

---

## EARLY CHILDHOOD EDUCATION AMONG VULNERABLE CHILDREN IN NIGERIA

**Andrew A. EDUNGBOLA**

Department of Health Promotion and Environmental Health Education

Faculty of Education

University of Ilorin, Ilorin Nigeria

[aedungbola@gmail.com](mailto:aedungbola@gmail.com)

### **Abstract**

*Vulnerable children are one of the problems of developing countries, especially sub Saharan Africa and Nigeria in particular. They suffer from a lot of problems associated with vulnerability factors such as hunger, lack of access to health and education, physical and psychological abuse, lack of love and affection and negative communities' attitude towards them. However, giving vulnerable children access to early learning reduces the chance of their being backward among peers while problems related to vulnerability are identified early and interventions are provided. This paper focuses on review of Early Childhood Education (ECE) among the vulnerable children. It also discusses the relationship between ECE and Child development. Furthermore, importance of ECE among vulnerable children as well as factors affecting Early Childhood Education among vulnerable children is discussed. It is concluded that the problem can be addressed and access to ECE by vulnerable children be promoted through series of intervention. The paper therefore recommends among others that there should be access to free basic preventive and curative health, nutrition measures and ECE throughout childhood to reduce vulnerability.*

**Keywords:** Early Childhood Education, Child development, Vulnerable children

### **Introduction**

Vulnerability of children is one of the issues most developing countries in sub Saharan Africa and particularly, Nigeria battle with. The number is consistently on the increase in the world with the increase rate of HIV/AIDS and other deadly diseases; poverty, disability, abandonment, child abuse, child trafficking, death of parents and other factors especially in sub- Saharan Africa which is the most highly affected region (Beelen, 2007). Nigeria is the most populous black nation with over 140million people, half of which are children, and about 17.5 million of those children are considered vulnerable (Federal Ministry of Women Affairs and Social Development (FMWASD), 2014). The 2008 National Situation Assessment and Analysis on Orphans and Vulnerable Children (OVC) in Nigeria indicated that there is an estimate of 14 million OVC in the country. One out of every ten Nigerian children is an orphan. Of these, one in three is a

maternal orphan and two in three are paternal orphans. Of the estimated 69 million Nigerian children, up to 10.7 may be categorized as vulnerable (Boston University Center for Global Health and Development & Initiative for Integrated Community Welfare in Nigeria, 2009). The different categories of OVC include street children, abandoned children, child beggars, 'Almajiri', children orphaned by AIDS and children who have been institutionalized for protection or corrective measures. The potential for positive outcomes in vulnerable children is greatly diminished due to minimal or complete lack of access to protective services, healthcare, and education United Nation Children Fund (UNICEF) (2007).

Vulnerable children suffer from a lot of problems associated with several vulnerability factors. Some of the problems they face include hunger, lack of access to health and education, physical and psychological abuse, lack of love and affection and negative communities' attitude towards them. The one that manages to attend school starts school with limited language skills, health problems, social and emotional problems that interfere with learning; and the more the gap when children reach age 3, the harder it is to fix (Haliye, 2017). Differences in development appear very early in this instance, differences in vocabulary growth between children in low socio-economic households and high socio-economic households begin to appear as early as 18 months. And as the children grow towards school age, and start school, the differences only get larger in the absence of intervention. Because of these, orphans and vulnerable children require urgent basic needs and support services that can be provided either within the community or institutionalized care (Abashula, Jibat & Ayele, 2014).

Giving vulnerable children access to early learning reduces the chance of their being backward among peers when they start school (Elegbeleye, 2013). Ibeh (2011) shows that access to quality early learning can reduce vulnerability by identifying problems early and working on solutions. Developmental vulnerability is about a third lower in children who attended early learning than those who did not (Goldfeld, 2013). Early intervention is also a cost-effective investment and it is to address developmental issues which is far more cost effective than spending later as over 80 per cent of a child's brain development occurs in the years before school. Nobel Prize winning economist James Heckman argues that Early Childhood Education is the best value investment that a government can make, delivering rates of return higher than 7:1 (Kershaw, 2010).

