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Using Information Literacy Skills to Support Health Care services in Sub-Saharan Africa

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Abstract

Health Information Literacy must be argued for both the health worker and the consumers of health care in order for it to be meaningful to the national and regional development agenda. Information Literacy helps the health worker in the prevention and treatment of disease whilst, the consumer is assisted in recognition and seeking care at the earliest possible time. Therefore the importance of imparting information literacy skills to both the health worker and the consumer of health care are intertwined. There are so many challenges to achieving a health information literate health worker and consumer of health care that need to tackled before any meaningful contribution to the better health of the peoples of Sub-Saharan Africa (SSA) can be attained.

Introduction

Sub-Saharan Africa is made of 47 African diverse countries. Its people's diversity can be found in their cultures, the languages they speak, the religions they practice; the food they eat and the music they listen to. The differences can also be found in the socio-economic sphere with some countries enjoying more economic growth and political stability whilst others are not. The poorest in the region as "measured by annual gross national income per capita, are Ethiopia ($100), Burundi ($120), Sierra Leone ($130), Guinea Bissau ($160) and Malawi ($180), whilst the richest countries in Africa, as measured by annual gross national income per capita, are Botswana ($3,240) and South Africa ($3,160)", (World Development Indicators, 2001). Some countries have a plural western type of democracy such as South Africa, Kenya, Mozambique, Namibia, Ghana, Zambia, Senegal, others are ruled by a

Monarch (Lesotho and Swaziland), and yet others were until recently ruled by the military such as Nigeria and the Gambia. Still some countries are under civil strife; Ivory Coast, Democratic Republic of the Congo, Somalia, Sudan and Uganda.

It has an estimated population: 688.4 million; population growth, annual: 2.2%; life expectancy: 45.8 years; fertility (births per woman):5.1; infant mortality (per 1,000 live births):103.1 and 25million people living with HIV/AIDS (World Development Indicators database) The main public health concerns in Sub-Saharan Africa are as shown in Figure 1 below. Infectious and parasitic diseases top the list, followed by respiratory infections. These diseases have been exacerbated by the HIV/AID pandemic. The numbers refer to the burden of disease. This is measured in DALYs, which stands for Disability Adjusted Life Years. It basically refers to the combination of years of potential life lost due to premature mortality and the years of productive life lost due to disability.

Fig.1. Burden of Disease in Sub-Saharan Africa

Disease Category	Burden of disease in 2000 (000 DALYs)
Infectious and parasitic diseases	131 327
Respiratory infections	29 077
Maternal conditions	5 691
Conditions arising during perinatal period	8 700
Nutritional deficiencies	8 389
Malignant neoplasms	8 114
Diabetes mellitus	522
Endocrine disorders	1 168
Neuropsychiatric conditions	5 788
Sense organ diseases	2 460
Cardiovascular diseases	13 390
Respiratory diseases	9 037
Digestive diseases	5 418
Genitourinary diseases	2 651
Skin diseases	—*
Musculoskeletal diseases	1 404
Congenital anomalies	5 224
Oral conditions	534
Injuries	58 352

World Development Report, 2005

Information Literacy for the achievement of better Health in Sub-Saharan Africa

Information Literacy is defined as understanding the "need for information , the resources available, how to find information, the need to evaluate results, how to work with or exploit results, ethics and responsibility of use, how to communicate or share your findings, how to manage your findings", (Chartered Institute of Library and Information Professionals, Un Dated). Recognition, identification, evaluation and effective use of information entails that both the health worker and the consumer of health care are both given the necessary skills. The imparting of the skills can be done by different organizations and at various levels. Information literacy skills for health workers can be done as part of their formal training programmes. And these information literacy courses must be relevant to the particular subject areas such as, Pharmacy, Nursing and Medicine. They can go further to different subject specialties such as: HIV/AIDS, Malaria, Tuberculosis, Diabetes, Cancer, Leprosy and several childhood diseases

