

# Rapid Evaluation of the Medicines Registration System in Benin

November 2016



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## **Rapid Evaluation of the Medicines Registration System in Benin**

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November 2016



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## **Key Words**

Medicines registration, marketing authorization, medicines import, Benin.

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## ACRONYMS

CAME	<i>Centrale d'Achat des Médicaments Essentiels et Consommables Médicaux</i> (Central Medical Stores)
CTD	common technical document
DPMED	<i>Direction de la Pharmacie, du Médicament et des Explorations Diagnostiques</i> (Department of Pharmacy, Medicines, and Diagnostics)
FCFA	Franc of the African Financial Community
LNCQ	<i>Laboratoire National de Contrôle de Qualité des Médicaments et Consommables Médicaux</i> (National Laboratory for Quality Control)
MA	marketing authorization
SIAPS	Systems for Improved Access to Pharmaceuticals and Services
SLRGP	<i>Services de la Législation, de la Réglementation, et de la Gouvernance Pharmaceutique</i> (Department for Pharmaceutical Legislation, Regulation, and Governance)
SOP	standard operating procedure
USAID	United States Agency for International Development
WAEMU	West African Economic and Monetary Union
WHO	World Health Organization

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## INTRODUCTION

The primary role of Benin's Department of Pharmacy and Medicines (DPMED) is to develop and apply the national pharmaceutical policy. The main objective of this policy is to ensure the availability and accessibility of quality medicines for the population. To fulfill its mandate, DPMED aims to strengthen its regulatory capacity, including the issuance of licenses to pharmaceutical establishments and the registration of pharmaceutical products. Benin's current registration system shares core concerns that are common to most developing countries, notably the capacity to evaluate and monitor the security, efficacy, and quality of medicines and other health products. It is currently characterized by 1) poor or inadequate traceability of records or regulations (example: a product's marketing authorization [MA] is often hard to find); 2) lack of evidence used in the regulatory decision-making process (reasons behind special import authorization, i.e., products without valid MAs); 3) inconsistent and unsecured archiving system; 4) limited human resources; and 5) an inefficient information management system.

In light of these elements, the director of DPMED wishes to adopt suitable software to strengthen the registration system for medicines and other health products. Although computerization yields improvements in the management of regulatory information, its effectiveness will largely depend on the presence of adequate medicines registration procedures and the system's overall compliance with regional and international standards.

This rapid evaluation thus seeks to analyze and understand Benin's regulatory information management system for medicines registration, make appropriate recommendations, and propose an action plan based on emerging outcomes.

## **OBJECTIVE**

This evaluation analyzes Benin's medicines licensing and marketing systems, and further identifies mechanisms to improve DPMED's management of regulatory information.

The specific objectives of this evaluation are to:

- Carry out a rapid analysis of the regulatory information management system emphasizing the medicines registration process
- Draft recommendations and propose an action plan in consultation with the DPMED to improve the medicines registration management information system

## METHODOLOGY

Planning was carried out with DPMED's director and deputy director. Work was subsequently carried out with DPMED departments to assess the implementation of its drug licensing and MA functions, and the authorization and inspection of pharmaceutical outlets, notably the Department for Pharmaceutical Legislation, Regulation, and Governance (SLRGP). Meetings were also held with the director and heads of departments of the LNCQ and the heads of departments of the Central Purchasing Office for Essential Drugs and Medical Consumables (CAME). A list of key informants interviewed is found in annex A.

These interviews helped identify the organizational means, available capacity, overall performance of the medicines licensing process, and weaknesses of the regulatory information management system. Official documents on medicines licensing and registration in Benin were also collected (ordinances, decrees, orders, bylaws, memoranda, circular notes, etc.). These documents were reviewed to identify, analyze, and understand different entities' mandates, their respective roles and responsibilities, and the applicable norms currently in force to license and market medicines. In addition, the literature review sought to analyze regulatory information flows both within and among supervisory bodies.

Once the implemented mechanisms were analyzed, preliminary results were shared with stakeholders. This feedback enabled stakeholders to assess the credibility and relevance of the analysis and proposed improvements.

## LEGISLATIVE AND REGULATORY FRAMEWORKS FOR THE MARKETING AUTHORIZATION OF MEDICINES

In Benin, the conditions and rules to obtain an MA for medicines destined for human consumption are largely governed by the following laws and regulations (table 1). This regulatory framework includes provisions harmonized by members of the West African Economic and Monetary Union (WAEMU).

