



Expanding the Frontiers of Health Promotion Through Health Protection Strategies and Approaches

Golda O. Ekenedo

Department of Health Promotion, Environmental and Safety Education
University of Port Harcourt
E-mail: golda.ekenedo@uniport.edu.ng

Abstract

Health promotion as a global health strategy introduced into public health practice by the World Health Organisation's Alma Ata Declaration of 1986 was favoured to significantly drive the realization of optimal health and well-being depicted in the 1946 definition of health. However, the constantly changing global health and disease climate especially the continuous emerging of viral disease pandemics and environmental health threats occasioned by climate change has increasingly necessitated further innovations and dynamism in public health approaches. This lead paper examines possible ways of expanding the frontiers of health promotion practice through innovative integration of health protection approaches. The two public health components – health promotion and health protection were independently discussed highlighting their objectives, core principles and strategies. A nexus was established in some implementation strategies with particular expose on the common application of behaviour change theories and models by the two concepts towards protecting and promoting the health of individuals and communities. The paper identified how synergistic application of the two concepts can successfully achieve protection from diseases and environmental threats, mitigate their effects, build resilience among communities, and enable effective emergency response in various settings including health institutions, communities, schools and workplaces. Hence, it was concluded that expanding the frontiers of health promotion towards health protection approaches is inevitable since health protection provides the foundation for health promotion to thrive and the aims of both can be achieved through commonly shared strategies. A major recommendation of the paper is that policy implementation guidelines should be monitored to ensure that multi-sectoral and multi-disciplinary collaboration is strictly adhered to in order to sufficiently harvest its benefits in preventing diseases, protecting and promoting the health of the public.

Keywords: Health promotion, Health protection, Integration, Behaviour change theories and models

Introduction

Over the years, the multiplicity of health challenges and continuous emergence and re-emergence of diseases and health threatening environmental conditions have placed so much burden on public health practice necessitating the birth of varied strategies including health education, health promotion, disease prevention and health protection. This millennium has particularly witnessed unprecedented rise in infectious diseases and environmental threats including the highly dreaded Covid-19 pandemic and other various forms of SARS; Ebola virus and monkey pox; environmental disasters such as pollution and flooding; violence and insecurity such as different forms of terrorism, harassment and killings. These precarious health, environmental and social threats have kept public health practitioners constantly on



their toes as new and innovative ideas, strategies and approaches are required to meet with the challenges they pose to human health and wellbeing.

Both health protection and health promotion strategies have over the years played significant roles in safe guarding and promoting the health of the populace. While their approaches may differ at some times, significant overlaps exist at other times. Health protection approaches in particular have focused interventions on the development and implementation of legislation, policies and programmes especially in the areas of environmental health protection and community care facilities (Madi & Hussain, 2008). The fundamental task of health promotion is to assist individuals to make the right decisions and take the right actions in their efforts to maintain good health and attain optimal health and well-being through initiatives that include education, advocacy, environmental changes and healthy policies.

The relationship between health promotion and health protection can assume varied dimensions. On one hand it can be viewed that health promotion begins where health protection stops. The aspiration to maintain good health and attain optimal health which is the goal of health promotion can only be accomplished when one is already in a stable state of health. A stable state of health can be described as a state of equilibrium which can be located at the middle of the health continuum whereby there is neither disease condition nor good health. Being in this state means that one has been able to protect self from disease and illness. Austin (1998) succinctly summarised this when he submitted that the motivation behind health protection is a tendency to maintain stability in health which forms the basis for individual aspiration to move towards health actualization which is a movement towards health promotion. It goes without saying, therefore, that one can hardly aspire to optimal health and well-being which is the hallmark of health promotion without first dealing with situations that endanger health which is the practice of health protection.

The foregoing underscores the essence of integration of the two public health approaches: health protection and health promotion towards achieving a high level of health and well-being. Hence, it becomes valid to posit that it is very germane that the frontiers of health promotion be expanded to incorporate health protection strategies in order to bring individuals and populations to that stable state of health which is fundamental to health promotion.

For health promotion, it has been decades of adjusting and expanding of its frontiers to meet the ever changing global health demands. Traditionally, health promotion has been understood to only involve individual lifestyle changes especially ones that have direct impact on non-communicable diseases such as exercise, nutrition/diet, smoking, alcohol and other substance abuse, stress management and cancer prevention. However, health promotion has navigated through a complex evolution. In other words, health promotion has progressively become better and more inclusive since its adoption as a global strategy for achieving health for all and will evidently continue to reposition itself expanding its frontiers to meet with the ever dynamic global health challenges.

Health Promotion

Efforts at promoting health and well-being have been an important part of early health care. However, health promotion as a concept became officially adopted as a global strategy in response to global health challenges by World Health Organisation (WHO) in 1986 at the 1st International Conference on Health Promotion held at Ottawa, Canada. The Ottawa Charter



defined Health Promotion as “the process of enabling people to increase control over and improve their health” (WHO, 1986). The Charter also set out key action areas and strategies for health promotion. Since the Ottawa Charter of 1986, the knowledge and practice of health promotion has continued to grow and expand, and various relevant components integrated into the understanding of the concept based on accumulated evidence and experience. Health promotion controls the chances of exposure to risk factors that determine health and improves quality of health by concentrating efforts in identified key action areas while also using multi-sectoral approaches and multiple complementary strategies in addressing these challenges.

