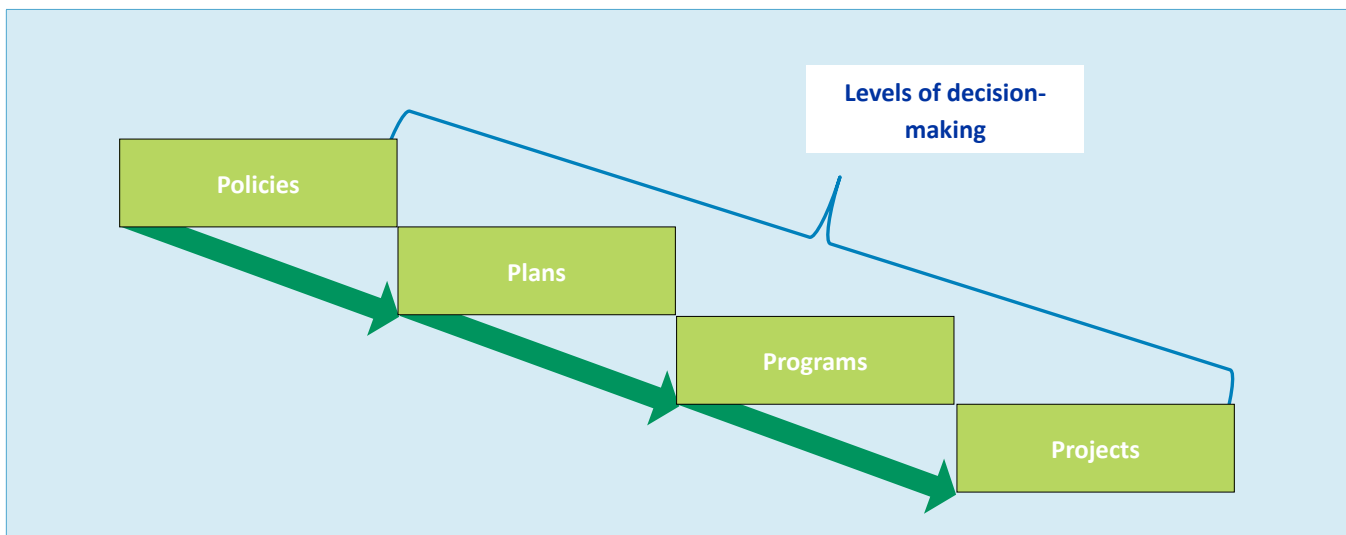
III. Health Impact Assessment

III. Health Impact Assessment

III.1 Introduction, Definition, and Origin of Health Impact Assessment

“Health impact assessment, or HIA, is a structured decision support practice to characterize the anticipated health effects, both adverse and beneficial, of societal decisions. Decisions subject to HIA may include projects, plans, programs, and policies undertaken by government or the private sector.” (Bhatia, 2011: 1).

Figure III.1 Levels of decision-making



Source: Espinoza, 2004:5

Decisions made for policies, plans, programs, and projects affect the conditions in which people are born, grow, live, work, and age (i.e., the social determinants of health). Hence, there is an emerging need to analyze the possible effects on health before implementing any intervention or putting it into practice.

When properly utilized, health impact assessment will recommend options for alternative decisions and mitigation strategies, to ensure that the decisions made will protect and promote the population's health. Both health and its protection are social values widely shared among societies; however, the motivation behind HIA being a field of practice comes from the notion that economic, social, and environmental conditions have a powerful influence on people's health (WHO, 2008; Bhatia, 2011). In fact, “the most important determinants of health and disease are subjects of policy-making in institutional sectors outside the authority of the public health sector” (WHO, 2008; Bhatia, 2011: 1).

In this regard, two things need to be pointed out. First, there is increasing acceptance of the notion that people's health goes beyond the health sector and that it is therefore necessary to involve other sectors in their making a commitment to health and taking responsibility. Second, intervention proposals presented by the different actors—including the health sector—should be analyzed before a final decision is reached, for the purpose of correcting whatever is necessary before the intervention is ever implemented.

The definition most widely accepted at the international level is the proposal made at a meeting organized by the WHO Regional Office for Europe (WHO-EURO), contained in the document known as the Gothenburg Consensus:

“Health Impact Assessment is a combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population” (WHO-EURO, 1999: 4).

Another more concrete definition of health impact assessment is “the estimation of the effects of a specified action on the health of a defined population” (Scott-Samuel, 1998: 704).

“HIA emerged as an independent field of practice

- in response to gaps in existing mechanisms to consider health in institutional decision-making, and
- in response to calls for shared interinstitutional ownership for health promotion” (Bhatia, 2011: 5).

“HIA is intertwined with the history of both environmental protection and regulation, as well as growing attention to the social determinants of health and concerns about health inequities” (Bhatia, 2011: 5). In 1986, WHO's Ottawa Charter for Health Promotion identified that, “The fundamental conditions and resources for health are peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice and equity” (WHO, 1986: 1). This type of charter

“puts health on the agenda of policymakers in all sectors and at all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health” (WHO, 1986: 2).

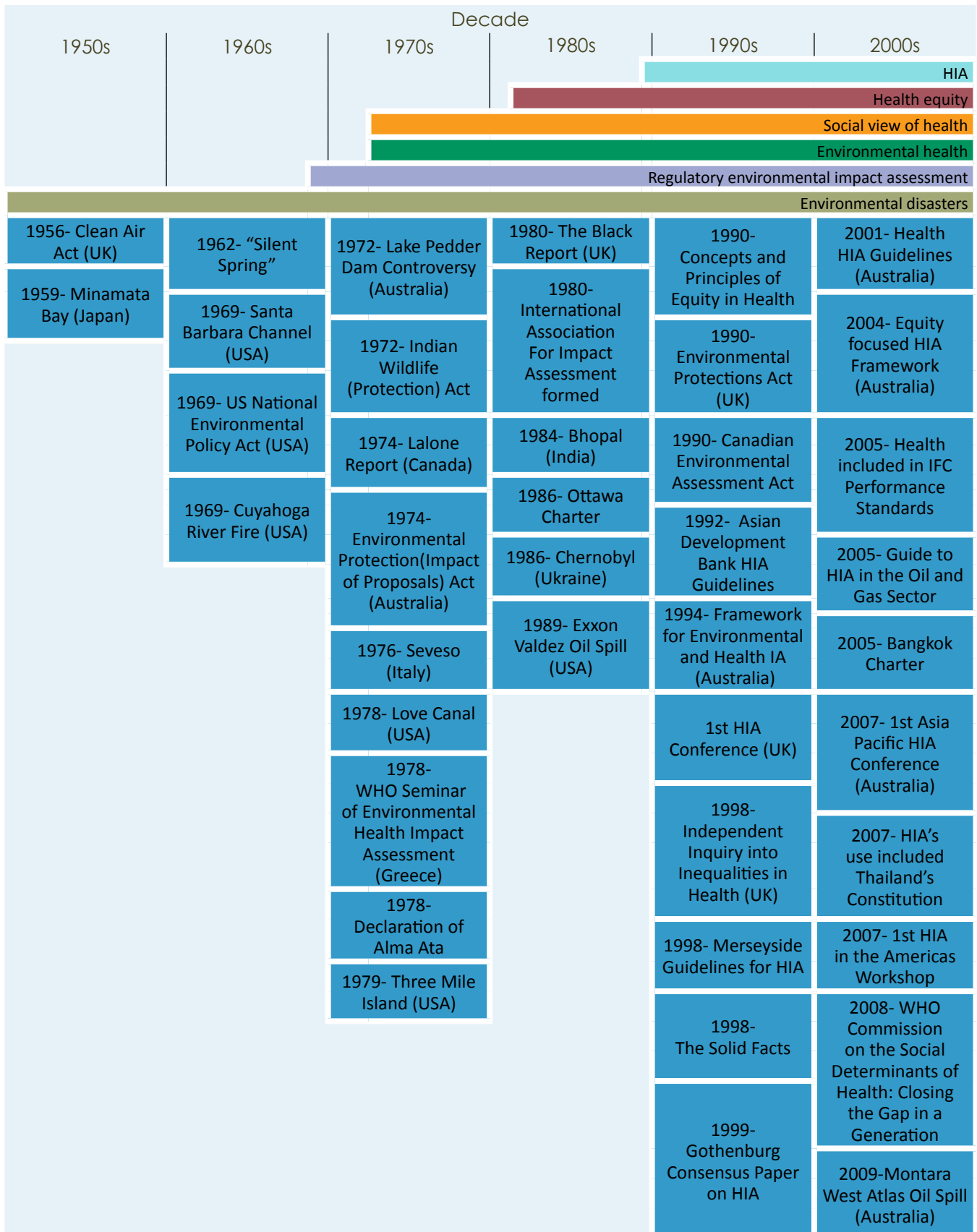
Moreover, the charter states that,

“Systematic assessment of the health impact of a rapidly changing environment—particularly in areas of technology, work, energy production and urbanization—is essential and must be followed by action to ensure positive benefit to the health of the public” (WHO, 1986: 3).

“Although components of health impact assessment exist within the practice of EIA, understanding about the breadth of health determinants contributed to calls for HIA as an independent practice” (Bhatia, 2011: 7). In 1999, WHO-EURO issued the aforementioned consensual declaration—the Gothenburg Consensus—on HIA, which gave this new field the necessary legitimacy for it to become an officially recognized methodology (WHO, 1999).

Throughout the history and evolution of health impact assessment, several milestones have enabled a better understanding of how HIA has arrived at its current situation. Figure III.2 shows a few important milestones in HIA evolution that appear in Bhatia's HIA practice guide (2011). Some are not mentioned—among them, the declaration of Jakarta (1997), the definition of the Millennium Development Goals (MDGs) (2000), WHO's creation of its Commission on Macroeconomics and Health (2000), and various milestones in Latin America and the Caribbean. However, this chronology nonetheless constitutes an excellent representation of the history and evolution of health impact assessment.

Figure III.2 Milestones in the evolution of health impact assessment



Source: Bhatia, 2011:6, adapted from an illustration provided by Dr. Ben Harris-Roxas (University of New South Wales, Australia).

"In the past two decades, HIA has evolved to become an independent professional practice internationally. Leadership for HIA has emerged from local government, community organizations, universities, and industries. For example, project proponents and affected communities may ask for HIA based on concerns about a decision's potential health or environmental justice effects or simply to fulfill a community's 'right to know.' Public health agencies, as well as other organizations, are increasingly using HIA as one of several means to raise awareness about health determinants, to advance precautionary and health supportive public policy, and to collaborate across institutional and disciplinary sectors." (Bhatia, 2011: 7).

To date, in the Region of the Americas, there has been no proof that any country has any type of legislation or regulation for practicing HIA as proposed in this document (i.e., as a well-known and commonly accepted practice). Similarly, up to now, no international organization has stipulated the submission of a health impact assessment as a requirement for receiving loans or development aid .

In recent years, it is evident that HIA has demonstrated its usefulness by acting as a catalyst for other sectors to take into account the repercussions to health. Despite HIA's increasing use at the international level, the countries of LAC have not demonstrated an organized and continuous use of this tool.

III.2 Concepts of Health Impact Assessment

"The name 'health impact assessment' may suggest that it is simply an adaptation of environmental impact assessment (EIA), but this is misleading. Much of the practice and theory of HIA owes more to notions taken from healthy public policy and policy science than to EIA.

An activity directed at prediction involves radically different modes of reasoning to most science. Most scientific activities involve making observations and then drawing conclusions from them. HIA, in contrast, starts with a series of theories about how the world works and the causal connections between events. It then assumes these theories to be correct and deduces from them the predicted consequences of implementing various options. The place of observation in this process is limited to describing the baseline conditions, which the policy is expected to modify, and possibly assessing the accuracy of the prediction after the chosen policy option has been implemented. The theories used in this process are usually referred to as the 'evidence base' for HIA, and this evidence base has largely been built and tested by observational studies." (Kemm, 2006: 190).

What Health Impact Assessment Is and Is Not

What HIA Is

- "Health impact assessment is an approach that supports policy-makers by predicting the consequences and clarifying the various trade-offs that have to be made.
- Health impact assessment aspires to describe all health impacts. For example, a HIA might include death, admissions to hospital, loss of sleep, anxiety and self-esteem among the outcomes predicted." (Kemm et al., 2006: 190).
- HIA is also an organized way to objectively assess health impacts and efficiently use public resources.

What HIA Is Not

- "HIA is not some sort of complicated calculus that identifies the best policy option.

- HIA does not attempt to make value judgments about the relative importance of these different outcomes, since such judgments are the preserve of the policy-maker." (Kemmm et al., 2006: 190).

Different Schools of Thought in the Area of Health Impact Assessment

Over time, two schools of thought have been identified for developing health impact assessment. It should be noted that these two ways of thinking are differentiated by their methodological approach and by their approach to the conceptual framework within which an IA should be developed. Table III.1, which follows, presents areas in which these two schools of thought are in opposition.

Table III.1 Schools of thought in the area of health impact assessment		
Epidemiology	versus	Sociology
Quantitative	versus	Qualitative
Technical	versus	Participatory
Impartiality	versus	Advocacy
Tool for the authorities	versus	Weapon against the authorities
Voluntary	versus	Regulated
Integrated	versus	Characteristic

Source: Kemmm, 2007.