**Table 1. Principal laws and regulations governing the licensing and MA of medicines in Benin, November 2016**

Type	Year	Source	Title
Ordinance	1975	Presidency	Ordinance 75-7 of January 27, 1975, on the Dahomey medicinal products plan
Decree	2016	Presidency	Decree 426 of July 20, 2016, on the authority, organization, and operations of the Ministry of Health
Bylaw	2013	Ministry of Health	Bylaw 095/MS/DC/SGM/CTJ/DPMED/SA of May 6, 2013, on the authority, organization, and operations of DPMED
	2015	Ministry of Health	Bylaw 239/MS/DC/SGM/CTJ/DPMED/DA/SA of June 17, 2015, on the creation, authority, organization, and operations of the National Committee for Pharmaceutical Products
	2014	Ministry of Health	Bylaw 249/MS/DC/SGM/CTJ/DPMED/DA/SA of June 26, 2014, on the creation, authority, composition, and operations of the Expert Committee to evaluate licensing applications for pharmaceutical products destined for human use
	2012	Ministry of Health	Bylaw 0343/MS/DC/SGM/CTJ/DPMED/DA/SA of July 10, 2012, on the licensing requirements for nutritional supplements in the Republic of Benin
	2012	Ministry of Health	Bylaw 0311/MS/DC/SGM/CTJ/DPMED/DA/SA of June 13, 2012, on the licensing requirements for cosmetic products in the Republic of Benin
	2016	Ministry of Health	Bylaw #0406 of 2016 establishing the licensing fees and terms of use for pharmaceutical products for human use
Community Resolution	2010	WAEMU	Resolution 06/2010/CM/UEMOA of October 1, 2010, on the licensing of pharmaceutical products for human use in WAEMU member states
Memorandum	2012	DPMED Director	Memorandum 1230/MS/DPMED/DA/SA of December 3, 2012, on the implementation of Resolution 06/2010/CM/UEMOA on the licensing of pharmaceutical products for human use in WAEMU member states
Circular note	2015	DPMED Director	Circular Note 009/MS/DPMED/DA/SLRGP/SA of January 6, 2015, on MA for cosmetic products
	2013	DPMED Director	Circular Note MS/DPMED/DA/SA of February 3, 2013, on the receipt of MA change requests

Even though the memoranda and circular notes do not constitute applicable law, they are included as part of this summary, given that they serve as a type of regulation applicable to regulated entities.

Beninese law requires medicines to be registered prior to their import and sale in-country, except when special authorization is issued as stipulated for international aid and clinical trials. Ordinance 75-7 of January 27, 1975, on Dahomey's Medicinal Products Plan describes this exception for the manufacturing, import, and distribution of medicines in greater detail.

Article 12 stipulates that: “*No proprietary medicine can be introduced and distributed in Dahomey without first being registered with the Ministry of Public Health (Pharmacy Directorate-General). Some unregistered medicines could be imported in the context of international aid following the issuance of a special authorization. Similarly, unregistered medicines could be imported and used for the purpose of therapeutic trials once provisions have been specified by decree.*”

The DPMED is the competent authority responsible for regulating the pharmaceutical sector in Benin, including the registration of medicines. Nevertheless, the DPMED does not have the necessary autonomy to make regulatory decisions without consulting the Ministry of Health to which it is structurally bound. Bylaw 095 of May 6, 2013, assigns the supervisory role for medicines and the regulation of the pharmaceutical sector to DPMED. Essentially, the market is composed of products that are imported by CAME and five private wholesalers. Pharmaceutical companies submit applications to license and register medicines to DPMED, who then assesses cases and submits them for review with the Committee of Experts and the National Committee for Pharmaceutical Products. To obtain a new MA, the submission of an application package composed of five modules delineated by the common technical document (CTD) issued in the International Conference on Harmonization must be made. According to Resolution 06/2010/CM/UEMOA, this document is composed of the following modules: administrative information (module 1); summary of data included in modules 3, 4, and 5 (module 2); information on quality (module 3); reports from non-clinical trials (module 4); and reports from clinical trials and data from bioequivalence or dissolution tests for generic drugs (module 5). For MA renewals, only modules 1 and 2 are required. Even though the CTD format is required, it is not uniformly used; staff estimate that approximately 80% of applications are submitted with the prescribed format. In practice, DPMED does not refuse applications due to non-compliance with CTD.

