

*Review*

## **Building a strong and sustainable health care system in Nigeria: The role of the nurse**

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**Nigeria is a country that has stood tall in Africa and features prominently in global affairs, yet her healthcare system has suffered several down-falls. Despite her position as a country with huge human and natural resources, her health facilities are grossly inadequate, especially in rural communities and this robs her citizen of optimum health care. Good health is one of the fundamental human rights and the onus rests on the healthcare system to provide health services for health care consumers. A healthcare system is an organization of people, institutions, and resources that deliver health care services to meet the health needs of target populations. Such a healthcare system must have a good health services, a well-performing health workforce, and well-functioning health information system that ensures equitable access to essential medical products, vaccines and technologies, a good health financing system and good leadership and governance for quality, efficiency, acceptability, and equity. Available evidence posits that the Nigerian healthcare system has failed in all these indices. Nevertheless, nurses by virtue of their education, expertise, numerical strength and position as the first point of contact with patients, are well positioned to champion health care transformations. These reforms are needed for a strong and sustainable healthcare system. This paper discusses the Nigerian healthcare system and the role of the nurse in building a strong and sustainable health care system in Nigeria.**

**Key words:** Health care system, nurses, strong and sustainable.

### **INTRODUCTION**

Nigeria is a country that has stood tall in Africa and features prominently in global affairs, yet her health care has suffered several down-falls (Welcome, 2011). Despite Nigeria's position as a country with huge human and natural resources, her health care system is greatly underserved, and health facilities are grossly inadequate,

especially in rural communities (Welcome, 2011; Health Reform Foundation of Nigeria (HERFON), 2006; Asangansi and Shaguy, 2009). Several efforts and reforms proposed by the Nigerian government to address the wide ranging issues in the health care system are yet to be implemented at all levels of the health care system

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especially at the states and local government area levels (National Health Policy, 2016) and those implemented lack government commitment and support.

There is overwhelming evidence that there is, fragmentation of services, dearth of resources, including drug and supplies, inadequate and decaying infrastructure, lack of coordination on policy implementations, inequity in resource distribution that is skewed towards the favoured few, poor access to care and very deplorable quality of care (National Health conference, 2009). The Nigerian health system can simply be defined as non-functional. Building a functional health system will therefore require strong policies, committed leadership, adequate financing, essential health care supplies including medical products and technologies; service delivery that meets patient health care needs and a formidable human resource for health. Transformation of the entire health care system requires health care human resources (including doctors, nurses, pharmacist, laboratory scientists etc.) positioned centrally as a panacea to achieving a functional health system. The nursing workforce provides an invaluable tool to the achievement of this transformation (World Health Organization, 2010a). This paper aims at examining the Nigerian healthcare system and the role of the nurse in building a strong and sustainable healthcare system.

## **HEALTH AND HEALTHCARE SYSTEM**

Health is defined as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” This definition, no doubt, is bedeviled by concerted criticisms based on the use of the phrase “complete physical, mental, and social well-being.” Health may then be defined as “a state whereby one is not perturbed by physical, spiritual or psychological (mental) illness, or by injury of any kind.” The underlying supposition of this definition is that man is a composite being with two complementing aspects-body and soul-either or both of which may be affected by ill-health. Achieving an optimal level of wellness therefore determines the level of functioning for individuals and achievement of goals. In order that the Nigeria population achieves optimal well-being in all its ramifications, certain health parameters must be achieved. As a matter of fact, we cannot talk meaningfully about health without addressing the health care and health care facilities. What then is health care?

Health care is the maintenance or improvement of health via the prevention, diagnosis and treatment of diseases and injury, and other physical and mental impairment in humans (Oyibocho et al., 2014). Health care resources are those basic equipment, stock of drugs, vaccines, portable water, constant supply of energy (power), medical record tools, ambulances for mobility of patients, solar freezers, availability of qualified

health officers and medical personnel, etc., which make it possible for the improvement of the patients' healthy living. It also includes “hospitals, clinics, dental offices, out-patient surgery centres, birthing centres and nursing homes.” A health care system can then be said to be an organization of people of various professional groups, institutions, and resources that deliver health care services that meet the health needs of the target populations (Frenk, 2010).