Health promotion key action areas

The key action areas of health promotion as provided by the Ottawa Charter are: Building healthy public policies; Creating supportive environment; Strengthening community actions; Developing personal skills; and Re-orienting health services.

- a) *Building healthy public policies.* The required action here is for governments to fundamentally consider health in all policy formulations.
- b) *Creating supportive environment.* This involves the provision of enabling environment (physical, social, economic and political) for health to thrive.
- c) *Strengthening community actions.* This stresses the need for community mobilization and community participation in identifying their health needs and proffering solutions.
- d) *Developing personal skills.* Here the focus is to equip individuals with health enhancing skills necessary for achieving optimal health and well-being.
- e) *Re-orienting health services.* This requires a deliberate effort at making health promotion services available in health facilities thereby shifting focus from mere provision of curative services to services that equip individuals with skills to take adequate charge of the determinants of health. Example of such services include: counselling, health education, immunization, health screening and good nutrition.

These action areas formed the themes of subsequent global health promotion conferences after the Ottawa Charter and have been fundamental in shaping the boundaries of health promotion practice over time.

Health promotion key strategies

One unique advantage of health promotion is that it employs multiple complementary strategies in achieving its goals and encourages inter-sectoral collaboration. This approach has enabled it achieve successes with its programmes. The key health promotion strategies include: Health Communication; Health Education; Self Health /Mutual Aid; Organisational Change, Community Development and Mobilization; Advocacy; and Policy Development.

1) Health Communication

This is about using communication techniques to positively influence individuals, populations and organizations in order to promote healthy environment and behaviour for optimal health and wellbeing.



2) *Health Education*

This involves consciously created opportunities for learning involving some form of communication planned to improve health literacy, improve knowledge and develop life skills which promote individual and community health.

3) *Self Help/Mutual Aid*

This is a strategy whereby people with common health related experiences, situations or problems come together to provide each other with support.

4) *Organizational Change*

This has to do with working within settings such as schools, workplaces, universities, hospitals and recreational facilities, to create supportive environments that enable people to make healthy choices.

5) *Community Development and Mobilization*

This involves unified efforts by communities which are aimed at their control over determinants of health thereby improving their health.

6) *Advocacy*: Advocacy is a combined effort of individuals and groups to engage in social actions designed to obtain political commitment or support for a particular health issue or programme.

7) *Policy Development*

This is the process of developing legislative and regulatory measures that protect the health of communities and make it easier for individuals to make healthier choices.

Health Protection

Health protection as viewed by Ghebrehewet et.al. (2017) is the protection of individuals, groups and populations through expert advice and effective collaboration to prevent and mitigate the impact of infectious disease, environmental, chemical and radiological threats. The term Public Health Protection is also described as meaning the totality of organisational, technical, social, economic and legal measures intended to protect the health of the society or its individual groups from harmful effect of the environmental factors or to reduce the risks thereof to the minimum (Ghebrehewet et.al. 2017). Health protection has three major domains as follows:

- (i) communicable disease control,
- (ii) emergency preparedness, resilience and response (EPRR), and
- (iii) environmental public health (Ghebrehewet et.al. n.d).

The core action areas of health protection are climate change, emergency and disaster, Health Emergency and Disaster Risk Management (Health-EDRM), communicable disease, environmental health, planetary health and sustainability, and health protection challenges and opportunities.

Health protection has experienced increasing profile since the constant emerging of highly infectious diseases such as SARS, COVID-19, Zika and Ebola virus and other pandemics as well as the increasing incidences of natural disasters such as hurricanes, tsunamis and flooding. Health protection is concerned with controlling the spread of communicable diseases and protection from hazards by establishing minimum standards, often in the form of regulations (Galvan, 2017); example includes the occupational safety standards such as the ISO standards. The responsibility of establishing and enforcing these health protection standards are usually that of government agencies such as the National Agency for Food and



Drug Administration and Control (NAFDAC), and the Federal Environmental Protection Agency (FEPA).

Health Promotion versus Health Protection

To effectively identify areas of integration of the two concepts, understanding their areas of similarities and differences is pertinent. Concerning their level of operation in disease prevention, health protection happens at the primodal and primary level of prevention, while health promotion operates across all levels of prevention – primodal, primary, secondary and tertiary prevention (Madi & Hussain, 2008). Health protection interventions are further seen as population-based and passive, and disease-focused with aim at creating barriers between people and diseases and disease risk factors. Health protection interventions are aimed at developing protective devices or strategies that prevent people from falling sick from an identified risk source; while on the other hand, health promotion has a central approach to health by focusing on holistic health and wellbeing (Madi & Hussain, 2008). Health promotion utilizes health protection as well as promotion strategies to promote the health of individuals, families and communities (WHO, 2008). Highlighting the protection leaning of health promotion, (Kirm, 2021) described it as a widely used public health intervention intended to improve the health of a population by promoting modifiable protective factors and reducing modifiable risk factors.

