



Protecting Livestock – Improving Human Lives

ESTABLISHMENT OF AN ANIMAL HEALTH INDUSTRY ASSOCIATION (AHIA)

SENEGAL



A SCOPING STUDY REPORT

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Undertaken by:



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ACRONYMS

AHIA	Animal Health Industry Association
ATE	Livestock Technical Agent
CAHW	Community Animal Health Worker
CFAF	Communaute Financiere Africaine Franc/Currency of the Francophone West African Countries
DVM	Doctor of Veterinary Medicine
DVS	Directorate of Veterinary Services
ISRA	Senegal Institute of Agricultural Research
ITE	Veterinary Technologist
LANAVET	National Veterinary Laboratory Cameroon
LNERV	National Laboratory for Livestock and Veterinary Research
MDES	Mouvement des Entreprises du Sénégal
NGO	Non-Governmental Organization
ODVS	Association des Docteurs Vétérinaires du Sénégal/Senegalese Veterinary Medical Association
OIE	World Organisation for Animal Health
RENADES	Le Réseau National des Éleveurs du Sénégal/ The National Network of Breeders of Senegal
REPA	Association of Producers of Improved Breeds
SOPRASEN	Societe de Production Avicole Senegalaise
WAEMU	West Africa Economic and Monetary Union

1. EXECUTIVE SUMMARY

This scoping study sought to establish the current state of animal health delivery systems in Senegal to understand if and how an Animal Health Industry Association (AHIA) could be established to improve industry governance. The goal of such an association would be to improve collaboration and coordination among industry stakeholders, including the policy and regulatory environment under which the private animal health delivery systems operate, support the private sector to flourish within an enabling and effective regulatory environment, and act as an interlocutor with the government and other stakeholders. A desk review and interviews with key informants with various perspectives on animal health issues in Senegal were conducted to gain insights about the relevance and required partnerships of such an association in Senegal.

Overall, there is a agreement that the animal health system operates under a strong regulatory environment. However, stakeholder compliance with the rules and regulations as defined is weak, and the regulatory body is not being effective in enforcing existing regulations. The lack of a clearly defined animal health policy is also seen as challenge in shaping the structure and performance of the sector.

Collective action processes such as the Association des Docteurs Veterinaires du Senegal (ODVS), created at the dawn of privatization of the sector have shown promise. However, the rise in the power and influence of pharmacists, which control a significant share of the market of veterinary inputs out of the purview of the Directorate of Veterinary Services, and the prevalence of counterfeit/fraudulent veterinary drugs and vaccines, have to be curbed in order to reduce the vulnerability of private veterinary practice as decried by many sector stakeholders.

The AHIA, as defined in the context of this scoping study, could be a solution to these problems. It has the potential to help the animal health industry remain sustainable in the future, and it is highly relevant and desirable for Senegal based on the perspectives of many stakeholders. However, its relevance to the Senegalese context does not mean it is easy to operationalize under the already complex institutional landscape in the country. A major challenge relates to positioning an AHIA relative to ODVS in this institutional setting. This is a major question that could not be answered comprehensively in the present study though it is clear that having the ODVS under the umbrella of an AHIA is highly unlikely in Senegal. The ODVS has institutional and legal legitimacy and is well anchored in the existing landscape. Hence for the process to succeed, it is imperative to look into ways to engage and include the ODVS as a critical partner in this endeavor.

1. History and evolution of animal health industry

The livestock sector has yet to fulfil its potential as a meaningful source of economic growth for Senegal. It is unproductive, vulnerable to climatic and disease shocks, and generally not as attractive to private investments as it should be. Significant public investments have been directed toward the sector over the first three decades (since independence in 1960). These investments have been primarily directed to infrastructure, human capital enhancement, and development of vaccines against major infectious diseases and were basically done as continuation of the strategies of the colonial power tilted toward the production side (Leonard, 2000).

These (interventionist) strategies laid the foundation for the possibility to control and, in some cases, overcome epidemics such as *rinderpest*. They remained the *de facto* policy in Senegal through the mid-1980s when public funding started to dwindle and difficulties to sustain the public investment programs started to emerge (Leonard et al., 1993; Riviere-Cinamond, 2004).

Consequently, the promotion of a new livestock development strategy became unavoidable under the Economic Structural Adjustment Program. Indeed, toward the latter part of the 1980s, veterinarians at various stages of their careers were among the civil servants encouraged by the State to voluntarily leave the public sector with an incentive for an early retirement package and permission to open private veterinary practices. This marked the beginning of the privatization of the veterinary services.