Health Impact Assessment as a Tool for Evidence-based Decision-making

In many cases, it is obvious that any impact on health resulting from measures or decisions made outside the health sector is usually both direct and acknowledged. For example, it is clear that adequate nutrition is fundamental for staying healthy; but in order to achieve a basic level of nutrition, a person needs to have a minimal level of income that will allow for it. In other cases, it is not so clear what the repercussions of a given public policy or measure taken outside the health sector will be on the population's health, or whether it will be positive or negative. What frequently occurs is that people have a feeling that these actions will have a positive or negative effect on their health, but there is no assessment carried out to determine the magnitude of this impact. (Ståhl et al., 2006).

As a consequence of the above, the need arises to find out what information is necessary to assess the possible health impact of policies made by sectors outside of health or by the private sector. Also, we need to develop and validate analytical tools that have the necessary methodological rigor.

As a result of the aforementioned needs at the global level the HIA methodology has been developed. Noteworthy is the fundamental nature of trying to predict possible consequences to health that may arise from various public policies. If properly carried out, HIA is a great tool to help public policy-makers (or decision-makers) foresee how different intervention options can affect health. This means following a systematic series of processes aimed at reducing the probability of uncomfortable 'surprises' i.e., that allow us to avoid any unexpected negative impacts on health that may occur when implementing a policy—and at the same time, to maximize any positive impacts on health.

Furthermore, different public authorities at the international, regional, and state levels have supported the development of methodological and operational tools to promote institutionalization of health impact assessment. One example of this is how the World Health Organization has both created and provided support to different groups and networks that develop HIA within the Organization. Another example is how the European Commission has developed different initiatives for promoting and standardizing HIA (Stahl et al., 2006).

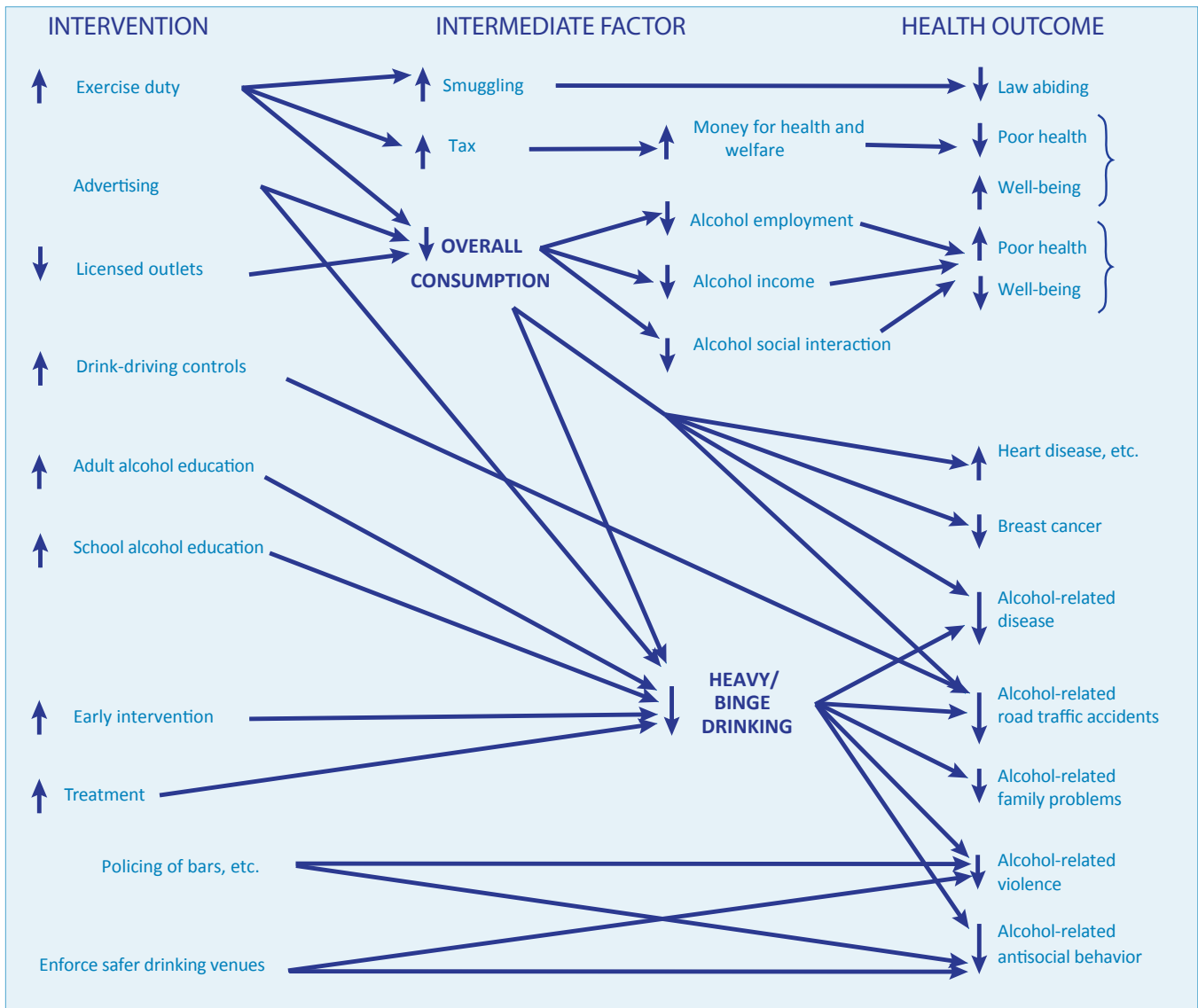
A Basis for Predicting Health Impacts

As has already been mentioned, HIA bases its predictions on a set of logical, causal models that relate each policy option to a series of intermediate factors (determinants and risk factors) that can bring about outcomes that affect health. Ideally, for each intermediate factor (which could be employment, income, traffic density, or legal or regulatory framework, among others), the nature of the impact on health could be predicted (death, disease, or damage to mental health or social cohesion)—as well as the trend of the resulting change (increasing or decreasing) and its magnitude. The magnitude of these repercussions has at least two dimensions: the number of people affected, and the degree to which they are affected. (EPHIA Project Group, 2004).

Figure III.3 “illustrates a possible causal chain (or web) for changes in alcohol policy. Similar models could be constructed for any other policy option” (Kemmer, 2006: 191). One can clearly observe a number of different results that might occur, according to the chosen intervention, and how an intervention can affect more than one intermediate factor.

“This approach has been described as the policy risk assessment model and is extremely helpful in forcing clarity about the assumptions which underlie any prediction. There are many uncertainties about causal paths; and in very few cases can one state the precise scope of the effect that would result from changing a supposed causal factor.” (Kemmer, 2006: 191).

Figure III.3 Causal relations in an alcohol policy



The thickest lines indicate the ways considered most important.

Source: Kemm, 2006.

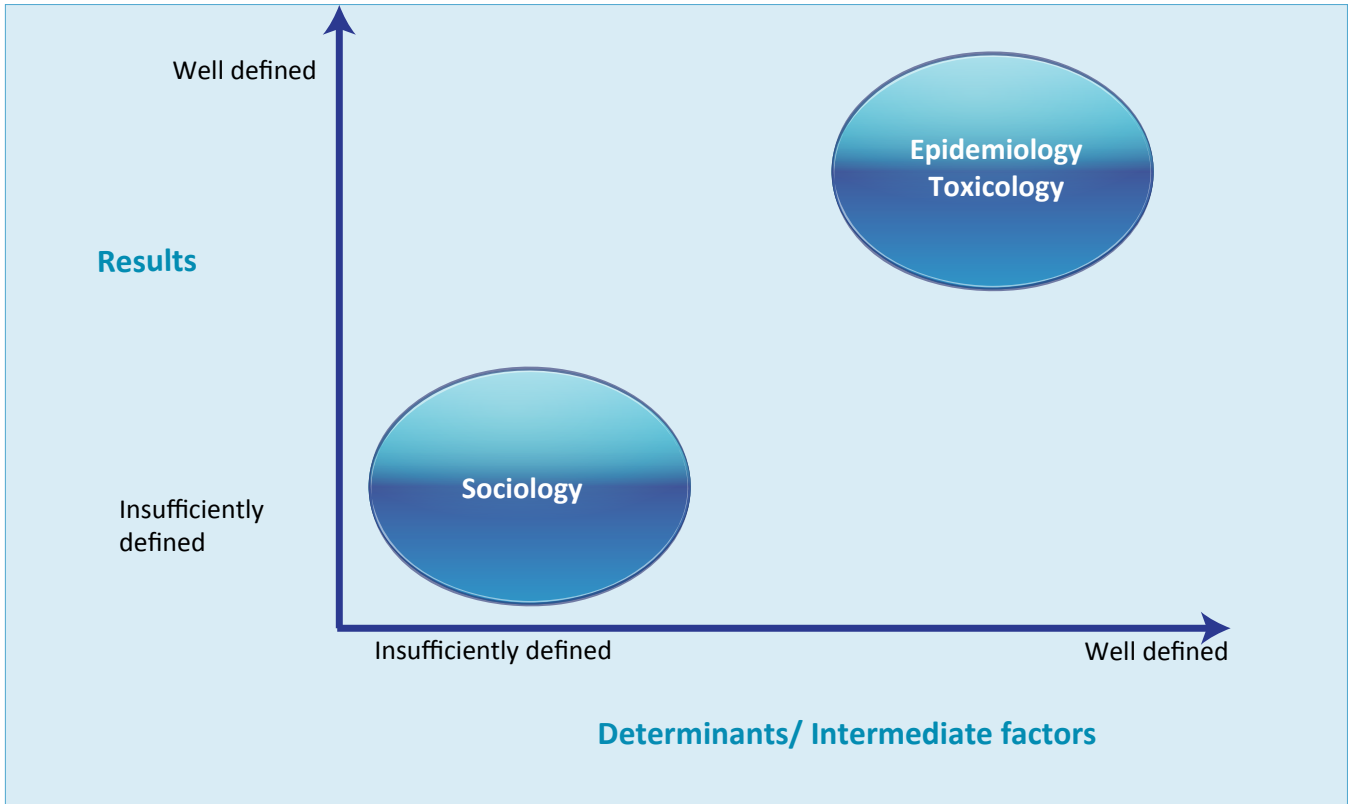
“The presumed causal relationships used in prediction should be based on evidence”. For some things—such as the relationship between smoking and disease—there is a wealth of evidence on causal mechanisms and the relationship is well understood. For other matters—such as the relationship between employment and health—there is considerable observational evidence; but the nature of the relationship is imperfectly known, and much more needs to be discovered about the scope of effects and the importance of various modifiers (social determinants of health). For some factors, such as the components of social capital and housing quality, one can only roughly describe the possible causal relationships.” (Kemm, 2006: 191).

However, verification of the latter can be subject to debate.

Evidence and Results in Health Impact Assessment

Figure III.4 shows how those determinants or intermediate factors that have a well-grounded definition facilitate the existence of solid evidence on their health impacts. Consequently, the end result of these determinants vis-à-vis health in clinical terms is very clear. In this situation, the areas of epidemiology and toxicology (as seen in the upper right-hand corner of the figure) take on a greater weight.

Figure III.4 Type of evidence used in health impact assessment



Source: Kemm, 2007.

On the other hand, in a situation that is the reverse of the one described above, it is evident that when there is no well-established definition of the determinants from the clinical standpoint, one can expect the evidence related to their effects not be as solid in clinical terms. Subsequently, the ultimate outcome of said determinants will not be defined by other sciences. In the situation just mentioned, it is clear that sociology has a greater weight and, as a result, is the most useful for addressing the health determinants and impacts found in the lower left-hand corner of Figure III.4.

Types of Health Impact Assessment

In accordance with its level of complexity, its importance, and the amount of available resources, the HIA that should be developed can be modeled on one of the types indicated in Table III.2.

Level type	Work required
Rapid health impact assessment (prepared in a few days)	Theoretical analysis Depends on the reliability of existing information (what is already known) Minimum quantification Minimum consultation
Normal health impact assessment (prepared in a few weeks or a few months)	Limited bibliographical search Depends to a great extent on commonly used data Quantifies as much as possible Full participation of different stakeholders
In-depth health impact assessment (prepared over several months)	Exhaustive bibliographical search More in-depth and detailed analysis of existing data New data collected Exhaustive quantification Full participation of different stakeholders

Source: Kemm, 2007.

Values of Health Impact Assessment

“The Gothenburg consensus paper (World Health Organization, 1999) indicates that values are framed by society, the government in power, the sector, and the people working in the sector within which a proposal is placed” (WHO, 1999; Quigley et al., 2006: 3).

Based on Quigley et al. (2006), the values of HIA are as follows:

- “Democracy: Emphasizing the right of people to participate in the formulation and decisions of proposals that affect their life, both directly and through elected decision-makers. In adhering to this value, the HIA method should involve and engage the public, and inform and influence decision-makers. A distinction should be made between those who take risks voluntarily and those who are exposed to risks involuntarily.
- Equity: Emphasizing the desire to reduce inequity that results from avoidable differences in the health determinants and/or health status within and between different population groups. HIA should consider the distribution of health impacts across the population, paying specific attention to vulnerable groups and recommending ways to improve the proposed development for affected groups.
- Sustainable development: Emphasizing that development meets the needs of the present generation without compromising the ability of future generations to meet their own needs. The HIA method should judge short- and long-term impacts of a proposal and provide those judgments

within a time frame to inform decision-makers. Good health is the basis of resilience in the human communities that support development.