Recent evidences have shown that an integrated approach involving health protection and health promotion strategies have proven to be more effective in achieving the expected outcome of health behaviour change and subsequently optimal wellbeing (Sorensen et al., 2014). Interestingly, health protection and health promotion both advocate multi-disciplinary and collaborative approach. Health protection like health promotion also employs health education and skills training of both health care professionals and the general public to provide support to prevent and reduce the impact of infectious diseases, hazards, and major emergencies

Table 1: Comparing Health Promotion and Health Protection

Area of Comparison	Health Protection	Health Promotion
Goal	To decrease the risk of disease or illness.	To decrease the risk of disease or illness and improve overall health.
Level of prevention	Health protection takes effect at the primodal and primary level of prevention.	Health promotion operates across all levels of prevention – primodal, primary, secondary and tertiary prevention.
Focus	Health protection is disease-focused and aims at building barriers between people and diseases and disease risk factors.	Health promotion has a dominant approach to health by focusing attention on enabling wholistic health and wellbeing.
Intervention	The interventions are aimed at establishing standards through legislations and developing protective devices or strategies that prevent people from falling sick.	Interventions utilize both health protection and promotion strategies to promote the general health and well-being of individuals, families and communities (WHO, 2008).
Theoretical leaning	Theories underpinning health protection are based on community, organisational and individual behaviour change.	Theories underpinning health promotion are based on community, organisational and individual behaviour change.
Strategies /Approaches	Advocates multi-disciplinary and complementary approaches	Employs inter-sectoral, collaborative and complementary approaches.



Theories and Models Underpinning Health Promotion and Health Protection

A number of behaviour change theories and models have been successfully applied in health promotion and health protection practice to predict health and safety intentions and behaviours. Because of the shared principles by both concepts, the applied theories are similar and used across concepts. For instance, The Health Belief Model (HBM) which is predominantly used in health promotion shares similar constructs with The Protection Motivation Theory (PMT). The HBM and PMT originally have four basic constructs which address two major concerns: the HBM, perceived threat and benefit; the PMT, threat and coping appraisal. Both theories can be applied to tackle any health threat for which there is a recommended preventive or mitigating action to be carried out by the individual. Both models can be applied in developing and implementing health promotion and health protection interventions.

Protection Motivation Theory (PMT).

Protection Motivation Theory was propounded by Ronald W. Rogers in 1975 and originally applied to health promotion and disease prevention. It describes how individuals are motivated to react in a protective way towards a perceived threat. It has four key elements: “threat appraisal”, followed by “coping appraisal”, which comprises “response efficacy” – the belief that certain processes *will mitigate* the threat - and “self-efficacy”, an individual’s idea of their *own ability* to implement the required actions to mitigate the threat.

Rogers listed four key elements of PMT thus:

- | | | |
|--|---|---------------|
| <ol style="list-style-type: none">1. The perceived severity of the hazard2. The likelihood of the hazard occurring3. What mitigation measures are available, and4. The individual’s ability to successfully enact those measures. | } | Threat |
| | } | Coping |

Protection Action Decision Model – PADM .

The Protective Action Decision Model (PADM) is a multistage model that is based on findings from research on people’s responses to environmental hazards and disasters. Developed by Lindell and Perry in 1992 and modified in 2004, the model is an explanation of the process by which individuals respond to environmental cues or socially transmitted warnings about environmental hazards and disasters (Lindell & Perry, 2012). PADM performs an analysis of individuals’ perception of environmental threat, how they process the import of the threat, and the subsequent decision and action.

The model identifies three core perceptions—threat perceptions, protective action perceptions, and stakeholder perceptions—that form the basis for decisions about how to respond to an impending or long-term threat (Lindell & Perry, 2012). The outcome of the protective action decision making process, together with situational facilitators and impediments, finally produces a behavioral response.

The meeting point

There is a pleasant synergy between health promotion and health protection that is inevitable when public health challenges are tackled. This synergy emanates from the sharing of basic principles rooted in behaviour change theories and models. The effectiveness of the two

concepts in collaboratively achieving optimal health has resulted in the development of models that combined the two approaches. Two of such models are briefly discussed here namely: Health Promotion Model developed by Tannahill in 1985 and Health Promotion and Health Protection Model developed in 1996 by Austin, David.

Health Promotion Model

Tannahill in 1985 produced a model of health promotion which provides a framework to illustrate the linkages between health education, health protection and prevention. The model was modified in 1990 by Downie, Fyfe and Tannahill. The basic principle of this model is presented graphically by three overlapping circles.

