

Health impact assessment in Nigeria: An initiative whose time has come

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Abstract

Health Impact Assessment (HIA) is increasingly applied in many developed countries as a tool for advancing healthy public policy. This research was carried out to obtain a HIA situation report for Nigeria and to assess ways of enhancing the use of HIA to promote healthy public policy. Semi structured questionnaires were administered both online and by hand to health and non-health professionals in Nigeria. Inferential statistics was used in the analysis of the 510 responses that were received. Only 29% of the respondents had ever heard about HIA; similarly, only 19.3% of those who were aware of HIA had received any form of HIA training. However, 93.2% of respondents were convinced that HIA would be beneficial to the Nigerian health system. Using the approach of SWOT Analysis to discuss the findings, this research concludes that the time has now come, and the right conditions are in place, for the integration of Health Impact Assessment into public policy in Nigeria. Raising awareness and political commitment are the two major strategies to help drive this agenda forward.

Introduction

The Gothenburg Consensus paper defines HIA as ‘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 the population, and the distribution of those effects within the population’.¹ A major aim for using HIA is to help decision makers consider the health consequences of their decisions and to minimize or eradicate, wherever possible, the risk of population health being damaged through some unintended and indirect consequences of a decision. HIA therefore aims to improve the overall quality of public policy decision making through recommendations that will help facilitate the adjustment of the proposed program, project or policy, in order to mitigate the negative health impacts while max-

imizing the positive impacts.² This is in line with the World Health Organization’s Healthy Public Policy (HPP) initiative, which is intended to make policies to be “characterized by an explicit concern for health and equity in all areas of policy and an accountability for health impacts”.³

It is now widely recognized that several factors, collectively referred to as the determinants of health,^{4,5} influence the health status of individuals and populations. Included among these determinants are the lifestyles of individuals as well as other social and environmental conditions, over which individuals have no direct control. Similarly, over the last three decades, it has been increasingly recognized nationally and internationally that public policy is a major determinant of public health.⁶ This has led to a shift in paradigm from curative to preventative health care which is continually strengthened both by national and regional governments through a growing focus on multisectoral approaches to public health.

In recognition of the crucial link between human health and the environment,⁷ HIA becomes a very relevant public health tool for enhancing the Sustainable Development Goals (SDGs) and the 2030 Agenda. The Agenda is a commitment by nations to eradicate poverty all over the world and achieve sustainable development by 2030 through a shared global vision. The Agenda includes the 17 Sustainable Development Goals (SDGs) each having a list of targets (totaling 169) that are measured with indicators. The Goals and targets are intended to propel action over the next decade in areas of crucial importance for humanity and the planet, namely people, planet, prosperity, peace and partnership.⁸

HIA by its underlining principles and methodology fits into this new paradigm shift towards multisectoral approaches to public health; for example, Chilaka showed a strong multidisciplinary and government (public sector) involvement in the practice of HIA in the United Kingdom.⁹ This was also seen to be replicated in other countries of Europe where it has been adopted as a practical way to consider health and inequalities at different levels of the decision making hierarchy. HIA has increasingly become a significant component of public health policy and practice in many developed countries.^{9,10,11}

In Nigeria, as in most developing countries, the need for health impact assessment as an integral feature of policy development and evaluation is all the more pressing in view of the poor state of its health system and general population health status.^{12,13} Ironically, the application of HIA in devel-

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oping countries has been very limited. It is for the foregoing that this piece of research was conceived to assess the level of awareness and application of HIA in Nigeria; to identify the constraining factors and suggest appropriate measures to overcome them, based on the findings of the research.

Materials and Methods

Online and hand delivered semi-structured questionnaires were administered to a total of 1197 health and non-health professionals, public service workers, policy makers and business entrepreneurs within the six geopolitical zones of Nigeria (980 online and 217 face-to-face contacts). 510 responses were received (430 online and 80 hand delivered) and inferential statistics was used in the analysis of the data collected, using MS excel software. The data collection instrument asked questions relating to level of awareness of HIA, training and resources for HIA, as well as motivational factors that can enhance the application of HIA in Nigeria.

Results and Discussion

General profile of respondents

Out of the 510 respondents, 255 (50%)

were of the intermediate managerial class; 180 (35.3%) were supervisors, and 39 (7.6%) were skilled manual workers. Additionally, 31 (6.1%) were of the higher managerial cadre, and 5 (1.0%) were casual laborers. These trends in the characteristics of the respondents tally with the trend in educational levels which shows that 76.8% (392) of the respondents were degree or higher degree level holders. 17% of the respondents had General Certificate of Education (GCE) 'A Level' or Ordinary National Diploma (OND), while 6.3% had GCE 'O Level.' There was no respondent without any form of qualification. These demographic details of the respondents are shown in Table 1.

