

CAMPAIGN AGAINST OPEN WASTE DUMP IN NIGERIA: THE ROLE OF HEALTH COMMUNICATION

UKAM IVI NGWU*

ABSTRACT

Health communication is an essential tool in disseminating adequate health information and creating necessary awareness/ consciousness among the people of a geographical location. It also helps in facilitating effective decision making that enhances public health. Waste, if not properly managed often cause a serious environmental and health risk. The current unwholesome waste disposal practices and management system in Nigeria is very worrisome and poses a classic health communication challenge. The paper concluded that open waste dumpsites is the simplest way of waste disposal, as such, there is need to direct appropriate health communication strategies to change the unwholesome attitude, behavior and practices towards waste disposal and dumpsites management. It also advocates for the use of health communication to mobilize and sensitize the people towards appropriate waste disposal as well as speedy adoption of modern waste management system to ensure adequate protection of the environment and public health.

KEYWORDS: Health, Health Communication, Waste, Waste Dump-Sites, Waste Management.

INTRODUCTION

Effective health communication is central to promoting healthy living and advances our ability to function expectedly well as a member of the society. It is a key aspect of all relationships, whether these occur in family, educational, work or social settings. There is the need to impart the right information, to the right people, in the right way, at the right time (Berry, 2007). Health communication is a powerful tool for behavior change at all levels in the society (Hornik, 2002). This form of communication is often pervasive in

creating, gathering and sharing health information. It also creates the enabling environment for individuals and communities to adapt to health risks at many different levels (Kreps, 2003).

Open waste dump is a common practice in Nigeria. Increased human activities had attract the dumping of both solid and hazardous wastes which may result to serious environmental consequences as well as health hazards.

^{*}Department of Mass Communication, Cross River University of Technology Calabar Cross River State, Nigeria. *E-mail Id:* ukamngwu@gmail.com

These wastes create a public nuisance, divert land from more productive uses and depress the value of surrounding land (Kankakee County Health Department, 2016). Indiscriminate dump of waste in various towns and villages has been a long practice and a lingering problem within the country and environs. As observed by Ali, Pervaiz, Afzal, Hamid and Yasmin (2014), open waste dump has contributed adversely to the menace of environmental pollution and serious flood in developing countries. Most wastes are very hazardous and have been identified to be responsible for some of the killer diseases contracted in the environment. Disease spreading pathogens and vermin feed on them and in turn constitute harmful health challenges in their pandemic and endemic form. This situation has been haunting the human race since early times and is still growing due to uncontrolled growth in developing countries.

Waste is an inevitable byproduct of frequent human activities. Population growth and economic development and advancement often lead to enormous amounts of waste generation especially at the urban areas of a given society (Karishnamurti and Naidu, 2003). Even the rural areas are not left out as they also share in waste generation as a result of domestic and agricultural activities. More worrisome nowadays are waste from hospitals and clinics which convey hazardous substances if not properly treated and disposed. There are often harmful to both the environment and human health when are mixed with other Municipal Solid waste (Pattnaik & Reddy, 2009).

A study on waste by World Bank (2012) revealed that Municipal Solid Waste generation levels amount to about 3 billion residents generating 1.2 kg per person per day (1.3 billion tonnes per year). These figures were predicted to likely increase to 4.3 billion urban residents generating about 1.42 kg/capita/day of municipal solid waste (2.2 billion tonnes per year) by 2025. It has also

been observed that the higher the income level and rate of urbanisation, the greater the amount of solid waste produced.

The high level of open waste dump has been attributed to the rapid rate of uncontrolled and unplanned urbanisation in the developing nations of Africa. Gani and Okojie (2013) linked this problem to the increasing production of waste materials as a result of excessive population, poor domestic waste management systems, industrialization, lack of adequate funding, lack of trained/professional waste managers, absence of effective monitoring/ control measures, lack of modern technology/ lethargy in implementing efficient waste management methods. Worrisome still is the increased waste production by factories during manufacturing, mining and agriculture generate leftovers that must be disposed of, containers and packaging used and discarded in everyday life become waste.

The mass media campaigns are often used to expose high proportions of people to health related information through routine uses of existing media, such as television, radio, and newspapers. This helps in disseminating a well defined behaviourally focused messages to large and heterogeneous audiences, however this media expectation according to Wakefield, Loken, and Hornik (2010) can sometimes be hindered by inadequate funding, fractured and cluttered media environment and use of inappropriate or poorly researched format.