- Ethical use of the evidence: Emphasizing that transparent and rigorous processes are used to synthesize and interpret the evidence, that the best available evidence from different disciplines and methodologies is utilized, that all evidence is valued, and that recommendations are developed impartially. (In adhering to this value,) the HIA method should use evidence to judge impacts and inform recommendations; it should not set out to support or refute any proposal, and it should be rigorous and transparent.
- Comprehensive approach to health: Emphasizing that physical, mental and social well-being is determined by a broad range of factors from all sectors of society (known as the 'wider determinants of health'). [In adhering to this value], the HIA method should be guided by the wider determinants of health." (Quigley et al., 2006: 3).

III.3 Social Determinants of Health and Health Inequities

The social determinants of health are the conditions in which people are born, grow, live, work, and age: i.e., the context of daily life, its actions, and the results of these actions. WHO's Commission on Social Determinants of Health (CSDH) points out that

"the structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries" (WHO-CSDH, 2008: 1).

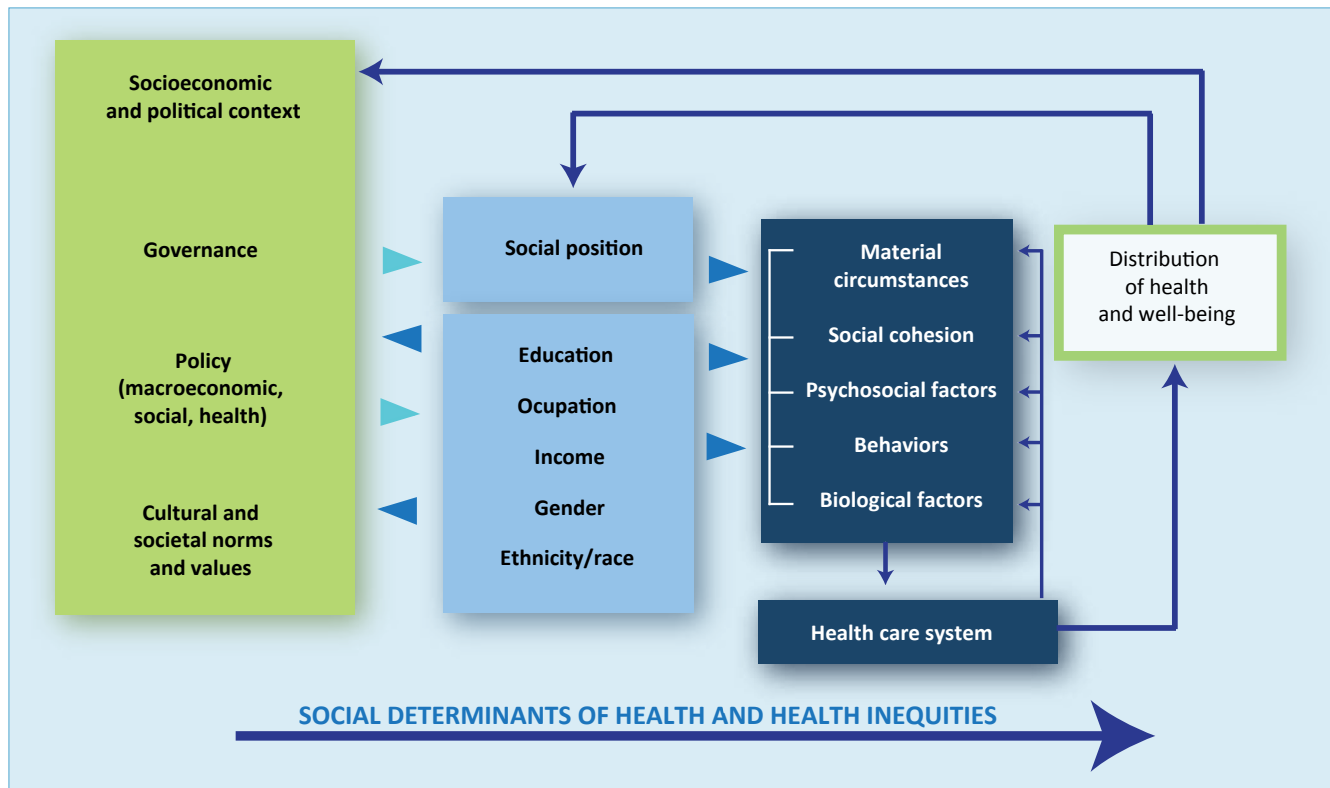
The report of WHO's Commission on Social Determinants of Health mentions the incorporation of a "new approach for development:"

"Health and health equity may not be the aim of all social policies but they will be a fundamental result. ... But growth by itself, without appropriate social policies to ensure reasonable fairness in the way its benefits are distributed, brings little benefit to health equity." (WHO-CSDH, 2008: 1).

It indicates that "our core concerns with health equity must be part of the global community balancing the needs of social and economic development of the whole global population, health equity, and the urgency of dealing with climate change" (WHO-CSDH, 2008: 1). The overall goal proposed by the Commission on Social Determinants of Health, which makes up the title of its report, is closing the gap in a generation (referring to health inequities). To this end, the report proposes three overarching recommendations:

1. Improve daily living conditions.
2. Tackle the unequal distribution of power, money, and resources.
3. Measure and understand the problem and assess the impact of action." (WHO-CSDH, 2008: 2).

Figure III.5 Conceptual framework of social determinants of health, WHO Commission on Social Determinants of Health



Source: WHO-CSDH (2008: 43). Amended from Solar and Irwin, 2007..

“The poor health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of people’s lives—their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities—and their chances of leading a flourishing life. This unequal distribution of health-damaging experiences is not in any sense a ‘natural’ phenomenon but is the result of a toxic combination of poor social policies and programs, unfair economic arrangements, and bad politics.” (WHO-CSDH, 2008: 1).

The aim of the social determinants of health (SDH) approach is to achieve social justice by reducing health inequities at the global, national, regional, and local levels.

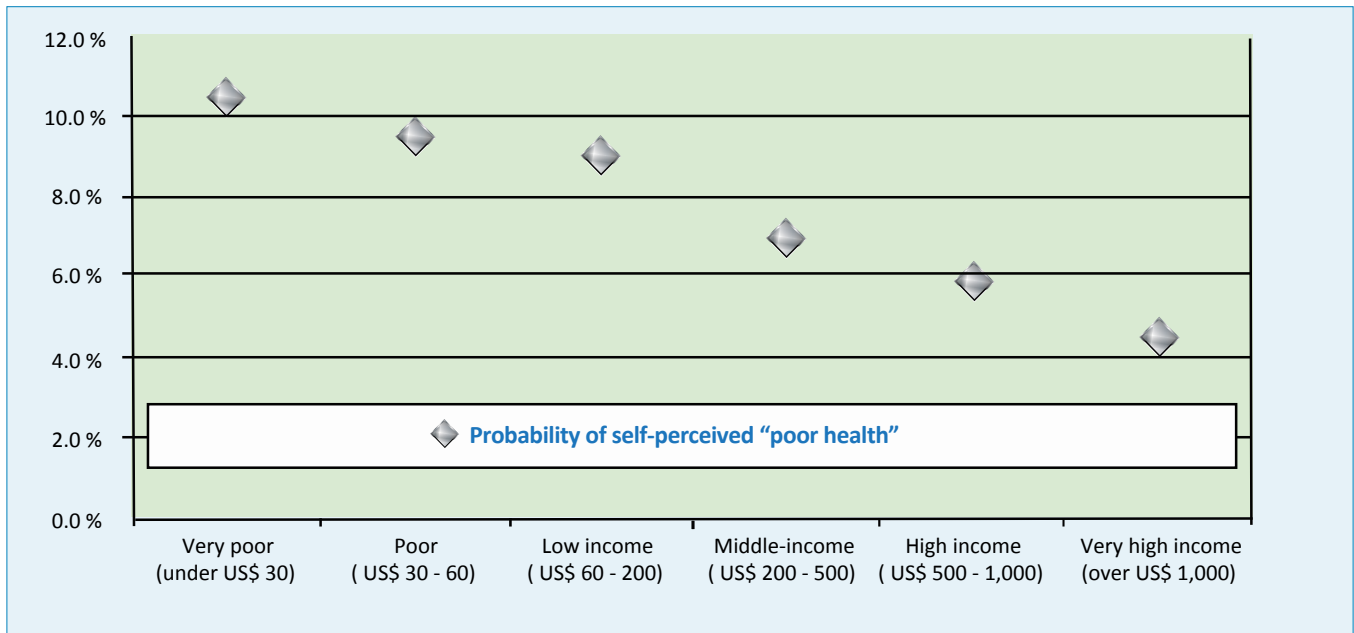
The SDH approach addresses the need for better development, where

“the development of a society, rich or poor, can be judged by the quality of its population’s health, how fairly health is distributed across the social spectrum, and the degree of protection provided from disadvantage as a result of ill health” (WHO-CSDH, 2008: i).

According to the United Nations Development Programme (UNDP), “Latin America ranks first in the world in terms of inequality” (UNDP, 2010: 16). In addition to being very noticeable, this inequality is “also very persistent ... despite the fact that recently there have been significant advances in social achievements, which are reflected in the trend in the human development index (HDI)” (UNDP, 2010: 16). This leads to the so-called “tyranny of averages,” that refers to how an aggregate indicator can present an improvement,

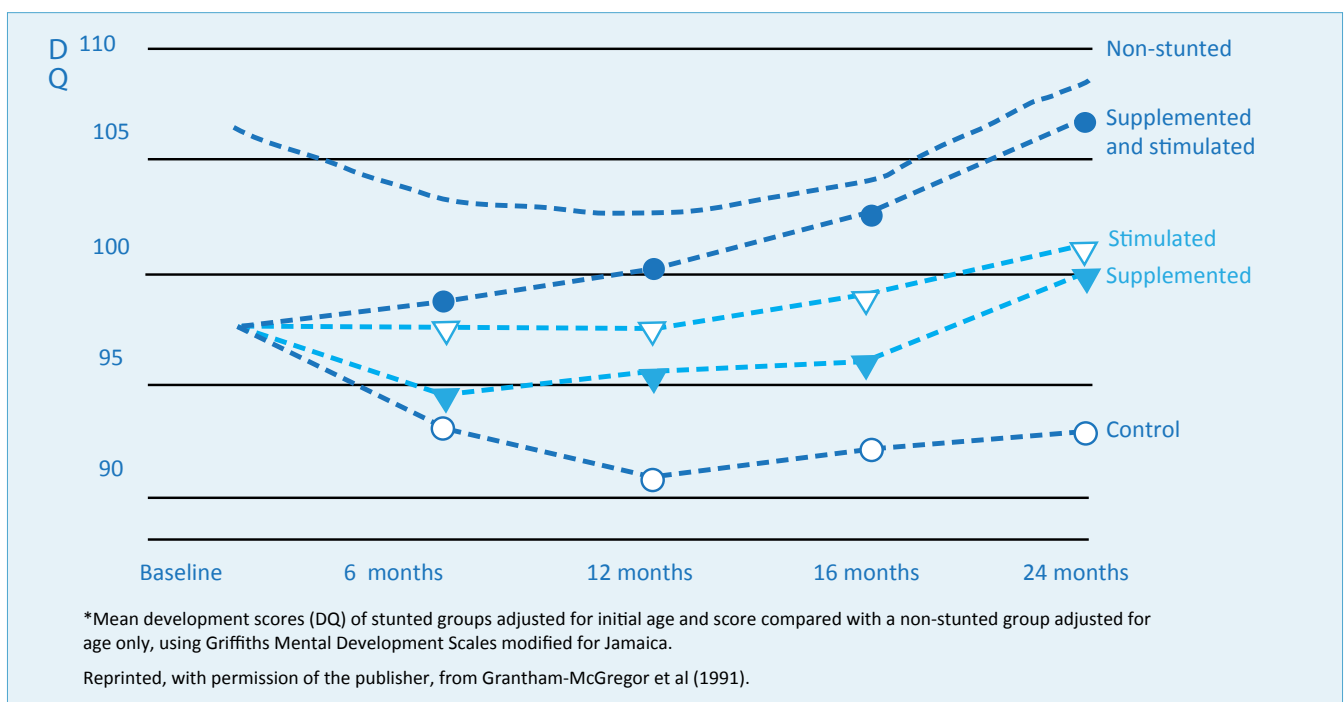
while inequities both within and among subgroups can be increasing (UNDP, 2010). In the Americas, health inequities do exist, which means that their reduction is a priority issue for achieving greater social welfare (see Figures III.6, III.7, and III.8).