All products going through the MA application process adhere to the following steps. First, a product sample of sufficient size is sent to the LNCQ along with a copy of the application and certificate of analysis. The National Committee for Pharmaceutical Products and the Committee of Experts carry out the scientific evaluation of the pharmaceutical product to be introduced to the Beninese market. Five-year renewals, minor variations, the suspension or revocation of MAs, and design upgrade requests (i.e., new packaging) are processed by the DPMED and are not reviewed by the Committee of Experts and the national committee.

Once approval has been issued by the national committee, the director of the DPMED, acting upon delegated authority of the minister of health, issues an MA approval notification along with a commercialization permit. The MA and commercialization permits are valid for a five-year period and are renewable.

If the assessment of the national committee yields an unsatisfactory outcome, MA is denied and the medicine cannot be registered. The national committee may decide to provide the requester with a notification of conditional approval, or defer the MA. In both cases, a three- to six-month timeframe is provided to the requesting entity so that it may respond to the national committee’s remarks.

Figure 1 illustrates the medicines registration cycle in Benin.

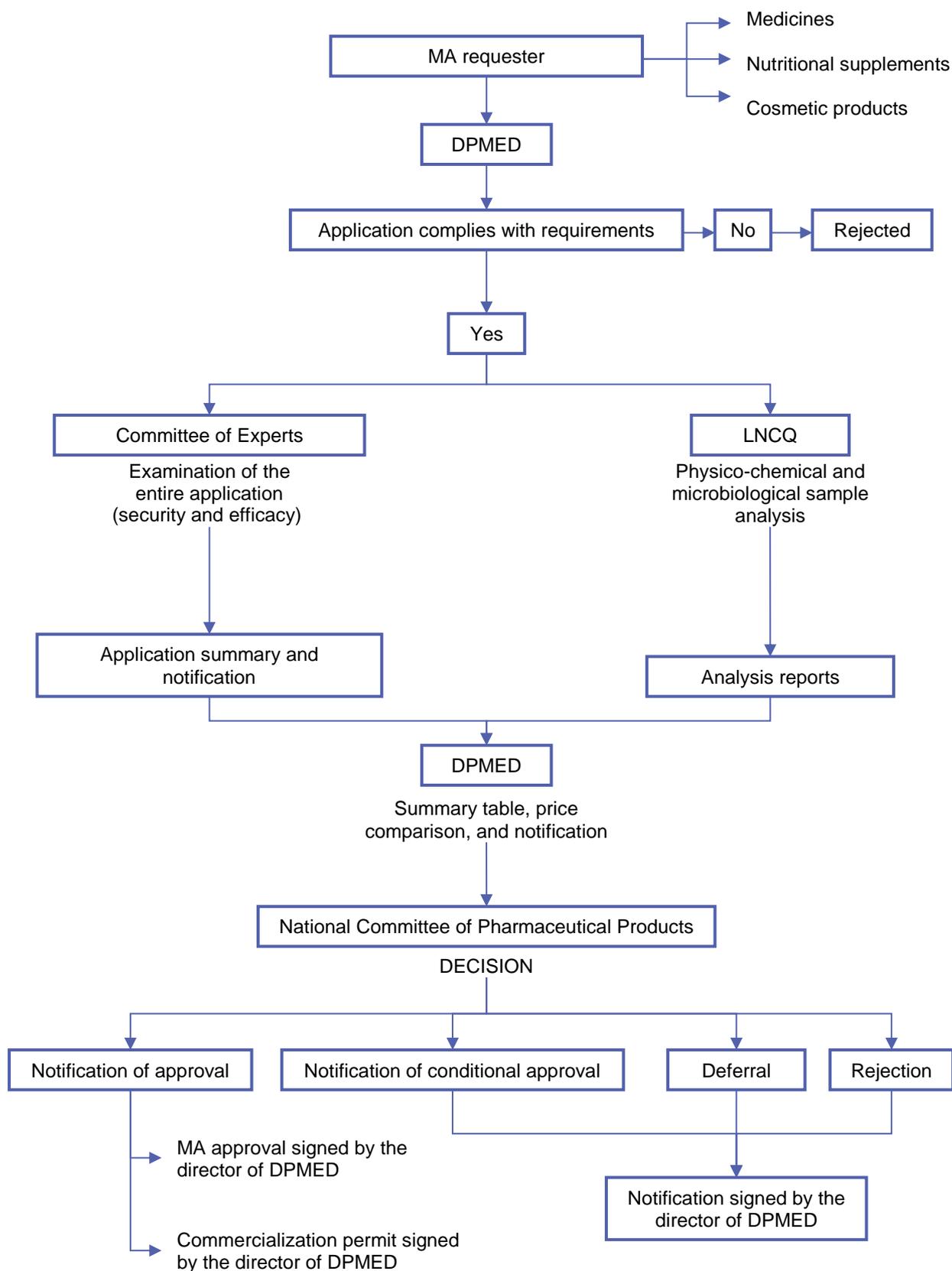


Figure 1. Benin's medicines registration cycle, November 2016

## **Human Resources**

Beyond essential financial resources, DPMED, like all national medicines regulatory authorities, requires sufficient qualified human resources to achieve its mandate. It currently employs 35 staff with varying contractual arrangements; 21 are permanent public employees, 10 are state-employed contractors, and 4 are independent contractors. Out of six pharmacists, four are independent contractors. Staff distribution is marked by disparities in available skill sets and overall fit with the needs of such a pharmaceutical regulatory body (insufficient number of pharmacists especially among permanent staff, the absence of a programmer and logistics specialist, only one lawyer, and a disproportionate number of support staff).

Additionally, DPMED has recently been faced with the unexpected departure of several skilled pharmacists, one who left to join the WAEMU and another to join the World Health Organization (WHO). If these departures are not contained, the organizational knowledge, memory, and culture could be placed at odds. Ensuring the stability of the workforce is therefore essential. The pharmacists hired as independent contractors were recruited in 2013. They are well positioned to provide substantial support to the system, but their current contractual status is not conducive to medium- or long-term retention. In addition to receiving lower levels of remuneration as compared to permanent employees, their temporary status is not sufficiently attractive (inferior career prospects, training, and benefits).