The privatization of veterinary services offered then a new paradigm that enabled the State to implement its strategy of improving animal health, ensuring employment to newly trained veterinarians, and limiting budgetary stresses on national treasury. Under this paradigm, private veterinarians took over the commercialization of veterinary inputs (mainly drugs and vaccines) and the provision of curative and breeding services through artificial insemination and advisory services (Leonard, 2000). There were also significant changes in animal health legislation by government decree no. 95-645 of July 6 1995 instituting the animal health accreditation mandate known as *Mandat Sanitaire* in Francophone West Africa (Republic of Senegal, 2008). The new legislation extends the prerogatives of private veterinarians with a mandate ("*Mandataire*") to preventive activities such as conducting vaccination campaigns under contract with the State and participating in epidemiological surveillance in collaboration with public veterinary services (Le Brun, 2004).

The animal health accreditation mandate is managed by the Directorate of veterinary Services (DVS) in terms of defining the priority diseases targeted for vaccination, the payment rate, and the procurement of vaccines. It is the responsibility of the DVS to establish the contract with the *Mandataire* and divide the vaccination load between private veterinarians and the public sector agents. Under the text of this *mandate*, the public sector agent should only intervene after the *Mandataire* defines its level of intervention. This initial arrangement suffered setbacks such as unmet results, poor quality of services and vaccines, payment delays, and poor reporting, and was the primary reason why the animal accreditation mandate did not grow as expected.

In discussions with key informants during this scoping study, some have been critical of the management of the animal health accreditation mandate as it renders the *Mandataire* vulnerable to earning shocks. They painted a picture of mistrust between private and public sectors, namely the Directorate of Veterinary Services. They pointed out that the State did not fully disengage from essential service provision where and whenever there was a private veterinarian as promised at the dawn of the

privatisation. In fact, the *Mandataire* is supposed to have the primacy of choice regarding where and how many animals to vaccinate within their intervention zone. The areas not chosen by the *Mandataire* are then covered by the public sector or assigned to other candidate private veterinarians. Hence, as originally envisaged, there is a possibility for the *Mandataire* to reach higher earnings but the payment delays would also need to be addressed. To date (in the last quarter of 2020), the State has not settled the payments for the 2018 and 2019 vaccination campaigns, making the call by some key informants for the expansion of the accreditation mandate to food control and slaughterhouses inspection as a means of improving their earnings and diversifying their source of income.

2. Current content and context of the industry

2.1 Actors and services offered

The system of supply, distribution and use of veterinary inputs comprises a series of actors that interact and exchange products and services. Under normal circumstances, the products that are exchanged are veterinary inputs brought into the country by importers or acquired from local markets which are geographically dispersed in the country. The veterinary inputs (drugs and vaccines) are to be procured and distributed following well-established distribution channels that link distributors at various nodes of the veterinary input value chain, as defined by law. The services that are exchanged are: know-how in the form of surgical interventions, treatments, clinical services, and artificial insemination. These services are offered by various types of service providers as described above (public and private) who have different levels of training and skill sets.

The distributors are composed of importers/wholesalers, veterinary practitioners, human health pharmacies, and depots for veterinary drugs. The service providers are veterinarians (DVM), veterinary technologists (ITE), livestock technical agents (ATE), and livestock auxiliaries or community-based animal health workers (CAHWs).

The DVS publishes a compilation of demands to market veterinary inputs in Senegal. These are products approved at the regional level by the WAEMU commission on veterinary pharmaceuticals. In 2019, among the products approved for marketing, 38% were vaccines, 21% anti-infectious drugs, 19% antiparasitics, and 10% trypanocides (DVS, 2019). Veterinary vaccines registered an average annual growth rate of 11% between 2016 and 2019, with sales increasing from 1.1 billion CFAF in 2016 to 1.4 billion in 2019. With respect to drugs, the estimated average annual growth rate was 14%, climbing from 3.4 billion in 2016 to 5.4 billion CFAF in 2019. This is corroborated by a majority of key informants who stated that sales of veterinary drugs have experienced more growth than any other products, followed by vaccines, and then feeds. The reasons for growth are multiple. First there is more livestock now than ever before and the sector is increasingly monetized among pastoralists who are increasingly reinvesting their earnings in their stock. The second reason may be the changing dynamics within the livestock sector with an increased interest in livestock rearing as a business from the populace who are investing in various intensive and high-input livestock value chains.

Overall, the products from 27 pharmaceutical companies were found on the Senegalese veterinary input market. Six of these companies account for 86% of total market share. French companies have 68% of market share, followed by a Dutch and then a Belgian company with 9% of market share each. The growth

in vaccine use is sometimes challenged by shortages. Nationally, the LNERV has stopped temporarily producing vaccines due mainly to operation issues and delays in the modernization of the production process and the national vaccination campaign financed by the State is stopped.

