

Health Impact Assessment: A Tool to Advance the Knowledge of Policy Makers Understand Sustainable Development Goals: A Review

Research article

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Abstract

Health Impact Assessment (HIA) is a set of techniques that is used to examine the potential health effects of a proposed policy, program, or project which has globally generated significant interest over the past decade. It is a strong strategy for collaborating with other sectors to address the environmental determinants of health, and to achieve the most effective objectives for sustainable development goals. However, HIA could help bring attention to the broad determinants of health and suggest ways to promote healthy public policy in different sectors. Although this component is promising, its ultimate value can be compromised by premature and unrealistic expectations. The need for HIA in Nigeria seems to be increasing because it has been found that modifiable determinants of health in populations are rooted primarily in characteristics of the physical and social environments, thus requiring intersectoral analyses of possible health promoting policies and projects. The benefits of HIA as well as its weaknesses must be well communicated to other public health practitioners, policymakers, and ultimately the public. It can provide helpful information to policymakers and stakeholders about potential health impacts, but it cannot independently create healthy public policy. This review highlights the key elements of these advances and characterizes the way in which they contribute to improvement of standards and methodologies of HIA and compares different approaches to HIA. The review emphasizes that a better understanding of these advances is needed before environmental scholars and practitioners can begin to gather relevant information, analyze them within credible research designs and generate reliable evidence about the effectiveness of the myriad proposed solutions to the global health, environmental and social problems. Lessons learned from the related field of environmental impact assessment and from experience with HIA can help improve the likelihood that HIA can fulfill its long-term goals of advancing and promoting sustainable development.

Keywords: Health Impact Assessment (HIA), Decision making, Sustainable Development Goals (SDGs), Determinants of health, Public policy, Policy making, Risk assessment, Nigeria

Introduction

Health impact assessment (HIA), which is a combination of approaches to evaluate formally the potential health effects of a proposed policy, program, or project, has gained immense value over the past decade as a practical mechanism for collaborating with other sectors to address the environmental determinants of health and achieve

more effectively the goals of sustainable development [1]. Support for HIA has increased rapidly in developed countries such as Canada, Europe, Australia, and New Zealand [2-6], which it may not have been surprising, because other initiatives rooted in an environmental approach to public health initiatives, such as Healthy Cities and “healthy public policy”, which have been well received in these countries, unlike in Nigeria, where a narrower, more individualistic approach to Sustainable Development Goals has been more prevalent. Although interest in HIA in Nigeria has slowly increased, it is growing now. As demand grows and HIA occurs more frequently, issues regarding dissemination of technical capacity, standardization of protocols, and institutional arrangements for funding, coordination, and implementation need to be addressed. The growing interest in HIA in Nigeria is motivated by a combination of factors, including:

- i. the growing importance of health and underlying determinants such as fitness service providers as subjects of general interest;
- ii. increased recognition of the impact of other sectors on public health, combined with a clear recognition of the limitations of traditional public health practices to promote sustainable development goals;
- iii. advice from teams in other sectors, such as housing developers and environmental health workers, including housing groups, indicating that the results of the health impact assessment can be used to support their proposals.

In turn, health impact assessment can be interpreted as an interdisciplinary approach in which the collection of health impact data can be viewed as a structured process and based on a broad model of health system that suggests that economic, political, social, psychological and environmental factors determine the health of the population. This definition includes the five basic HIA instruments:

- i. a focus on specific policies or project recommendations,
- ii. a deep reflection on the potential impact of health,
- iii. Positive public opinion incorporating several criteria and dimensions of health,
- iv. multiple techniques, systemic analysis and
- v. a multidisciplinary techniques-based analytical approach, and

- vi. a process that is highly structured but which retains its simplicity

The basic premise of health impact assessment is that by taking into account health issues for decision-making in other areas of their practice related to human health, the impact assessment on health can be a good way to achieve goal 3 of the SDGs which seek to ensure healthy lives and promote well-being for all at all ages by 2030 (<https://sustainabledevelopment.un.org>). The highest value on the ability to detect and communicate potentially significant health impacts, which is unexpected, as well as for example by examining the results of health policies such as agricultural subsidies, wage laws, educational programs and development projects. The assessment of health impacts has taken various forms, depending on the socio-political context of different countries where it is conducted, the identification of the particular policy questions to which it is applied, the training backgrounds of practitioners, and the expectations of stakeholders, who use its results. From the beginning HIA has evolved along two different distinct ways, sometimes intersecting paths [7]. Similarly, it is the methodology used by HIAs that explores the proposed strategy that affects health impact in several ways. These are inherent in the broader approach of health impact assessment, but are not associated with its expression and policies of HIA. For example, the Swedish approach to HIA, developed and conducted by local government decision-makers, focuses largely on projects but takes into account many social and economic factors contributing to health [8].