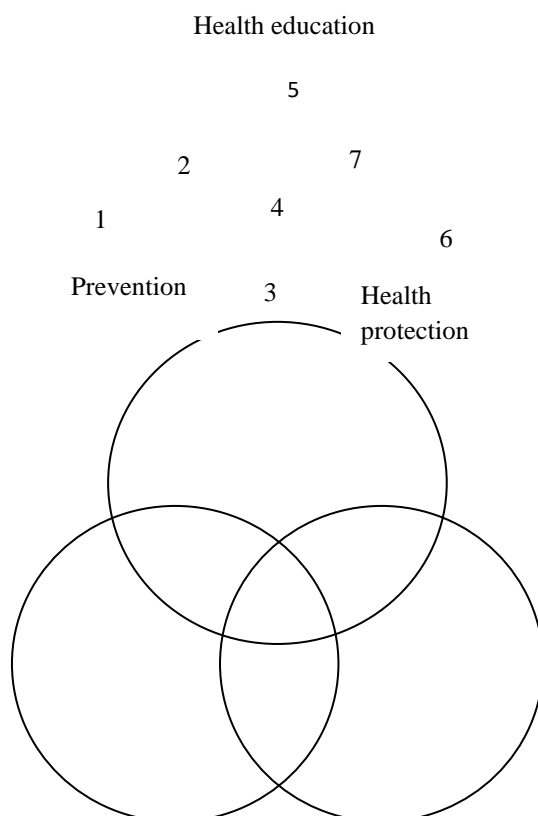


Fig. 1: Health Promotion Model Framework (Source: Downie, Fyfe and Tannahill, 1991).

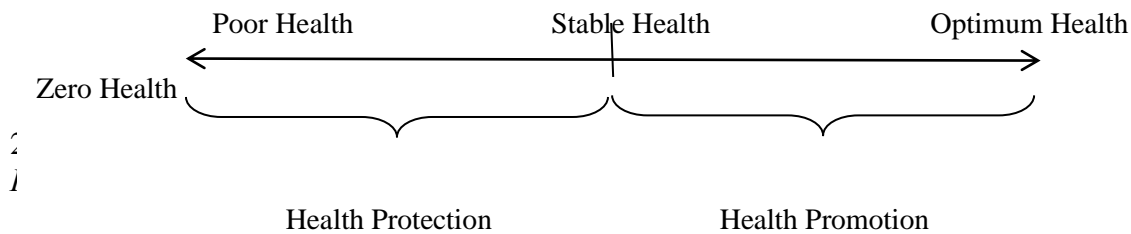
As explained by Downie, Fyfe and Tannahill (1991), domain 1 focuses on prevention, such as immunisation and screening. Domain 2 addresses preventive health education aimed at encouraging changes in an individual's health behaviour in order to prevent ill health, and education for service providers to encourage the use of preventive services. Domain 3 is on preventive health protection such as water fluoridation, seatbelt legislation, fiscal policy for tobacco/alcohol. Domain 4 portrays protective health education for preventive purposes such as lobbying for seatbelt legislation, for increased tobacco taxation and other efforts to influence the social environment towards enhanced provision of preventive services. Domain 5 depicts health education for well-being gains and involves education aimed at encouraging changes in an individual's health behaviour in order to promote health. Domain 6 represents health protection for well-being such as the development of workplace no-smoking policies for the purpose of maintaining clean air. The focus of domain 7 is protective health education



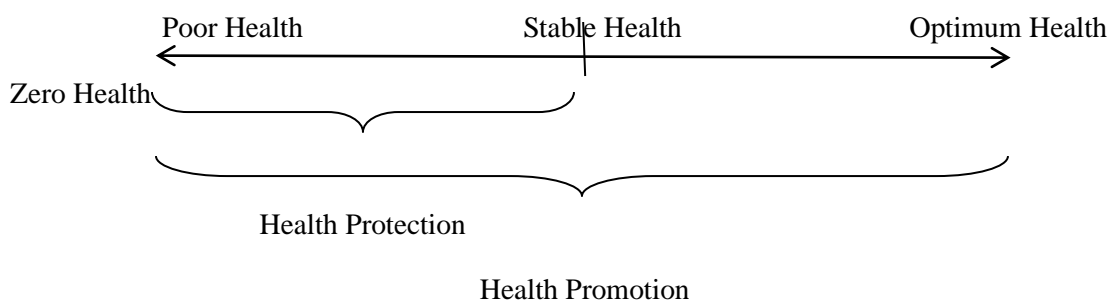
for well-being such as lobbying policy makers for more sanitation facilities for the increased environmental health and well-being of the community.

Health Promotion and Health Protection Model

This model developed by Austin David in 1996 brought to fore the fact that in promoting health, health protection cannot be bypassed. In other words, health protection provides a stepping stone for health promotion. The model was originally developed for and applied in therapeutic recreation practice. The tenets of the model are that in providing health promotion services, individuals are helped to recover from threats to health which he referred to as health protection and to achieve as high a level of health as possible which he referred to as health promotion. Hence, under this model, health promotion utilizes appropriate activities/strategies to address physical, environmental, and psychosocial barriers/threats to health and provide experiential activities to facilitate growth towards higher levels of health. Therefore, to effectively pursue health promotion, practitioners must provide a fertile ground in the nature of health protection.



essentially expand its boundaries towards health protection so that it can function effectively and achieve optimum results. In other words, health protection activities become the initial, foundational health promotion efforts that serve as a spring board for onward journey to optimal health presenting a picture of a continuum rather than separate entities. This is illustrated in the figure below.





Areas of Expansion for Health Promotion through Health Promotion Strategies

1. Health institution

Health institution includes hospitals, clinics, health centres, rehabilitation centres, and so on. Health institutions are mostly patronized by individuals who are already in a compromised state of health; hence, the expected services from such institutions are basically curative. However, with the re-orientation of health services which is one of the key action areas of health promotion, other services that provide patients with knowledge and skills as well as other means to protect their health are now also available in health institutions. Such services include, health education, counselling, immunization/vaccination services, screening services, provision of food supplements and mosquito nets. Control of communicable diseases is achieved in this setting through these services.