Congruence between Burden of Disease and Information Literacy

The New Partnership for Africa's Development (Nepad) argues that the high burden of disease in Africa is due to:

- Health systems and services are too weak to support targeted reduction in disease burden
- Disease control programmes do not match the scale of the problem
- Safety in pregnancy and childbirth has not been achieved
- People are not sufficiently empowered to improve their health
- Insufficient resources
- Of the widespread poverty, marginalisation and displacement on the continent
- The benefits of health services do not equitably reach those with the greatest (Nepad, 2005: 6)

Furthermore, the NEPAD Health Strategy Paper argues that in order to reduce the burden of disease in the region there must be among others, an empowerment of the people so they can improve their own health status. This empowerment should be done at two levels, one at the level of the consumer and second at the level of the health care provider. In this vein the Nepad strategy aims to "create a public communications [strategy] for health literacy programme, using available capacity in Africa to cost-effectively empower people to take action to improve their own health (Nepad, 2005: 31). This is to support the Nepad (2005:

14) Vision of Africa ridding itself of the "heavy burden of ill-health, disability and premature death. The achievement of this vision is one that is being espoused by the World Health Organisation by "ensuring that adequate information and communication', (WHO, 2006: 80) programmes are implemented throughout the developing world.

Information Literacy amongst Health Workers

In the 2006 World Health Report, the World Health Organisation (WHO) has come up with various strategies that they hope will reduce the burden of disease in the region. They argued that "having information does help health workers to do their jobs better as long as certain provisos are met: the information must be relevant to the job and available when needed and workers must have a degree of confidence in the information's quality and understand what it is 'saying'" (WHO, 2006: 80). As indicated earlier, Information Literacy for health workers should be well targeted to the particular health worker in terms of language levels, training material level; time of the delivery of the training and the subject area of the worker. The aim is to make the training as relevant as possible so that the uptake in terms of learning is increased. Once a health worker has acquired the necessary information skills, they can then utilize them for amongst many as others the following:

- Updating of health information
- Sharing of health information among health workers
- Referrals and Consultations via email
- Sharing of Electronic Health Record by health practioners
- Remote delivery of health care
- Distance learning
- Continued Medical Education
- Effective patient information systems
- Faster notification of potential epidemics
- Stock Monitoring of Drugs

The information literacy skills can be more beneficial both to the health worker and the community when combined with modern tools of information and communication technology (ICT). Such tools encompass but are not limited to the telephone; computer; internet; CD-Roms; Films; DVD. In a project in Ghana for instance; the use of handheld

computers provided health workers with "rapid access to information needed to prevent or respond to disease outbreaks, (WHO, 2006: 80). In Uganda and Kenya, the same handheld computers are being used to help health workers access information to improve their delivery of health care (SatelLife, 2005). In the PDA projects health were able to utilize them for various activities that enhanced their professional performance. Other programmes that have being successful are the HealthNet projects implemented in Kenya and Zambia in the 1990's. Healthnet was meant to facilitate the exchange of information among physicians on national, regional and global health issues.

Consumer Health Information Literacy

Consumer health literacy aims at enabling the citizens to better manage and take care of their own personal health. In order for ordinary citizens to benefit from the health system in their particular environments, they need to appreciate and understand the "relevant health terms and place health information into the appropriate context in order to make appropriate health decisions. Without such skills, a person may have difficulty following directions or engaging appropriate self-care activities as needed, (Norman and Skinner, 2006).

In Africa, the provision of consumer health is relatively scanty. Most research institutes and universities that deal in health information target their information services to health professionals or students. Even in places where national health libraries exist within Ministries of health, the provision of health information services for the consumer is non-existent. If it does exist, then it is done in a non systematic way and on an adhoc basis. Such information services are a result of either an outbreak of a disease or because of funding agencies that have put it in their programme of action. This is more so with services that target illnesses such as HIV/AIDS, Malaria and Tuberculosis. The consumers are generally not entrusted and made aware of the health information services that are available within the country. This is compounded by the fact that information professionals within the national ministries of health do not view the idea of consumer health information provision as an integral part of the work of their ministries.