## **Logistics and IT Infrastructure**

DPMED has adequate IT hardware with up-to-date antivirus software. The hardware was made available by a private service provider who has been responsible for ensuring the maintenance of computer equipment over the last four years. Seven out of the 11 computers used by technical staff meet the minimum required specifications, notably 4GB RAM, 160 GB hard drive with at least 15GB of free space, Intel T2500 CPU, Windows 7–64 bit.

A server was installed, but its specifications and configuration are deemed insufficient to support a robust system. No data back-up system has been put into place, except for a 500GB hard drive made available for the director and deputy director.

DPMED also has an Internet connection (with a speed of 4 Mbit/s WiMax), and cabling for a computer network (RJ45 cables and sockets). It does not have its own website. Staff report that power is available 100% of the time. An electric generator (Olympian GEP99-1 Model 65 VA, 60 kVA, Caterpillar) was installed and is used in the event of power shortages.

## **Medicines Registration Process or Licensing and MA**

The processing of MA applications is carried out by the SLRGP of the DPMED. An assessment of its role in medicines MA has been conducted. In theory, the SLRGP is composed of six divisions, one of which is responsible for the MA of conventional medicines, nutritional supplements, and conventional cosmetic products, and another is the Division of Pharmacovigilance and Quality Control. MA applications are received by the heads of these two divisions who also happen to be the only staff members in their respective divisions. (One is a graduate-level nurse who has worked at DPMED since 2010, and the other is an administrative secretary who received several SIAMED training sessions,

including at Tunisia's Department of Pharmacy and Medicines and at the WHO in Geneva, and who has had substantial experience with the DPMED Medicines Registration System since 2002.) These staff members are also involved in all the steps of the MA application process (receipt and review, compilation of documentation for experts, preparation of samples for the LNCQ, clerical support for the national committee, drafting of MAs.) They also receive the support of the pharmacist responsible for licensing, notably to contact experts.

