

# Case Study: World Vision's Health Projects in Kaffrine, Senegal

Author: Anson Kan, HKUMed



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## Introduction

Senegal is in West Africa. Based on international estimations, the poverty rate has dropped from 38% in 2022 to 30% in 2022 thanks to improved agriculture and better health coverage (Marzo, 2020). A non-governmental organization dedicated to eliminating poverty and its causes, World Vision Senegal has been initiating various projects to enhance the living conditions in Senegal.

World Vision Senegal started its intervention in Kaffrine, Senegal, in 2003 (World Vision Senegal, 2021). A rural region in central Senegal, Kaffrine has vast arable land and satisfactory rainfall, which allow the local agricultural industry to prosper. This summer, I participated in the “The Columbia Global Leadership in Action Program (G-LiA)” organized by Columbia University to have an internship at World Vision Senegal. In this report, I discuss my field study in Kaffrine, Senegal, in Jun 2022, which focused on the health interventions committed by World Vision that aim to improve the nutritional status of the population, particularly children, and strengthen its institutional capacity for healthcare. I first illustrate the activities I have done in Kaffrine. I then critically interpret World Vision’s projects and make

recommendations. I conclude by summarizing my findings.

## Activities

### 1. Health projects in Boulel

From Jun 20 through Jun 21, 2022, I went to Boulel, a rural village 23 minutes’ drive from the regional center, to attend a community workshop. The first day served as a rehearsal for the villagers, preparing them for the workshop the following day. Upon arrival, around 30 villagers were gathered. Among them, there was a man who was the health facilitator in the community. The remaining individuals were middle-aged mothers to juveniles aged under 5. The health facilitator would train these women to become community leaders in their adjacent neighborhoods so they could propagate correct knowledge of nutrition and pregnancy.



*Picture 1 Facilitator lecturing community leaders*

The workshop took place on the second day. Booths were set up to accommodate posters, agricultural products, and seating areas. Representatives from World Vision’s partners

like the World Bank arrived in the late afternoon. They were first introduced to the posters illustrating the progress of the health projects in the community before walking to the agricultural products produced by the local villagers. They then sat a lecture given by the health facilitator to the local female community leaders. The workshop ended with an educational drama.



*Picture 2 Agricultural products*

## 2. Health posts

On Jun 23, 2022, I visited a health post in Kaffrine. It is composed of two blocks, one for general medical consultation and one for obstetrics management. In the first block, there was a waiting area where educative posters and paintings were present.



*Picture 3 Waiting area*

Immediate to the area was the consultation room. In the hallway, there were more posters as well as a giant board showing the prices of drugs. In the second block, there were 6 beds for hospitalized patients and 1 room for the delivery of babies. While no neonatal care unit was available, there was a small bed to accommodate the newborn.



*Picture 4 Room for delivery babies*

It was also the first day of a four-day-long anti-malaria event in the community. Besides World Vision's partners, leaders of the government and religious communities were also invited. After the speeches were delivered by different parties, the event ended with the distribution of mosquito nets to the villagers.



*Picture 5 Anti-malaria activity*

## 3. Screening for malnutrition

On Jun 27, 2022, I visited a screening for children under 5 for malnutrition.

## Discussion

I appraise the effectiveness of World Vision's projects in Kaffrine from two aspects: (1) child health and (2) healthcare delivery. Overall speaking, World Vision is successful in initiating sustainable health projects that meet its objectives, but I would like to make further suggestions for potentially strengthening its intervention.

### 1. Child health



Figure 1 Dimensions of Child Survival Sustainability Assessment Framework

Children in Senegal remain susceptible to poor health conditions as a result of the prevalence of diseases and deprived living conditions. Mismanagement threatens the health of other members of the community and the productivity of Senegal in the long run. While World Vision has been working in rural Senegal for decades, the health of the children is still in dire conditions. With reference to the Child Survival Sustainability Assessment

Framework (Figure 1) (Sarriot, et al., 2004), my appraisal of World Vision's progress in Senegal thus examines World Vision's commitment to sustain the community's performance in the three dimensions, namely, "Health and health services," "Organizational," and "Community and Social."

