

The Nigeria Experience

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Abstract This article featuring Nigeria constitutes one of five articles in a collection of essays on local capacity-building in research ethics by graduates from the University of Toronto's Joint Centre for Bioethics MHS in Bioethics, International Stream programme funded by the Fogarty International Center for Advanced Study in the Health Sciences (FIC). The first National Health Research Ethics Committee was inaugurated in 2006. Since then, more institutional health research ethics committees continue to be formed. However, research ethics challenges in Nigeria are systemic and require a systems approach to address them effectively. Nigeria requires capacity-building for authentic acculturation of health systems as well as for health research, education, and advocacy within the research community and the general public. Further, it requires relevant legislation and effective regulatory measures.

Keywords Research ethics · Capacity-building · Health research · Nigeria

Introduction

Nigeria is the predominant power in West Africa (Foreign and Commonwealth Office 2008a, b) and Africa's most populous country with an estimated population of 145 million. Bordered by Benin to the west, Niger to the north, Cameroon to the east, and the Atlantic

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Ocean to the south, it is the world's 11th largest producer of oil, which accounted for 98% of Nigeria's total exports in 2007. Despite Nigeria's oil wealth, however, few Nigerians, including those in oil-producing areas, have benefitted from the wealth it generates.

In addition, Nigeria continues to experience longstanding ethnic and religious tensions, often undermining initiatives to reduce poverty. Since the return to civilian rule in 1999, the prospects for development have improved, although huge challenges remain. Nigeria's socio-economic indicators are alarmingly low, with more than half the population living on less than US\$1 a day (G-Nexid 2009).

In 2004, the Nigerian government launched its National and State Economic Empowerment and Development Strategies (NEEDS and SEEDS) for growth and poverty reduction. NEEDS is based on three pillars: (i) empowering people and improving social service delivery; (ii) improving the private sector and focusing on diversifying the economy; and (iii) changing the way government works and improving governance (Foreign and Commonwealth Office 2008a). Although this initiative is showing promise, much remains to be done, especially in the health arena where the design and implementation of health programs and services is proving difficult.

Table 1 highlights Nigeria's main economic and health indicators, comparing these to the Sub-Saharan Africa (SSA) average.

Historical Background on Research

Institutionalized medical research in Nigeria can be traced back to the establishment of the yellow fever research unit in Yaba, Lagos in 1926 by the Rockefeller Foundation. Over the next two decades, this evolved into the Virus Research Unit, which was a member of the West African Council for Medical Research in 1954 at its inception. The council coordinated research in West Africa up to 1962 when each member-state developed its own research council. However, the West African Council for Medical Research still coordinated medical research in Nigeria until 1972, when the Medical Research Council for Nigeria (MRCN) was formed. The MRCN added research units in each of the then existing

Table 1 Economic and health indicators^a

Indicator	Value	Average SSA
Population (millions)	145	782.5
Population growth (%)	2.4	2.5
Economic density (current \$/sq km)	161,256	31,518
GDP per capita (2000 US\$)	454	580
GDP per capita growth (annual %)	3.7	3.2
Life expectancy at birth (years)	47	50
Infant mortality rate (per 1000 live births)	99	94
Under five mortality rate (per 1000)	191	157
Maternal mortality ratio (per 100,000 live births)	1,100	902
HIV prevalence rate (% ages 15–49)	3.10	5.00

^a International Bank for Reconstruction and Development/The World Bank. (2008). The Little Data Book on Africa 2008/09. The World Bank.

<http://siteresources.worldbank.org/INTSTATINAFR/Resources/LDB-Africa-12-2-08.pdf>. Accessed 28 March 2009

six universities. The National Science and Technology Development Agency replaced the MRCN in 1997, with the laboratories of the latter constituting the National Institute of Medical Research (NIMR), which coordinated major research activities with other federal, state, and institutional bodies.

The mid-1980s saw an upsurge in the number of health tertiary institutions, non-governmental organizational supports, donor agency activities, and bilateral development partners. In many ways, however, this further exacerbated the previously tenuous coordination of health research. By the time a national policy on health research was formulated in 2006, there were 21 teaching hospitals, 65 universities, 7 research institutes, 23 federal medical centers, and 16 federal specialists. The policy mandated the establishment of a National Health Research Council and a National Health Ethics Review Committee, which was to later regulate the Institutional Review Boards (IRBs) in the country (Idigbe 2006). The first formal IRB, which was modelled after those in the United States, was formed in 2002. Before then, reviews were done through the Directorate of Clinical Services, Research, and Training. However, there still remains a paucity of health research, law, and policy, and a lack of monitoring of public education and advocacy in Nigeria.