Annex 1 of WAEMU regulation number 06/2010/CM/UEMOA of October 1, 2010, adopted in its entirety by the DPMED through its memorandum 1230/MS/DPMED/DA/SA of December 3, 2012, details the elements required in the compilation of a registration application. The legality behind transposing a regional convention into the Beninese legislative framework, however, has not been clarified. At times, this has effectively been done through a decree by the minister of health, or through the issuance of DPMED memoranda or circular notes.

Referring to Article 3 of Order number 0406 of 2016, an application filed with DPMED is deemed complete only when it is submitted with the receipt of the treasury confirming payment of corresponding fees. As stipulated in Article 3 of this Order, MA application fees are 500,000 FCFA for new applications, 250,000 FCFA for renewals with major changes, and 50,000 FCFA for renewals with minor changes.<sup>1</sup> Fifty percent of these revenues are paid to DPMED. Of this amount, LNCQ receives 45% for quality control.

The Committee of Experts is responsible for evaluating licensing applications, and the National Committee for Pharmaceutical Products gives final approval.

Over the last five months, DPMED has been using a computerized medicines registration system developed in Burkina Faso and utilized by the Burkinabe Department of Pharmacy (the SIGIP\_ARP software). This software has come to replace the SIAMED software abandoned following many years of use.<sup>2</sup> This software is not the only one currently being used, however, since Excel files serve as the primary database to monitor the import of pharmaceutical products. The two heads of divisions mentioned above are responsible for data entry in the SIGIP\_ARP system. Not all products have yet been entered in the system (there are 3,871 fragmented entries in SIGIP), and SIAMED data have yet to be transferred.

MAs for pharmaceutical products are granted by the director of DPMED through the delegated authority of the minister of health. Import authorization is also granted by the director of DPMED.

Following the issuance of MAs, the monitoring of imports is carried out by the secretariat using the previously mentioned Excel file.

### **Strengths**

1. Fairly comprehensive legislative framework that encompasses the licensing of pharmaceutical products and the authorization of pharmaceutical establishments.

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<sup>1</sup> These parameters have recently been adopted. They represent a 100% increase in former fees.

<sup>2</sup> SIAMED was abandoned because execution files frequently did not work, would crash, and shut down, leading to data loss and significant time loss.

2. Well-structured medicines registration process that includes a National Committee for Pharmaceutical Products and a functional Committee of Experts for the review of MA applications. Expert consultations are a way of optimizing the use of available resources at the national level. Strengthening DPMED's internal capacity and implementing procedures to enable it to carry out essential preparatory work is necessary.
3. Proactive in the integration of international standards by ensuring Benin's participation in WAEMU harmonization initiatives, and the application of subsequent Union regulations (bylaws 06/2010/CM/UEMOA for the licensing of pharmaceutical products for human use; 06/2010/CM/UEMOA for the licensing of nutritional supplements; and 07/2010/CM/UEMOA for the licensing of cosmetic products). Proactive use of regional expertise and other resources (exemplified through the acquisition of software from Burkina Faso).
4. Regulatory framework that specifies the main requirements to register medicines and details the procedures that must be followed to obtain various types of authorization.
5. Quality control carried out by the LNCQ including physico-chemical and microbiological analyses. Over 300 analyses are carried out annually for MA applications, representing approximately 20% of all LNCQ tests performed.
6. DPMED's use of SIAMED through May 2016.
7. Availability of regulatory information through different mediums (paper records, Excel files, SIGIP\_ARP software with 3,871 entries, SIAMED software).
8. Use of a fairly comprehensive MA applications document checklist.

### **Weaknesses**

1. Shortage of qualified staff to carry out preliminary technical evaluations of MA application packages at the DPMED and at the department responsible for registration.
2. Lack of clear job descriptions for staff involved in the medicines registration system. This results in the absence of clear distinctions in the responsibilities held by each staff member leading to the execution of incompatible regulatory tasks by individuals.
3. Lack of standard operating procedures (SOPs).
4. Lack of specific regulation and procedures for priority medicines (essential medicines, vaccines, and prequalified medicinal products by the WHO).
5. Insufficient information available for pharmaceutical sector stakeholders. Notably, there is no up-to-date list of all licensed pharmaceutical products in Benin.
6. Partial use of the SIGIP\_ARP software. The process of launching applications is slow and often crashes, thus making it difficult for staff to effectively work with the software. SIGIP\_ARP is not exclusively being used. An Excel file is being used as the main reference tool to monitor imports instead of SIGIP\_ARP.