Mass media are often employed at all levels of public health in the hope that it would help achieve three important effects: "the learning of correct health information, the changing of health attitudes and values and the establishment of new health behavior" (Griffiths & Knutson, 1960, p. 515). This paper makes a case for intensive use of health communication strategies and the mass media to mobilize the people against indiscriminate waste dump and maintenance of hygienic public health.

THE CONCEPT OF HEALTH COMMUNICATION

Health communication is the central pillar of communication skills and strategies employed to achieve maximum health result or outcome. It is the generality of communication strategies employed to in a way to achieve success in any public health intervention. It involves all human interaction carried out in the Health Care delivery processes. As succinctly described in Kreps and Thornton (1992), it is "the way we seek, process and share health information" (p. 2).

Health communication has variously been used to shape public attitude and increase public consciousness on issues affecting our environments. It enhances the ability to communicate directly with the public in a bit to achieving expected attitudinal change.

According to the Harvard School of Public Health (2014), the field of health communication is about how health information is being generated and disseminated and how that information affects individuals, community groups, institutions and public policy.

Health communication goes beyond mere exchange of relevant health information through available mass media. The mass media here is an advocacy tool used to disseminate health programmes, influencing and mobilising the people in making decisions that enhances their collective health. It helps in drawing policy makers towards making policies and laws that will bring about healthy living. In the words of Schiaro (2007, p. 7) the concept of Health Communication is an "art and technique of informing, influencing, and motivating individual, institutional and public audiences about important health issues". It helps the people accommodate and shape health related issues. Kreps, Bonaguro and Query (1998, p.1) illustrated the field of health Communication aptly as an:

Applied behavioural science research area not only because it examines the pragmatic

influences of human communication on the provision of health-care and promotion of public health, but also because the work in this area is often used to enhance the quality of health care delivery and health promotion. To this end, health communication inquiry is usually problem based, focusing on identifying, examining, and solving health care and health promotion problems (p.1).

It is worthy of mention here that the term Health Communication formally came to existence as a sub-discipline of Communication in 1975 when erudite communicators assembled in their annual convention of interventional communication associated. This official recognition became necessary at the time because of the prevalent environmental and health challenges erupting in the world due to lack of proper and relevant health information and some perceived public resistance to modern health intervention, aimed at improving public health (Harrington (2014).

WASTE AND WASTE DUMPSITE DEFINED

Waste, according to the United Nations Environmental Programme (2015) are substances or objects disposed, intended to be disposed, or are required to be disposed of by the provisions of national laws. The United Nations Statistics Division (UNSD) defined wastes as materials that are not prime products (products produced for the market). The generator has no further use in terms of his/her own purposes of production, transformation or consumption, and of which he/she wants to dispose. They may be generated during the extraction of raw materials, processing of raw materials into intermediate and final products, the consumption of final products, and other human activities.

Oklahoma Department of Environmental Quality (2009) listed solid waste products to include: trash, yard waste, used motor oil, household chemicals, building materials, and demolition materials. Solid waste does not include rock, dirt, or brick. While open dumping is the disposal of

solid waste at any location other than a facility permitted by the government.

The term solid waste means garbage, refuse, or sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations (Salam, 2010). Wastes are generated in all sorts of ways. Its composition and volume largely depend on consumption patterns and the industrial and economic structures in place. Air quality, water and soil contamination, space consumption and odours all affect our quality of life.

THE ENVIRONMENTAL AND HEALTH CHALLENGES ASSOCIATED WITH WASTE DUMP

Nigeria is generally faced with rapid deterioration of environmental conditions due to the unfavourable conventional system of collection and dumping of solid wastes. Open waste dump site comes as a result of abandoned piles of household garbage, bags of yard waste, appliances, old barrels, used tires and demolition debris such as lumber, shingles, pipes and asbestos etc. which often threaten the health of humans, wildlife and the environment in general. These sites can be found throughout Nigerian environment; heaped at the bottom of ravines, in empty lots and pastures, along roadsides and also indiscriminately in our local villages.

The health problems associated with dumpsites depend on the practices followed and on the type of the waste disposed of in each dumpsite, as well as on the environmental and social conditions of the area. Uncontrolled disposal of hazardous healthcare waste and disposal of ewaste increases the health risks and impacts negatively on environmental impacts (International Solid Waste Association, 2015). Hospital waste often contain hazardous and toxic

parts comprising of infectious, biomedical and radioactive material as well as sharps (hypodermic needles, knives, scalpels etc.) which poses serious health risks, if not properly treated or disposed of or if allowed to get mixed with other municipal waste (Ndimele *et al*, 2014).