Between 2012 and 2017, a total of 134 products were approved to be marketed in WAEMU space, including Senegal. An overwhelming number of these companies are from France. These are the classical French pharmaceutical companies that account for 106 out of 134, that is, 79% of the total demand. They are followed by a Dutch company representing 5.2% of total demand. African companies such as LANAVET from Cameroon, ISRA from Senegal and MCI/Santé Animale from Morocco have applied and been given the authorization to market their products in Senegal.

2.2 Typology of industry actors

A hierarchical system composed of DVM, ITE, ATE, and the auxiliaries provides preventive and curative services to livestock keepers. These actors are present throughout the country with some having a bigger presence in some areas than others. The veterinary practices (businesses) described above are owned by the DVM and in almost all instances provide preventive and curative services to livestock keepers. A limited number also offer specialized services such as artificial insemination and advisory services.

As part of strengthening of the network of veterinary service providers, especially in areas and localities without established veterinarians in marginal areas, institutional arrangements have been put in place to extend the prerogatives of private animal health service provision to the ITE and ATE, who own 194 private clinical services throughout the country (DVS, 2019). The system was originally designed and promoted to ensure the continuity of local veterinary services at the grassroots community level in the 1980s following structural adjustment policies. Today, these services operate without major geographical limitations.

In rural areas, the auxiliaries were created as an institutional arrangement to ensure the distribution of veterinary inputs and the provision of simple clinical services in geographically isolated areas. They are trained and normally supervised by DVM, ITE, or ATE in the veterinary drugs they hold and the clinical services they render.

Each of these actors has clearly defined prerogatives under the law. These prerogatives are regularly violated according to the majority of respondents who cite the case of auxiliaries openly selling veterinary drugs. The violations are related to problems in the distribution chain of veterinary inputs and the emergence of tacit alliances between actors for the purpose of exploiting situational rents. There are instances where the wholesalers who supply to veterinary practices and pharmacies and, in turn, compete against them in the retail market by directly selling to ITE, ATE, and livestock keepers, are denounced by DVM practitioners. The pharmacists who by law are prohibited to write veterinary prescriptions are becoming major players in the retail market of veterinary inputs. They import large quantities of veterinary inputs they distribute through their network of ATE and ITE who are increasingly competing against veterinary practitioners and are nibbling on their margins.

The complaints from veterinary practitioners that the importers/wholesalers act against the interest of the profession by supplying veterinary inputs to the ITE and the ATE, who normally should procure

through these practitioners, are real. There are attempts by these practitioners to build collective actions to face their difficulties together at the local level. The Association of Veterinarians in Northern Senegal and the Association of Veterinarians in Central Senegal are two well-known successful collective action schemes put in place to address the concerns of their members on these issues where ODVS is not showing the required priority. On this point, key informants stated that it is more of a matter of fair pricing than anything else. The DVM, in practice, should sell their products to the ITE and the ATE at a fair price that would enable them to earn a profit too. The newly founded National Association of ITE that is acting as a union to look for the interest of the ITE and ATE in both the public and private sectors is also interested on that point. Meanwhile, other stakeholders interviewed think that the only reason why the veterinary practitioners are feeling increasingly squeezed by various competing forces is because some have reduced their activities to selling drugs only. They recommend that the DVM, because of their specialized training, should prioritize clinical services, laboratory services and prophylaxes and use the services (of ITE and ATE) as a means to sell veterinary drugs and vaccines to maximize their return on these inputs. **Figure 1** shows the flow of veterinary inputs and services.