The health insurance scheme can be expanded to ensure coverage of these health promoting activities. Also, policies making it mandatory for health workers to have steady access to personal protective equipment (PPE), and ensure strict compliance to safety protocols especially during disease outbreaks and emergency situations should be enacted and implemented.

Introduction of exercise programmes and facilities in health institutions is encouraged as it will not only serve rehabilitation therapy purposes but also drive home the role of exercise in regaining health and maintaining fitness among patients and may also provide a rare opportunity for staff to ease off work stress and keep fit for their job.

2. Community

A community is a group of people who share common goals, privileges, benefits and challenges. Health promotion in the community is geared towards strengthening and advancing the capacity of members in building resilience against emergencies including disease outbreaks, natural disaster and insecurity. This approach played significant roles in the control of covid-19 pandemic and other similar outbreaks.

Mobilizing communities for health programme planning and implementation is a vital strategy that places the individual/community at the centre of health promotion by empowering them to take action in addressing their identified health needs and challenges. Community mobilization done through active involvement of key informants and opinion leaders can achieve effective results such as in construction of physical environmental protection projects like drainages, cleaning and evacuation of waste from drainages, streams, markets and so on. Furthermore, community leaders and groups can be sensitised through advocacy visits to establish legislations that enforce healthy behaviours such as weekly or monthly environmental sanitation exercise, as well as prohibit unhealthy behaviours such as bush burning, open defecation, sand excavation etc. which result in environmental degradation and constitute threat to health and safety.



3. School

The school is the first contact of the child outside the home. It is a setting that brings together children from different homes and backgrounds. The possibility of communicable disease spread and violence is high in such setting. School health promotion, therefore, should expand its frontiers to protect the children as well as the school staff from disease infections through health education, immunization, isolation and quarantine, promoting personal hygiene and providing clean and safe environment. In Nigeria as in most countries, the school health programme provides the platform for the promotion of health within the school setting. The implementation of the school health programme is guided by the National School Health Policy first developed in 2006 through the collaborative efforts of the Ministry of Health and Ministry of Education. Presently, the school health programme remains the major health protection and health promotion intervention for both students and staff.

Schools should be encouraged to have functional policies that seek to protect students from psychological hazards such as bullying and harassment, physical hazards such as falls and electrocution, chemical hazards such as laboratory accidents and so on. Implementation of the policies by the school staff and head students should be enforced.

4. Workplace

Traditionally, health protection programs and policies have functioned independently of workplace health promotion (Sorensen et al., 2013). Workplace health promotion has tended not to address occupational health and safety risks posed by working conditions. What obtains in most workplaces is a situation where the traditional Health, Safety and Environment (HSE) operate in isolation of health promotion. More recently, the shortcomings of this approach have become apparent and a more integrated approach to improving worker health is emerging (Mendes and Dias, 2011). Since health promotion in the workplace seeks to improve the level of health of workers by preventing diseases, controlling hazards, improving fitness and well-being and enhancing the capacity of workers to work and to function in society, an integrated approach will certainly achieve better results. Health promotion is never a stand-alone concept. Evidence to date suggests that integrated approach both improves occupational health protection and enhances the effectiveness of health behaviour change interventions (Mendes & Dias, 2011).

Sorensen et al. (2013) have outlined a set of indicators of integration to include: organizational leadership and commitment to worker health; collaboration between health protection and work-site health promotion; organizational policies and practices (including accountability and training, management and employee engagement, benefits and incentives to support workplace health promotion and protection, and evaluation and surveillance); and comprehensive program content.

5. Epidemics and pandemics (Emerging diseases)

Health protection services are on hand to deal with outbreak situations and monitor the emergence of diseases not previously seen. Health protection activities during



disease outbreaks include providing public awareness, releasing guidelines and prevention protocols including travel guide, providing immunization and vaccination services, providing facilities for quarantine and isolation etc. Developing and disseminating awareness information and prevention guidelines/protocols are areas where health promotion can make significant impact in the management of epidemics. Health promotion activities equip the public with basic skills, building efficacy for maintaining personal and public hygiene, and engaging in other health promoting behaviour that can help to protect them from contracting the disease of the day.

The recent flooding that devastated many states in Nigeria is a case in hand. Through advocacy and community mobilisation, funds can be raised, equipment purchased and volunteers recruited to educate vulnerable individuals and victims on personal and environmental hygiene necessary for such situations, on the need for prompt evacuation, and provision of necessary first aid equipment, mosquito nets, hygienic food and portable water essential for preventing disease outbreak.

6. Multi-sectoral collaboration

Health promotion and health protection rely on multi-sectoral collaboration to achieve their goals. Communicable diseases control, emergency preparedness and environmental health protection cannot be effectively achieved without multi-sectoral collaboration. Hence, competency in partnership building which is one of the core competencies of health promotion practitioners is of essence. For instance, efforts at controlling a disease outbreak will require the pooled efforts of the health sector to provide professional advice and services such as immunization/vaccination and surveillance; information and communication sector for awareness creation and regulatory/guidelines information dissemination; the aviation and transport sector for safe and controlled movement of people from one place to another and across borders; the legislature for policy development where necessary etc.