7. Fragmentation and duplication of administrative documents (examples: MA and commercialization permit decisions, dual retrieval authorization<sup>3</sup>).
8. Lack of integration of information management systems (SIGIP\_ARP, bibliography management tools, Excel).
9. Difficulty in producing statistics with existing systems (volume of applications that are received, processed, in process, approved, and rejected in a given time period, processing time, etc.).
10. Inefficient information management systems. Data is incomplete and quality is inconsistent (password protecting 50% of data is lost, uneven numbers, Excel data). Users can make errors in data entry and correcting this information would require time and effort.
11. Difficulties in ensuring that regulation is followed. For example, the renewal rate for expired MAs is low. This goes hand in hand with the absence of an automated mechanism that monitors the validity of MAs.
12. Lack of equipment at the LNCQ to carry out complementary tests (detection of impurities).
13. Lack of software at the LNCQ to manage data and analyze results.

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<sup>3</sup> Retrieval authorization is a term used by Benin's DPMED to designate import authorizations that are delivered to certified applicants.

## RECOMMENDATIONS

- R1. Strengthen DPMED’s human capital to ensure the presence of motivated and well-trained staff to improve the application of regulation for medicines registration. The successful implementation of an effective medicines registration system depends largely on building human resource capacity.
- a. Consider alternative options for DPMED contractors, notably i) increase remuneration and ensure alignment with the salary scales and benefits received by permanent employees to avoid frustration and discouragement; ii) incorporate them as permanent employees; iii) recruit them initially as “DPMED embedded staff through donors/implementing partners” and later incorporate them as permanent employees.
  - b. Recruit complementary staff, notably pharmacists, an inspector, a programmer, and a logistics specialist.
  - c. Draft and implement a continuous training plan for staff performing scientific evaluations of MA applications.
  - d. Request support from the WHO or USAID to train staff on the accelerated medicines registration procedures for prequalified medicinal products and vaccines.
  - e. Draft a plan for human resource development.
  - f. Create a team devoted to improving data management systems (technical and IT staff).
- R2. Improve the legal framework.
- a. Clarify the procedures to apply international and community regulations.
  - b. Clarify DPMED’s delegation of authority regarding regulation, notably the direct application of community regulation (WAEMU, the Economic Community of West African States), and MA decisions made by the director of DPMED.
  - c. Update regulation and set up simplified registration mechanisms for medicines and vaccines that are part of the national list of essential medicines and vaccines, along with those prequalified by the WHO. These procedures would apply to purchases made by United Nations agencies and other organizations that follow similar procedures.
  - d. Review DPMED’s status to strengthen its authority, including those of its inspectors. To strengthen its regulatory authority, the law must allow DPMED to make decisions within the scope of its authority without having to require prior consent from the Ministry of Health or other entities. The establishment of DPMED as an autonomously managed organization would enable increased investment in resources, including the recruitment of specific staff and the implementation of incentives to strengthen its regulatory institutional capacity. In its current