## **BUILDING A STRONG AND SUSTAINABLE HEALTH CARE SYSTEM**

In 2007, the WHO identified building a strong and functional healthcare system as a global strategic priority. They argued that this priority was “Everybody's Business” (World Health Organization, 2007). Six key building blocks were identified as key to achieving a strong health system which are:

Good health services to provide/deliver effective, safe, quality personal and non-personal health interventions to health care consumer at the appropriate time and place with little or no waste of resources.

A well-performing health workforce with competent, sufficient and evenly distributed staff that is responsive, fair and efficient in achieving the best health prognosis, within the limit of available resources and circumstances. Health information system for reliable data collection, analysis, dissemination and use on health determinants, health system performance evaluation

Equitable access to essential medical products, vaccines and technologies of assured quality, safety, efficacy and cost-effectiveness, that is scientifically sound. Funding for health, in ways that ensure people can assess needed services timely, without undue impoverishment.

### **Ensuring strategic policy frameworks exist for leadership and governance**

Other dimensions for the evaluation of health systems include quality, efficiency, acceptability, and equity. These key strategies have also been described in the United States as “the five C's”: Cost, Coverage, Consistency, Complexity, and Chronic Illness (Brody, 2007). What is the state of the Nigerian Health care system in developing these six building blocks for a sustainable health care system?

## **CURRENT STATE OF NIGERIAN HEALTH CARE SYSTEM**

Examining the Nigeria health system, it is obvious that she has fallen below WHO minimum expectations of a strong and sustainable health care system. For instance

Nigeria was ranked 187 out of 190 countries by the World Health Organisation (WHO) (2000). This ranking used five indicators including: level of population health, health inequalities (or disparities) within the population, health system responsiveness, distribution of responsive within the population and the distribution of the health system financial burden. Not surprisingly, Nigeria fared very low on all the indices. The “supposed” giant of Africa had a recently war torn country -Liberia and others like Malawi ranked above her on the quality of health care provided to her citizens. Further assessment by the Legation Prosperity index published in 2017 ranked 149 countries on the level of prosperity rank, based on physical and mental health, health infrastructure and preventive care. The Nigerian health care sector once more ranked 142 out of 149 countries (Legatun Prosperity Index, 2017) This substantiates the earlier report and further portrays the poor state of the Nigerian health care system (Ojewale et al., 2018). According to the 2018 budget, Nigerian healthcare spending is ₦1800 (\$5) per head, when the 340 billion health budget is calculated on per capita basis. It is needless to make comparison with other African countries including South African which proposed a health budget of R205.446 billion (\$17.1 billion) in 2018 representing \$299 per head when compared to its population of 57 million, yet Nigeria is the country with the highest economy (Ojewale et al., 2018).

Nigeria is further besieged with large attrition of health personnel to the western world, leaving the Nigerian populace with terrible low patient to health professional ratio, thereby encouraging quackery and poor health statistics. Nigeria is not alone in this as other African countries share in this menace. WHO reported that maternal mortality rate in Nigeria is 814 per 100000 live birth, Chad, 856, Central African Republic, 882 and Sierra Leone, 1360. However, it is disheartening that war torn countries like Somalia and Democratic Republic of Congo outperformed Nigeria on this indices. Furthermore, while countries such as Botswana and Mauritius have 100 percent births attended by skilled practitioners, Nigeria is again down the pyramid with 35% competing with countries like Eritrea, Ethiopia, South Sudan and Chad in the number of birth attended by skilled practitioners. The statistics gets worse for every 1000 birth in Nigeria, 108 infants (and children) die before the age of five and this is the worst in Africa. Data from WHO world health statistics 2017 further show that 380.8 per 1000 Nigerians are at risk of malaria constituting about 72 million Nigerians, whereas for other countries, malaria ceases to be a health concern. With the recent insurgency in the north east of the country, this statistics is bound to increase (WHO, 2000).