More worrisome is the vulnerability of rag pickers and waste workers to infections. Because unknowingly or unwittingly, they rummage through all kinds of poisonous material while trying to salvage items which they can sell for reuse. Also, chemicals and other contaminants found in solid waste can seep into our groundwater and can also be carried by rainwater to rivers and lakes that provide essential wildlife habitat. These contaminates can also pollute drinking water (Oklahoma Department of Environmental Quality, 2009).

As a result of mismanagement of the dumpsites, people living in its surroundings are exposed to serious environmental health challenges like: Windblown litter, Odour nuisance Vermin and Other Pests, Fire and Smoke Nuisance, Landfill Gas, Dust Nuisance and contamination drinking water due to leachate penetrations. These environmental and health challenges as a result of this open waste dumpsites however calls for immediate implementation of modern waste management practices to help save human lives, and livestock maintain environmental sustainability.

ROLE OF HEALTH COMMUNICATION IN WASTE MANAGEMENT PROCESSES

Effective communication and adequate information are important precursor in healthy decision making. Information is necessary to achieve broader health knowledge and understanding of the environment. We desire adequate information in other to function actively and expectedly as members of the society. Communication here is pivotal in creating an enabling environment for the individual and

society at large to contain and adapt to perceived health risks. The role of health communication in addressing issues of public health concern and environmental sustainability cannot be over emphasised. Bernhardt (2004) observed that the trans-disciplinary nature, ecological perspective, change orientation, and audience-centered philosophy makes public health communication unique and well equipped to effectively handle health related issues.

Health communication can increase the intended audience's knowledge and awareness of a health issue, problem, or solution; influence perceptions, beliefs, and attitudes that may change social norms; prompt action; demonstrate or illustrate healthy skills; reinforce knowledge, attitudes, or behaviour; show the benefit of behaviour change; advocate a position on a health issue or policy; increase demand or support for health services; refute myths and misconceptions; and strengthen organizational relationships (National Cancer Institute, 2001).

Health Communication has to do with the study and use of communication strategies to inform and influence individuals and communities towards making decisions that enhance health and well-being (Maastricht University, 2011). It is "the art and technique of informing, influencing, and motivating individual, institutional, and public audiences about important health issues" (US Department of Health and Human Services, 2000). Disseminating health-related information is necessary to influence personal health practices and achieving adequate health consciousness. Effective health communication will help the audience in managing issues involving public health risk. Research into health communication seeks to refine communication strategies to inform people about ways to enhance health or to avoid specific health risks.

According to a report by Sixsmith, Doyle, D'Eath and Barry (2014), health communication explores:

"Effective and efficient strategies for the promotion, protection and maintenance of health through the use of the best available evidence at practice and policy level. Public health practitioners, programme managers and policymakers need to be aware of what is known about the strengths, weaknesses and costs of health communication interventions aimed at the prevention and control of communicable diseases so that impacts can be enhanced and opportunities maximised for strengthening evidence-informed action" (p. 7).

However, going by the enormous benefit of health communication in handling health related issues, we believed that one can effectively utilise the health communication strategies in changing unwholesome behaviours, attitudes and practices towards waste disposal in Nigeria and help mobilise the people towards a national consciousness in modern waste management system. This can be achieved through the import of health communication strategies to inform, educate, mobilise and coordinate the people in making effective decision that would enhance good health living and maintain environmental sustainability.

Health communication help illustrates all the different factors that influence a person's health. It is important to note that the overall health and well-being is impacted by more than just the absence of physical disease. The environment, available economic resources, behaviour, and other factors contribute as well. Health communicators help demystify these factors militating against adequate public health for people in their daily lives.

Communication here will mobilise relevant stakeholders in this sector – government, NGOs, community leaders, religious leaders, medical experts etc to understand their different perspectives in developing and implementing public health policy and awareness campaigns. By so doing, health communication will help develop

informative, appropriate messages to educate, encourage behaviour change, and engage people in waste management to avoid public health risk. This will help bridge the obvious gaps between different groups though communication, thereby promoting public health (Mariah, 2016).