Early interventions promote schooling, reduce crime, foster workforce productivity, promote adult health through several channels and reduce teenage pregnancy. These interventions are estimated to have high benefit-cost ratios and rates of return, in the range of 6-10% per annum." In other words, for every cost invested in quality early learning, a higher amount is saved on spending later in the life of a child with learning difficulties. Early literacy, social and cognitive skills are important outcomes of early learning that help prepare a child for school. Children who have attended early learning have higher results in reading, numeracy and science than those who did not. They perform better if they have had access to early learning for two years rather than one, and better again after three years (Melbourne Institute, 2013). Allowing

20-30 per cent of children to start school vulnerable and not fully ready to learn has long term costs. A study in Canada found that loss to the economy from the depletion of the future stock of human capital was equivalent to 20 per cent in GDP (gross domestic product) growth over the next 60 years (Kershaw, 2010).

It is evident that early years experience have significant influence on the all-round development and the later life of a child; hence the need to consider the quality of education in the early childhood years seriously because the years between birth and age eight are foundational. Nations are working assiduously towards providing quality early years education and care for children as this is a globally recognised fact (Ajayi, 2008).

This paper focuses on Early Childhood Education among vulnerable children in Nigeria with references to review of related concepts, the different categories of vulnerable children and the relationship between Early Childhood Education and child development.

### **Early Childhood Education and Vulnerable Children**

Early childhood generally refers to period between birth and the official start of formal schooling. Researchers and organizations also often include the early primary school years-ages six to eight-because of the importance for children of the transition age into primary school. Early childhood is the most and rapid period of development in a human's life. The years from conception through birth to eight years of age are crucial to the complete and healthy cognitive, emotional and physical growth of the children. The rapid development of children's brain begins in the prenatal stage and continues after birth. Although cell formation is virtually complete before birth (UNICEF 2011).

Save the Children Federation (2013) opined that, early childhood is a period that begins prenatally and continues until about the time a child turns eight years. It captures the full continuum of pregnancy to 8years, the child requires in order to thrive and grow, not only to meet the basic needs for protection, food and health care, but also to meet the basic needs for interaction and stimulation, affection, security, and learning through exploration and discovery. Development represents the process of change in which the child gradually masters more and more complex levels of moving, thinking, feeling and interacting with people and objects in the environment. Development is influenced by both biological factors and the environment where a child lives and learns. For a child to develop and learn in a healthy and normal way, it is important not only to meet the basic needs of food, health, shelter, protection, but also to meet the basic needs for interaction and stimulation, affection, security, and learning through exploration and discovery.

On the other hand, Early Childhood Education (ECE) are services for children under compulsory school age involving elements of both physical care and education. Apart from their critical contribution to cognitive stimulation, socialization, child development, and early education, they are an essential service for employed parents. ECE programmes include a wide range of programmes under education, health, and social welfare auspices, funded and delivered in a variety of ways in both the public and private sectors (Akinrotimi & Olowe, 2016; Lewis, 2018). ECE programmes may be

publicly funded and delivered (the predominant pattern in the Nordic countries, for example) publicly funded and privately delivered (as in the Netherlands and Germany, for example), or a combination of both and privately funded and delivered programmes as in many of the less developed countries such as most of Africa (Kammerman, 2006).

Akbari and McCuaig, (2014) viewed ECE as programmes for young children based on an explicit curriculum delivered by qualified staff and designed to support children's development and learning. Settings may include child care centers, nursery schools, preschools, pre- or junior kindergarten and kindergarten. Attendance is regular, and children may participate on their own or with a parent or caregiver.

UNESCO and UNICEF (2012) also noted that, Early Childhood refers to the period between birth and 8 years of life. The widely used term 'Early Childhood Care and Education' (ECCE) refers to a range of processes and mechanisms that sustain and support development during the early years of life: it encompasses education, physical, social and emotional care, intellectual stimulation, health care and nutrition. It also includes the support a family and community need to promote children's healthy development.

National Association for the Education of Young Children (NAEYC) definition of the field, from birth through age 8, Early Childhood Education can be grouped to the following categories:

1. *Infants and toddlers*: birth to 36 months
2. *Preschoolers*: 3- and 4-year-olds
3. *Kindergartners*: 5- and 6-year-olds
4. *Primary grades 1, 2, and 3*: 6-, 7-, and 8-year-olds.

Early childhood is defined so broadly, therefore, the field encompasses child care center and homes, preschools, kindergartens, and primary grade schools. Young children are always learning, and always need love and care, yet, it is important *not* to distinguish child care from early education, but rather to ensure that all children have access to programmes that are both caring and educational, regardless of the length of day or who provides the service (NAEYC, 2001).