Figure III.6 Probability of reporting poor health in people over age 15, by income bracket (Chile, 2000)



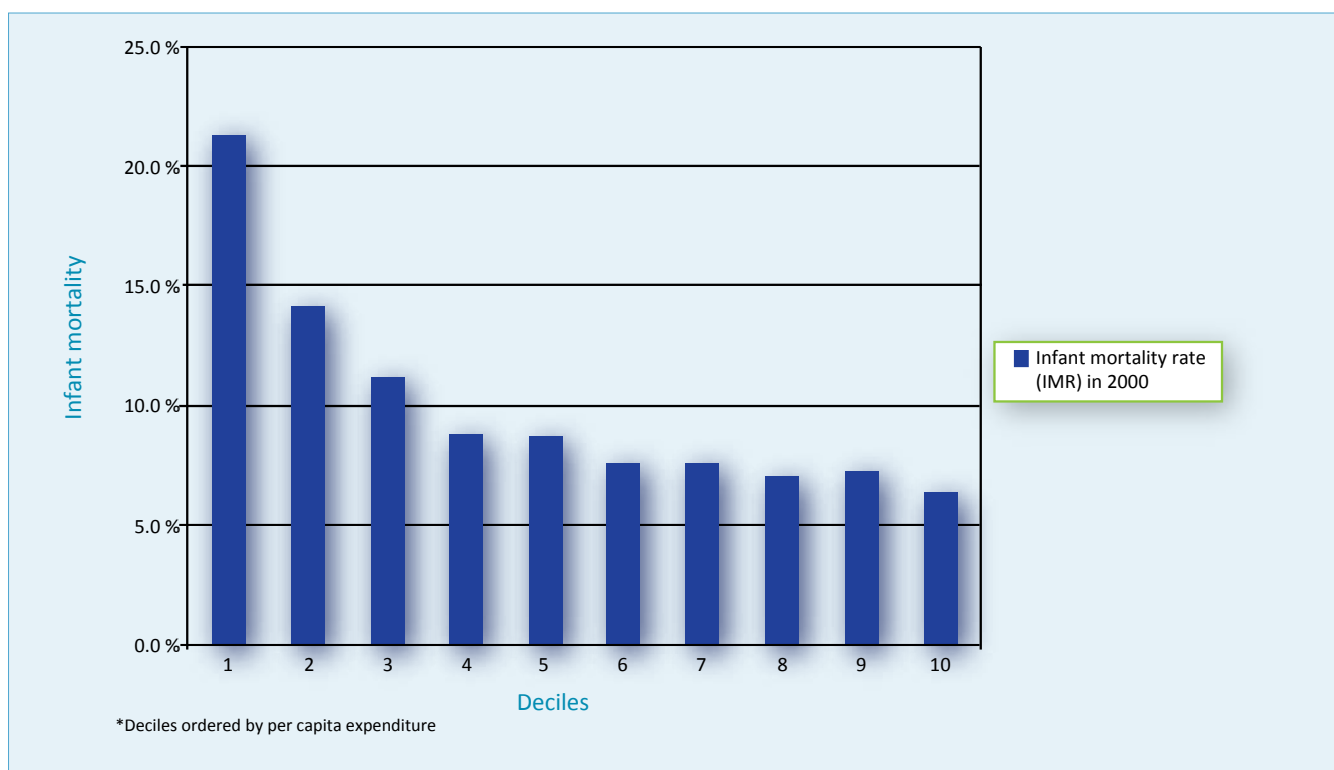
Source: Subramanian, et al. (2003).

Figure III.7 Effects of combined nutritional supplementation and psychosocial stimulation on stunted children in a two-year intervention study in Jamaica*



Source: WHO-CSDH, (2008:3).

Figure III.8 Distribution of infant mortality by expenditure decile* (Mexico, 2000)



Source: Scott (2006).

HIA that follows an equity-focused approach or Health Equity Impact Assessment (HEIA), besides foreseeing any possible repercussions on health, will also allow for analyzing the distribution of those same repercussions—which in turn will enable better decision-making that will then help reduce health inequities. (HEIA) does not differ regarding the steps to carry out, which this document will examine later. It is only the specific step devoted to assessing impacts that takes into account their distribution, in order to identify how the proposal will influence health inequities.

III.4 Health in All Policies

“Health and wealth are related. The link is especially strong at lower levels of affluence. It has been shown that better health boosts rates of economic growth, while countries with weak conditions for health have a hard time achieving sustained growth ... However, for high-income countries, it has been demonstrated that good health contributes positively to the economy while poor health can have substantial negative effects. It is noteworthy that greater socioeconomic inequality in society is associated with poorer average health

In the EU, health systems are seen to form a central part of social protection, as well as providing an important contribution to social cohesion and social justice ... Recently, the Member States of the European Region of WHO endorsed an update of the European Health for All policy, which places health in the framework of human rights, stressing the common European values of equity, solidarity and participation.

Because of the solid evidence that health can be influenced by policies of other sectors, and that health has, in turn, important effects on the realization of the goals of other sectors, such as economic wealth, this guide proposes Health in All Policies (HiAP) as a strategy to help strengthen this link between health and other policies. Health in All Policies addresses the effects on health across all policies such as agriculture, education, the environment, fiscal policies, housing, and transport ... It seeks to improve health and at

the same time contribute to the well-being and the wealth of the nations through structures, mechanisms and actions planned and managed mainly by sectors other than health. Thus, HiAP is not confined to the health sector and to the public health community, but is a complementary strategy with a high potential towards improving a population's health, with health determinants as the bridge between policies and health outcomes." (Ståhl et al., 2006: xvii-xviii).

In the Americas, the impetus to work intersectorally is important. It means that the sectors share responsibilities; and it allows each sector to make a commitment to collaborate as much as possible to improve the population's health and well-being. With the demographic and epidemiological transitions that the countries of the Region have experienced, we are faced with a possible burden of future disease that is economically impossible to defray. More and more people are living longer and suffering more from chronic noncommunicable diseases, which require care over longer periods of time than do communicable diseases and consume many more health resources. At this rate, no public health system can hope to be universal—and this means that it therefore will not be possible to guarantee the right to health to all of a country's inhabitants.

"Policies, determinants and the population's health are conceptualized as a chain of causation. Health in All Policies starts at the source of this chain, and it may help to make policies more consistent overall and therefore contribute to better regulation. A policy with negative consequences for the health of the populations will put an extra burden on the economy and health care systems. Compensating the negative health effects of a policy by health care interventions may turn out to be difficult and costly." (Ståhl et al., 2006: xvii).

III.5 Implementation of Health Impact Assessment at the Global and Regional Levels

Experiences with HIA can be observed in many European countries as well as Australia, New Zealand, Canada, Southeast Asia, and the United States (Kemmer, 2007). In LAC, HIAs have been undertaken, but often times indirectly and not part of a formal national policy. ' This is namely because the HIA process has mainly taken place within the framework of the EIA, though with the specific criterion for "protecting human well-being and population health" (Espinoza, 2007: 232). The latter implies that countries in the LAC have not been able to go beyond considering the environmental sector and include HIAs within the health sector.

HIA is only compulsory in some countries, where requirements stipulate that health impact be considered as a single component in an environmental impact assessment. Aside from the aforementioned context, the practice of carrying out HIAs has been dependent on each country's willingness to regard health as a priority issue, as well as the availability of a corps of enthusiastic advocates who are willing to put together HIAs. Similarly, HIA methods and topics have lacked coherence: while some countries have focused on the impact of the environment on health (e.g., noise and pollution), others have focused on approaches that imply participation and embrace a broader vision of health. Nevertheless, the number of HIAs that have been carried out has continually increased; and furthermore, many of them have been published. (Kemmer, 2007).

HIA has been designed for implementation in policies, plans, programs, and projects—although the majority of these exercises have been carried out in regional or local projects or policies rather than in national policies. In the Netherlands a unit was formed to promote HIA health impact assessment as well as in Canada and the province of British Columbia. In England, any policy being drafted must consider health although it is not entirely clear how reliably this is being done in practice. (Kemmer, 2007).

A study conducted to identify the use of HIA in Europe from 1994 to 2005 examined 158 health impact analyses (Table III.3).

Table III.3 Number of health impact assessments prepared per country in Europe (1994–2005)

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005 ^a	On-going	Year n/d	Total
Austria						2							3		5
Belgium								1			1	1			3
Denmark									1	1					2
England					1		3	7	5	4	4	1		3	28
Finland		1		2	2	2	5	3	3	11	5				34
Germany		1		2						1	2	1			7
Hungary															0
Ireland											3				3
Italy										2	2				4
Lithuania											1				1
Malta												1			1
Netherlands			2	4	3	6	1	1	1						18
North Ireland									2		3				5
Poland						1									1
Portugal															0
Slovakia									1						1
Slovenia	2			1	1					1	1				6
Spain								1		5		1			7
Sweden										1	4				5
Switzerland												1		2	3
Wales				1		2	5	4	3	3	6				24
Total	2	2	2	10	7	13	14	17	16	29	32	6	3	5	158

Note: Only HIAs used in the fact sheets corresponding to the study were recorded in the table.

^a The mapping exercise was completed in 2005. All HIAs completed by this time were included in 2005 and those still in progress were included under "ongoing."

Source: Blau et al, 2007:40

The study identified a total of 470 HIAs. However, due to the high number of these registered in England and the Netherlands, the decision was made to only use a sample of HIAs from these countries for the study, rather than all of them. Despite this, the authors' calculations show that the real number of existing HIAs is even greater, given the undocumented nature of many of them. (Blau et al., 2007: 28) Table III.3 shows that the countries with the most HIAs are (from highest to lowest) Finland, England, Wales, and the Netherlands.

In terms of which sectors carried out the most HIAs, the above study observed that the three predominant sectors were usually transport, housing and urban planning, and the environment (Table III.4). It is noteworthy that the finance sector carried out quite a few HIAs, such that this sector did not rank last among the sectors assessing health impact.

"Depending on the level, some sectors are more prominent than others. At national level, the four main sectors are transport, housing, finance, and health. At regional level, employment is the most common sector, followed by transport, social care, and the environment. At local level, housing is the most common sector, followed by multisectoral, transport, and environment. Transport can be found at all levels, which shows that there are health concerns at all levels when transport systems are involved. However, all these data have to be interpreted with great care, owing to the small number of cases and the aforementioned methodological limitations. Still, the analysis provides evidence that it is possible to conduct HIA in a large variety of sectors." (Blau et al., 2007: 48).

In summary, the study's authors remarked that "from the project data, HIA is found to be fulfilling its intersectoral promise and is conducted in a variety of sectors" (Blau et al., 2007: 47)

Table III.4. Health impact assessment by sector in Europe (1994–2005)

Sector	Number of HIAs
Transport	27
Housing and urban planning	23
Environment	18
Multisectoral	17
Health	14
Other	10
Work	10
Social welfare	8
Finance	8
Energy	7
Agriculture	7
Industry	4
Education	3
Tourism	2
Total	158

Source: Blau et al, 2007:48.

“At present, no general laws or regulations at any government level in the United States explicitly require the conduct of HIA” (Bhatia, 2011: 7). However, many legal frameworks at the federal and state levels require decision-makers to assess the effects and impact on health so as to avoid the negative ones. For this reason, HIA is a method that can be used to comply with existing mandates and standards within these legal frameworks (Bhatia, 2010). The following is a good example of this:

“Human health was a critical part of the vision, policy, and mandate for integrated environmental impact assessment under the 1969 National Environmental Policy Act (NEPA 1969). NEPA requires comprehensive and integrated environmental impact assessments (EIAs) of any federal agency actions with potentially significant effects on the human environment. The law provides for a broad definition of the human environment and specifically mandates consideration of human health effects ... Several state laws, like the California Environmental Quality Act (CEQA) have similar requirements for health analysis in EIA.” (Bhatia, 2011: 4).

The historical trend in the United States has shown only limited attention being paid to effects on health in the process of conducting environmental assessments. Several empirical reviews that have been published indicate NEPA’s current inadequacy in terms of health assessment. However, the specific requirements of HIA are sometimes included in legislation; this is the case, for example, with California’s Global Warming Solutions Act and Washington State’s planning regulations for specific projects (Bhatia, 2010: 7-8). To date, any formal evaluation of that country’s experience with HIA is limited (Wismar, 2004). However, practical experiences in HIA have yielded significant and positive results (Corburn and Bhatia, 2007).

“Two experiences characterize the use of HIA on policies at the provincial level in Canada: that of British Columbia, which lasted several years, and that of the province of Quebec, which launched this practice in the framework of its new Public Health Act adopted in 2001. Among the contextual factors that favored the first tentative government implementation of the practice of HIA in British Columbia in 1993 were the establishment of public health objectives that allowed a larger vision of the health system’s mission, as well as the presence of both government and academic promoters who devoted time and effort to encourage and develop this approach. The departure of these leaders and the problems associated with using an unproven approach contributed to its not surviving the change of government (in British Columbia).” (St-Pierre, 2008: 9.).

“The Canadian health experience also demonstrates that paradigm shifts take time. Over thirty years after the Lalonde Report and over twenty years after the Ottawa Charter, health systems still focus on medical care. This is what prompted the observers of the national scene who were at the meeting to say that we must consider the introduction of such a practice with patience and determination, since the danger is to give up when confronted with problems and to move on to another application, making HIA a passing phenomenon.

It was mentioned that in 1996, a first HIA report ordered by Health Canada concluded that developing this approach through the provinces would be greatly facilitated by the establishment of health policies endowed with population objectives and a long-term vision. In fact, policy impacts on health can only be envisaged on a long-term horizon, and taking them into account implies a broad and social vision of health. In the presence of such policies, it is easier to develop an argument in favor of HIA that is coherent with the government vision.” (St-Pierre, 2008: 10).