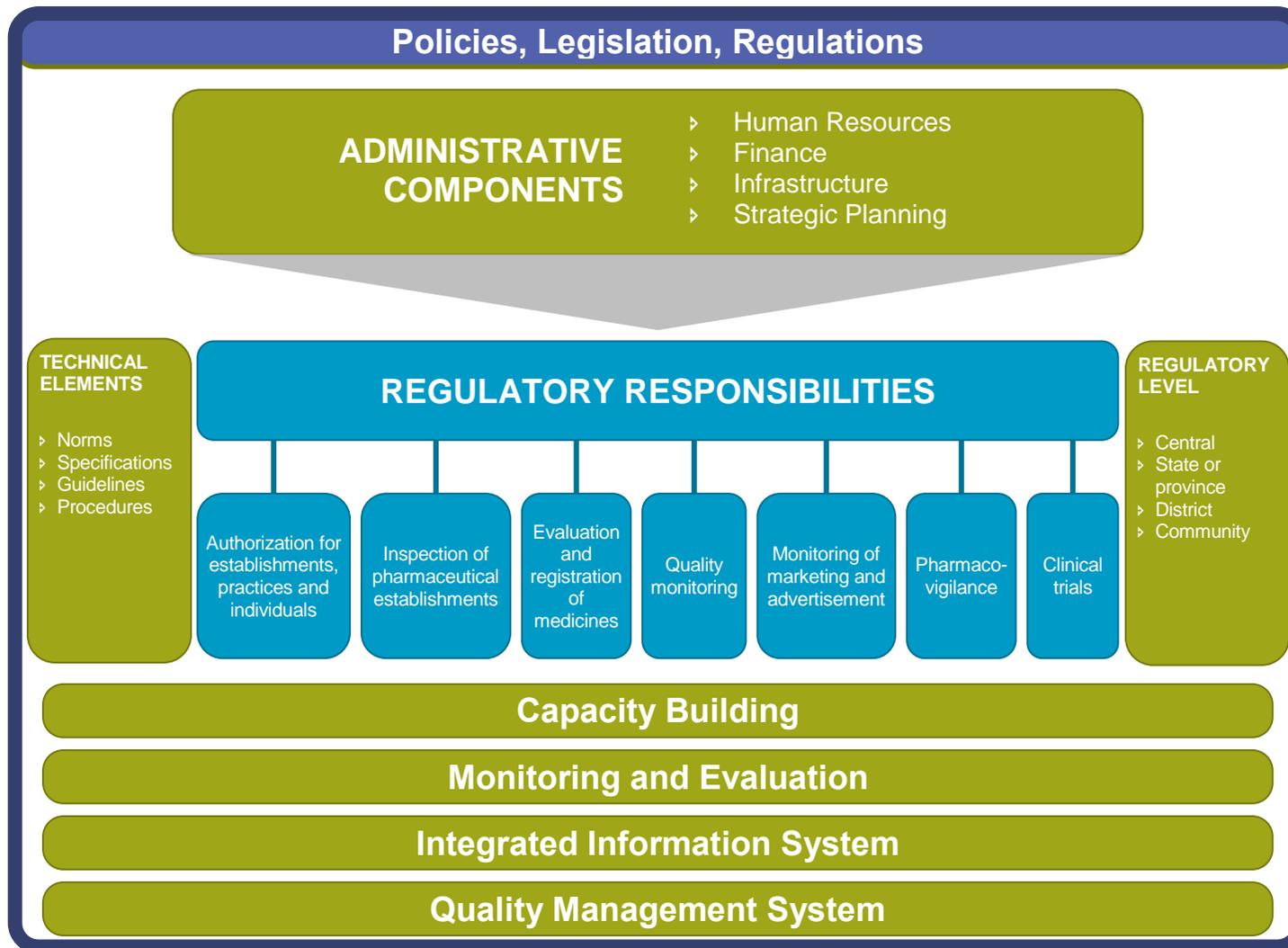
expression, DPMED is unable to freely or independently decide how human and financial resources are managed, resulting in budgetary constraints that can hinder performance.

R3. Optimize the process.

- a. Develop and/or revise and apply procedures, guidelines, and forms to strengthen the implementation of the legal and regulatory framework. To improve transparency, decision-making procedures and criteria should be developed and published for all MA applications, renewals, and change requests. There is a need to review MA application forms, draft MA renewal forms, draft verification lists for change requests, and regroup decisions regarding MA and commercialization permits under a single administrative procedure. There is also a need to develop procedures for generic drugs, new products, packaging, use and dosage, etc.
- b. Eliminate mechanisms and procedures that have no added value and consume time and resources: blue forms, dual registration authorization, quality control results as preconditions for the evaluation of applications by the Committee of Experts, etc.
- c. Outline the roles of users in the registration system to ensure efficiency, transparency, and accountability. This would contribute to reducing the risk of confusion, duplication, and contradictory responses to MA applicants in similar situations, while strengthening DPMED's internal evaluation mechanisms for medicines.

R4. Reform the computerization of regulatory functions (registration and monitoring of imports).

- a. Immediately retrieve abandoned SIAMED data and Excel data protected by a lost password.
- b. Transform databases (verify, clean, and prepare data inherited from the current system SIGIP\_ARP, SIAMED, Excel).
- c. Over the medium term, roll out a robust data information system that contributes to regulatory decision making, the application of regulations, or shortens the timeframe for regulatory decision making, among others. Pharmadex is recommended for this purpose. Pharmadex is a web-based integrated management solution that enables management, dissemination, and information sharing concerning the multiple duties of national pharmaceutical regulation authorities, as detailed in the blue sections of figure 2. It favors transparency, accountability, and traceability in the field of medicines registration, among others.
- d. Install and maintain a database server to store and secure information, particularly as they pertain to MA applications and pharmaceutical establishment authorizations.
- e. Build up LNCQ's equipment infrastructure and computerize the management of analyses.