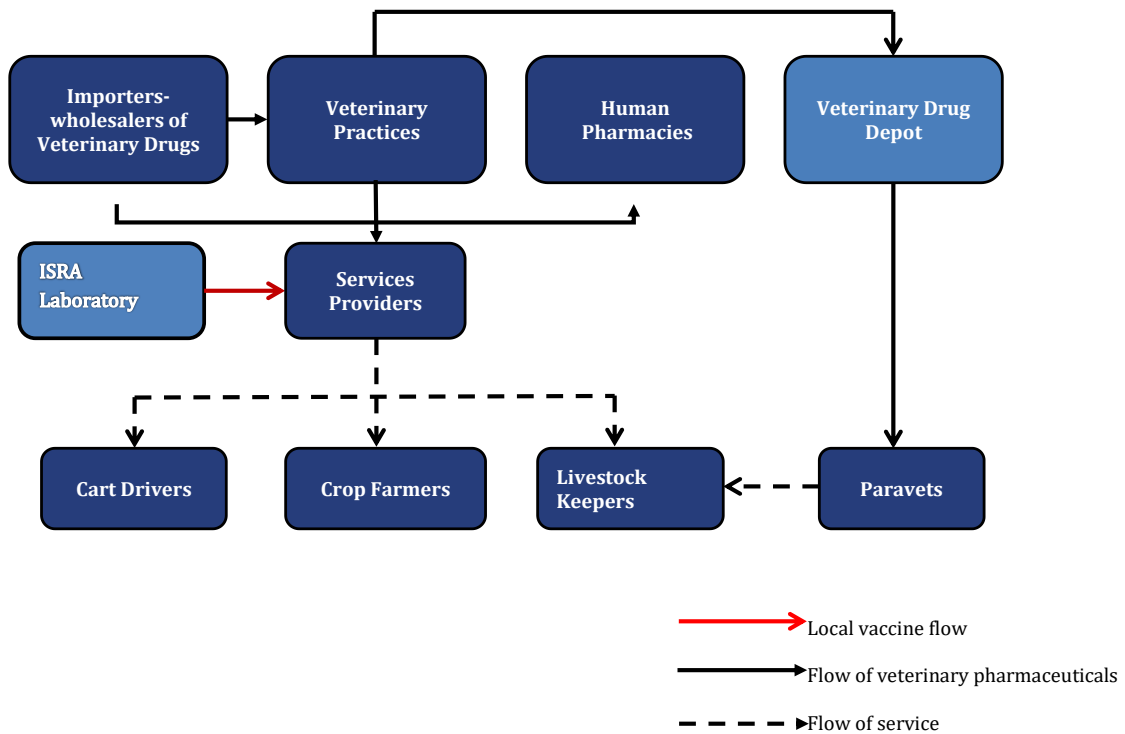


Figure 1: Cartography of actors and flow of products and services

2.2.1 Importers and wholesalers

The first upstream players are the importers, who are organized in companies set up by veterinarians who have commercial relations with the major international pharmaceutical firms. These firms supply them with products that they distribute locally at wholesale prices and quantities to the veterinary and human pharmacies that are active in this market. Under the various laws, they are barred from intervening in the retail market, owning a drug depot, or selling to people who do not have the prerogative of stocking or distributing veterinary inputs. However, they can own a branch in various parts of the country to be close to their clientele. The establishment of any branch is under the purview of the ODVS who can accept or reject any request as it sees fit.

Before importing any drug, importers have to apply and be issued an authorization of imports from the DVS. In 2015, a total of 13 importers were identified with a total turnover estimated at 3.8 billion CFAF and only three (3) companies accounting for 90% and two of them for 81% of the market share (DVS, 2016). In 2018, the turnover reached 5.377 billion CFAF achieved by nine companies with one accounting for close to 51%. This company is part of a coalition of drug importers in West and Central Africa that negotiates their drug price with suppliers they work with. According to a key informant, this coalition is not open to additional importers beyond its founding members. The second largest importer accounts for 24.1% of market share and the third accounts for 11.8%, giving 86% of total market share to three companies, a slight improvement compared to 2015 as far as this indicator of concentration (monopoly) is concerned.

In 2016, imports were 5.541 billion CFAF, a decrease of 26.6% compared to 2015. However, since 2016, the market has been on an upward trend with an average growth of 11% per year to reach 8.7 billion CFAF in 2019. In 2019, 9 importers were active in the market. They imported the value of 4.6 billion CFAF in veterinary drugs, 1.4 billion CFAF in vaccines, 2.6 billion CFAF in animal nutrition products. Veterinary drugs represent the main source of growth with 16% average growth per year, followed by vaccines with 8%, and animal nutrition products with 6%. The dynamics of imports between 2016 and 2019 testify to the vitality of the livestock input supply chains.

2.2.2 Private Veterinary Practices (Businesses)

The second link in the chain is made up of veterinary practices on the one hand and human pharmacies on the other. Normally, veterinary practices supply veterinary inputs to the depots of veterinary drugs, which can be considered as a third link. The veterinary practices are owned and managed by a DVM who also provides preventive, clinical, and reproductive services. There are a total of 120 veterinary practices in Senegal, with a high concentration in the regions of Dakar and Thiès (DVS, 2019).

In terms of growth, the sale of veterinary inputs has grown faster compared to other inputs, followed by vaccines, feed and poultry feed. With a few exceptions, veterinary practices tend to sell the same types of inputs, although according to stakeholders interviewed, the sale of feed is more common in the hinterland and the sale of vaccines mainly reported among those in transhumant transit and/or receiving areas. This is not necessarily the case for inputs specific to poultry farming.

2.2.3 Human Pharmacies

Pharmacists holding a pharmacy have the prerogative of stocking and distributing veterinary inputs though they are prohibited to write a prescription. Indeed, the Law 2008-07 of 24 January 2008 organizing the veterinary profession and pharmacy in Senegal extends the prerogative to hold and distribute veterinary inputs to human pharmacies on the same basis as DVM in private practices with the expectation of sourcing their products locally through the importers/wholesalers. Their share of the domestic retail market, which was below 5% according to Ba (2001), has significantly grown. There is no indication by how much, as these pharmacies are directly importing products bypassing the DVS which should give authorization. This is made possible through hiring competent ITE or ATE who understand the market and know the products, and who also can write prescriptions. Currently their primary clients are the ATE and ITE offering private clinical services, but they are also directly selling to livestock keepers.