Multi-disciplinary collaboration facilitates accomplishment of health protection and health promotion goals. Multi-disciplinary researches should be encouraged as this can help discover innovative health promotion and health protection interventions for current nagging health challenges. Planning, implementation and evaluation of health promotion interventions can truly be more effective if efforts are pooled across disciplines.

7. Exercise facilities and activities

Exercise is one of the major focal areas of health promotion interventions intended to help individuals maintain optimal performance of the body system and protect against degenerative diseases. Engaging in physical activity is one important way of reducing many disease risk factors such as obesity and overweight, stress and psychosocial trauma. It is a very useful way of providing rehabilitation therapy for patients recovering from physical trauma in which case the focal point of exercise is on recovering and maintaining stable health, which is health protection rather than achieving a high-level health. Health promotion here serves to protect the recipient from further harm or damage to health. While emphasizing the dividends of engaging in exercise which are both health protective and health promoting we should not lose



sight of the inherent danger in the exercise itself, the equipment and the facilities used.

Exercise facilities are one of the many settings where safety is paramount. Physical activities must be performed in a safe and healthy environment while also maintaining safety in the use of exercise equipment. Hence, while developing exercise programmes, protecting participants from injury and harm should be of utmost importance and a significant part of the programme. Engaging the services of experts and provision of adequate health information reduces the risk of acquiring exercise-related injuries. A complete exercise package should therefore encompass health protection and health promotion activities.

Achieving results in the promotion of physical activities in formal settings such as the school and workplace will require effective policies such as mapping out a specific day or days in the week when engagement in sports and exercise is enforced. Of course provision of sport and exercise facilities in the schools and workplaces will provide the needed supportive environment for the policy to thrive. Workplaces can plan the work environment in such a way that parking lots are located a considerable distance from offices to promote walking to offices. Individuals can be helped to plan their daily activities to factor in sufficient moments of physical activity, for instance, using the staircase instead of elevator, and stopping in a bus stop next to the actual stop.

8. Environmental health threats

It is reported that twelve million people die every year because they live or work in an unhealthy environment (Pruss-Ustun, et al., 2016). Environmental health pollutants are major health threats which can lead to health problems such as respiratory diseases, heart diseases and some kind of cancers (Brusseau, et al., 2019). The global public health target is to bring down the number of people exposed to harmful pollutants whether in the air, soil/land, food, water or materials at home or in workplaces (US Department of Health and Human Services, 2022). In other words, public health efforts are geared towards protecting people from coming in contact with harmful pollutants in the environment, and from their harmful effects. The role of health promotion in achieving this cannot be overemphasised and includes:

- a) creating awareness through the use of mass media on the reality of these environmental health threats and their impact on health;
- b) providing appropriate and adequate knowledge to the public using appropriate Information, Education and Communication (IEC) materials and various media on measures of prevention such as environmental sanitation and personal hygiene;
- c) encouraging environmental health legislation and implementation by government and industries; and
- d) Supporting the educational sector to expand the school curriculum to capture current and emerging environmental health threats and means of preventing them. This is very necessary because children and women are found to be more vulnerable to health problems related to pollution (Landrigan, et al., 2017 & Van den Hooven, et al. 2011).



- e) Providing support to communities and building their capacity and resilience in addressing environmental health challenges.

9. Public policies

Policy is a set of ideas or a plan of what to do in particular situations that have been agreed to officially by a group of people, a business organization, a government, or a political party (Cambridge Academic Content Dictionary, 2022). Policy contains guidelines which assists stakeholders to address issues following a set out plan or principle. Developing healthy public policies is one of the key action areas of health promotion. This key health promotion approach was expounded at the 8th Global Conference on Health Promotion held in 2013 at Helsinki, Finland and themed “Health in All Policies”. Healthy public policy means infusing into every public policy the health element which ensures that no policy infringes on the health of citizens but rather promotes it. Public policy is a major driver of health protection and is also a central element in the promotion of health.

Safety regulations and laws have for long shaped occupational health and safety operations. Similarly, most environmental health issues are addressed through policies which seek to protect the public from the harmful effects of industrial pollution of the environment and other unfriendly environmental activities. Policies provide supportive environment for awareness, educational and skill building activities of health promotion. Hence, policies are essential to support educational efforts to reduce obesity and inactivity; promote healthy nutrition; prevent violence; promote appropriate use of health care services; protect from environmental, mental and social threats, and harmful consumer products.

10. Emergency preparedness, resilience and response

The aim of Emergency Response Preparedness (ERP) is to heighten the speed and capacity of critical assistance provided immediately after the commencement of a humanitarian and environmental crisis. According to Kirm (2021), health promotion for emergencies includes three basic strategies: *Advocate* for factors that encourage health (particularly among at risk populations); *Enable* people to achieve health equity; and *Mediate* through collaboration across all sectors.