The participants were predominantly educated in keeping with the mode of administration of the questionnaire which required some level of expertise in computer and internet usage. Similarly the age range and distribution were typical for those employed in the formal sector.

In terms of organizational category, 60.4% of the respondents were from health sector organizations while 39.6% were of the non health sector. 35.7% were working in government (public sector) establishments; 37.9% worked in nongovernmental establishments; 21.9% worked in the private sector and 4.5% were self employed.

HIA situation report

i) Level of awareness of HIA: Only 29.4% (150) of the respondents said they have ever heard of HIA while 70.6% (360) were unaware of HIA as a concept. Furthermore, 63.3% of those in the health sector (195 out of 308) were not aware of HIA while 81.7% of those that are not in the health (165 out of 202) had also never heard of HIA. This shows, unsurprisingly, a higher level of unawareness about HIA among those in the non health sector.

Considering type of organization (*i.e.* National, multinational or private sector), comparatively more people in the private sector said they haven't heard of HIA before. While 32.5% of the total respondents were from multinational organizations, 32.7% of those who were aware of HIA were also from that sector. However, while 15.1% of respondents were from the private sector, only 8.6% of those who had heard about HIA worked in the private sector of the Nigerian economy. It should be noted that all the respondents (including those in the multinational organization) were Nigerians. Table 2 shows further details about link between type of organization and level of awareness of HIA.

ii) Trained/ skilled manpower for HIA: Only 19.3% of the respondents who were

aware of HIA (29 out of 150) (5.7% of total respondents) said they have undergone any HIA training; the remaining 80.7% had never undertaken any HIA training. Additionally, 93.3% of respondents that were aware of HIA (140 out of 150) said that lack of trained personnel in HIA is a major hindrance to HIA application in the country. Interestingly, when a crosstab was done between grading of the respondents' self reported level of knowledge of HIA and training, it showed that 40.0% of those that

said they've had no training before also had moderate knowledge of HIA while 15.0% of them also indicated to have high knowledge of HIA (Table 3). This goes to suggest that the source of knowledge of HIA could be through sources other than actual involvement and practice of HIA given the fact that the sample population is well educated. On actual involvement in the HIA process, 89.3% of respondents that were aware of HIA said they have never been involved in any HIA as an assessor while

Table 1. General profile and characteristics of respondents.

Characteristics	Grading criteria	No of respondents	Percentage
Socio-economic status	High managerial	31	6.1
	Intermediate managerial	255	50.0
	Supervisors	180	35.3
	Skilled or semi skilled manual workers	39	7.6
	Casual labourers	5	1.0
Education/ Qualifications	Degree/ postgraduate	392	76.8
	A Level/ OND	86	16.9
	GCE (O/L)	32	6.3
	No qualification	-	-
Age	18-25	28	5.5
	26-35	160	31.6
	36-45	248	48.9
	46-55	61	12.0
	56-65	9	1.8
	Above 65	1	0.2
Type of organisation	Government	181	35.7
	Non governmental	192	37.9
	Private sector	111	21.9
	Self employed	23	4.5
Work orientation	Health related	308	60.4
	Non health related	202	39.6
Organisational spread	National	267	52.4
	Multi national	166	32.5
	Private	77	15.1

Table 2. Cross-tabulation between type of organization and awareness of HIA.

Type of organisation	Have you ever heard of Health Impact Assessment before?		Total
	Yes	No	
National	88 (58.7%)	179 (49.7%)	267 (52.4%)
Multinational	49 (32.7%)	117 (32.5%)	166 (32.5%)
Private	13 (8.6%)	64 (17.8%)	77 (15.1%)
Total	150	360	510

Table 3. Cross-tabulation between knowledge of HIA and training.