Nigeria has about 2500 hospitals which are not only poorly funded but inappropriately staffed (Ojewale et al., 2018). This comes into an average of 7920 Nigerians to one hospital, and an average ratio of one doctor to 1:3000, while nurse per head is 1:2000. This calls for

urgent actions. Available evidences suggest that the government and key stakeholders are merely paying lip service to the problems of the health care sector (Health Reform Foundation of Nigeria (HERFON), (2006); Oyibocho et al., 2014; Ojewale et al., 2018). With such a poor health care system, life expectancy in Nigeria is 52 years for men and 54 years for women, one of the lowest globally; this is obviously the result of patients dying from diseases in Nigeria that could have been treated in other parts of the world. With these entire situations of healthcare system in Nigeria there is need for her stakeholders and other individuals to proffer a lasting solution. Oyibocho et al. (2014) suggest that building a strong and resilient health care system will require:

- i). Creating structure for a system with equitable distribution of health facilities, resources (human and material) and services to all especially the vulnerable populations.
- ii). Implementation of cost-effective interventions for basic health and referral services.
- iii). Ensuring provision and equitable distribution of agreed essential packages of care at all levels of the healthcare system.
- iv). Ensuring monitoring and evaluation systems that track changes and progress in all levels of the health sector at with periodic review of quality assurance.
- v). Strengthening progressive leadership in healthcare system.
- vi). Reducing attrition of healthcare personnel at different levels, by improving salary structures and offering career progression opportunities and
- viii). Creating an environment that is conducive for the advancement of science and research in Nigeria whilst adhering to highest ethical and scientific standards.

Nurses been one of the major stakeholders has a big role to play in salvaging the Nigerian health care system and building a strong and functional health care system.

### **WHY SHOULD NURSES ENGAGE IN BUILDING A STRONG AND SUSTAINABLE HEALTH SYSTEM?**

Nurses by virtue of her education, expertise, the respect earned, their numerical strength and their position as the first point of contact with patients are well positioned to champion transformation for a functional health care. Nurses function from initiation of care to evaluation of care outcome and are the only professionals with undisputed presence in the three levels of care in the Nigerian health system. Nurses today are better equipped to supplement direct medical services with other important components of comprehensive patient care such as patient education, and view patients holistically (Butler and Diaz, 2017).

Also most nurses on daily basis see examples of inequity in health care system and are beneficiaries to the ills thereof; it is evident that nurses have a significant role to play in contributing to building strong, effective and functional healthcare systems. Furthermore, the ICN Code of Ethics for Nurses clearly states nurses' responsibility for initiating and supporting action to meet the health and social needs of the public, in particular those of vulnerable populations (International Council of Nurses, 2012a). The role of the nurse as an advocate for equity and social justice appears in the guidance of many National Nursing Associations and there are also examples of health professionals working together to have greater influence on policy makers to improve opportunities in building a functional health care system (Allen, 2013).

### **THE ROLE OF THE NURSE IN BUILDING A STRONG AND SUSTAINABLE HEALTHCARE SYSTEM IN NIGERIA**

According to Shamian et al., (2015) nurses can make an essential contribution to the building of a strong and sustainable healthcare system in the following ways:

#### **(i) Leading and supporting inter-professional education and inter-professional collaborative practice**

Inter-professional collaboration is an innovative solution to health systems' strengthening. It prepares health workers for inter professional collaboration and is an essential precursor to collaborative practice. Inter professional collaborative practices create a strong and flexible health workforce with health professionals sharing best practices in the face of opportunities and challenges. Collaborative practice represents an opportunity for nurses to maximize their skills and practices at their highest capacity (Sullivan et al., 2015). Nigerian nurses should advocate for inter-professional education to be included in core curricula for the training of nurses and as a part of health worker training programs such as in-services training. In all of the settings in which they work, nurse leaders have an important role in advancing inter-professional collaboration and ensuring that it is supported by appropriate governance, policies, environments and delivery models (International Council of Nurses, 2008).

#### **Advocate for a paradigm and operational shift in health care that balances illness focused care with population health**

Global agendas and plans "require a recognition that we need to be in the business of health and not in the

business of illness" (World Health Organization, 2010b). There is an increasing demand for a paradigm shift from curative care to preventive care. Nurses can advocate for a population health approach in their practice. This approach incorporates community-based wellness strategies and acknowledges the determinants of health of populations. There is need for grass root preventive nursing, which emphasizes teaching people in the communities' health promotive and preventive practices and lifestyle. Encouraging families to adopt healthy practices that prevent and limit illnesses will enhance quality of life and ensure attainment of universal health coverage.