Community mobilisation is crucial in emergency preparedness and response. It is an effective approach for controlling disease outbreak and mitigating natural and industrial disasters (Corbin et al., 2021). The experience of COVID-19 pandemic has reconfirmed the need to upgrade community mobilisation to build equity, trust and sustained action in future health promotion preparedness strategies. Strengthening community action which is one of the key action areas of health promotion provides the opportunity to build community capacity and help members develop resilience when it comes to confronting emergencies such as disease outbreaks and environmental threats as well as overcoming the consequences. Hence, Corbin et al. (2021) suggests a need to improve the understanding of community engagement practices during crises, scale-up good community engagement initiatives, and improve and sustain people-centered approaches to emergency responses.



It has become clear that in situations of health and safety emergencies, approaches that are social and behavioural in nature make the greatest impact. This was witnessed during the COVID-19 pandemic where many of the measures implemented to contain the disease included physical distancing, wearing of face mask, hand hygiene and even vaccination which require a change in behaviour both on the part of citizens and health workers. Health promotion as the second pillar of emergency health has the role of promoting individual protective factors which are the causes of wellness and reducing individual risk factors which are causes of disease before the emergency (Kirm, 2021).

Furthermore, Corbin et al., (2021) has drawn attention to the fact that COVID-19 has revealed how in the current information society a pandemic is often accompanied by an 'infodemic', which is the overwhelming, rapid and far reaching spread of information which may sometimes be incorrect. This implies that addressing a health crisis also involves dealing with inadequate or misleading information with implication for effective and adequate health education and communication.

Summarily, health promotion is very effectively active in the five steps of emergency management which are Prevention, mitigation, preparedness, response and recovery (Nwamakamba et al., 2021).

11. Substance use, suicide and mental health

Abuse of psychoactive substances is a major issue of public health concern especially among young people. Some mental health illness, suicide ideation, attempt and completion are all consequences of psychoactive substance abuse. Health promotion should aim at protecting at risk individuals and victims with wholistic and impactful programmes that address protective factors. Protective factors of suicide include: Effective behavioural health care; Connectedness to individuals, family, community, and social institutions; Life skills (including problem solving skills and coping skills, ability to adapt to change); Self-esteem and a sense of purpose or meaning in life; Cultural, religious, or personal beliefs that discourage suicide (Suicide Prevention Resource Centre, 2022). These protective factors which are socio-psychological and socio-cultural in nature can be addressed through well-tailored health protection strategies that cut across disciplines and sectors, and requiring effective collaboration in their implementation. Health protective education, social marketing and legislation are some of the powerful approaches that can be deployed in various settings particularly in schools and workplaces to fight this social menace.

The use of legislation in the fight against drug trafficking and abuse is an age long practice that hardened offenders have come to resist, hence, the thriving business and practice. Behavioural change approaches such as counselling, peer education, social engagement through recreational activities, social marketing and gainful employment, will present a better way of achieving success in this regard. These approaches engage the young minds and perhaps older adult abusers or at risk individuals by providing alternatives, building self-confidence and self-esteem, and the capacity to resist abuse.



12. Food safety

Unsafe food creates a vicious cycle of disease and malnutrition, particularly affecting infants, young children, elderly and the sick (WHO, 2022). The use of food additives, pesticides and chemicals in the preservation and processing of foods has posed greater risk for consumers who must source their food items from these marketers.

Achieving food safety among the population is mostly dependent on legislation and modifying individual health practices. While legislations mostly target manufacturers and public food handlers such as hoteliers and abattoir operators in Nigeria, not much is done to check the activities of farmers. There must be legislations to check genetic modification of foods and other unhealthy mechanisms employed by farmers to maximize crop yield.

Individual behaviour modification should also be targeted through health education and provision of supportive environment such as constant water supply. Often times, media reports of families dying of food poisoning usually point to poor food handling by family members. Health education of food handlers, food stuff marketers, restaurateurs and food vendors should be taken more seriously than before considering that a lot of sharp practices are constantly being introduced in the food industry. Food fads and taboos are also factors that contribute to food related health problems and should be tackled through buffered school curriculum and antenatal health education.

In response to the increasing need to educate food handlers, including consumers about their responsibilities for assuring the safety of food, the World Health Organization (WHO) initiated a health promotion campaign around five simple rules, "the five keys to safer food" to help ensure food safety during food handling and preparation. These are: keep clean; separate raw and cooked; cook thoroughly; keep food at safe temperatures; and use safe water and raw materials (Mwamakkamba et al., 2021).

Food safety education intervention can be developed around these five keys to safer food and implemented in various settings and to various groups such as food markets, communities during food-borne diseases outbreak such as cholera, farmers for growing safer fruits and vegetables and street food vendors for safe handling of foods.

Conclusions

The continuously emerging global health problems have necessitated the repositioning of health promotion to adequately contain the challenges in addressing these health problems whether it is in the area of prevention, protection, promotion or rehabilitation. Though conceived with basically degenerative diseases in mind, the current global health challenges which are predominantly communicable diseases and environmental emergencies have thrown more light on how health promotion strategies fit in so well in addressing a variety of health protection and other health issues. It is concluded, therefore, that expanding the frontiers of health promotion towards health protection approaches is inevitable on the grounds that health protection lays the foundation for health promotion to thrive and the aims of both can be achieved through commonly shared strategies. This underscores the



appropriateness and flexibility of the core foundations of health promotion as expressed in its definition, core values, key strategies, and competencies.