HEALTH COMMUNICATION STRATEGIES IN COPING INDISCRIMINATE WASTES DISPOSAL

Apart from the familiar mass media campaigns aimed at stimulating individual behaviour change, there other unfamiliar ways that can be employed to achieve desired behaviour change and practices towards waste disposal. Health communicators can bring their expertise to bear in entertainment-education, media advocacy, new technology, interpersonal communication and community mobilisation (Freimuth & Quinn, 2004).

ENTERTAINMENT-EDUCATION

Entertainment education is the process of purposely designing and implementing a media message to both entertain and educate the people, in order to increase audience knowledge about an educational issue and in turn create favourable environment for attitudinal and overt behaviour change. This strategy uses universal appeal of entertainment to show individuals how they can live safer, healthier, and happier lives (Melkote & Steeves 2005).

Entertainment programming in the media would be utilised to educate the people on the proper way of disposing and managing waste. This strategy has proven effective in several health communication interventions, it has the capacity to reach significant proportions of the populations who are heavy consumers of this type of media and are experiencing health disparities (Freimuth & Quinn, 2004). Adequate information of waste disposal and manage through entertainment media can have strong

effects and help activate the consciousness needed for quick adoption of modern practices.

MEDIA ADVOCACY

Media advocacy is the strategic use of mass media to support community organizers' efforts to advance social or public health policies. The purpose of media advocacy is to put pressure on policymakers by setting the agenda and shaping debate to include policy solutions in news coverage of health issues. Media advocacy equips people to become active in the political process of making positive changes (Donsbach, 2008).

Media advocacy directed on policy makers would help set the ball rolling for good policies and laws to address the practice of indiscriminate dump of refuse and poor waste management. This can be done in the national, state and local government levels using the available media. As observed by Freimuth and Quinn (2004), the roots of health disparities often extend to social, economic, and political conditions, as such, media advocacy moves beyond the focus on the individual, to mobilise the policy makers to address health disparities.

INTERACTIVE HEALTH COMMUNICATION

One of the key benefits of the new media is Interactive capacity. With the help of computer based media one can have access to variety of health information that encourage healthy and environment friendly lifestyles. Interactive health communication strategy can be directed to the youths who predominantly use this media to sensitise and mobilise them towards proper waste disposal habit and practices as obtainable in developed countries. This media would help overcome the seeming barriers to effective communication such as low literacy and expand opportunities to tailor and personalize information that will help users better manage health and change unwholesome behaviours that are harmful to their well-being. Example of such computer-based technologies is

the Comprehensive Health Enhancement Support System (CHESS); a system which combines the best features of computers and human support that can be easily accessed from the safety and privacy of one's home via the Internet or software installed on a personal computer (University of Wisconsin, 2017).

COMMUNITY MOBILISATION

Community mobilization is another very important health communication strategy. Huberman, Klaus and Davis (2014) simply defined it as "a process for reaching out to different sectors of a community and creating partnerships in order to focus on, and ultimately address, a pressing issue". It is also the act of encouraging and engaging the community to participate in the creation of safe and healthy living. This process must involve the whole community, allowing even the minority of voices to heard. Community mobilisation can be introduce to mobilise rural communities to adopt modern practices of waste disposal to help protect the community against the attendance environmental and health consequences associated with indiscriminate waste disposal and poor waste management. Age grades, religious group and community leaders can be mobilised to in turn, impact on their subjects on appropriate waste management practices.

Community mobilization is important because the community must take responsibility for what affects them. If the community is not mobilized, it may be difficult to implement waste management programmes at the grassroots level.

CONCLUSION

Health Communication has a vital role to play in changing the current unwholesome attitude, behaviours and practices towards waste disposal and management in Nigeria. The media and other health communication channels should be used collectively with other necessary interventions to ensure appropriate use of waste dumpsites.

Government at all levels (local, state and federal) should initiate competent dialogue system with relevant stakeholders, increase mass media campaigns and provide adequate control mechanism in terms of propagating for enabling laws and policies that will help address, manage and change the indiscriminate waste disposal practices as well as provide modern containment methods in managing waste dumpsites.