Noteworthy in terms of background is that in 1999, the Pan American Health Organization/World Health Organization (PAHO/WHO, Regional Office for WHO in the Americas) publicized a Regional Plan on Environmental and Health Impact Assessment (EHIA), to be implemented over a ten-year period (2000–2010). The purpose of such plan was

“to strengthen the capacity of the countries, and in particular the health sector, to exercise leadership and provide assistance in the management of the health issues to be included in plans, programs, and projects, thus ensuring sustainable human development” (PAHO/WHO, 1999: 5).

The general objective of this plan was “to ensure that all countries of the Region of the Americas have an operational framework in place regarding the use of the Environmental and Health Impact Assessment” (PAHO/WHO, 1999: 5).

The Regional Plan on Environmental and Health Impact Assessment (EHIA) consisted of “five closely related programmatic areas:

1. Policies, legislation, and regulations;
2. Institutional framework;
3. Methods and support instruments;
4. Human resources development;
5. Public awareness and participation” (PAHO/WHO, 1999: 5).

As has already been commented, LAC countries have practical experience specifically with EIA, within which they deal with any significant impacts affecting population and occupational health. This being said, the result is that the health variable is only considered within an environmental framework. Hence, there is the need to attain a broader vision of health and to understand that many factors, in addition to environmental factors, can affect it.

In concluding this section, it is important to mention that it is possible for a country to implement and institutionalize health impact assessment. For purposes of this document, when speaking of institutionalizing HIA, it refers to integrating this tool into the decision-making process (Wismar et al., 2007). The latter does not imply mandatory regulation or legislation.

Again, with respect to the European context, HIA implementation took on various forms that varied from one country to another (Wismar et al., 2007).

“Although governments and government agencies play an important role in the implementation and delivery of HIA, there is a large variety of other institutions and organizations involved in capacity building

and the delivery of HIA including local authorities, public health institutes, health observatories and special HIA units, universities and private companies" (Wismar et al., 2007: 249-250).

In Europe, "a small number of countries have been able to institutionalize HIA at least partially;" these countries are England, Wales, Finland, and the Netherlands (Wismar et al., 2007: 250). Important elements have been identified for institutionalizing health impact assessment:

"strong governance support, ... the establishment of dedicated support units explicitly integrating responsibilities for HIA in existing institutions, developing the health intelligence for HIA, and regular funding for HIA activities" (Wismar et al., 2007: 250).

It is important to mention that, although there have been successful cases, each country has to find its own way to institutionalize HIA in accordance with its own specific national context.

III.6 Legislation Related to Health Impact Assessment

Currently, there is a standing mandate to consider the health variable in different laws and regulations, as well as in different contexts. This ranges from HIA being written into the Constitution of Thailand to more local laws and regulations that also include the necessity of conducting a HIA (Bhatia, 2011: 4). In the United Kingdom, HIA has been integrated into the legislative framework, with the government assigned the task of conducting all HIAs for purposes of evidence-based policy-making. Any impacts of possible consequence to the population's health must be taken into account. Similarly, throughout Europe, EIA has evolved in the direction of strategic environmental assessment (SEA), integrating multiple components. The health component has been integrated into several IAs in different documents. In particular, Article 152 of the Treaty of Amsterdam issues a call for the European Union to examine the possible impact of public policies on health in all its decisions and actions (Salay and Lincoln, 2008). The evolution of SEA has meant expanding the assessment to include issues that go beyond the environmental area, since the current debate recognizes that the concept of sustainable development encompasses, in tandem, environmental, social, and economic dimensions. Strategic environmental assessment was developed in response to the need to analyze the impact of policies, plans, or projects from a strategic standpoint.

"The need to expand the assessment to comprise a broader picture was recognized in the debate that led to the concept of sustainable development, where environmental concerns are paralleled by social and economic dimensions. Strategic environmental assessment was developed because of the necessity to assess the implications of plans and policies—and, to a lesser extent, projects—at the strategic level; SEA is acquiring a legal profile in Europe. EU Directive 2001/42/EC—usually referred to as the SEA Directive—was issued in 2001 and prescribes that plans prepared from July 2004 undergo an analysis that considers the likely significant effects on the environment, including on issues such as biodiversity, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage (including architectural and archaeological heritage), landscape and, importantly, population and human health. Also the interrelationships between the above factors, including secondary; cumulative; synergistic; short-, medium-, and long-term; permanent and temporary; positive and negative effects must be considered, through a participatory process open to stakeholders." (Martuzzi, 2006: 136).

As has already been observed general legislation on EIA in Latin America and the Caribbean mentions the obligation to consider any significant environmental impact on population and occupational health (Espinoza, 2007). Aside from this, apparently no other legislation or regulation from any other sector, including health, speaks of health impact assessment or anything similar .

IV. Methodology for Health Impact Assessment

IV. Methodology for Health Impact Assessment

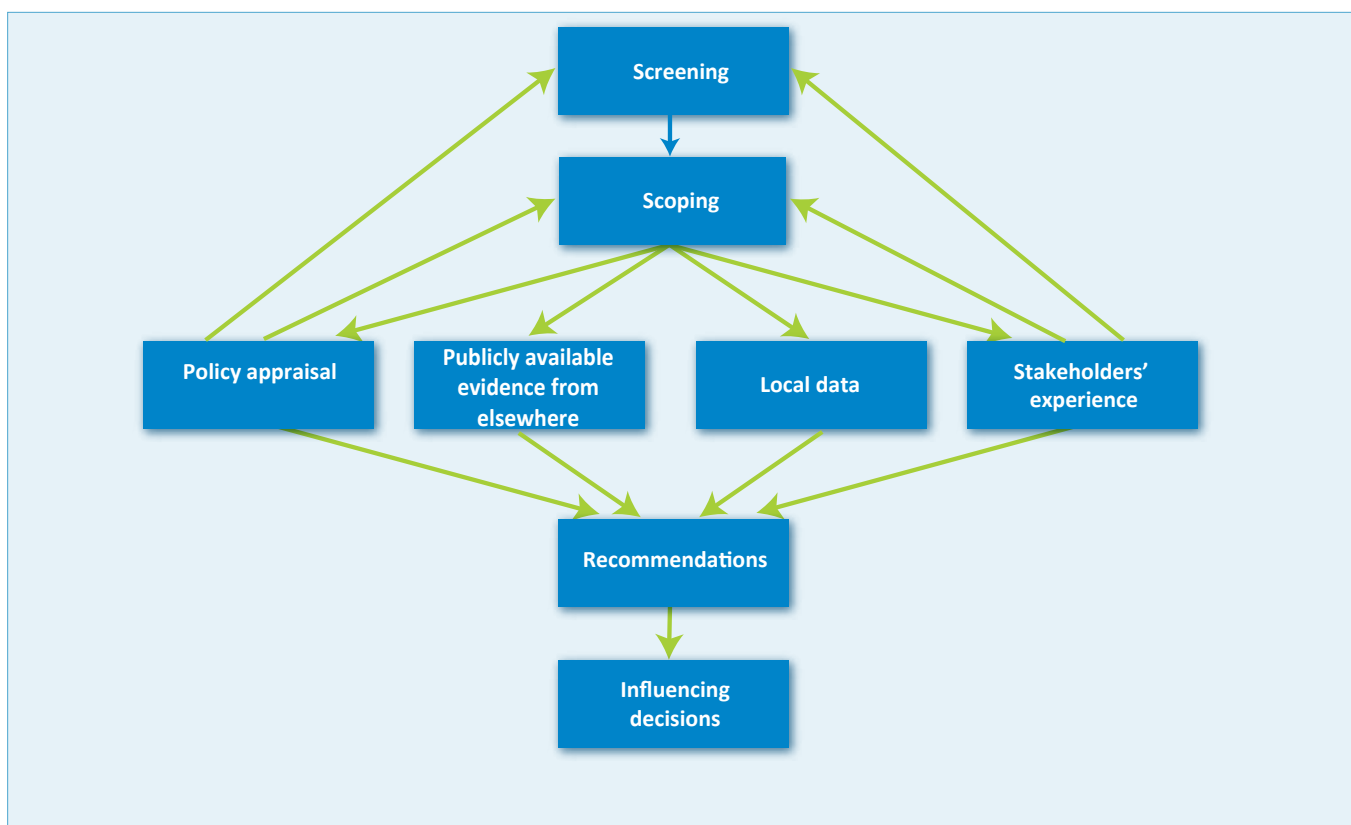
IV.1 Scientific Basis of HIA Methodology

“The health of an individual is influenced by a range of factors amenable to public policy on, for example, housing, education, and transport. Consequently, multidisciplinary policies outside the jurisdiction of health services or health ministries have the potential to influence health.” (Mindell et al., 2010: 543).

“Ratner et al. (1997) defined HIA as “any combination of procedures or methods by which a proposed policy or program may be judged as to the effect(s) it may have on the health of a population.” In 1999, the WHO Regional Office for Europe added ‘and the distribution of those effects within the population’ to include consideration of health inequalities; this concept is central to the Jakarta declaration. Further, HIA has also been described as ‘the use of the best available evidence to assess the likely effect of a specific policy in a specific situation,’ leading to comparisons with evidence-based medicine. Current HIA methodology has been criticized for a lack of rigor in collecting and analyzing evidence. This, despite the policy drive to encourage its use, HIA will be discredited if it fails to be both rigorous and well founded.

It is generally agreed that three types of knowledge are combined in HIA: that provided by stakeholders based on their experience; local data; and publicly available evidence, including past HIAs.” (Mindell et al., 2010: 543).

Figure IV.1 Flowchart showing the roles of publicly available evidence, local data, and stakeholders’ experience in the process of health impact assessment (HIA)



Source: Mindell et al., 2010: 543-544

Types of Evidence

“While HIA does not try to uncover absolute and incontrovertible truths, it does aim to produce sound recommendations evidence that are based on a balanced and reasonable interpretation of evidence. Our ideal is to use information that meets scientific standards, so that the proposals are as well founded as possible; but when this cannot be done, it needs to be acknowledged.” (Mindell et al., 2004: 547).

“In contrast with most reviews of interventions, reviews for HIA usually require synthesis of evidence from epidemiological, toxicological, and sociological studies using a wide range of methodologies, as well as studies from a wide range of disciplines and topic areas, using both quantitative and qualitative research” (Mindell et al., 2004: 547).

Quality of the Evidence

“The quality of the evidence, and thus the likely validity of results and conclusions, depends first on appropriateness of the study design and secondly on how well it was carried out. The range of types of relevant studies means that many sets of quality criteria are required when reviewing literature for HIA.” (Mindell et al., 2004: 548).

Range of the Fields of Study

“Because HIAs are most commonly conducted to assess the effects of proposals outside health care, it is the norm rather than the exception for information on potential effects on health and its determinants to be required from fields of study other than health and medicine; but there are difficulties with identifying the studies in cross disciplinary reviews.

Searching is a crucial step in conducting a literature review. This takes time and expertise to do properly, as well as familiarity with what literature is available.” (Mindell et al., 2004: 548).

Due to problems and difficulties that may arise when carrying out bibliographical reviews in different fields of study, it is important to either work with or count on support from data professionals who can develop a search strategy that is sufficiently sensitive and specific.

“Primary sources of information may be ‘grey literature,’ internal reports in a range of disparate institutions with variable archiving skills. Although the English Health Development Agency’s HIA website now has more than 100 items, there have been very few methodological papers or reports of actual HIAs in peer-reviewed journals.” (Mindell et al., 2004: 548).

Combination of the Evidence

“Much has been written about systematic reviews and meta-analyses commonly done for intervention studies but also used in epidemiology and psychology. Combining the information gleaned from both a variety of study designs and a range of disciplines to be useful for HIA is more complex. This is an area that is currently underdeveloped in terms of methodologies. Non-statistical synthesis is often limited to narrative. Increasingly popular approaches for synthesizing evidence from qualitative research are meta-ethnography and more recently, Bayesian synthesis, integrating quantitative and qualitative evidence. These techniques need to be tried in evidence reviews for HIA.” (Mindell et al., 2004: 548).

“Prospective impact assessment has a number of distinctive features, including:

- the focus, often on relatively complex policies or interventions with a diverse range of effects on determinants of health;

- the need for evidence concerning the reversibility of adverse factors damaging to health;
- a diverse evidence base comprising studies
 - from different disciplines,
 - using a range of designs,
 - involving a range of evidence relating to socioeconomic determinants of health;
- a range of stakeholders from different backgrounds and with varying priorities, concerns, prior beliefs, and values;
- the need to make recommendations to decision-makers regardless of the quality of the evidence;
- tight timescales as the norm” (Mindell et al., 2004: 546).

IV.2 Steps to Take when Preparing a Health Impact Assessment

First, it is important to remember that HIA is a systematic, flexible way to obtain information based on the best available evidence on how to improve intervention design and decision-making.

As has been stated before, the specific number of stages involved in preparing the HIA can vary according to different publications currently available; but its content is what is important. The content of the methodological steps for a HIA described in this section is very similar to what can be found in other guides (Bhatia, 2010; Bhatia, 2011; EPHIA Project Group, 2004; Harris et al., 2007; and Rueda, 2005).