#### a. Health and health services

The first component concerns the health outcomes and the quality of the health services. Readily available are the vaccinations against common yet fatal diseases in Senegal, namely, tuberculosis and rabies. Specific centers treating malaria and tuberculosis are also present. Although doctors are scarce, nurse practitioners remain available in the 23 health posts all over Kaffrine to offer medical consultation and basic clinical management to the local people. The charges of the drugs are transparent as they are written clearly on a board. A vast majority of the drugs are highly affordable; for example, 500 mg of compressed amoxicillin costs 450 CFA, around 0.72 USD, more than three-fold cheaper than its equivalent in the USA (2.5 USD) (Drugs.com, 2022). However, some drugs like serum and vaccines cost more than 10000 CFA, around 16 USD, which may discourage the parents from allowing their children to receive the treatment. Compared with its neighboring Saharan countries, Senegal has a milder climate for the growth of agricultural products. Coupled with

malnutrition screenings and regular workshops, children can become healthier. For example, at the workshop in Boulel, the facilitator educated the villagers about the importance of absorbing vitamins as night-blindness seemed rather common there. Unfortunately, kwashiorkor, characterized by swollen abdomens in juveniles due to protein deficiency, was very prevalent. While it is understandable that deprived families cannot always afford meat, World Vision can explore other alternatives to provide the macronutrients to the kids. Where meat is unaffordable, for instance, edible insects can be consumed to replenish the proteins (Kim, Yong, Kim, Kim, & Choi, 2019).

#### b. Organizational

The second component focuses on the organizational capacity and viability in the community. While Kaffrine's organization capacity is limited, World Vision has offered continuous support and resources, along with other partners like USAID and the World Bank, to fulfill the mission of its local projects. Extra-organizational partners aside, officers from different World Vision quarters in Senegal would frequently visit one another to facilitate the exchange of information. Although the healthcare of Kaffrine is far from being able to be self-sustainable, the penetration of different non-profit organizations has cultivated its enhancement

and sustainability. On the other hand, the finance department of World Vision actively looks for monetary support for local healthcare organizations. In that sense, World Vision serves as an effective middleman to optimize the allocation of resources from external partners.

#### c. Community and social

The third component is related to community competence and various aspects of the environment. I have seen a high degree of the locals' acceptance of World Vision's intervention, from their participation in the workshops to their volunteering to be health ambassadors. For example, World Vision and its partners have been committed to the protection of children, and the national prevalence of child marriage has successfully dropped by 16% in 20 years, currently below the average in West Africa (Save the Children, 2017). While the people's awareness of disease prevention remains low, activities integrating the importance of using mosquito nets into Senegalese music and the abundance of malaria health posts are believed to serve as nudges incentivizing them to prevent malaria. Although these projects are predominantly run by World Vision and its partners, the participation of Kaffrine's government officials demonstrates the government's endorsement of the missions, thus motivating the people to follow.

Nevertheless, it is observed that the preventive measures being advocated focus on household activities. Using mosquito nets to avoid getting bitten by mosquitos is efficacious, but people demonstrate a fairly high tolerance for insects in the daytime. Insect sprays are readily available at the store, but the community remains an ideal place for insects to breed. For example, people would dispose of the trash on the street and keep a host of indoor plants. These provide the moisture ideal for the reproduction of mosquitos. On the one hand, rainwater is collected by giant holes poorly maintained and often filled with trash; on the other, no drainage system is available, so pools of dirty water are frequently everywhere during the raining seasons. The paramount preventive measure that should be educated to the local community is thus the awareness of keeping the environment. World Vision should also examine how rainwater can be drained effectively in the streets.