2.2.4 Veterinary Drug Depots

Depots of veterinary drugs are normally under the control of veterinary practitioners. They are authorized by law to enable the marginal areas of the country to have access to veterinary drugs and put an end to chronic disruptions that often cause problems for livestock keepers, especially in instances of emergency. However, these prerogatives are increasingly violated with establishments of community depots. These are not under the control of professional animal health workers and are vulnerable to the distribution of fraudulent products. The depots of veterinary drugs have flourished since privatization started and have helped the ATE and ITE in their business. Their presence also has helped the ATE of the public sector to conduct private clinical activities (illegal but tolerated) with fees in these marginal areas.

2.2.5 Laboratory of Hann

The National Laboratory for Livestock and Veterinary Research (LNERV) was founded to contribute to the growth of the livestock economy through the development and production of effective vaccines (against the main animal diseases) and adapted feeding systems (Alambedji, 2003). On animal health, LNERV is active in the development of tools for predicting disease outbreaks, conducting disease surveillance, developing efficient and cost-effective diagnostic and prevention tools. The laboratory is institutionally attached to the Senegalese Institute for Agricultural Research (ISRA). Its operating budget is funded by allocation from the State budget and through resource generation by sales of vaccines, diagnostic kits, and conducting laboratory analysis for fees. LNERV has for a long time produced the vaccines used in vaccination campaigns in Senegal and the sub-region. However, it is currently facing substantial difficulties, which has led to the disruption in vaccine production. The emergence of these difficulties can be traced to the challenges of recovering debts contracted by the State for the supply of vaccines in previous vaccination campaigns. The vaccination campaigns against the diseases targeted by the State are presently at a standstill while imports of vaccines against other livestock and poultry diseases continue to increase, making the Senegalese market a preferred destination for international veterinary firms seeking to penetrate Francophone West Africa.

2.3 Current policies and legislation

The decision to privatize the animal health delivery system was accompanied by changes in the regulatory environment to facilitate the transition and provide means of self-governance in the context of State disengagement. For instance, a Veterinary Board and Association known as Ordre des Docteurs Vétérinaires du Sénégal (ODVS) was created by law and signed on February 14, 1992 (Republic of Senegal, 1992). According to Article 10 of the Law, the Ordinary General Assembly of the ODVS meets once a year and elects a nine-member Council, which elects a President from among its members for a 3-year term, renewable only once. The other members of the Council are renewed for one third (1/3) every year. There are three ex officio members: The Director of Veterinary Services, the representative of the Veterinary Services of the Armed Forces; and a Senegalese Professor in the School of Veterinary Sciences and Medicine (Republic of Senegal, 1992). Under the provision of the law, the ODVS has the power to adjudicate over conflicts between colleagues, oversee the requests by individual veterinarians to start a private practice, create an environment for better cooperation among private veterinary practitioners and between them and their colleagues in the public sector and conduct advocacy work on behalf of all veterinarians regardless of their status. In addition, the competency of the ODVS extends to defining the service fees, acting as the guarantor of ethics in the profession, and being the interlocutor for the State in the formulation of opinions on the veterinary profession and public health, livestock development matters to the competent authorities.

The redefinition of the regulatory environment also includes significant changes in animal health legislation by government decree n° 95-645 of July 6 1995 instituting the animal health accreditation mandate (discussed above) (Republic of Senegal, 2008). This is the law that extends private veterinarians' prerogatives to preventive activities such as conducting vaccination campaigns under contracts with the State and participating in epidemiological surveillance in collaboration with public veterinary services (Le Brun, 2004). There was an additional law enacted to protect the end-user of veterinary products and service. The decree n° 93-514 of April 27 1993 on the Code of Ethics of Veterinary Medicine was adopted to further protect the privatization scheme and the interest of end-users (Republic of Senegal, 2008).

On January 24, 2008, Law n° 2008-07 on the organization of the veterinary medicine and pharmacy in Senegal marked a dramatic shift in the animal health delivery system and the procurement and distribution of veterinary inputs. This law authorizes veterinary technologists (ITE) and agents (ATE) as veterinary para-professionals to provide clinical veterinary services for fees and expand the procurement and distribution of veterinary inputs to pharmacists with provisions that define the prerogatives of each professional body.