In general, HIA methodology can be divided into two very broad parts:

1. The first one has to do with the way in which an intervention can succeed in making an impact on social determinants of health (Steps I and II).
2. The second tries to explain how the intervention affects these determinants, which in turn will have an impact on the population's health (Steps III, IV, and V).

This process can end up being perceived as something very technical, when it is only a simple five-step process. The process is covered in the next section. For practical purposes, it is important to clarify that throughout that section, the term “intervention” will refer to any policy, plan, program, or project

Step I: Screening/Filter Selection

In this initial step, first there needs to be a decision on whether it is necessary to carry out a health impact assessment on the proposal to be considered, depending on the available capacity to respond to a series of questions that appear in the following paragraphs. These questions will be answered jointly with the other parties involved. The fewer questions that can be answered, the greater the need for the HIA; however, this should not be the sole consideration for conducting a HIA. A decision should also be made whether the HIA should be rapid or in depth. This means that, when speaking of screening or filter selection, asking the following questions is a must: What possible impacts, or what possible implications, will this proposal have on and for the population's health, or for any other social determinant affecting the population's health?

A particular characteristic of this step is that it should be quick and capable of describing a preliminary general scenario of the possible impact on different population groups. The purpose here is to provide information that contributes to the decision on whether or not there is a need to conduct a HIA.

The following are the issues that should be answered during this step:

- Is it probable that the intervention will have an impact on health?
- What population groups, mainly the most vulnerable, will probably be affected? (See the list of vulnerable groups in Annex 2.)
- What is the possible range of impacts? Will they be positive or negative?
- What type of HIA will it be necessary to carry out: conventional or in-depth?

Asimismo se debe:

- Have available a clear, precise description of the proposal, its rationale, and its targets and goals.
- Have available, insofar as is possible, the basic profile of the different population groups living in the area that will be affected.
- Distribute all information to those involved well before the first meeting.

When screening, it is advisable to hold a meeting with all stakeholders.

Recording Information

In HIA, screening or filter selection is an instrument that will supply the means to record the necessary information. Should circumstances demand it, it is important to justify the decision to conduct a HIA and why or why not. It is essential to be absolutely certain in this regard and to have evidence on hand to justify the decision on whether or not to carry out a HIA.

This step involves using an instrument that enables the identification of the following (see Annex 3):

- The sector from which the proposal originated
- The objective of the proposal
- How the intervention will go about meeting this objective
- Which groups the intervention is targeting
- A preliminary idea of the possible health impact that the intervention will have

Once the necessary information is available, the next step is to decide whether or not to proceed with the HIA. It should be pointed out that all available information will have to be shared with all sectors involved, well before the deadlines set, so that the decision on whether or not to proceed with the HIA can be made at the right time.

Step II: Scoping and Designing the Process

This step involves the scope and design of the HIA: that is, the terms of reference and the consensual plan prepared by those involved in setting up the HIA. Completing this step calls for answering the following questions:

- What time frame will be set for the assessment?
- What are the intervention's geographic boundaries?
- On what impact or social determinant(s) of health should the assessment be focused?
- What is the amount of financial resources and how many human resources are available for the assessment?
- Considering the time frame and the available resources, what type of HIA is necessary or possible?
- Who are the various stakeholders and how should they participate and get involved in the HIA?
- Is it necessary to create a steering committee? If so, who will be included in it?
- What are the duties and responsibilities of each stakeholder?
- How should decision-makers be involved?
- Should the HIA be prepared within the implementing agency (i.e., the health sector) or intersectorally?
- What methods can be used for compiling evidence?

Time Frame and Deadlines

It is necessary to consider the time frame for the HIA in tandem with the period needed to design the intervention. The HIA should be carried out with sufficient anticipation in order to influence the intervention before the design is complete and it is underway. . This will take care of the task of providing information for decision-making in a timely fashion, and not after the decisions have already been made. The time frame is an important factor in determining what type of HIA to prepare. Similarly, time frames and deadlines should be set for carrying out the HIA.

Geographical Boundaries

It is necessary to consider what geographic boundary the HIA will have. The geographical boundary refers to the geographical space that the intervention will encompass: that is, the territory that it will differentially affect. Some impacts can manage to interact with portions of the population not directly affected, which means that it is crucial to decide on the established geographical limits of the intervention, in order to then analyze its impacts and the reasons behind them.

Depending on the geographical coverage of the assessment, it could be useful to know whether any previous assessment of local development strategies has already taken place in such areas as health, social security, and well-being. These types of documents, if they exist, serve as critical information sources for carrying out a HIA by helping to better identify the repercussions.

Focus

In order to ensure that resources are utilized in the best possible way, it is very important to focus on the most probable impacts and that, in turn, will have the greatest potential repercussions on the population's health and on health inequities. The previous step on screening / filter selection can help identify the areas of impact on which the assessment should focus. To this end, the following questions need to be answered:

- What social determinants of health will most likely be affected? Which of them will have the greatest impact on health?
- On what population groups should the assessment be focused?

Resources

The amount of available resources in terms of additional funding and resource (work) hours should be determined. The design for the process should be made in such a way as to make the best possible use of the resources available. In situations where the HIA is conducted in a routine manner, there will be the need to designate resources for these activities. The justification for these resources is that they constitute an investment in improving planning and decision-making processes. Similarly, when assessing major policies, it will be necessary to carry out in-depth HIAs that require exhaustive work, additional data collection, and an exhaustive literature review.

Level of Assessment

The level of the assessment will depend on what is available, in terms of both time and resources, as well as on the complexity of the intervention being assessed. The more in-depth the assessment, the more time will be necessary, the more exhaustive the systematic literature review will be, and the greater the degree of data-gathering and expert consultation.

Steering Committee

It is essential to create a steering committee in order to distribute the work, safeguard the broad participation of all actors, and guarantee inclusion of all stakeholders in the process. It is essential that the steering committee consider the participation of people who can contribute specific knowledge; in particular, representatives from the different population groups can have a better idea of the context of their respective group and how the proposed intervention might affect it. In the steering committee, it is also both desirable and appropriate to have specialists participate from the public health sector, the social sciences, epidemiology, environmental health, social development, and health economics, just to mention just a few.

Stakeholders are all the people identified who will probably be affected by the intervention or who are involved in its development and implementation. There should be a decision on how to involve the various stakeholders in the process: i.e., defining each of their roles and, if need be, stipulating who else will be participating in the process as experts contributing evidence, acting as members of the steering committee, or receiving reports or information.

Involving key decision-makers is important for publicizing HIA and creating awareness of its importance. Thus, there should be well-developed plans in place on the most appropriate way to ensure their adequate participation. The latter implies the steering committee's duty to inform decision-makers of the HIA's progress and results in order to influence policies.

Step III: Conducting the Health Impact Assessment

As would be expected, this is a fundamental step within the HIA process, as this is where the possible impacts on health are determined. In this step, all possible information is compiled on the nature, degree, probability, and distribution of all possible repercussions that the intervention will have. Furthermore, it provides an opportunity to identify how health benefits can be maximized and how risks can be minimized, particularly with regard to most unhealthy populations that suffer the most from health disparities.

The ultimate objective of this step is to predict the impacts that would likely affect health when the intervention being defined is carried out. To this end, there are a series of indications that should be considered within this step, which are mentioned below.

(a) Acquiring adequate knowledge of the intervention

This step means that the people involved should already have precise knowledge of the intervention under study, since the first step (screening / filter selection) will have already determined whether or not conducting a HIA is necessary. On certain occasions, prior information on what has already been compiled and documented is considered sufficient. However, there are cases where more detailed knowledge of the intervention is needed than was obtained during the first step.

The person assigned to conduct the HIA is responsible for compiling all the information needed to have adequate knowledge of the intervention. Once this is available, the person responsible for the HIA should present these results to the rest of the stakeholders, so that they can gain sound knowledge of what the intervention is all about. Certain issues should be considered important in this regard:

- What does the intervention deal with?
- What subject does it address?
- What are its goals and objectives?
- What are its priorities?
- What outcomes are sought?
- Who will be making the decisions and preparing the proposal?
- What relation does this proposal have to other proposals?
- What obstacles are there?
- What aspects are not flexible or negotiable?
- What is the country's political context? What is its general context?
- What are the possible areas of conflict between certain aspects of the intervention and the values of the health impact assessment (that is, under what circumstances are values or positions in opposition)?

(b) Profiling the population's health and determining or reviewing its social determinants

It is important to identify and document the initial health situation, as well as that of the social determinants of health, in the various population groups who are under study. This is called "profiling." On this basis, the possible effects on population health and health inequities can be foreseen.

"The population's health profile and its social determinants" refers to the health characteristics and social determinants of a specific population group. If these are not known, it is important that they be

determined. Noteworthy is that, in order to compare information on such characteristics from various population groups and over time, it is always crucial to be dealing with the same variables and be sure that information on the various population groups is available at all times. If the information allows, priority should be given to the profiles of vulnerable or disadvantaged groups (by providing more detailed information), in such a way that it allows for more emphasis that permits the promotion of a reduction in health disparities.

Among the types of important information that should appear in the aforementioned population profiles are the following (in summary form):

- Characteristics of the population group, such as disaggregation by age and sex, size, socioeconomic status, unemployment level, income.
- Health indicators of the various population groups, such as mortality, morbidity, disability, or birth rate.
- Indicators of healthy or unhealthy behaviors: alcohol or tobacco consumption, drug use, eating habits, physical activity or inactivity.
- Environmental indicators such as air, water, or soil quality, housing and working conditions, and other relevant aspects.
- Access to services, be they public or private.

(c) Collecting and utilizing information and evidence

The term “evidence” can be a bit exclusive. It has both a legal and a scientific nuance, which can suggest that only highly skilled specialists can have access to it and understand it. At the same time, this term can imply that the uselessness of forming an opinion on a notion without robust scientific evidence to back it up. However, in the real world—where relationships among people and the places where they live are very complex—evidence constructed on the basis of pure research and used to predict a future effect is an area that is continuously improving. Thus, existing—and very valuable—evidence should also be considered that is only found in the form of knowledge not only from professionals who are considered experts, but also from people who are not considered experts but rather are representative of the population. Any evidence that is useful should be considered, regardless of its origin (whether or not it is based on rigorous research methodology). It is worth clarifying that the latter does not mean considering evidence from unreliable sources of information. In HIAs, it is especially important to emphasize the source of information (which should always be trustworthy) and to mention both the strengths and weaknesses of the evidence used.

It is a reality that evidence-based information exists in a highly diverse quantity of subject areas, and therefore should use what is useful and available. Access to evidence based data can be facilitated with the presence and use of technological resources and the human capacity to manage them.

Knowledge

Not only is it necessary to focus on ‘what works,’ but also on all the know-how and understanding of social determinants of health that affect people’s health and well-being. A great body of knowledge should be made available at both the local and national levels for understanding the social determinants of health.

Experts in certain areas can contribute a great deal with respect to technical issues: how many contaminants will produce a process, how contamination spreads, how a given chemical compound can affect humans, how many jobs a given proposal can create, and other aspects to consider according to the type of proposal. Most expert knowledge is openly available, in addition to what can be obtained from academic institutions.

It is necessary to remember that population groups are also able to share their views on how a proposal can have an impact on their living conditions. People from these groups can contribute a framework as well as their own knowledge of the context in which they live, which most interventions do not bother to include with their research findings.

Acceptable Evidence

It is best to consider both quantitative and qualitative evidence. Sometimes the magnitude of the impact can be quantified, and producing such estimates is recommended for subsequent use in an appropriate quantitative analysis. For example, the increase in particulate contamination ensuing from traffic flow can be calculated. After this, and based on its results, the health impact on the population groups affected can then be calculated. As one might expect some potential repercussions are not easy to measure, though it is equally important to consider them and their relation to subsequent effects on the population's health and well-being. For example, a school closing or lack of access to the school can exert an important impact on the health of a population group. The best way to express this type of impact by means of qualitative methods is to investigate the experiences, prospects, and impressions of the people affected

Search for Existing Knowledge

This is where the hard research comes in; it involves investigating all previous, pre-existing HIAs that describe the impacts being assessed. At the global level, several countries have already carried out HIAs related to the issue under study. The search should not limit itself only to previous HIAs but should also encompass other types of IAs (such as environmental or risk assessments), research studies on similar topics, and other works that can contribute evidence of the effects on health or on its social determinants.

Everything is useful; and as a result, everything can make a contribution to the HIA being carried out. When looking at a given country, it is preferable to make use of documentation on interventions conducted there at the national level, since such works will have taken into account the national context. However, works from other countries can also be very useful if there are no existing works in a given country that address the issues being dealt with in the HIA.

Consultation with and Participation of Affected People, Experts, and Stakeholders

It is vital to maintain continuous contact with representatives from the social groups defined in Step 2 of the HIA, as well as to ensure their participation in its preparation. If the process detects more affected people than anticipated, it is advisable to include them as well. When it is time to make recommendations for improving the proposal, it is exceedingly important to take into account the different groups' views, values, and contributions. Likewise, this also means consulting experts from a given field of study. Consultations with them can range from a single interview to creating working groups in which all experts contribute what they consider most important. The purpose of all this is to promote and share mutual knowledge, to exchange different points of view, as well as to strengthen the various population groups' participation and sense of ownership.