### **Identifying and championing global and national strategies to address health workforce mal-distribution and migration**

Identifying global health needs and importantly, modifiable risk factors associated with communities and developing strategies to combat mal distribution of appropriate health manpower is pertinent for building a strong and sustainable health system. These strategies should be evidence-based and tailored to the local needs of the region/community. For example Nursing and midwifery council of Nigeria (NMCN) should aim at addressing regulation for nursing education, skill mix, working conditions and environments, continuous professional development, and career structures and aim at distributing this competent health work force to areas of dire need. National nurses associations such as national association of Nigerian Nurses and Midwives (NANNM) can cooperate with decision-making bodies, governmental and nongovernmental organisation to achieve appropriate human resources planning, ethical recruitment strategies, and sound national policies on the immigration and emigration of nurses because a strong and sustainable health care system is dependent on an adequate workforce. Locally, there is need for adequate and proper placement of qualified health man power in the primary health care facilities to checkmate the treatment ills perpetuated by unskilled practitioners.

### **Strengthening and diversifying primary health care**

A functional primary health care (PHC) creates resilience, efficiency and equity in health systems. Strengthening PHC requires international, national, educational, institutional, regulatory and individual support. There are many ways in which nurses can take action to build, support and sustain the nurse's role in PHC. Examples of nursing contribution include advocating for legislation and policy that allows nurses to practice to their full capacity in the PHC system, participating in PHC research, working to influence educational policies to include PHC

concepts and principles as at least basic elements in nursing curriculum, and encouraging communities to lobby for political support for PHC. The current structure that places community health extension workers (CHEWs) who are ill prepared to man the primary health care system across some states in the federation for political reasons need be addressed if the goal of universal health coverage is to be attained. Nurses are better prepared for this role. Available evidences in primary health care facilities where there are no qualified nurses show that patronage in those facilities is low. Despite government funding and low cost of treatment, patients prefer to use private facilities manned by retired qualified nurses. These primary health care facilities are therefore subjected to decay, rot, lack of patronage etc. by ill-informed government policies.

### **Ensuring a strong nursing voice in all health and social system policy development and planning dialogues**

ICN believes that all nurses should contribute to public policy development and planning related to care delivery systems, health care financing, ethics in health care and determinants of health (Benton, 2012). As a group, nurses have a massive potential to build and expand our political capital. However, the key to achieving this potential is found in the ability of the individual nurse to recognize and use his or her own voice. Nurses who are unfamiliar with how to engage in policy making can begin by first gaining knowledge of the policy process. A number of examples can be found on how nurses in different parts of the world have worked to coordinate their actions and advocate for public and health care service policies (Patton et al., 2015). Numerous opportunities exist for involvement in policy at the micro level especially policy development related to nursing workforce needs (Newman, 2014). Nursing and Midwifery Council of Nigeria (NMCN), National Association of Nigeria Nurses and Midwives (NANNM) and other nursing professional body in Nigeria should employ a number of strategies to contribute to effective policy development, including monitoring the utilization of nurses in the workforce in terms of work output and remuneration; incorporating new models and management strategies in line with the local need of health care consumers; marketing a positive image of nursing to key management and policy stakeholders nationally and internationally; researching and dissemination of relevant knowledge and findings; and, continually developing and maintaining appropriate networks to enable collaborative working relationships with all other stake holders. Utilizing entrepreneurial skills in nursing is one sure way that will uplift nursing voice in Nigeria.

### **Considering the influence of regulation and legislation on the health system and Human Resources for Health (HRH) planning issues**

Meeting HRH demands requires a qualified and competent nursing workforce that is able to meet the needs of the population. Therefore NMCN regulation should be purposeful, transparent, accountable, ultimate, flexible, efficient; representative and proportionate; and collaboration with stakeholders should be maintained in order to ensure that nurses have sufficient competencies and are practicing to the full extent of their education and training. The existing policies in various teaching hospitals that limit student nurses/midwives from practicing some core nursing procedures should be reevaluated such that task shifting does not affect skill development of the future nurse. There is need to deploy qualified nursing manpower to the hinterlands where health care services are grossly underserved.

### **Designing and improving information infrastructures and data collection to support health system redesign and planning.**

Information is power and developing information infrastructures involves collection of relevant data about the size, skill-mix, license type, demographics, distribution and education of the nursing workforce. This nursing workforce data are required to make informed decisions related to health system redesign and planning. Recently in 2017, the nursing and midwifery council collated electronic data of all nursing practitioners. This is a step in the right direction as it will encourage planning and service delivery if utilised to redesign health care delivery.