Vulnerable children are those who belong to high-risk groups who lack access to basic social amenities or facilities. The main sources of vulnerability include death of parent(s), abandonment, poverty, HIV/AIDS and conflict," according to the World Bank and UNICEF (2002). Vulnerability spans neglect, abuse, unregistered births, malnutrition, mental and physical handicaps, poverty, precarious family situations and other classified high-risks that may involve the material, social and emotional. The highest risk of vulnerability continues to be orphans and street children (Liza, 2008). According to the International Federation of the Red Cross and Red Crescent Societies (2002), children are also defined as vulnerable if they have had such specific experiences: withdrawal from school, discrimination and stigma, emotional need and grief over illness or death of parent(s), increase of poverty, loss of property and inheritance rights, loss of shelter, inadequate health care, vulnerability to physical and sexual abuse or are found to be in youth headed households (YHH), child headed households (CHH) or engaged in

child labour. The other precarious living situations are further described as including children living with old and ill caregivers, within households that absorb orphans and with parents dying of AIDS which all increase a child's vulnerability.

### **Categories of Vulnerable Children**

Vulnerability can occur in any family, a child could be born with a vulnerability that makes it harder to learn, or their family circumstances mean they become more vulnerable. Vulnerable children can be categorised into the following:

**Orphans:** An orphan is a child under the age of 18 years whose mother (maternal orphan), father (paternal orphan) or both (double orphan) are dead. An orphan is vulnerable when that child is most at risk of facing increased negative outcomes compared to the average child in the defined society. The death of parents at tender age often cause serious problem to children thereby putting them at higher risk of vulnerability in the society (Kurfi, 2010).

**Disabled children:** These are children who suffer from physical, sensory, mental, intellectual, or other impairments and various barriers that may hinder their full and effective participation in society on an equal basis with others. Disability may be expressed and experienced differently in different socio-cultural contexts (PEPFAR, 2012). Children with disabilities are particularly vulnerable, the extent influenced by the types of impairment as well as by such factors as the sex of the child. Research in developing countries suggests that 90 percent of children with disabilities do not attend school and are more likely to drop out of school than any other vulnerable group, even in countries with high primary school enrollment rates (Global Partnership for Children 2012).

**Children from poor family:** Vulnerability might be hidden in some places, but a child may well be exposed to risk factors such as abuse or neglect, lack of education, domestic violence, mental illness or toxic stress if they are from poor family regardless of where they live, and this can contribute to developmental vulnerability. A census of the development of children entering school, shows that vulnerability is most prevalent in children from the poorest households (32 per cent) and that children from poorer families are twice as likely as children from the wealthiest families to be vulnerable (Australian Early Development Index AEDI (2012).

**Powerless children:** Regardless of age, intellect and physical capacity, children who are highly dependent and susceptible to others are vulnerable. These children typically are so influenced by emotional and psychological attachment that they are subject to the whims of those who have power over them. Within this dynamic, children may be subjected to intimidation, fear and emotional manipulation. Powerlessness could also be observed in vulnerable children who are exposed to threatening circumstances, which they are unable to manage (Action for Child Protection Incorporation, 2003).

**HIV/AIDS or other chronic illness affected children:** Quite obviously, vulnerability is not limited to orphans and often supersedes the numbers of absolute orphans. Regardless of age, some children have continuing or acute medical problems and needs that make

them vulnerable. Children who suffer from HIV/AIDS or have parents suffering from it or other chronic diseases are also vulnerable. World Vision (2008) noted that children affected with HIV/AIDS and other chronic illness are often even more vulnerable than orphans, because they are coping with the psychosocial burden of caring for dying parents, while simultaneously bearing the family economic burdens stemming from the loss of parental income and increased health care expenses.

***Other vulnerable children:*** This include those who are in conflict zones and those who are living in households that have taken in orphans. Those who are living in conflict zone will find it difficult to access necessity of life such as quality health, education, social and financial freedom among others. When a household absorbs orphans, existing household resources must be spread more thinly among all children in the household. It is more difficult to quantify vulnerable children; however, it is estimated that the number of vulnerable children is at least two to three times the number of children who are orphaned (Liza, 2008).