Summary of Possible Sources of Evidence

Evidence can come from a variety of different sources. All evidence should be utilized that can be obtained within the established time frame, making use of all available resources. The list below gives an idea of possible sources of evidence. Not all information will always be the most appropriate, and obtaining it all is highly unlikely. This list is not meant to be exhaustive but rather to serve as a guide.

- Existing information on the population group in question
 - Statistical information systematically obtained on such subjects as health, unemployment, delinquency, and air quality.
 - Surveys on the population's living conditions.
 - Community profiles (more detailed information on the local level).
 - Concerns of the different population groups (if information is available in this regard).
 - Secondary information analysis that is both required and available.
 - Opinion polls.
 - Other types of surveys and research projects.
- Expert opinions
 - Views of both professionals and people considered to be experts and whose knowledge and opinions are trustworthy.
 - Views of professional representatives from academia who specialize in the area being assessed.
 - Forecasts based on models (and if at all possible, creating them if they do not already exist).
 - Available information on similar proposals that have been carried out in other places (case studies).

(d) Identifying the social determinants of health that are affected and estimating their possible impact on health

A fundamental element of HIA consists of identifying what social determinants of health are affected and how. Based on that information, the next step will be to estimate their possible impact on health and how they will manifest themselves. Causal webs take on a very important role in this regard, since in order to define the possible impact on health, it is necessary to have solid knowledge of the mechanisms that will give rise to that impact. The latter is crucial in order to take the proposal to the point of actually considering possible alternatives for improving it.

When speaking of impact, it is worth clarifying that the word refers to both its positive and negative aspects. In the same way, it is necessary to assess whether the positive impact will surpass the negative. In any case, one of the main objectives of HIAs is to improve the proposal (to make it healthier), or to make it healthy if at the beginning it was not. At the same time, the need to reduce health inequities should always be emphasized.

(e) Describing the impact

The possible impacts can be described in a wide variety of ways. However, if at all possible, the following should be analyzed at the very least:

1. Probability of the impact: Determine whether the health impact arising from the proposal is certain, possible, or hypothetical, by virtue of its probability.
2. Magnitude of the impact: Define the proportion of the population that it will probably affect.
3. Duration of the impact: Determine whether the impact will take place over the course of weeks, months, or years. It is important to clarify whether there may be cases where short-term health hazards may be necessary in order to achieve the expected long-term benefits.

4. Distribution of the impact: Define the various population groups whom the proposal will differentially affect. It can happen that a proposal benefits one specific population group but damages another. The proposal should give priority to those population groups who suffer disadvantages or are in poor health. This is of major importance in terms of its contribution to reducing health inequities that exist in the population.

At this point, it is necessary to have appropriately identified the different impacts, as well as who will be the 'winners' who benefit from the intervention and who will be the 'losers' who do not. It is also important to determine which of these impacts to prioritize by virtue of its possible effects on health.

A matrix can serve as a very useful visual instrument for organizing and structuring evidence of possible repercussions on health. A matrix on health impacts synthesizes key outcomes identified as possibly affecting the population's health. Table IV.1 provides an example of a template for a health impact matrix.

Table IV.1 Format of a health impact matrix			
Possible health impact	Trend of impact	Magnitude	Probability of the impact
<i>Population in general</i>	Positive	Scale from 1 to 5	High, low, or uncertain
	With no significant changes	-	-
	Negative	Scale from 1 to 5	High, low, or uncertain
<i>Health inequities</i>	Positive	Scale from 1 to 5	High, low, or uncertain
	With no significant changes	-	-
	Negative	Scale from 1 to 5	High, low, or uncertain

Source: Based on EPHIA Project Group, 2004. The magnitude scale extends from what is the least positive for health (1) to what it is the most positive (5); the negative scale operates in the same way, going from what damages health the least (-1) to what damages it the most (-5).

(f) Identifying opportunities to improve health and well-being

Once the proposal's possible health impacts have been identified, the next step is to hold a meeting with all stakeholders. The objective here is to study what opportunities may exist that could maximize any possible health benefits and minimize any possible health hazards.

The more the stakeholders are involved in this process, the more probable it will be that the recommendations resulting from the HIA will be both acceptable and feasible.

Step IV: Making the Recommendations, Justifying them, and Drafting the HIA Report

In this step one can observe the results of the HIA. Considering the conclusions from Step III, one proceeds to develop recommendations in order to improve the intervention to mitigate the adverse and promote positive aspects. Each recommendation should be justified with its respective evidence, supported by accurate and precise data. Table IV.2 presents a set of guidelines to follow when making the recommendations, showing a variety of hypothetical situations involving impact on the population and on different disadvantaged groups.

Together with making the recommendations comes preparing the final HIA report. Included in the report should be the process, how it was undertaken, the steps that were followed, and all the information that was compiled. This step has to be transparent; it should leave no doubt as to how the proposed recommendations came about. This is where any of the HIA's limitations should be mentioned—i.e., what areas still need to be investigated—so that additional knowledge can be acquired and better-quality evidence obtained.

Both the recommendations and the report should be made public. The report, together with its recommendations, should be made available to all stakeholders and to the groups who will be affected by the intervention. Many different formats can be used to present the information, ranging from a simple list or matrix containing the results obtained, to a much more exhaustive report. The style and format chosen for the report should be aimed at its target audience. The recommendations will be submitted to policy- and decision-makers, as well as to those making practical decisions at the level of operations. At the same time, an executive summary should be submitted along with the final report.

Before submitting the recommendations and the final HIA report to the policy- and decision-makers, there should be a final review of comments from the stakeholders, from the people affected by the intervention, and from the experts. However, this is not the time to revisit steps of the proposal in any great detail as this should have already been covered in the aforementioned steps.

Table IV.2 presents a matrix that is useful in two ways. First, it is helpful for summarizing the results obtained in the HIA. Second, it serves as a guide for formulating the recommendations.

It is worth remembering that the purpose of a HIA is not to make a decision per se or to make a decision for a particular entity. Rather, it serves as a tool for informed and transparent, evidence-based decision-making. Whether the HIA's recommendations are taken into account or not depends on the policy and decision-makers themselves, who are responsible for the proposal.

Table IV.2 Matrix for summarizing the results of the health impact assessment and formulating the recommendations

Disadvantaged and vulnerable groups				
		Positive impact	No significant changes	Negative impact
G E N E R A L P O P U L A T I O N	Positive impact	Everybody's health benefits.	The population's health benefits.	The population benefits, but the health of disadvantaged people suffers.
		Find a way to increase the health benefits through policy.	Try to modify the policy in such a way that the health of disadvantaged groups will also benefit.	Try to modify the policy in such way, at the very, least that the health of disadvantaged groups will not suffer (or, if possible, will benefit).
	No significant changes	The health of disadvantaged groups benefits.	Nobody's health benefits.	The population's health does not benefit and the health of disadvantaged groups suffers.
		Try to ensure that the entire population's health also benefits, without lessening any benefits that disadvantaged groups already have.	Try to modify the policy in such a way that everybody's health benefits, especially that of disadvantaged groups.	Try to modify the policy in such a way as to eliminate the source of harm to disadvantaged groups and, if possible, to benefit everybody's health.
	Negative impact	The health of disadvantaged groups benefits, but that of the population suffers.	The population's health suffers.	Everybody's health suffers.
		Try to ensure that the population's health does not suffer, without lessening the benefits of disadvantaged groups.	Reject the policy and try to ensure that the population's health does not suffer and that disadvantages groups benefit, even if in a small way.	Reject the policy. Try to redesign it to meet the same objectives without damaging anybody's health (and if possible, to improve the health of disadvantaged groups).

Source: Based on Wheel (2005).

Step V: Monitoring and Evaluating the Process

The objective of HIA is that decision-making take place with full awareness of the consequences. This calls for an evaluation of how the information in the HIA is being used. It means ascertaining whether stakeholders and affected populations found it useful and whether or not it succeeded in influencing decision-making and having the intervention implemented. This will help in evaluating how effective the HIA process is, in order to sensitize and influence decision –makers and develop policies related to health and health disparities. At the same time, there should be an attempt to evaluate the impacts that were predicted by the HIA. The impact predicted is difficult to evaluate due to the complex causal webs on which they are based. However, monitoring and follow-up programs can be designed where an evaluation of the expected repercussions to public health is included, based on the assumptions and predictions made in the HIA.

Evaluating the extent to which the HIA succeeded in influencing decision-making and developing the intervention, and identifying the extent to which it could build awareness among all stakeholders, requires answers to the following questions:

- How was the HIA used in the intervention's implementation process?
- How was the intervention's proposal modified as a result of the HIA?
- Were the recommendations accepted and implemented? If so, how and when? If not, why?
- Were there any repercussions that had not been foreseen in the HIA? If so, which ones? (Examples might be achieving good intersectoral and multidisciplinary teamwork, or communicating the importance of health to other sectors).

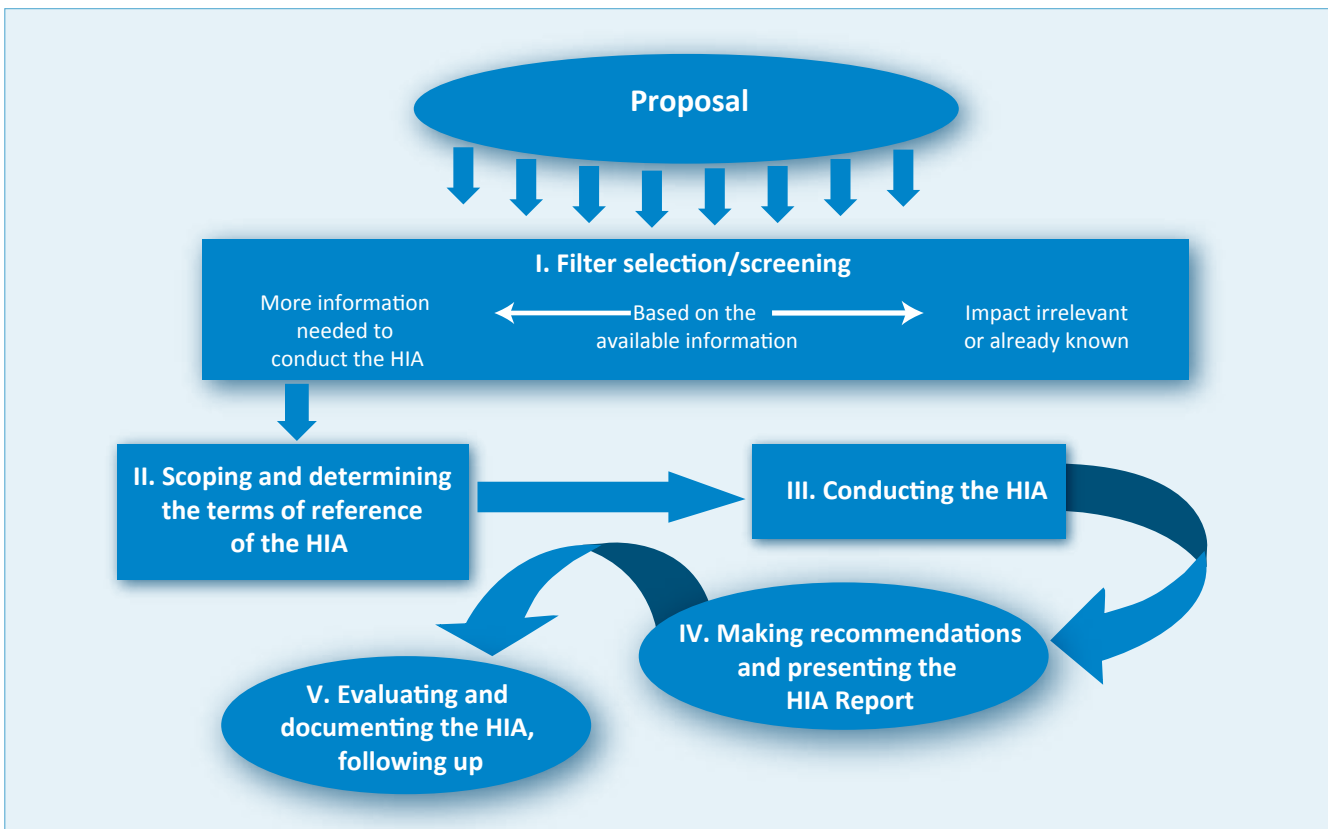
The HIA evaluation and report will also provide opportunities for the following:

- Follow-up
- Observing whether or not things are working as expected and why
- Determining the amount of time and resources it took to complete the evaluation and report
- Noting what difficulties came up in the evaluation and reporting process and finding out how to resolve them
- Finding out what things need improvement and how to improve them

Documents of this type are considered to be a learning resource and, as a result, should be shared and disseminated as a basis for future development.

Figure IV.2 below shows a summary and diagram of the steps to take in the HIA process, as well as their respective order.