There is some ambivalence among the key informants interviewed about their perception on the regulatory environment in terms of its conduciveness to growth in the private animal health delivery system. The majority of interviewees and respondents find the regulatory environment theoretically solid and consider that it is the stakeholders (industry players) and the regulatory body which have failed to abide by the rules and regulations as defined. To many, the prerogatives bestowed on each profession are not respected in the marketplace. There is a *tendency of every actor to proceed as they like, following their interests, regardless of what the law says as long as there is an opportunity to improve one's*

competitive position in the marketplace. Other respondents are more critical with respect to the legal framework, which they find ill-adapted to the current context. Additionally, they state that the State has not invested effort to put together an animal health policy. Perhaps such policies could help clarify the interactions among the various sector actors. In fact, some key informants listed the lack of animal health policy as the principal reason why the country is having difficulty making major inroads in the control or eradication of livestock diseases.

2.4 Challenges and Opportunities

2.4.1 Challenges

The circulation of fraudulent veterinary products is a major concern for public health and customs authorities in Senegal since the beginning of the privatization era. The penetration of such products in the Senegalese veterinary drugs' market is facilitated by many factors. Chief among them is the proximity of a major weekly market in south-eastern Senegal, namely that of Diaobé, to the neighboring countries of The Gambia, Guinea-Conakry, Guinea-Bissau, and Mali where the products come through (Ba, 2003). The counterfeit/fraudulent products are then routed via two circuits toward end-users, through non-professional actors, auxiliaries, and traffickers who launder them into the official system and facilitate their distribution through the depots of veterinary drugs. The other channel is through the traffickers who sell them directly to livestock keepers. The prevalence of self-medication by some livestock keepers is a facilitating factor, given the combination of a lack of education among pastoralists and the high cost of veterinary inputs.

The fraudulent products that are distributed are primarily anti-parasitic, followed by antibiotics, and vaccines against ruminants' pathologies according to Ba (2003). There is a strong desire and will to clean up the market against these fake products in the sub-region. For example, DVS (2019) conducted a campaign in 2017, which revealed the circulation of veterinary inputs without the proper authorization delivered by the WAEMU Commission. These products were manufactured by CALIER, KEPRO, MEDIVET and XVET laboratories. The modest financial values of the seizures suggest that there is a lot to be done. The seized veterinary inputs are normally destroyed by incineration conducted by the relevant authorities.

The underlying challenge is lack of coordination or proper communication amongst the key sector players. According to a senior director from the government department of veterinary services, the sector players 'have not been talking to each other. Lack of proper communication makes it easier for fraudulent dealers to find their way through the industry by engaging in unlicensed trade. In summary, the key challenges facing the animal health industry in Senegal (see also **Annex 2**) include:

1. Weak voice of the sector players and lack of proper coordination (and information flow) of the sector to influence policymaking and implementation.
2. Majority of public sector veterinarians do not seem to be interested in the professional body (the ODVS), judging by the poor payment of membership dues.
3. While current legislation/regulations require improvement, enforcement remains the major bottleneck. Regulations on storage and distribution of inputs, rising prevalence of counterfeit/fraudulent veterinary inputs sold in the market, and failure by various actors to

adhere to prerogatives (in terms of what they can and where) defined by law, and general level of professionalism by practitioners, are some examples.

4. There is unhealthy competition between the veterinarians and pharmacists as they scramble for functions and mandates beyond their respective legal scopes. Indeed, increased power of pharmacies, which control a significant share of the market of veterinary inputs out of the purview of the Directorate of Veterinary Services is a problem.
5. Substandard (unsafe and low quality) and inappropriate livestock health products in the market.
6. Poor availability and access to, and affordability of, animal health inputs and services by livestock producers, especially in the hinterland.
7. Inadequate capacities of the end-users who often are unable to differentiate the different categories of service providers, which hurt the quality of service.

Further interviews conducted with key animal health industry stakeholders (Government representatives, associations e.g., ODVS, private practitioners and pharmaceutical firms) affirm this position.

2.4.2 Opportunities

Opportunities and strengths are summarized in **Table 1**.

Table 1: Opportunities and strengths of the animal health industry

Opportunities	Strengths
<ul style="list-style-type: none"> • Increased importance of livestock sector in the Senegalese government development strategy with the search of investment for its transformation under the Plan Senegal Emergent. • Deepening of the economic integration in the sub-region of West Africa, resulting in a harmonized management of quality control of veterinary inputs with the transfer of competence to a WAEMU body that adjudicates over demands for the authorization to market veterinary inputs in its space, hence widening the fight against fraudulent drugs and vaccines at the sub-regional scale. 	<ul style="list-style-type: none"> • Privatization of veterinary service is accepted by all stakeholders in the livestock sector, and is taking a hold. • Institutions created at the dawn of privatization such as ODVS continue to play a role – and these could be built on to reflect current drivers and trends. • The sector is backed by formal legislation framework that regulates the market of veterinary inputs and services. • The existing institutional landscape is sophisticated enough to enable the emergence of an effective private sector in veterinary product and service delivery.