Methods

Once the purpose of the health impact assessment has been determined and the strategies to be investigated have been developed strategically, the impact of the intervention can begin. This includes at least comparing the health status of the community in the affected population and evaluating the findings regarding the alleged mechanisms related to the implementation of health outcomes. Because many factors can influence HIA, the evidence for these effects will be evaluated and qualitatively described [9]. The quantitative analysis of the HIA can be either descriptive or speculative. Although most HIAs contain numeric data, this information is only used to describe relationships with organizations and not to create statistical models to predict the potential impact of proposals. If possible, and if this adds sufficient value to justify additional costs,

information about other effects can be quantified and integrated into the model to evaluate growth and potential health effects. Although the information and requirements of the prediction tool are not always adequate, they cannot be taken into account and reliability can estimate the extent of different health effects, which is essentially important if the impact has two benefits including health benefits and risks [10,11]. Regardless of the strength of the data, the assumptions must be defined; sensitivity analyzes are useful for presenting results based on a number of reasonable assumptions. The process of describing the prevalence and distribution of health conditions and risk factors in an infected population during an HIA is often called "profiling.". Its purpose is (a) to paint a more general picture of the health and sociodemographic situation of human society in the affected population and (b) assess the prevalence or occurrence of specific factors that can be modulated by the proposed policy or program, as well as factors that may have significant effects. For example, in an HIA that impacts children's physical activity, one would want to take into account current physical activity levels, including factors such as body mass index, education, income, and the ethnicity in the target population, known from the scientific literature are known to mediate the effects of environmental and programmatic change on the physical activity system of children. Although profiling may seem straightforward, compared to other aspects of quantitative impact assessment it is always difficult. One of the major problems is that HIAs are always possible for small or specially defined populations, for which it is not always possible to collect appropriate data on relevant health, demographic and other data. Improving, standardizing, and routinizing methodologies, such as local estimation [12] to facilitate the estimation of different determinants of health for the HIA population of interest, are essential for the development and disseminating HIA. Profiling is also reinforced by other data gaps and reporting methods that prevent integration into predictable models. HIA professionals and practitioners should encourage evaluators and epidemiologists to report the effects of risk (or associated risk) with moderate changes in outcomes over time, rather than underlying measures and dose changes. adapted to specific threshold. The credibility of HIA depends on the quality of evidence and presentation. However, uncertainty is often quite thin owing to the intersectoral nature of most HIAs and the uncertainty associated with many of the economic and behavioral issues

that affect them. HIA focuses on the impact of vulnerability and policy in other sectors (Mindell *et al.*, 2004). If high quality evidence is stored in an HIA as it is with systematic reviews, it is difficult to find sufficient evidence for an HIA (Krieger *et al.*, 2003); It is difficult to find evidence to establish the basics of an HIA, but decision-makers will make decisions without using the benefit of information provided by HIA. However, the limitations of this evidence need to be clearly communicated to all stakeholders in the HIA report, not just the full reports, but also the policy notes, which are probably the only documents that policymakers have seen.

Results & Discussion

The Value of HIA

HIA can add value to public decision-making in a variety of ways. First, it can provide a way to put "public health on the table" by applying health information to considerations of specific proposals in other sectors. For example, is it possible that new highway (i.e the proposed Calaber highway) will increase asthma rates for people living along the road? Does it have to affect walking or biking routes to school and within neighborhoods? What are the health consequences of noise increase? There may be counterintuitive and differential impacts, such as how a specific approach to raise money for a new school feeding programs which could actually be detrimental to the health of vulnerable groups and low income residents. Secondly, HIA has defined a clear pathway to evaluate the positive and negative consequences of health effects and a clear path for those wishing to translate the pathway or outcomes or repeat the analysis with different theories. Third, if used with caution, it provides a realistic view of the health effects that may be necessary for the public image of decision-making by policy makers. For example, this could explain the health benefits to future generations by improving the walking distance or reducing the number of injuries from motorists who wear a helmets. In addition to providing information for making certain decisions, HIA systems can have larger and more responsive effects. First, it can inform the public including planners and stakeholders about decision-makers and those who interact with others in terms of health and behavior problems) to be increased (Council on Environmental Quality, 1997; Welles, 1997). Second, health impact assessment can also help build working relationships and partnerships for health promotion between stakeholders across sectors [13,14].

HIA Should be Embedded in Existing Efforts for EIA?

