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Review Article

The Challenges of Immunization in Somalia: Struggling Amid Massive Efforts

Ahmed Mohamed Isack[1], Deko Muhidin Mayow[2], Mohamed Ali Mohamed Maneyi[1], Abdifatah Abdirahman Ali Ahmed[3], Ayub Adam Nor[2], Ahmed Omar Mohamed Gaddafi[2], Mohamud Abukar[4,5], Mohamed A. Eno[4,5*]

[1]Department of Public Health, University of Southern Somalia, Baidoa, Southwest State of Somalia
[2]Department of Nursing & Midwifery, University of Southern Somalia, Baidoa, Southwest State of Somalia
[3]Department of Clinical Medicine, University of Southern Somalia, Baidoa, Southwest State of Somalia
[4]Department of Interdisciplinary Studies, University of Southern Somalia, Baidoa, Southwest State of Somalia
[5]Hakaba Institute for Research & Training, Baidoa, Southwest State of Somalia

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Abstract: ***Background:*** Ever since the return of some form of governance and administration (interim/ provisional, state, or federal), Somalia has been struggling to streamline administrative structures capable of handling effective service delivery to the public. The health sector, supposedly one of the priority areas under the public service delivery umbrella, has been ailing and continues to be facing serious encounters which the health authority is grappling with, though yet unable to tackle them independently. Child immunization, the focus of this study, remains a sub-sector the country has been massively underperforming. ***Objective*****:** The current study aims to review the efforts engaged and challenges needed to be addressed in order to improve the overall approach of the country's immunization policy. ***Method*****:** The researchers utilized secondary data to review available literature on immunization selected from various sources to determine the efforts made and challenges faced or being faced in the course of child immunization. ***Results*****:** The study found that in addition to issues such as security, low education, low coverage, and inaccessibility, factors including resources, language barrier, and trust contribute to the challenges. ***Conclusion:*** The health authority and its partners made remarkable efforts and achievements but still need to consider approaches that are friendly to the target groups in the course of enhancing the country's child immunization programs. Trust, which is built on a smooth flow of communication between the beneficiaries and service providers, needs to be gained through mutual linguistic intelligibility in order to maximize the endeavor toward improving the health sector, particularly immunization of vaccine-preventable diseases and the challenges it is facing towards the realization of national and global health goals.

Keywords: Child morbidity, child mortality, immunization, language barrier, preventable diseases, Somalia, vaccines.

I. INTRODUCTION

Immunization: A Global Concern

In their critical review of published materials in the public domain focusing on child immunization in low- and middle-income countries (LMICs), Rainey *et al.,* (2011) examined 202 articles and found 838 reasons for under-vaccination. About 45% were related to inadequacies in immunization programs, 26% were attributed to family characteristics, 22% were associated with the guardians' poor education and unfavorable attitudes towards vaccination, while 7% occurred as a result of communication.

Despite the recent global effort that saw a momentous increase in child immunization and the prevention of child-killer diseases through vaccination, Mihigo *et al.,* (2015) acknowledge that several LMICs have not achieved sufficient vaccination rates—and are below the vital immunity level—making their citizens susceptible to preventable diseases. Indeed steps have been taken to address some of the barriers to wider

***Corresponding Author:** Mohamed A. Eno
Department of Interdisciplinary Studies, University of Southern Somalia, Baidoa, Southwest State

coverage, though Mihigo *et al.,* (2017, p. 5) found persistent challenges, such as "[a lack of] sustainable resources for vaccine and immunization [and] laboratory facilities for immunization and logistics . . . [while other issues] include the challenges of getting reliable data for planning and coverage as well as persistent vaccine stock-out."