**Figure 2. Responsibilities of national pharmaceutical regulatory authorities**

Adapted from Moran, M, Guzman J, McDonald A, Wu L, Omune B. Registering new drugs: The African Context — New tools for new times. Sydney, Australia: The George Institute for International Health; 2010.

- R5. Improve information produced by regulated entities (manufacturers, wholesalers, pharmacists, nongovernmental organizations, hospitals, etc.) regarding the regulation of medicines.
  - a. Edit and publish annual classifications for registered medicines in Benin, and periodically distribute (i.e., every three months) an additional table listing new medicines that have entered the market.
- R6. Develop indicators to monitor and evaluate DPMED's performance in the implementation of its regulatory role in the registration of medicines.
- R7. Develop a strategic plan to strengthen DPMED, including its organizational structure and both human and financial resources.

## ACTION PLAN

To enhance the computerization of the medicines registration system in Benin, a number of actions must be carried out immediately, and others should be accomplished in the medium term. Table 2 summarizes the necessary steps.

**Table 2. Benin’s Pharmadex deployment action plan**

		<b>Timeframe</b>
Build capacity of staff and create a specific team	Stabilize current qualified staff	Short term (1 year)
	Create a specific team composed of pharmacists, a programmer, and a logistics specialist	Immediately
Improve the legal and regulatory framework	Clarify the legal framework for the application of community and international regulations	Immediately
	Clarify DPMED’s delegation of authority as it pertains to regulation	Immediately
	Strengthen DPMED’s legal status	Medium term (2 to 3 years)
Optimize process	Adopt a legal framework to simplify the registration process	Medium term (2 to 3 years)
	Develop and review tools, SOPs, guidelines, forms, and verification lists	Short term (2 to 3 months)
Import inherited data, customize, conduct tests and verifications, strengthen IT infrastructure, ensure maintenance and troubleshooting	Recover data protected by lost passwords (Excel file)	Immediately
	Recover data from SIAMED, SIGIP_ARP, and other channels	Short term (a few months)
	Customize, conduct tests and verifications	Short term (a few months)
	IT equipment (servers, software, and backup drives)	Short term (a few months)
	Maintenance and troubleshooting	Ongoing
Train staff and users		Short term (a few months)
Install, monitor, and evaluate		Medium term

## ANNEX A. LIST OF KEY INFORMANTS INTERVIEWED

<b>Name</b>	<b>Title</b>	<b>Organization/affiliation</b>
Ricardo Missihoun	Commodities & Logistics Specialist	USAID
Gbaguidi Fernand	Director	DPMED
Sodabi G. Nicolas	Deputy Director	DPMED
Adja David Fabrice	Head of the Quality Control and Pharmacovigilance Division	DPMED
Yemoa Charlemagne	Head of the Market Authorization Division	DPMED
Satchivi Jocelyne	Pharmacist	DPMED
Gbaguidi Angelique	Consultant	SIAPS
Gbaguidi Janice	Pharmacist	DPMED
Cakpo Corneille	Head of the Pharmaceutical Establishment Division	DPMED
Houkpevi Benoit	Head of the Pharmaceutical Legislation, Regulation and Governance Division	DPMED
Kintin Daniel	Pharmacist	DPMED
Onifade Al Fattah	Pharmacist	DPMED
Jacob Florent Y. Akplome	Accountant	DPMED
Adjakidje Parfait	Director	LNCQ
Bonou S. Jacob	Head of department (chemistry)	LNCQ
Kpavode Lisette Vignon	Head of department (quality assurance)	LNCQ
Ahouandjinou Helene	Head of department (microbiology)	LNCQ
Eugene Gualbert Montcho	Pharmacist in Chief of the Specific Program Management Unit	CAME
Segbehin Ble Berger Wankpo	Head of Department, Procurement and Logistics	CAME
Marcus Comlan F. Viakin Kintossou	Pharmacist	CAME