Figure IV.2 Steps to follow in a health impact assessment



IV.3 Minimum Elements and General Guidelines for Conducting a Health Impact Assessment

Minimum Elements in a HIA

"A health impact assessment (HIA) must include the following minimum elements, which together distinguish HIA from other processes. A HIA:

1. Is initiated to inform a decision-making process, and conducted in advance of a policy, plan, program, or project decision;
2. Utilizes a systematic analytic process with the following characteristics:
 - 2.1 Includes a scoping phase that comprehensively considers potential impacts on health outcomes as well as on social, environmental, and economic health determinants, and selects potentially significant issues for impact analysis;
 - 2.2 Solicits and utilizes input from stakeholders;
 - 2.3 Establishes baseline conditions for health, describing health outcomes, health determinants, affected populations, and vulnerable sub-populations;
 - 2.4 Uses the best available evidence to judge the magnitude, likelihood, distribution, and permanence of potential impacts on human health or health determinants;
 - 2.5 Rests conclusions and recommendations on a transparent and context-specific synthesis of evidence, acknowledging sources of data, methodological assumptions, strengths and limitations of evidence and uncertainties;
3. Identifies appropriate recommendations, mitigations and/or design alternatives to protect and promote health;
4. Proposes a monitoring plan for tracking the decision's implementation on health impacts/determinants of concern;
5. Includes transparent, publicly-accessible documentation of the process, methods, findings, sponsors, funding sources, participants and their respective roles." (North American HIA Practice Standards Working Group, 2010: 2)

"Adherence to the following standards is recommended to advance effective HIA practice:

General Standards for the HIA Process

Se recomienda una adherencia a los siguientes estándares para avanzar hacia una práctica efectiva del AIS (North American HIA Practice Standards Working Group, 2010):

- A HIA should include, at a minimum, the stages of screening, scoping, assessment, recommendations, and reporting described below.
- Monitoring is an important follow-up activity in the HIA process. The HIA should include a follow-up monitoring plan to track the outcomes of a decision and its implementation.
- Evaluation of the HIA process and impacts is necessary for field development and practice improvement. Each HIA process should begin with explicit, written goals that can be evaluated as to their success at the end of the process.
- HIA should respect the needs and timing of the decision-making process it evaluates.
- HIA requires integration of knowledge from many disciplines; the practitioner or practitioner team must take reasonable and available steps to identify, solicit, and utilize the expertise, including

from the community, needed to both identify and answer questions about potentially significant health impacts.

- Meaningful and inclusive stakeholder participation (e.g., community, public agency, and decision-maker) in each stage of the HIA supports HIA quality and effectiveness. Each HIA should have a specific engagement and participation approach that utilizes available participatory or deliberative methods suitable to the needs of stakeholders and context.
- HIA is a forward-looking activity intended to inform an anticipated decision; however, HIA may appropriately conduct or utilize analysis, or evaluate an existing policy, project or plan to prospectively inform a contemporary decision or discussion.
- Where integrated impact assessment is required and conducted, and requirements for impact assessment include responsibility to analyze health impacts, HIA should be part of an integrated impact assessment process to advance efficiency, to allow for interdisciplinary analysis and to maximize the potential for advancing health promoting mitigations or improvements.
- HIA integrated within another impact assessment process should adhere to these practice standards to the greatest extent possible." (North American HIA Practice Standards Working Group, 2010: 3)

V. Examples of Health Impact Assessment

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V.1 The Example of the United States: Strategic Level

“Faced with the economic, environmental, and public health threats posed by climate change, California passed the Global Warming Solutions Act in 2006, also known as Assembly Bill 32 (AB 32). AB 32 established a binding goal to reduce greenhouse gas emissions to 1990 levels by the year 2020. In addition to the bold environmental goals established by AB 32, the bill also explicitly states the need to maximize additional public health co-benefits, and to ensure that low-income communities are not disproportionately impacted by efforts to reduce greenhouse gas emissions.

In 2008, the California Air Resources Board (ARB) issued its Scoping Plan and detailed a series of regulatory measures to achieve emission reduction goals. Included in these measures was a cap-and-trade program to engage market mechanisms to lower greenhouse gas emissions. By engaging the efficiency of market forces, a cap-and-trade program is intended to lower greenhouse gas emissions at a cost lower than other policy efforts.

In fall of 2009, the Climate Action Team Public Health Workgroup (CAT PHWG) decided to undertake a health impact assessment (HIA) of a cap-and-trade program in California. Health impact assessment is a practical approach for bridging scientific data, health expertise, and public input with a public decision-making process. HIA is a valuable, data-driven tool that identifies the health risks and benefits of a proposed project or policy, like the California cap-and-trade regulations, and then offers solutions to implement the policy in a way that makes communities a healthier place to live, learn, work, and play.” (California Department of Public Health, 2010: 5).

The first step was to analyze, together with multiple actors, which programs required a more detailed assessment of their possible effects on health, in accordance with established criteria (for example, changes in employment and the demand for labor). “Particular attention was given to assessing the distribution of potential health effects and to the protection of communities” (California Department of Public Health, 2010: 5). The HIA prepared in the selected programs suggested various ways to mitigate the possible negative effects on health and to improve the possible health benefits associated with cap-and-trade programs in such areas as employment, energy costs, benefits associated with specific offset projects, and community health.

“Overall, the potential negative health effects from a cap-and-trade program in California are expected to be negligible to minor, and readily mitigated with targeted mitigation efforts. Potential positive health effects are likewise small, and can be improved upon by limiting the use of offsets to no more than 49% of total emission reductions, maximizing the auction of allowances, and directing community investments to California’s most vulnerable communities. The mitigations strategies ... are intended to mitigate potential negative health effects, maximize public health co-benefits, and monitor unknown program impacts to ensure that no population bears a disproportionate health impact from a cap-and-trade program.” (California Department of Public Health, 2010, 5-6).

An important conclusion of this HIA was that of all the elements of a cap-and-trade program, distributing allowance revenue towards community investments is the most likely to positively impact health and, at the same time, reduce the negative impacts on health arising from environmental risks. (California Department of Public Health, 2010).

V.2 The European Example: Policy Level

“Article 152 of the Treaty of Amsterdam ... made explicit the commitment of the EU to ensure that human health is protected in the definition and implementation of all Community policies and activities” (Haigh, Mekel, 2004: 8). The European Union developed a generic methodology for conducting HIAs on their policies (European Policy Health Impact Assessment, or EPHIA). Pilot studies for the EPHIA methodology were carried out at the level of the Member States and of the European Union for the European Employment Strategy (EES). At the level of the Member States, a HIA was conducted for the EES in Germany. Its objectives were to evaluate the EPHIA methodology itself as well as the impact of EES policy on the country’s health. The HIA followed the steps set down by the EPHIA (“screening, scoping, conducting the assessment, reporting on health impacts and policy options, and monitoring”) (EPHIA, 2004: 8), while emphasizing the policy elements of relevance to the German situation. The possible effects on health were identified, and an in-depth HIA was carried out. The HIA used mathematical models to predict the risk magnitude and trend. The HIA was evaluated with regard to its efficiency, effectiveness, equity, participation, transparency, and applicability.

The health impact assessment focused on flexible forms of employment. It identified a series of possible effects on health by scenario, in accordance with changes of 5%, 10%, or 15% in the number of employed people with permanent and full-time contracts who changed over to temporary and part-time jobs. Population subgroups were analyzed according to age and sex, among other criteria. The HIA found a mixture of possible positive and negative effects on health by population group, as well as by the change in both type of employment and type of contract. Three recommendations were proposed, with special attention paid to the discriminatory effects against vulnerable groups who were affected by the new policy (for example, against older people, by virtue of their needs and capacities vis-à-vis employment). Similarly, a timeline are suggested for monitoring the outcomes of the HIA and the effects of the new policy. With regard to EPHIA as a methodology for health impact assessment at the level of either the Member States or the European Union, it was found to function adequately; and during the process, areas of improvement and further development were identified. For example, it identified the use of modeling as an applicable tool for health impact assessment at the policy level, despite limitations in the amount of available data and evidence on the dose-response relationship—as well as difficulties encountered in ensuring the participation of the actors involved. (Haigh, Mekel, 2004).

VI. Conclusions

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As observed, HIA is not a new tool. The approach of measuring the impact that an intervention might have on a variable of specific interest for the future dates back to the 1960s, which marked the beginning of legislation and regulations on environmental impact assessment. The repercussions that human decisions have had on the environment was what detonated the EIA boom; but equally ancient, historical, and impactful have been the decisions that humans have made with regard to individual and collective health. In addition to our now 'paying the piper' for what we have done and are still doing to the environment, we have also faced 'pay-back time' for what we have done and are still doing to people's health. In general, more support is given to assistance-based, 'welfarist' health systems focused only on how to help everybody who gets sick, rather than trying to avoid so many people getting sick in the first place.

At this point, it is important to emphasize that HIA is a necessary tool for improving population health, since it facilitates combining different issues of relevance and synthesizing them for purposes of decision-making. Among these issues are the following:

- HIA's prospective nature;
- the use of available evidence;
- the utilization of the most appropriate methods based on both context and situation;
- the involvement of all stakeholders;
- the promotion of citizen and social participation;
- the search for solutions to reduce health inequities;
- the inner workings of the decision- and policy-making process;
- support for decision-making.

There are still many questions to be answered and open issues related to HIA that need to be resolved. However, the only way to answer them and to see whether this tool is right or not is through continuous practice and development. This applies to Latin America and the Caribbean as well, which means joining the global debate on HIA.

One advantage of HIA is that it is a systematized tool with orderly steps; but it also has several strong points of major importance. It calls for working together with others sectors and disciplines, encourages citizen and social participation, and purposely aims to influence decision-making. It is unlikely that such a tool will be rapidly adopted and show immediate results in the LAC, as many countries are still in the process of democratic transition; but without a doubt, HIA is an ideal tool for democracy .

Apart from the debate on health impact assessment and the question of whether or not to set up a HIA system in the countries, there is always the issue of integrated impact assessment. IIA could also be a very useful tool when health is one of the paramount issues.

At the global level, it can be said that HIA is here to stay—even though in many parts of the world, its progress has been slow. Likewise, in areas where a great deal of progress has been shown by HIA and success has been achieved, it has nonetheless at times not been sustainable. Many of us would like to hear that we are advancing towards social justice, Health for All, and Health in All Policies. However, in LAC much remains to be done before we this becomes a reality. HIA is an excellent tool that could support these key areas of sustainable development and health equity.

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Annexes

Annex I

2011 Roadmaps for Health Impact Assessment in the European Union

1. Agriculture and Rural Development
2. Budget
3. Climate Action
4. Communication
5. Competition
6. Development
7. Economic and Financial Affairs
8. Education and Culture
9. Employment, Social Affairs, and Equal Opportunities
10. Energy
11. Enterprise and Industry
12. Environment
13. European Anti-Fraud Office
14. European External Action Service
15. Health and Consumers
16. Home Affairs
17. Humanitarian Aid
18. Information Society and Media
19. Internal Market and Services
20. Justice, Freedom, and Security
21. Maritime Affairs and Fisheries
22. Mobility and Transport
23. Regional Policy
24. Research
25. General and Institutional Affairs
26. Taxation and Customs Unit
27. Trade

Source: EC, 2011.

Annex II

Vulnerable or Disadvantaged Population Groups

- By age
 - Children and young people
 - Older adults
- By income
 - Low-income population
 - Population working in the informal or parallel labor market
 - Unemployed population
 - Nonworking population
 - Population unemployed or not working due to disability
- Groups facing discrimination or suffering social disadvantages
 - People with a disability
 - Indigenous groups
 - Refugees
 - Single-parent families
 - Lesbian, gay, bisexual, transgender, and intersex persons
 - Minority groups (specify)
- By geographical characteristics
 - Population living in extremely undeveloped areas (with very low economic and health indicators)
 - Marginalized population (without access to any type of service)

This list is not meant to be exhaustive. The group that should be considered will depend on the nature of the policy that will be analyzed and the possible groups that will be affected. Special emphasis should be placed on groups who present multiple vulnerability characteristics (for example, children who live in poverty and work in the informal labor market).

Anexo III

Screening/Filter Selection Form

Sector

Title of the proposed intervention (policy, plan, program, or project)

Description (should include both the general and specific objectives)

Population with whom the proposed intervention (policy, plan, program or project) proposes to work

- Vulnerable groups
- Other groups

Summary of moderate and significant outcomes from the impact

Will the policy will have a real impact on or real implications for

▶ the lifestyle of every individual?

(If there is not any type of impact or if it is minimal, please continue to the following question -->)

Provide a brief explanation of the public policy and the people whom it will affect:

▶ the society or the community?

(If there is not any type of impact or if it is minimal, please continue to the following question -->)

Provide a brief explanation of the public policy and the people whom it will affect

▶ living conditions?

(If there is not any type of impact or if it is minimal, please continue to the following question -->)

Provide a brief explanation of the public policy and the people whom it will affect:

▶ economic conditions?

(If there is not any type of impact or if it is minimal, please continue to the following question -->)

Provide a brief explanation of the public policy and the people whom it will affect:

▶ access to services and service quality?

(If there is not any type of impact or if it is minimal, please continue to the following question -->)

Provide a brief explanation of the public policy and the people whom it will affect:

▶ other direct or indirect health-related effects and the well-being?

Provide a brief explanation of the public policy and the people whom it will affect:

Recommendations

Will the previously components identified be enough to ensure both the suitability and adequacy of this health impact assessment?

Yes No

If not, why?

If so, list the steps that should be followed (for example, give the date and time of the meeting scheduled and the names of the people who scheduled it)

Should any further action be taken to carry out this health impact assessment?

Yes No

If so, list the necessary measures.



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