## 2. Healthcare delivery

The delivery of healthcare services is assessed with reference to the health service pyramid (Figure 2). Effective healthcare should consist of “peripheral,” “intermediate,” and “central” services. In fact, as manifested by Kaffrine’s regular exhibitions and advocacy for vaccinations and malaria prevention, the first and second levels of the pyramid are fulfilled.

The 31 health posts in Kaffrine would serve as primary health care where nurse practitioners offer medical consultations to local villagers. Admittedly, nurse practitioners may have less preclinical medical knowledge; however, in rural Senegal where doctors are scarce, the presence of nurse practitioners remains a cost-effective option for effective healthcare intervention (Perloff, DesRoches, & Buerhaus, 2016). Where doctors’ consultation is needed, the patients will be transferred to the local clinics where doctors and nurses are present. There is also a hospital where medical professors and specialists are available.



Figure 2 Health service pyramid

Even though the structure of the healthcare pyramid in Kaffrine is different from what is seen in most developed countries, it hugely mimics the three levels of the health service pyramid. Concerning the first two subclinical levels, Kaffrine demonstrates a sustainable

capacity to cultivate people's awareness of healthcare. However, I am concerned about the gap bridging subclinical and clinical interventions in Kaffrine: people may not be equipped with the necessary knowledge of when to seek clinical help, that is, the top level of the pyramid. When I was in Boulel, a woman's occiput was accidentally hit by a one-arm-thick steel rod fallen from the skeleton of the booth. While the crowd was immediately evacuated, no subsequent assistance was offered, which raised three concerns. First, health workers seemed only present in the regional center and there were none in remote areas like Boulel. Fundamental first-aid kits were not available. Second, people were not appealed to the idea of calling an ambulance even though the subject demonstrated intense pain and a minor degree of confusion. The female "community leaders" seemed to be inadequately educated about health. Thirdly, should an ambulance be summoned, it would take nearly an hour for it to arrive and transfer the woman to the hospital. These all show the gap between the subclinical and clinical levels of the healthcare pyramid. I would thus suggest World Vision embark on expanding the educational pathways to the local community. For example, a meta-analysis finds first-aid training to be a cost-effective way to decrease the burden on the local healthcare system in the less developed countries and suggests an

approach of incorporating such knowledge in the children's learning materials (De Buck, et al., 2020). In fact, a cross-sectional study done in Saudi Arabia finds that the parents visiting the local family medicine clinics have been deprived of first-aid knowledge, which could lead to the mismanagement of incidents and injuries. (Al-Johani, Sabor, & Aldubai, 2018) It also finds that those reporting nurses as their main source of information and previously attending training in first aid expressed better first-aid knowledge. If World Vision can support the nurse practitioners to hold monthly, if not weekly, first-aid training for the female "community leaders," it is believed that the awareness of the population will no longer stay on the "preventive" aspect and will be more responsive in case of an emergency.

## **Conclusion**

World Vision Senegal's health projects in Kaffrine, Senegal, have been evidence-based, resonating with what the literature would suggest for sustainable development in Senegal. World Vision Senegal is able to connect with its partners to make an impact in the local community. Concerning child health, various measures were undertaken to ensure the holistic nutritious status of the juveniles. The delivery of healthcare is also satisfactory though there is space for improvement. It is hoped that Kaffrine will benefit from World

Vision's continuous intervention and any of my suggestions.

Besides, I wish to take this chance to thank the Laidlaw Foundation for offering me such a precious opportunity to have an internship at World Vision Senegal. The staff at World Vision are experienced in dealing with the issues in the country; there are only so many official staff available, however. Therefore, what I observed to be one of the reasons contributing to World Vision's success is that they have been training local leaders to spread their mission and messages. In that sense, leadership is no longer bound to individual or intragroup level; rather, the definition of leadership is expanded vertically to every layer of the community World Vision feels the need to be in touch with. This has also enriched my knowledge of leadership as a whole: as leaders, not only do we need to cultivate our competency, but we also have to be ready to make other people leaders to propagate the impact of our mission.

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