3. The case for Animal Health Industry Association

3.1 Relevance

The majority of the respondents support the need for an animal health industry association (AHIA) in Senegal to help address the current challenges and steer transformation into the future. Such an association, according to key informants, should have a coordinating role between all sectors (public, private, NGOs, and livestock keepers) and act as the sole interlocutor to all stakeholders on the questions relevant to the industry – facilitating both identification of challenges as they emerge and co-creation of solutions. With this type of organization, issues such as drug shortages, and quality of inputs and services could be better managed. According to key informants, such association ought to be capable of helping enforce the law, developing the capacity of its members, innovating and motivating technological adoption in the livestock sector, advocating on behalf of the livestock sector and leading to the creation of laboratories that can produce certain drugs locally.

The concept itself is new to the majority of stakeholders. In addition, the privatization process is still relatively young and the sector is still organizing. The main international laboratories operating in the country did not show interest in such an association.

The scoping study focused on information gathering. There is clearly need for a substantive process that will help stakeholders to have a deeper understanding of the AHIA concept, and the overall benefits it can deliver both to individual institutions (private and public) and the industry as whole. Already, it was clear that the majority of stakeholders could see the benefits of establishing an AHIA in the country. Better coordination, fair competition and quality of products were among the most frequently cited needs. The possibility of making quality products that are better suited to Senegal's production environment was also mentioned. The provision of adequate solutions to local problems is perceived as a main motivating factor, according to one informant, for having many stakeholders of various professional profiles cooperate for the greater good of the country. As an example, the informant pointed out that given the fact that, with the exception of few vaccines, all the veterinary inputs used in Senegal are imported. Hence an AHIA could help in facilitating the availability of drugs against animal diseases such as trypanosomiasis that is important to Senegal but not a priority for international companies. Concerning vaccines, the packaging offered for importation is not always adapted to Senegal's production systems (there is need for package sizes that reflect small herd and poultry flock sizes).

3.2 Collaboration and Partnerships

On membership and partnership development, the AHIA can be established by a simple association that brings together all players and creates working commissions or task forces. The members would get a membership card upon paying the required dues. These membership conditions have to be defined before allowing people to join freely. In the opinion of many informants, no reform is necessary. They only recommend vigorously applying the rules. However, Senegal is in dire need of developing its animal health policy to have a better grasp on how to bring about solutions to the lack of performance of the animal health input and service system. Thus, the regulatory environment could also be tweaked to take into account the association if necessary.

According to some stakeholders, the key actors in the import and distribution system for veterinary inputs and services are, for the private sector, the importers/wholesalers of veterinary inputs, the private veterinary practitioners (management of veterinary clinics and veterinary pharmacies), pharmacists, ITEs, ATEs (management of veterinary nursing practices), and auxiliaries. The importers are in contact with international firms and laboratories that supply them with the marketed inputs. The public sector is also present with the Ministry of Livestock and Animal Productions through its directorates with a central role devolved to the Directorate of Veterinary Services. The stakeholders also foresee a much more complex institutional landscape that has to be examined for partnership development. This includes actors such as NGOs, training schools, research institutes, customs, security services and various professional associations. While the majority of players are national, international actors play a very important role (currently providing the bulk of marketed products) in the sector and need to be considered in the process of establishing an AHIA. In addition, there are technical and financial partners and development partners. For the latter, their presence manifests itself through NGOs and projects. An animal health industry association is seen as an organization that brings these different structures together through a solid win-win partnership.

If the relationship between ODVS and the public sector is of any indication, the role of public institutions in the AHIA has to be clearly defined and cleared by their administrative hierarchy to avoid similar shortcomings as described above and to ensure sustainability of the association. Hence, on one hand, there is a need to be mindful in the form given to this association which, indeed, can be seen by some as potential 'competitor' to public decision-makers. On the other hand, the AHIA would benefit from being positioned as a structure capable of meeting challenges through the creation of industries contributing to bringing critical solutions to known animal health problems such as the regular provision of veterinary inputs in a packaging that reflect local context, the contribution to the development of the livestock sector, participation in the improvement of public health, contribution to job creation, etc.). This association should be seen as one that strengthens the public/private partnership.

3.3 Governance and Management

A decentralized national association as a governance structure was found to be a better option to ease the communication, have a smooth management, and ensure a better coordination between all stakeholders. The important thing is its independence relative to any group or institution in order to secure the cohesion of stakeholders. Other informants have proposed a national umbrella association with branches such as livestock producers' associations as a model of organization. A fundamental question is how an AHIA is positioned relative to the ODVS. An umbrella organization under which ODVS, various other associations, suppliers, etc. are aligned is likely to fail if the ODVS sees it as taking over its (ODVS's) primacy on adjudicating, controlling, and enforcing the code of conduct of animal health system. ODVS may reject such arrangement regardless of the potential benefits!