Suggestions

Based on the conclusions drawn, the following suggestions are made.

1. Educational institutions that train health educators should expand their curriculum to copiously incorporate health protection, health promotion and disease prevention strategies in line with global best practices. This will ensure that only world class health educators are graduated from our institutions.
2. Health education departments in higher institutions of learning should re-orient the curriculum to the training of professionals who can work in other settings such as community, industry, corporate organisation and health institution rather than the school setting alone.
3. Responsible ministries and agencies that develop policy implementation guidelines related to health promotion, health protection and disease prevention should deploy monitoring mechanisms to ensure that the principle of multi-disciplinary and multi-sectoral collaboration is strictly adhered to.
4. A paradigm shift in workplace health and safety which centres on integrating occupational health and safety and health promotion programmes is seriously advocated.
5. Health education and health promotion experts in Nigeria should not hesitate to get involved in disaster management activities as provision of health promotion activities will make a lot of impact in controlling and mitigating the effect of the threat.

References

- Allied Universal (nd). components of an emergency plan. [http://www.aus.com/security-resources/be-prepared-7-Components of an Emergency Plan | Allied Universal \(aus.com\)](http://www.aus.com/security-resources/be-prepared-7-Components of an Emergency Plan | Allied Universal (aus.com))
- Brusseau, M. L., Ramirez-Andreotta, I. L., & Maximillain, J. (2019). Environmental Impacts on Human Health and Well-Being. *Environmental and Pollution Science*, 3, 477-499. <https://doi.org/10.1016/B978-0-12-814719-1.00026-4>
- Cambridge Academic Content Dictionary, (2022). <https://dictionary.cambridge.org>
- Downie, R. S., Fyfe, C and Tannahill, A (1991). *Health Promotion: Models and Values*. Oxford University Press.
- Galvan, M. (2017). *Health promotion vs health protection*. www.contentra.com/resource-center/article/health-promotion-vs-health-protection/



- Kirm, M. (2021). What is health promotion and what is its role in emergency health? <http://www.linkedin.com/pulse/role-health-promotion-emergency-mark-keim-md-mba/>
- Landrigan, P. J., Fuller, R., Fisher, S. et al. (2017). Pollution and children's health. *The Lancet Child & Adolescent Health*, 1(4), 249. [https://doi.org/10.1016/S2352-4642\(17\)30133-5](https://doi.org/10.1016/S2352-4642(17)30133-5)
- Lindell, M. K., & Perry, R. W. (2012). The protective action decision model: theoretical modifications and additional evidence. *Risk Analysis*, 32(4), 616–632. <https://doi.org/10.1111/j.1539-6924.2011.01647.x>
- Madi, H. H. & Hussain, S. J. (2008). Health protection and promotion. *Eastern Mediterranean Health Journal* 14, S15 – S22.
- Mendes, R. & Dias E. C. (2011). Health protection, health promotion, and disease prevention at the workplace. *Oxford Academic*, 340 – 354. <https://doi.org/10.1093/acprof:oso/9780195380002.003.0018>
- Mwamakamba, L., Mensah, P., Fontannaz-Aujoulat, F., Hlabana, M., Maiga, F., Bangoura, F., Mohamed, C. & Ingenbleek, L. (2021). The WHO five keys to safer food: A tool for food safety health promotion. *African Journal of Food, Agriculture, Nutrition and Development*, 12(4), 6245 – 6259. <http://www.ajol.info/index.php/ajfand/article/view/80411>
DOI: 10.18697/ajfand.52.WHO-1
- Prüss-Ustün, A., Wolf, J., Corvalán, C., Bos, R., & Neira, M. (2016). Preventing Disease through Healthy Environments: A Global Assessment of the Burden of Disease from Environmental Risks. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/204585/9789241565196_eng.pdf;jsessionid=09B50968F412E8B2DFD3E8FFDA7C200E?sequence=1
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology*, 91(1), 93–114. DOI: 10.1080/00223980.1975.9915803
- Sorensen, G., McLellan, D., Dennerlein, J. et al. (2013). Integration of Health Protection and Health Promotion: Rationale, Indicators, and Metrics. *Journal of Occupational and Environmental Medicine*, 55(120), S12 – S18. DOI: 10.1097/JOM.0000000000000032
- Suicide Prevention Resource Centre (2022). <https://www.samhsa.gov/suicide-prevention-resource-center-sprc>
- US Department of Health and Human Services (2022). *Environmental health*. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/environmental-health>
- Van den Hooven, E. H., de Kluizenaar Y, Pierik, F. et al. (2011). Air pollution, blood pressure, and the risk of hypertensive complications during pregnancy. *Hypertension*, 57, 406-412. <https://doi.org/10.1161/HYPERTENSIONAHA.110.164087>



Westcott, R., Ronan, K., Bambrick, H. *et al.* Expanding protection motivation theory: investigating an application to animal owners and emergency responders in bushfire emergencies. *BMC Psychol* **5**, 13 (2017). <https://doi.org/10.1186/s40359-017-0182-3>