Efforts to improve health impact assessment in Nigeria can learn from environmental impact assessment (EIA) and would yield the greatest dividend, as they would focus on the development of an HIAs on independent health without existing efforts on environmental impact assessment [15]. This conclusion is important given the seriousness of our environmental impact assessment in Nigeria. The 1969 National Environmental Protection Act (NEPA), Environmental Decree No. 86 of 1992 governs ESHIA process and makes ESHIA mandatory for development projects that are likely to have adverse impacts on the environment. Furthermore, in compliance with the Act CAP E12, Laws of the Federation of Nigeria (LFN) (2004). ESHIA act confers the mandate to implement the ESHIA study on the Federal Ministry of Environment (FMEnv) and requires government agencies to plan the environmental impact of their actions using explicit methods. National Environmental Protection Act (NEPA) and Environmental Decree No. 86 of 1992 requires the preparation of environmental impact statement, the results of the environmental assessment are summarized to help the authorities make the decision process more transparent by making the information a public document. Several agencies, including the federal and state governments, have the option of coordinating any EIA, depending on the body that has the most direct responsibility over the project being examined. Many parties have written about the weaknesses of the EIA as they are currently practiced in Nigeria. Environmental impact statements often take years to complete and cost most often between hundreds of thousands and millions of dollars [16]. Completed documents usually thousands of pages. The EPA estimates that only 37% of the environmental impact statements are in line with the guidelines of 150 maximum pages (US Environmental Protection Agency, 2001). In addition, National Environmental Protection Act (NEPA) and Environmental Decree No. 86 of 1992 mandated EIAs recommendations to take full account of the effects on human health, despite the stated purpose of practices aimed at protecting “human society” and “undermining the health and well-being of people.” to be “ [17]. The types of impacts considered in EIAs in Nigeria are largely determined by other government regulations, such as the Environmental Impact Assessment Act of 1992, which requires us to take into account the specific environmental impact of EIA and the judicial system, state and government committees in

accordance with the Act CAP E12, Laws of the Federation of Nigeria (LFN) (2004), ESHIA act confers the mandate to implement the ESHIA study on the Federal Ministry of Environment (FMEnv). with Lagos State in the lead, requires that a consideration about the impact on human health, but it is often limited to the notion of cancerslinked to exposure to chemicals pollutants from environmental media such as air, land and water in the context of the EIA. Due to concerns about potential legal issues and the fact that it is a project proponent, employees or consultants must prepare an EIA, it is a specific regulatory framework, not open to areas in which impact is not available to direct authority, such as human health. Another important caveat about the involvement of health impact assessment as an integral part of existing EIA processes and such impact assessment that rarely takes into account the impacts on activities outside the projects field. As a result, non-existent policies such as minimum wage legislation, support for agriculture and education, which may have beneficial effects on human health, are not. Defined by the HIA included in the EIA as needed and conducted. In addition to the specific issues related to legislation and regulatory systems that support existing EIA practices, many of which can be resolved in the right political circumstances, there may be more fundamental issues. Combining different types of EIA extant in Nigeria with a smarter and comprehensive approach to HIA. Because of the wide range of health decisions and the many policies and sectors that influence these decisions, the HIA must be open, broadly focused and highly flexible. Linking HIA to a narrowly prescribed approach to EIA that is directly opposing a deep concern about legal defensibility will lead to conflict. Since EIA has existed in Nigeria for decadesand millions of Naira are invested in EIA each year, HIA related to EIA may be in compliance with the restrictions of EIA rather than HIA to extend the accuracy of the EIA. However, these two are not fully valid. Indeed, the researchers argued that the health impact assessment should be linked to the environmental impact assessment (EIA) to support its training [5].

Conclusion & Recommendation

Today thus marks a milestone in Nigeria’s journey to reach the goals of UN SDGs, with Lagos State in the lead, consequently, there is a growing concern in Nigeria over the scarcity of personnel with appropriate Environment, Social and Health (E&SH) skills, knowledge and institutional mandate to anchor and drive environmental,

social and health standards' functions in a coherent and coordinated manner. The application of the new Environmental, Social and Health Framework (ESHF) for all development partner-financed investment projects further increases the demand for a cadre of personnel with appropriate ES&H management skills. However, HIA can help attract the best health advisers and establish effective government policies in all areas. Although it could be a pledge tool, its ultimate value can be influenced by premature and unexpected expectations. Despite its limitations, the potential for impact assessment appears to be increasing, in part owing to the changes in health-related populations are rooted in behavioral and socio-economic characteristics, necessitating the study of implications for health policy improvement and healthcare. The effective use of HIA and its limitations should be disseminated to other health professionals, politicians and the public. It can provide politicians and stakeholders with useful information on health outcomes, but it cannot provide effective government policy on health outcomes. Indeed, the HIA appears to be the most successful in the world in these places where governments are committed to promoting public health through the experience of all major sectors. In the current stage of diffusion on this technology tool, a limited number of advanced studies focusing on collaborative health organizations may meet the needs of decision makers. A good range of topics and quality in the context of HIAs can contribute to most of their needs. When conducting an HIA regularly and taking steps to establish knowledge about HIA, experiences from EIA and other types of union policy research in the country, as well as HIA courses in other countries, can increase the chances of success with HIA. improve your long-term goals to improving sustainable growth and development. So, for successful SDG achievement parties should implement their respective commitments into their national systems of legislation in ways that are not contradictory, comprehensively, feasible and binding.

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