### **Relationship between Early Childhood Education and Child Development**

Early Childhood Development refers to “the processes by which infants and young children grow and thrive, physically, socially, emotionally, and cognitively, during the early years between ages 0-8years. Global experiences demonstrate that ECE programmes yield both immediate results in child development in addition to the expected long-term outcomes for children and communities. The first eight years of a child’s life is a period of tremendous growth and development. Brain connections multiply exponentially in the first three years, and the potential for ensuring optimal development is very high up to age 8. ECE is widely recognized as a significant pathway to inclusiveness and social equity in education, provided that the programmes are accessible to all sections of a society (Becher & Li, 2010).

Children who have participated in high quality ECE demonstrate considerable gains in social, educational, health and intellectual spheres, distinctively different from those who have not participated in ECE programmes. Within the framework of education as a human right and not just a family or a school obligation (Hayashikawa, 2008), ECE can assist governments in fulfilling their commitments (such as through the Convention on the Rights of the Child) to help young children exercise their rights and develop to their full potential. The field of Early Childhood Education is replete with evidence that attests to the considerable benefits of good-quality ECE programmes. ECE has contributed to breaking the cycle of poverty; it also offers an entry point and platform for improving social equity and inclusion (UNESCO and UNICEF 2012). UNICEF (2011) also noted that, evidence of positive effects on IQ, better-developed abilities at the point of entry into school (school readiness) and greater achievement at the end of the early grades was found in a review of some 70 head start programme in United States of America.

**Importance of ECE to Vulnerable Children**

Early Childhood Education programmes can nurture diverse abilities, overcome disadvantages and inequalities, and respond to developmental needs of young children who are vulnerable. The programmes can and should be focal points for service provision and referral for children and families with various needs generated as a result of vulnerability. Meeting even moderate needs is vital. Failing to address these needs early on can lead to a downward spiral, whereby the young children as well as their family or caregivers become more vulnerable (UNESCO, 2009; Ibeh, 2011).

Well-qualified early learning educators work with families to identify and address emerging educational and social vulnerabilities which can make a huge difference to children lives. Early learning centres that are well connected to their communities and services can also help families link to the additional support their child may need (Leseman, 2002). Most importantly, a quality early learning environment can provide a child with the social, language and cognitive stimulation that they may be missing at home. This can help unlock developmental pathways that might not otherwise fully develop, remembering that 80 per cent of a child's brain development occurs in the first five years. (UNESCO and UNICEF 2012)

Addressing the needs of all young vulnerable children and addressing them in a timely manner is critical to improved health and development outcomes for individuals, families, communities, and nations. Rapid advances in biological and behavioral research point to early childhood as a time of tremendous brain growth (Elegbeleye, 2013). During a child's first few years, the neural connections that shape physical, social, cognitive, and emotional competence develop most rapidly and possess the greatest ability to adapt and change. Connections and abilities developed in early childhood form the foundation for subsequent development. As a result, providing the right conditions for healthy Early Childhood Education and development is likely to be much more effective than treating problems later in life. Early Childhood Education also provide early assessment and intervention with families and in order to optimize the learning potential of children with vulnerability and increase their chances to participate and thrive in inclusive, mainstream settings. Evidence shows that one in three infants and toddlers who receive early interventions do not present later with a disability or require special preschool education (UNESCO, 2009).

Furthermore, psychosocial development of vulnerable children can be easily developed through ECE. Children require protection from violence, trauma and unsafe environment however, ECE is largely dependent on love, physical situation and play. Often termed "psychosocial development". In its broad sense, psychosocial refers to the social, emotional, mental and motor domains. Practically, this means touching, talking, caring for and playing with children which are all part of ECE (UNICEF 2011).

**Factors affecting Early Childhood Education among Vulnerable Children**

Early childhood development is linked and inseparable from women's health. Maternal ill health during pregnancy often results in death, diseases and disability among

newly born children. This toll is not only unforgivable; it is also unnecessary and can be avoided through interventions (World Bank, 2010).

Nutrition of mothers and infants also contribute to early childhood development. Nutrition in uterus and in the early years of life can have a profound effect on children's health status as well as their ability to learn, think analytically and socialize with others and their capacity to adapt to change. Good nutrition is also critical in avoiding and surviving children diseases. In situation of inadequate nutrition, the body spontaneously ranks survival first and growth second and cognitive and development last. This does not however imply that survival, growth and development are sequential rather, they take place simultaneously (UNICEF, 2011).