REFERENCES

- [1]. Ali MA, Pervaiz A, Afzal B et al. Open dumping of municipal solid waste and its hazardous impacts on soil and vegetation diversity at waste dumping sites of Islamabad city. *Journal of King Saud University Science* 2014; 26(1): 59-65.
- [2]. Bernhardt JM. Communication at the Core of Effective Public Health. *American Journal of Public Health* 2004; 94(12): 2051-53.
- [3]. Berry D. Health Communication: Theory and Practice. England: *Open University Press*; 2007.
- [4]. Freimuth VS, Quinn SC. The Contributions of Health Communication to Eliminating Health Disparities. *American Journal of Public Health* 2004; 94(12): 2053-55.
- [5]. Gani OI, Okojie OH. Environmental audit of a refuse dump site in the Niger Delta Region of Nigeria. *Journal of Public Health and Epidemiology* 2013; 5(2): 59-65.
- [6]. Griffiths W, Knutson AL. The Role of Mass Media in Public Health. *Am J Public Health Nations Health* 1960; 50(4): 515-23.
- [7]. Havard School of Public Health. The Field of Health Communication. 2014. Available from: http://www.hsph.harvard.edu/health-communication. Accessed on: Nov 26, 2016.
- [8]. Hornik RC. Public Health Communication: Evidence for Behavior Change. New Jersey: Lawrence Erlbaum Associate Publishers; 2002.

- [9]. Huberman RN, Klaus T, Davis L. Strategies Guided by Best Practice for Community Mobilization. Available from: http://www.advocatesforyouth.org/publications/public cations-a-z/2398-strategies-guided-by-bes t-practice-for-community-mobilization. Accessed on: Nov 26, 2016.
- [10]. International Solid Waste Association. Wasted Health: The Tragic Case of Dumpsites. 2015. Available from: https://www.iswa.org/fileadmin/galleries/Task_Forces/THE_TRAGIC_CASE_OF_DUMPSITE S.pdf. Accessed on: Nov 26, 2016.
- [11]. Kankakee County Health Department. 2016. Open Dumps. Available from: http://www.kankakeehealth.org/environmental-health/nuisance-solid-waste/open-dumps. html. Accessed on: Nov 26, 2016.
- [12]. Karishnamurti GS, Naidu R. Solid-solution equilibria of cadmium in soils. *Geoderma* 2003; 113: 17–30.
- [13]. Kreps GL, Thornton BC. Health communication: theory and practice. New York: *Waveland Press*; 1992.
- [14]. Kreps GL, Bonaguro EW, Query GL. The history and development of the field of health communication. In: Jackson LD, Duffy BK (Eds.). Health Communication Research: Guide to Developments and Directions. Westport, CT: *Greenwood Press*; 1998: 1-15.
- [15]. Mariah. The role of health communication in public health campaigns. 2016. Available from: http://comm.soc.north western.edu/mshc-blog/the-role-of-health-communication-in-public-health-campaigns-by-mariah.
- [16]. Melkote S, Steeves H. Communication for Development in the Third. New York: Sage; 2005.
- [17]. Ndimele EC, Ekeleme UG, Ogodo AC et al. Microbiological studies of waste dumpsite in Abia State University Teaching Hospital,

- Aba. *Journal of Medical Investigations and Practise* 2014; 9(4): 151-56.
- [18]. Oklahoma Department of Environmental Quality. Open Dumping & its effects on our environment. 2009. Available from: https://www.deq.state.ok.us/factsheets/local/opendump. Accessed on: Nov 26, 2016.
- [19]. Pattnaik S, Reddy MV. Assessment of municipal solid waste management in Puducherry (Pondicherry). *Resources, Conservation* and *Recycling* 2009; 54: 512-20.
- [20]. Schiavo R. Health Communication: From Theory to Practice. San Francisco: *Jossey-Bass*; 2007.
- [21]. Salam A. Environmental and health impact of solid wastes at Mangwanemi dumpsite in Manzini, Swaziland. *Journal of Sustainable Development in Africa* 2010; 12(7): 1-7.
- [22]. Sixsmith J, Doyle P, D'Eath M et al. Health communication and its role in the prevention and control of communicable diseases. Stockholm: *ECDC*; 2014.
- [23]. University of Wisconsin. What is CHESS? 2017. Available from: https://chess.wisc. edu/chess/projects/about_chess.aspx. Accessed on: Jan 12, 2017.
- [24]. US Department of Health and Human Services. Healthy People: Health Communication. 2nd Edn. Washington, DC: US Dept of Health and Human Services; 2000.
- [25]. Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behaviour. *Lancet* 2010; 376(9748): 1261-71.
- [26]. World Bank. What a Waste. 2012. Available from: http://siteresources.worldbank. org/INTURBANDEVELOPMENT/Resources/3 36387-1334852610766/Chap3.pdf.