How would you grade your knowledge of HIA?	Have you participated in HIA before?		Total
	Yes	No	
No knowledge	0	7	7 (4.7%)
Slight knowledge	0	47	47 (31.5%)
Moderate knowledge	16	48	64 (43.0%)
High knowledge	13	18	31 (20.8%)
Total			149

10.7% said they have. 18.7% of respondents said they have been involved in HIA as a non assessor, while 81.3% said they have not. These two trends further showed low levels of participation in HIA even amongst those in the health sector.

iii) Policy framework for HIA: 26% of the respondents that are aware of HIA (39 out of 150) alluded to knowing any form of their government's legislation in support of HIA application; 74% were not aware of any such enabling legislation. The high level of those that said they were not aware of supportive legislation shows the unpopularity or non existence of legislation to promote the application of HIA.

iv) Barriers to implementing HIA: In response to an open ended question, 80 possible barriers to the implementation of HIA in Nigeria were identified, indicating that lack of political will (26.3%), lack of awareness (17.5%) and lack of trained personnel were the three leading factors. Other factors are shown in Table 4.

v) Awareness of Environmental Impact Assessment (EIA): 75.3% of all the respondents (384 out of 510) were aware of EIA. A crosstab between the knowledge of EIA and that of HIA showed that whereas 90% of those that said they've heard of HIA also said that they have heard of EIA, only 10% of those that said they are aware of HIA are not aware of EIA. 69.0% of the respondents that said they have not heard of HIA were aware of EIA. This showed a much higher awareness level for EIA which could be attributed to the long existing practice of EIA and the legislative backing towards its implementation.

vi) Very positive disposition towards HIA: 93.2% of the respondents who were aware of HIA believed that HIA would be beneficial to the Nigerian health system; 73.3% said cost and time were not a hindrance. Similarly, 80% of these respondents said that HIA should be prioritized as 'highly important' while 86.6% said that they strongly agree that HIA is a necessary tool for effective public health delivery.

Discussion and Analysis

The results and findings from this research are discussed using the approach of analyzing Strengths, Weaknesses, Opportunities and Threats (SWOT Analysis)¹⁴ in order to identify internal and external factors that are influential to the use and integration of health impact assessment in the development of public policy in Nigeria. A summary of the Analysis is shown in Table 5.

Strengths and Opportunities

Very positive disposition to HIA

The greatest strength in favor of the application of HIA in Nigeria is the very positive disposition of the respondents in the research to whatever HIA can contribute to improving the health status of the people. In this regard, the huge burden of diseases in Nigeria, as in other parts of Sub-Saharan Africa,¹⁵ provides an enormous opportunity for HIA to be an integral feature of policy development and evaluation. This positive disposition is illustrated by the high percentage of respondents (90%) who believe that HIA would be beneficial to the Nigerian public health system. Similarly, a reasonable proportion of those who have not actually participated in the conduct of a HIA rate themselves to be knowledgeable about HIA; this is possibly through personal reading and internet sources.

There are many examples of adverse effects on health that a prospective or concurrent assessment of the health impact of policy could help to avoid. An example is the high morbidity and mortality from road traffic accidents (RTAs) which is caused by a combination of many factors including driver factors, the condition of vehicles,

roadway factors and transport policies.¹⁶ A health impact assessment can be a strategy to bring together all stakeholders through a constructive engagement process towards collective solutions to this avoidable menace. Another example is the increased exposure to air pollution caused by the liberalization of the use of electricity generators occasioned by inadequate power supply. It is estimated that over 60 million people (out of a population of 140 million) have their own power generating sets.¹⁷ This situation, according to The Economist makes Nigeria to have 'the world's highest concentration of small scale generators'.¹⁸ Similarly, Chilaka and Nwaneke¹⁹ have also recommended enhanced application of health impact assessment in the Niger Delta region as a viable approach to integrate corporate social responsibility (CSR), health improvement and community support into development programs in the region.

As a further indication of the extent of enthusiasm for any help that HIA can offer to a burdened health system and its people, it is also instructive that majority of the respondents in this study do not believe that time and cost would be constraints to the implementation of HIA in Nigeria, contrary to established evidence.^{20,21}

Table 4. Suggested barriers to the implementation of HIA.

S/No	Barriers	Frequency (n = 80), N (%)
1	Lack of political will	21 (26.3%)
2	Lack of awareness	14 (17.5%)
3	Lack of trained personnel	14 (17.5%)
4	Socio-cultural problems	7 (8.8%)
5	Inadequate facilities (poor or non-functional health system)	6 (7.5%)
6	Attitudinal problems	6 (7.5%)
7	Lack of resources	6 (7.5%)
8	Lack of funds	5 (6.3%)
9	Lack of motivation	1 (1.3%)

Table 5. SWOT Analysis for HIA in Nigeria.