3.4 Sustainability

While it is not clear at this stage how the sustainability of the proposed platform could be assured, for better transparency, control and sustainability of the association, it is imperative that the association be open to all potential members. Above all, the AHIA would be well served by being introduced as an entity that could facilitate greater synergy between private and public sectors that can enable them to reach higher results, they would not be able to attain while operating as usual. Hence, the participation of the main players in the veterinary drug industry (importing wholesalers and private veterinarians) is paramount. These key industry players could potentially provide resources to ensure running of the association/platform in its formative stages. Some of the key informants and respondents have proposed that the proposed umbrella sector platform could draw inspiration from existing structures such as “Mouvement des Entreprises du Sénégal” known as MDES, RENADES (Multi-sector associations), Investors Club of Senegal.

Having member organizations commit resources, individual members volunteer their time and resources, receiving funds from donor organizations and anchoring the formation of the AHIA on existing institution(s) are largely considered to be financially sustainable options. On the other hand, starter funds from the government is not seen as an option that can be relied upon. **Annex 3** summarizes stakeholder opinions on resourcing options for a sustainable AHIA in Senegal.

4. Summary and conclusions

The private animal health delivery system has been on a path of sustained growth over the last five years as indicated by data from the Directorate of Veterinary Service. However, it is confronted by profound institutional challenges that risk undermining its sustainability. The market (of products and services) is unbalanced as indicated by the distribution of the market shares. It is basically a ‘monopoly’, dominated by one importer with the ability to negotiate better prices with foreign suppliers through well nurtured and steady alliances/networks. This situation has prompted other importers to develop their own ‘survival strategies’ in the domestic wholesale market. The consequence is an increasingly distorted and messy retail market with various actors jockeying for positions, leading to violations of the various rules, including those which define the rights and functions of the various professional groups with regard to the stocking and distribution of veterinary inputs. A related problem pertains to the deep penetration of fraudulent veterinary inputs in the marketplace. This situation is rendered possible by the absence of an effective organizational framework that can engage all the players in a constructive manner. The ODVS is not operational in this respect.

An AHIA, as defined in this scoping study could be a solution to these problems and has the potential to help the animal health industry to remain sustainable in the future. Hence it is highly relevant considering the expressed views of stakeholders that were probed on the question. However, the mere fact it is relevant to the Senegalese context does not mean that its establishment will be easy in this already complex institutional landscape. The position of an AHIA relative to the ODVS in this institutional setting is a major question that could not be resolved in the present study. But it is clear that having the ODVS

under the umbrella of the AHA is highly unlikely. The ODVS currently has institutional and legal legitimacy and it is well anchored in the existing landscape though it has its shortcomings. Hence for the process to have a chance of success, it is imperative to engage and include the ODVS as a partner in this endeavor.

The conversations initiated amongst the industry stakeholders as part of this study are already bringing to the fore important aspects of coordination that need to be considered. During a (virtual) stakeholder meeting, it was clear that despite the huge potential, the industry players are not talking to each other. The key stakeholders engaged so far agree that there is need for a forum that would coordinate the industry players and address critical industry issues including regulation of animal health input trade, capacity building of stakeholders as well as coordination of interaction among the industry players themselves.

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6. Annexes

Annex 1: Key informant interviewees

Name of interviewee	Affiliation	
1. Dr. Isma Ndiaye	Former President of ODVS	
2. Dr. Gana Pene	Global Vet (Importer)	
3. John Djiba Tel	General Secretary of REPA (Association of Producers of Improved Breeds)	
4. Abdou Khadre Fadiaba	Chief Veterinary outpost Makayop (Koungheul) 2	
5. Dr Daouda Seck	Private Veterinarian in Linguere	
6. Alioune Dia	ITE Cattle Market, Diamaguene	
7. Docteur Sidy Fall	Pharmacist in Dahra	
8. Dr Makhtar Cisse	Private veterinarian	
9. Dr Ousseynou Toure	Vétocentre Mbirkilane	
10. Dr Malick Sene	Private Veterinarian/ Vétopartners	
11. Landing Diene	ATE, Comptroller Veterinary Post at the Port of Dakar	
12. Abdou Coly	Livestock owner	
13. Madikoye Diedhiou	Veterinarian/wholesaler SOPRASEN	
14. Docteur Meissa Ndiaye	Regional Inspector of Veterinary Service (Retired)	
15. Matar Seck	Program Manager, ONG Brooke	
16. Dr Mbargou Lo	Director of Veterinary Services, Ministry of Livestock and Animal Production	
17. Docteur Arona Toure	Pharmacist, Kaolack,	

Annex 3: Stakeholder perspectives on options for sustainable resourcing of an AHIA (from survey)