Furthermore, attachment to significant caregiver who can provide consistent care, verbal interaction, socio-emotional support and cognitive stimulation, play and exploration, opportunities to learn and develop cognitive, social and language skills plays a significant role in helping vulnerable child integrate properly to the society but many of these vulnerable hardly get such privilege instead are adopted by poor and aged grandparents, or relatives thereby making access to Early Childhood Education difficult. And the absence of any one of these has negative implications on child development (Save the Children Federation, 2013)

The home and school environment is another factor affecting ECE and development of vulnerable children. Children raised from poor or low socioeconomic households are more likely to be vulnerable, experience abuse, malnourished, underdeveloped and find it difficult to attend school early compare to their peers who are raised in high socioeconomic households. Similarly, children from homes where parents provide necessary support and care, parent child interaction and other positive parenting will find it easy to integrate to new environment of ECE.

### **Conclusion**

The importance of Early Childhood Education programme in the development of vulnerable children cannot be overemphasized. Researchers have shown that Children who have participated in high quality ECE demonstrate considerable gains in social, educational, health and intellectual spheres, and hence less vulnerable and are distinctively different from those who have not participated in ECE programmes. Despite the numerous importance of ECE to children, parents and society at large, many vulnerable children most especially in developing countries do not have access to the programme due to different types and level of their vulnerability which can be traced to maternal ill health, nutrition, poverty, abandonment, disability, loss of parent(s) among others. However, the problem can be addressed and access to ECE by vulnerable children promoted through series of interventions.

### **Recommendations**

Based on the review, the following recommendations are made.



1. Government should improve on the existing ECE facilities and make it accessible and totally free for vulnerable children.
2. All vulnerable children should have access to and benefit from comprehensive social protection services provided by the government.
3. All vulnerable children should be protected, safe from abuse, violence, exploitation and neglect. They should also enjoy protection from accidents and environmental dangers at home and schools from parents and teachers respectively.
4. Vulnerable children should have equitable access to and benefit from quality basic education whether in the public or private sector.
5. All vulnerable children should enjoy caring interaction with parents, siblings, family and other adults including age appropriate play.
6. Government should enable access to free basic preventive and curative health and nutrition measures throughout childhood to reduce levels of vulnerability.

### References

- Abashula, G; Jibat, N. & Ayele, T. (2014). The situation of orphans and vulnerable children in selected Woredasi and towns in Jimma Zone. *International Journal of Sociology and Anthropology*. 6(9):246-256, September 2014.
- Action for Child Protection Incorporation (2003). *The vulnerable child*. ACTION for Child Protection, Inc.
- Ajayi, H. (2008). Early Childhood Education in Nigeria: a reality or a mirage. *Contemporary Issues in Early Childhood*, 9(4):375-381.
- Akbari, E., & McCuaig, K. (2014) *Early Childhood Education Report 2014*. Toronto: Ontario Institute for Studies in Education.
- Akinrotimi, A.A. & Olowe, P.K (2016). Challenges in Implementation of Early Childhood Education in Nigeria: The Way Forward. *Journal of Education and Practice*, 7(7): 33-38.
- Australian Early Development Index AEDI (2012). *A Snapshot of Early Childhood Development in Australia*. Retrieved on 12/02/2018 from: <http://www.aedi.org.au>.
- Bechet, Y. & Li, Z. (2010). Asia-Pacific Regional perspectives on Inclusion and ECCE/ ECD. Retrieved on 23/06/2018 from: Singapore: ARNEC. <http://www.arnec.net/cos/o.x?ptid>
- Beelen, N. (2007). *Exchange on HIV/AIDS, sexuality and gender*. (Newspaper online). Retrieved on 23/06/ from: <http://www.exchange-magazine.info>
- Boston University Center for Global Health and Development & Initiative for Integrated Community Welfare in Nigeria, (2009). Nigeria research situation analysis on orphans and other vulnerable children: Country Brief; Nigeria: United States Agency for International Development.

