

MCT Insights - Healthcare system in West Africa

Health is one of the major challenges for Africa's development, whether to improve the current health status of Africans or to allow the development of a healthy workforce capable of participating in the development of the continent. Understanding the current organization of health systems is an important first step in formalizing public health policies to meet Africa's health challenges¹. The organization of health systems in Africa was originally based on that inherited from the colonial era. Over the last two decades, health systems in West Africa have undergone many reforms resulting in a system that is better and better organized both in terms of quality of care and prevention of diseases.

The Bamako Initiative, after 30 years of existence, has contributed to the implementation of relevant health guidelines. It aimed to improve access to primary health care by improving its quality. This has allowed the establishment of supply circuits for essential drugs, to solve or reduce breaks in drugs. Although it has allowed a subsequent improvement in the level of health, the balance sheet remains mitigated because one of the major problems is the exclusion of the poor or indigent from access to quality care.

Public structures are organized around two components, administrative and medical. We were interested in the medical component. The organization of this structure is pyramidal type that can be divided into 3 essential parts:

- A primary level including health institutions of first contact (dispensary, maternity, place of vaccination ...) real points of entry of the sanitary system.
- An intermediate level of this component is constituted of primary or referral health facilities (general or specialized referral health centers, regional hospitals ...) for primary referred patients.
- And at the end, a last level composed by so-called last resort structures composed mainly of University Hospital Centers (CHU), national hospitals and specialized public institutions ...

Despite this organization which presumes a good care of patients, these structures are not as functional as one would like² (Lack of hygiene, obsolete or non-functional equipment, insufficient staff, breaking of drugs or surgical equipment ...). This situation is also partly explained by a lack of professionals associated with a lack of financial autonomy of these institutions and / or lack of resources to optimally manage the resources made available. Added to this is the fact that the vast majority of the populations concerned live in poverty with the inability to treat themselves or their family properly.

The component of the Bamako Initiative aimed at creating a climate of equity among the different classes of society has dismally failed. The health insurance so much dream by the people is finally available. The concern is the people who take advantage of this new modality of payment are essentially employees. The insurance covers about 40% to 80% of medical, pharmaceutical and hospital costs. The number of subscribers is gradually increasing with the advent of universal health coverage. To get an overview of the progress, we collected in a table the data obtained from the written press (see Table 1).

Table 1: Overview of the state of universal health coverage in 4 countries:

Countries	Insurance name	Percentage of subscribers	Estimation of Subscribers	Publication date
Senegal ³	Couverture maladie universelle	47%	7 220 186	Sep 2016
Mali ⁴	Régime d'assurance maladie universelle	12%	2 200 000	Jun 2018
Burkina Faso ⁵	Régime d'assurance maladie universelle	10%	1 946 429	Feb 2018
Ivory Coast ⁶	Couverture médicale universelle	4%	1 040 436	Jun 2018

After budget support by donors, Senegal has made enormous progress (47%). Mali and Burkina Faso, which have respectively 12% and 10%, have difficulty in extending their coverage, probably due to a lack of adequate funding. The case of Ivory Coast (4%) is probably explained by its recent implementation. Several studies show that the elimination of direct payment leads to a significant increase in the use of health services^{7 8}. The fact that households bear the bulk of health expenditure is not a good strategy. This continues to

maintain the sale of illicit drugs called "drugs on the ground" and has considered traditional medicine as the first option for many patients.

Other vulnerable groups need to pay cash for treatment except for pregnant women and children under 5 who benefit from free treatment such as caesarean section, vaccination, treatment of malaria⁹.

Private health structures have become an essential component of the health system as there is a lack of quality in the public sector. The for-profit private sector exists as a sole proprietorship or group. Thus we have medical and paramedical establishments (private clinics and consultancies and care); private pharmaceutical establishments (pharmacy dispensaries and private drug depots, import and wholesale establishments for pharmaceutical products), pharmaceutical manufacturing establishments, analytical laboratories. The private non-profit sector subsists through associations, foundations or religious congregations and international NGOs.

To deal with the health problems of their citizens, governments agree that an improvement or a renewal of existing facilities associated with lower prices of care costs are mandatory. This will help, on the one hand, to make accurate diagnoses and, on the other hand, to improve the quality of life of patients.

Medical research in West Africa, a very promising and growing field, will be coveted by pharmaceutical companies due to the lower cost of clinical trials compared to the developed country, the availability of competent researchers and patients in need. The fact that the focus is on infectious diseases is almost an obligation and the major reason is that HIV, tuberculosis, malaria, respiratory disease, diarrheal disease, viral hepatitis and neglected tropical diseases are endemic and cause a lot of casualties each year¹⁰.

In addition to infectious diseases, chronic diseases and cancers are growing at a worrying rate with the cost of care^{11 12}. This opens up another perspective of research development to enable future control of these pathologies.

In terms of publication of scientific articles according to data between 2005 and 2014, Senegal ranks third with 338 publications after Nigeria (1,961) and Ghana (579) followed by

Burkina Faso (4th) with 272 publications. Ivory Coast (208) and Mali (141) are respectively 6th and 7th in this ranking¹³. According to the search engine of clinicaltrials.gov, first publications posted from January 1st 2015 to January 1st 2019 are: 40 for Mali, 33 for Burkina Faso; 28 for Senegal; and 15 for Ivory Coast.

These countries can go much further if the conditions are right for that.

Appendix: Here are some examples of well-known research site:

- **Mali**
 - Malaria Research and Training Center (MRTC), with the expansion of collaboration between the University of Bamako and NIAID / NIH on HIV / AIDS / TB (SEREFO Research Center), the International Center of Excellence in Research (ICER), was created in 2002. The ICER brings together the three research centers (DEAP / MRTC, DEMEVE / MRTC and SEREFO).
 - Center for Vaccine Development (CVD)
 - National Institute of Research in Public Health (INRSP)
 - National Blood Transfusion Center (CNTS)
 - CHU Point G and Gabriel Touré
 - Center for Research and Control of Sickle Cell Disease (CRLD),
- **Burkina Faso**
 - MURAZ Center
 - National Center for Research and Training on Malaria (CNRFP)
 - Institute of Research in Health Sciences, Regional Direction of the West (IRSS-DRO)
 - National Center for Scientific and Technological Research (CNRST)
 - Nouna Health Research Center (CRSN)
 - Center for Research and Training on Malaria (CNRFP) Ouagadougou
 - UFR-Sciences of Life and Earth, University of Ouagadougou
 - Institute of Research in Health Sciences (IRSS),
- **Ivory Coast**
 - Swiss Center for Scientific Research (CSRS)
 - Pierre Richet Institute / National Institute of Public Health (IPR / INSP)

- National Institute of Public Health (INSP)
- Institut Pasteur of Ivory Coast (IPCI)
- Félix Houphouët Boigny University of Abidjan (UFHB),
- General Hospital of Taabo Cite
- Yopougon Hospital
- **Senegal**
 - The Pasteur Institute of Dakar
 - National Blood Transfusion Center (CNTS)
 - Center for Diagnosis and Research in Molecular Medicine (CDRMM)
 - Center for Biology for Population Management (CBGP)
 - Fann University Hospital Center
 - Aristide Hospital The Dantec

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