### **Participating in research related to HRH and in health systems research and evaluation**

In order to create and synthesize the best evidence, there is need for research. Nursing research will play an important role in HRH planning and development and in addressing health system and policy questions required for health systems strengthening. Health systems research builds evidence-based knowledge for use at policy and planning, program, and operational levels. Evaluation assesses health innovations and outcomes. Within the nursing community, more awareness of the benefits of health systems' research is needed to highlight the importance of nurses' participation in this area. Nurses collect rich data on patient's reactions and disease outcome which do not go beyond the desk for lack of institutional support. It is imperative to encourage nurses through research grants by both national and international nursing organization for active participation

in qualitative research to ensure visibility of the nursing workforce especially as it concerns patients' reactions to indigenous diseases.

### **Considering the influence of complex, ubiquitous social and gender issues such as the determinants of health, and inequality and inequity**

HRH research indicates that systemic gender imbalances pose a major challenge for the health workforce (Patton et al., 2015). Nursing being a female dominated profession is therefore fraught with the challenges of overcoming female subordinations especially at the policy level. Women must participate in decision-making and policy-setting and have a lead role in setting the health agenda. Nurse educators and managers are encouraged to promote gender equality in their settings. Anticipating health care workers' lifecycle needs and recognising that sociocultural factors call for vigilance, can assure equality of opportunities and non-discrimination (Newman, 2014). Opening up more opportunities for males to specialise in every specialty in nursing including midwifery need to be strengthened at all levels of training.

### **CONCLUSION**

Good healthcare system is vital in any country, not only for the purpose of maintaining a healthy populace, but also as a matter of national security. A healthy country is a wealthy country, with a thriving human resource; the country can invest in them to move the nation to greater heights. Saying that the Nigerian health sector is in shambles is tantamount to saying the sky is up above. It is pertinent that something must be done by all stakeholders including nursing profession to build a functional health care system that will be the pride of every Nigerian. Nigerian Nurses as individual, association such as NANNM and the regulating body (NMCN) must rise up to the challenge of promoting and supporting all efforts to improve the preparation of nurses for managerial roles, leadership and policy development. This preparation should be broad and must include the development of knowledge and skills for influencing change, engaging in the political process, social marketing, forming coalitions, working with the media and other means of exerting influence. Professional nursing organisations' need to employ a number of strategies to contribute to effective policy development, including monitoring the utilisation of nurses in the workforce; incorporating new models and management strategies; continually marketing a positive image of nursing to key management and policy stakeholders nationally and internationally; disseminating relevant knowledge and research; and, continually developing and maintaining appropriate networks to enable collaborative working

relationships with governmental and nongovernmental organizations. These will no doubt contribute greatly in building a strong, and sustainable health care system in Nigeria.