Current Health Challenges

Communicable diseases represent Nigeria's greatest health challenges, although the incidence of chronic diseases is rising. There exist high risks of contracting food, water- and vector-borne, or respiratory diseases. The top ten causes of death (and percent of deaths in 2002) are as follows: HIV/AIDS (16); lower respiratory tract infections (11); malaria (11); diarrheal diseases (7); measles (6); tuberculosis (4); cerebrovascular diseases (4); ischemic heart disease (3); and whooping cough (2). The density of health workers (per 1000 population) is unacceptably low, as these numbers show: physicians (0.28), nurses and midwives (1.70), dentists (0.02), pharmacists (0.05), community health workers (0.91), laboratory technicians (0.01), and other health workers (0.01) (World Health Organization 2006).

Research Responses to Health Challenges

Currently, most health research takes place at tertiary and research institutions. The majority of the funding comes from abroad and, as such, so are the majority of the questions being addressed. Moreover, formal and systematic dissemination and application of research and overall knowledge management activities are severely lacking. That said, the increase in the number of medical schools and tertiary health care institutions as well as increased emphasis on research in undergraduate and postgraduate training of doctors have raised awareness and spurred focused initiatives to address local health issues. This will be further bolstered by the recent establishment of the National Health Research Council.

Current Research Ethics Context and Challenges

The earliest formal bioethics body, the Society for Research in Bioethics, was formed in 1996 by individuals with an interest or short-term training in bioethics. The University of Ibadan (UI), a pioneer in the development of research in Sub-Saharan Africa, later developed its own centers with formal activities in bioethics. International research

involving the Oncology Unit at the Department of Surgery, as well as international research on HIV/AIDS, gave a boost to bioethics curricula in Nigeria.

The National Health Research Ethics Committee was inaugurated in 2006, with Professor Clement Adebamowo as its first chairman and Dr. Adebayo Adejumo, an alumnus of the Joint Centre for Bioethics (JCB) program, as the member representing the nursing profession (Federal Ministry of Health 2006). More institutional health research ethics committees continue to be formed. However, research ethics challenges in Nigeria are systemic and require a systems approach to address them effectively. Nigeria requires capacity-building for authentic acculturation of health systems as well as for health research, education, and advocacy within the research community and the general public. More importantly, it requires relevant legislation and effective regulatory measures.

Masters of Health Sciences in Bioethics (MHSc) Program (International Stream) at the Joint Centre for Bioethics (JCB) University of Toronto: Insights About its Role and Scope

The JCB program has unique advantages. It is difficult to surpass the attention that it pays to postgraduate and international students and the wide variety of recreational and spiritual activities offered by the city of Toronto. The main strengths of the MHSc program are the emphasis on wide-ranging consultations and the richness of interactions with students from such varied backgrounds. Activities such as the clinical ethics and research ethics group sessions, weekly seminars, and opportunities to attend international, national, and other faculty sessions relevant to bioethics were invaluable enrichments that enhanced our overall understanding and capacity to organize local conferences and workshops in Nigeria.

The program has equipped us with tools to identify knowledge gaps and develop appropriate techniques of evaluation, which have been instrumental in our ability not only to serve on and train research ethics committees, but also design and administer a Master's program under the West African Bioethics Program with minimal support from faculty from other institutions.

There are ways in which the program could be further enriched. It would be greatly beneficial to create an alumni association which would give graduates a forum for interacting and coordinating activities, among other possibilities. Moreover, formal visits to developing countries by JCB faculty would be invaluable in keeping graduates abreast of developments in bioethics and research ethics as well as furthering research partnerships. Finally, it would be worth considering sending Canadian ethics students to visit a developing country to give them first-hand experience of local issues at play, which could further inform their research.

Conclusion

Overall, the JCB has the capacity to train and challenge research ethics practitioners. Its MHSc program did not give us a school; it gave us a family.

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