Strengths	Weaknesses
Positive disposition of respondents Willingness to know about and apply HIA	Low level of awareness Low level of involvement in practical HIAs Low level of trained manpower Lack of political will
Opportunities	Threats
Growing awareness of wider determinants of health Growing Int'l application of HIA Recognition of HIA by African Union Established use of EIA Search for solution to huge burden of diseases	Cost considerations Time constraints Unavailability of other resources Resistance by EIA enthusiasts Poor democratic culture General socio-economic conditions

Increasing International acceptance of HIA

Another factor which provides opportunity for enhancing the usage of HIA in Nigeria is the increasing application of HIA in other developed countries with evidence of its added value to public health and the healthy public policy initiative.¹¹ Impetus for this increasing usage of HIA is also provided by improvement in the understanding of the role of socio-economic and environmental factors which constitute the wider determinants of the health status of individuals and communities.⁵ HIA is a tool for systematically considering impacts of policies, programs and policies which could act directly on individuals or indirectly through the wider determinants of health. Several international development and finance organizations are increasingly recognizing and accepting HIA as a tool to enhance healthy public policy;^{22,23} this may be one reason for the observed higher level of awareness of HIA among respondents who worked within multinational organizations. It should also be acknowledged that the African Heads of Governments (AHOGs) have long accepted in principle the need for enhanced usage and integration of HIA into public policies. This is reflected in the New Partnership for Africa's Development (NEPAD) Health Strategy technical report on Health Impact Assessment (IMCHE/1/CP8).²⁴ Given Nigeria's position as the most populous country in Africa,²⁵ with significant political influence in the continent, it can be argued that if the practice of HIA is developed in Nigeria, it would logically spread to other countries of the continent.

Linkage to Environmental Impact Assessment (EIA)

As a consequence of the United States National Environmental Policy Act of 1969, many countries have incorporated EIA into their urban planning and approval process. In 1992 the Federal Government of Nigeria made EIA a mandatory requirement for industrial plans & development activities.²⁶ This accounts for the high level of awareness about EIA among the research participants. This high level of awareness and implementation of EIA can present an opportunity for carrying out HIA in parallel with EIA or incorporating both into a suitable Environmental and Health Impact Assessment (EHIA) Model.^{27,28}

This proposal to latch HIA on to the EIA process should be approached with caution in order to properly deal with any resistance that may arise from practitioners who may not readily appreciate the need for an additional impact assessment.

Weaknesses and Threats

Low level of awareness and lack of trained manpower

The main weaknesses relate to the low level of awareness about HIA and the low level of trained personnel. Given that the participants in this research were a cohort of well educated and computer literate segment of the population, it is likely the case that the level of awareness and training for HIA within the general population would be much lower than the observed 29% and 5.7% respectively. Additionally, given that Health Impact Assessment is relatively recent and an upcoming public health tool, a good number of the respondents misconstrued it for many different things such as a general health and safety approach; this could be deduced from their responses to some open ended questions. Lack of awareness and lack of professionals have been identified by WHO and others as possible barriers to the use of HIA in government or private sector decision making.^{29,30}

Lack of political support

Another important threat is the lack of political will and legislative support for HIA in Nigeria; this was considered to be the most significant barrier by the participants in this research. Interestingly, the WHO and many other commentators have pointed to the importance of a strong commitment by governments and leaders at various levels in order to enhance the application and use of HIA.^{8,29} The low level of awareness about HIA and its possible public health benefits is undoubtedly one of the contributors to the poor leadership commitment to HIA at its present stage of development in Nigeria; after all people cannot be committed to what they do not know. This makes concerted enlightenment endeavors very essential to move HIA forward in Nigeria.

Poor democratic culture and general socio-economic conditions

The values underlining the practice of HIA include democracy, equity, sustainable development and robust use of evidence.¹ Community participation is increasingly being used as a source of evidence for HIA predictions and wherever such democratization of health is not widely accepted or practiced, as in Nigeria, the practice of HIA is bound to suffer. Similarly, under conditions of financial constraints as is common in developing economies, there is likely to be the suggestion that HIA would put additional financial demands on the health system. It should be pointed out, however, that the expected benefits of HIA (including pre-

vention of illness and deaths) would in the long term far outweigh the cost of undertaking the impact assessments.

Conclusions

While there are many weaknesses and threats, the strength of willingness and positive disposition towards HIA and the many opportunities, especially that of contributing to solve the huge burden of disease, make the integration of health impact assessment into policy development in Nigeria an initiative whose time has now come. Concerted enlightenment campaign and driving up political commitment would be two major strategies to help actualize and drive this agenda forward.

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