### **CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

### **REFERENCES**

- Allen M (2013). Working for Health Equity: The Role of Health Professionals, UCL Institute of Health Equity. London.
- Asangansi I, Shaguy J. (2009). Complex with the Nigerian dynamics in the sociotechnical infrastructure: the case with the Nigerian health management information system. Proceedings of the 10th International Conference on Social Implications of Computers in Developing Countries. Dubai: May, 2009. Retrieved from [ehealth4everyone.com](http://ehealth4everyone.com).
- Benton D (2012). Advocating Globally to Shape Policy and Strengthen Nursing's Influence. The Online Journal of Issues in Nursing 17(1).
- Brody W (2007). Remarks by Johns Hopkins University President: "Health Care '08: What's Promised/What's Possible?" 7 Sept 2007.
- Butler S, Diaz C (2017). Nurses as intermediaries in the promotion of community health: Exploring their roles and challenges, Retrieved from [www.brookings.edu/wp](http://www.brookings.edu/wp)
- Frenk J (2010). The Global Health System : Strengthening National Health Systems as the next step for Global Progress, Plos Medicine 7(1):e1000089. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2797599/> (Accessed 25/04/2018).
- Health Reform Foundation of Nigeria (HERFON) (2006) Nigeria Health Review, Kenbim Press Ltd, Ibadan. pp. 10-12,130,191. <https://www.herfon.org.ng>
- International Council of Nurses (2008). "Position statement: Participation of nurses in health services decision making and policy development". Available at: [www.icn.ch/images/stories/documents/publications/position\\_statement/D04\\_Participation\\_Decision\\_Making\\_Policy\\_Development.pdf](http://www.icn.ch/images/stories/documents/publications/position_statement/D04_Participation_Decision_Making_Policy_Development.pdf). Accessed 10 February 2016
- International Council of Nurses (2012a). ICN Code of Ethics for Nurses. Available at: [www.icn.ch/whowe-are/code-of-ethics-for-nurses/](http://www.icn.ch/whowe-are/code-of-ethics-for-nurses/). Accessed 10 February 2016
- Legatum Prosperity index (2017). Creating the pathway from poverty to prosperity; legatum institute 2017, <https://properitysite.s3-accelerate.amazonaws.com>
- Nigerian National Health Conference (2009). Primary Health Care in Nigeria, 30 years after Alma Atta held in Uyo Akwa Ibom State. Nigeria. Accessed January, 2019.....from <http://www.hrresources.centre.org>
- National Health Policy Draft (2016). Promoting the health of Nigeria to accelerate socio-economic development. Federal Ministry of Health. [www.nationalplanningcycles.org/.../nigeria/draft\\_national\\_health\\_policy\\_final](http://www.nationalplanningcycles.org/.../nigeria/draft_national_health_policy_final)
- Newman C (2014). "Time to address gender discrimination and inequality in the health workforce", Human Resources for Health 12(25). <http://www.human-resourceshealth.com/content/12/1/25>. Accessed 13 January 2016
- Ojewale C, Obokoh A, Ani M, Ikwetoghu C (2018). The numbers that tell how bad Nigeria health care system is, BusinessDay media online June 2018, available at [www.businessdayonline.com](http://www.businessdayonline.com).
- Oyibocho EO, Irinoye OB, Sagua EO, Ogungide-Essien OT, Edeki JE, Okome OL (2014). Sustainable Healthcare System in Nigeria: Vision, Strategies and Challenges. IOSR Journal of Economics and Finance (IOSR-JEF) 5(2):28-29
- Patton R, Zalon M, Ludwick R (2015). Nurses Making Policy: From Bedside to Boardroom, e-book, American Nurses Association and

- Springer Publishing Company, New York, viewed 7 January 2016, [https://books.google.ch/books?id=3MyRBQAAQBAJ&printsec=frontcover&source=gbs\\_ge\\_summary](https://books.google.ch/books?id=3MyRBQAAQBAJ&printsec=frontcover&source=gbs_ge_summary) Accessed 10 February 2016
- Shamian J, Tomblin-Murphy G, Rose AE, Jeffs LP (2015). No global health without human resources for health (HRH): The nursing lens. *Canadian Journal of Nursing Leadership* 28(1):1-5.
- Sullivan M, Kiovksy RD, Mason DJ, Hill CD, Dukes C (2015). "Interprofessional collaboration and education", *American Journal of Nursing* 115(3):47-54. Available at [http://journals.lww.com/ajnonline/Fulltext/2015/03000/Interprofessional\\_Collaboration\\_and\\_Education.26.aspx](http://journals.lww.com/ajnonline/Fulltext/2015/03000/Interprofessional_Collaboration_and_Education.26.aspx). Accessed 13 January 2016
- Welcome MO (2011). The Nigerian health care system: Need for integrating adequate medical intelligence and surveillance systems. *Journal of pharmacy & bioallied sciences* 3(4):470.
- World Health Organization (WHO) (2000). World Health Report 2000. Health system improving performance in <http://www.who.int/iris/handle/42281>
- World Health Organization (WHO) (2007). Everybody's Business. Strengthening Health Systems to Improve Health Outcomes: WHO's framework for action. [www.who.int/healthsystems/strategy/everybody\\_business.pdf](http://www.who.int/healthsystems/strategy/everybody_business.pdf)
- World Health Organization (WHO) (2010a). Monitoring the building blocks of health systems. A handbook of indicators and their measurement strategies. WHO Geneva Switzerland
- World Health Organization (WHO) (2010b). "Framework for action on interprofessional education and collaborative practice", accessed on January 13 2016. [http://apps.who.int/iris/bitstream/10665/70185/1/WHO\\_HRH\\_HPN\\_10.3\\_eng.pdf?ua=1](http://apps.who.int/iris/bitstream/10665/70185/1/WHO_HRH_HPN_10.3_eng.pdf?ua=1)