- Elegbeleye, A.O. (2013). Evaluation of support facilities for institutionalized orphans in Nigeria. *International Journal of Current Research Vol. 5, Issue, 05, pp.1049-1053.*
- Federal Ministry of Women Affairs and Social Development (FMWASD) Abuja (2008). *National Situation Assessment and Analysis on OVC in Nigeria.* Abuja: FMWASD
- Global Partnership for Children (2012). Equity and inclusion Guide. Retrieved on 24/06/2018 from: <http://www.globalpartnership.org/media/library/Themes/vulnerablegroup/Equity>
- Goldfeld, S. (2013). *The relationship between Early Childhood Education and care and children's developmental outcomes in Australia.* Australia: Centre of Community Child Health Melbourne.
- Hayashikawa, M. (2008). *Global and regional perspective: making a compelling case for early childhood care and education.* In P. puamau and F., Pene (eds). *Early Childhood Care and Education in Pacific* Institute of Education. Suva: Institute of Education. University of South pacific, 57-83.
- Haliye, A. (2017). Assessing the factors influencing eligibility of most vulnerable children for program services in Tanzania: a case of Kishapu Council. Master Dissertation; Open University, Tanzania.
- Ibeh, E.N. (2011). Services available for Orphans and Vulnerable Children (OVC) in Enugu State. *A prograduate diploma project submitted to Department of Social Work University of Nigeria, Nsukka. Online pdf. Retrieved on 15/12/2016.*
- International Federation of Red Cross and Red Crescent Societies. (2002). *Orphans and other children made vulnerable by HIV/AIDS: principles and operational guidelines for programming.* Geneva: International Federation of the Red Cross and Red Crescent Societies.
- Kammerman, S.B. (2006). *A global history of Early Childhood Education and care.* Background paper prepared for the Education for All Global Monitoring Report 2007 Strong foundations: UNESCO.
- Kershaw P. (2010). The economic costs of early vulnerability in Canada. *Canadian Journal of Public Health*, 101(3): 8-12.
- Kurfi M.H. (2010). *Societal responses to the state of Orphans and Vulnerable Children (OVC) in Kana metropolis, Nigeria.* M.A Thesis, Centre for International Studies, Ohio University.
- Leseman, P.P.M. (2002). *Early Childhood education and care for children from low income or minority backgrounds,* Oslo: OECD.
- Lewis, B. (2018). *An overview of early childhood education.* ThoughtCo. Retrieved on 1/3/2019 from [www.thoughtco.com/early-childhood-education-2081636](http://www.thoughtco.com/early-childhood-education-2081636)
- Liza, D. (2008). *Orphans and Vulnerable Children in Ghana a Contextual Analysis: ECCD Stakeholders Adapting the Safety Net.* Master's degree project. International Educational Development at Teachers College, Columbia University.

- Melbourne Institute (2013). *Early Bird catches the worm: The causal impact of pre-school participation and teacher qualifications on year 3 National NAPLAN Cognitive Tests*, Melbourne Institute Working Paper, 34 Retrieved on 13/10/2013
- NAEYC. (2001). *NAEYC at 75: 1926–2001*. Washington, DC: Author.
- Save the Children Federation (2013). Early Childhood Development. *Essential Package Foundation Course Manual for Volunteers*.
- Social Development (FMWASD) (2014), *National standards for improving the quality of life of vulnerable children in Nigeria*, Abuja, Nigeria: FMWASD.
- UNESCO. (2009). *EFA Global monitoring report: Strong foundations: Early childhood care and education*. Paris, France: UNESCO.
- United Nations Educational Scientific and Cultural Organisation and United Nations International Children Emergency Fund (2012). *Early Childhood Care and Education*. Asia-Pacific End of Decade Notes on Education for All: UNESCO and UNICEF
- United Nations International Children Emergency Fund – Nigeria (2007). *The status and situation analysis of the implementation of the rights of the children in Nigeria*. Lagos: UNICEF
- United Nations International Children Emergency Fund (2011). *State of the World's Children*. UNICEF: New York
- World Bank (2010). *Early Childhood counts, Programming Resources for Early Childhood Care and Development*. The International Bank for reconstruction and Development/The World Bank on behalf of the consultative Group on ECCD Consortium.
- World Bank and UNICEF. (2002). *Education and HIV/AIDS: ensuring education access for orphans and vulnerable children*. Publisher: United Nations Children's Fund.
- World Vision (2008). <http://site.worldvision.org/content.nsf/learn/globalissues-aids-testimony>. Retrieved on 20/10/2008