There are various challenges that have to do with provision of consumer health information in Africa. These challenges pertain to the fact that most African countries are multilingual

and if one has to provide relevant health information, there must be multiple translations in the local languages. In the Zambian situation, the translation has to be made into seven Zambian local languages. This makes the provision of the information extremely expensive, especially in an environment where funding is limited. Other challenges relate to the lack of relevant simplified health information that can be readily translated as most of information is meant for the student or health researcher.

Challenges to Implementing an Effective Information Literacy Programme

In Sub-Saharan Africa, the challenges to implementing effective health information literacy programmes lie in the financial and infrastructural problems that affect many a country. The financial problems are attributed to the repeated low levels of funding to the social sectors such as health and education sector. For instance in all of Africa only 13 countries spent between 11% and 14% of their Gross Domestic Product (GDP) on health care whilst the rest spent 10% and less of their GDP in 2001 (Chatora, 2005: 13). This means that funds available for effective health services delivery can barely meet the costs of medicines for patients and salaries for health staff.

The work environment is characterised by a structural lack of resources, which results in inadequate infrastructure and services, compounded by a lack of qualified and motivated staff, as few material or non-material incentives can be offered. In a survey of health facilities in Zambia, (Hoppenbrouwer and Kanyengo, 2001) found that infrastructural problems persisted in all the health facilities across the two provinces of North-Western and Western Provinces of Zambia. The structural problems identified were: understaffing, transport, communication infrastructure such as telephones, faxes, email and internet, medical equipment and drug shortages. The work environment is a bigger contributor to the motivation of staff. Recognising the importance of motivating health workers through the provision of adequate infrastructure, the World Health Organisation has recommended that member countries must improve the physical work environment for the health worker in order to improve on the performance of the health system, (WHO, 2006: 81).

In terms of electronic health information provision, most countries in Africa are still struggling with the just affording everyone access to the telephone. Fig 2 below gives an

indication of the ICT trends in several African countries.. The success story is in the mobile phone penetration. Africa is reported to be one of the fastest growing markets for mobile phone use in the world. Zuckerman (2005) quotes that New York Times indicating that the "he number of cellphones in Africa has increased from 7.5 million to 76.8 million, putting phones in the hands of roughly one in ten Africans".

Fig.2. ICT diffusion rankings of selected African countries

Country	1995*	1999	2000	2001	2002
Botswana	97	84	82	82	**80**
Cameroon	139	130	136	143	**122**
Cape Verde	63	93	90	89	**87**
Cote d'Ivoire	141	133	141	139	**158**
Ethiopia	145	139	146	152	**146**
Ghana	128	119	119	118	**116**
Kenya	119	111	114	114	**115**
Lesotho	64	106	109	158	**117**
Mauritius	39	51	53	51	**52**
Nigeria	..	159	165	164	**161**
Rwanda	89	131	139	133	**134**
South Africa	65	59	65	61	**66**
Tanzania	76	120	125	121	**135**
Uganda	144	136	144	136	**154**
Zambia	125	114	118	116	**123**
Zimbabwe	100	140	106	104	..

* Rankings are smaller, due to the smaller number of countries in the 1995 sample.
stdev.unctad.org/docs/digitaldivide.doc

Conclusion

In order for health information literacy to be meaningful in the Sub-Saharan Africa region it should be both for the practioners and the consumers of health care. An informed health consumer will require and demand for better health care. The health practioners will constantly have access to current health information for better health care delivery. These can only happen in an environment where African governments put in place the necessary infrastructure that will enable both the health practioner and the ordinary citizen work together towards the improvement of their information literacy skills to achieving an improved health status.

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