Statistical data published by UNICEF (https://data.unicef.org/) reveals that the number of countries with diphtheria, pertussis, and tetanus toxoid (DPT) immunization coverage of 50 percent or less increased from four in 2019 to six in 2023 (Central African Republic, the Democratic People's Republic of Korea, Guinea, Papua New Guinea, Somalia, and Yemen). And according to the World Bank, four of these nations have either been affected by conflict or suffer from poorly managed institutional and social systems (World Bank, 2024). Aiken *et al.,* (2024, p. 8) advance that countries hampered by low immunization suffer from "important structural deficiencies," a description that resonates well with the conditions in Somalia and the other aforementioned nations of low and middle income.

Although we do not intend to raise any dispute over the immunization successes achieved in some regions of the world, Aiken *et al.,* illustrate a worrying trend in the assumption that "Since 2020, global vaccination coverage dropped sharply and has not caught up to 2019 levels, with millions of un- and under-vaccinated children" (Aiken *et al.,* 2024, p. 2). UNICEF (2024) elaborates that the shortcomings mostly affect countries where instability and insecurity hamper the intervention plans as "51% (10.8 million) of un- and under-vaccinated children live in countries with social or institutional fragility or [are] affected by conflict."

Relying on joint WHO/UNICEF estimates of national immunization data, the World Health Organization reported that a total of 19 million children did not receive all of the required doses of the DPT vaccine in 2019, of which 72% (13.6 million) received no doses (WHO, 2021). Of even greater concern is a comparative analysis which reveals that in 2020, the number of children missing DPT vaccine doses had risen to 22.7 million, 17.1 million of whom (75%) had received no doses (WHO, 2021; Abbas *et al.,* 2020).

International aid organizations like Save the Children and its partners in the humanitarian taskforce have described the remarkable results of immunization. An estimated 2.5 million deaths are prevented annually by vaccines, with the total number of lives saved between 2011 and 2020 estimated at over 23 million (Save the Children, 2018). However, a health analyst reading the claim of global achievement through efficacious vaccine use against Africa's situation, would be despaired of the continent's deplorable health situation.

Moreover, the shocking revelation that "21 million children remained either unvaccinated or under-vaccinated" in 2023 alone, demonstrates the gravity of the global health situation. In the same year, "[the number of] children who did not receive any vaccines, often referred to as zero-dose children, reached 14.5 million—an increase from 12.8 million in 2019" (Vaccination and Immunization Statistics—UNICEF DATA).

Focusing on India was a study by Johri *et al.,* (2021) which analyzed data from 1992–2016 and found that interrelated issues among them slum-swelling and undereducated mothers characterized children who had received no vaccinations (zero-dose children). Similar conditions are found in other LMICs as Utazi *et al.,* (2022) confirm in a cross-sectional study investigating the characteristics of unvaccinated and under-vaccinated children in nine LMICs from different geographical locations across the world and found that the geospatial inequalities due to rural and slum dwelling negatively impact routine immunization, as do "individual and household factors such as maternal utilization of health services, maternal education and ethnicity, [which] were more common predictors of vaccination" (p. 1).

II. METHODS AND DATA

The study used secondary data to review available literature on immunization selected from various sources to explore and determine the efforts made and challenges faced/being faced in the course of child immunization in the country. While some of the sources had a global focus in their approach, others had their concern in developing, low-income countries while several of them were selected relevant to their focus on Somalia. Sections three and four of the study present the discussion and analysis of the data about Somalia as reviewed and extracted from the original sources.

III. CHALLENGES OF IMMUNIZATION IN SOMALIA

Institutional Challenges

One of the pertinent conundrums surrounding Somalia's healthcare situation is that the country has been in a state of utter disorganization since the collapse of the military administration in 1991. This situation has persisted unabated for over three and a half decades. The country's broken health services were resuscitated in post-civil war Somalia by Somali medical doctors and health professionals who joined hands with aid and humanitarian organizations and the health authority to help the country recover from the emergency situation and create an orderly organized healthcare system. A remarkable step forward but still with systemic anomalies!

In 2011, the World Health Organization reported on how Somalia, through intensive consultation with its partners, created a project referred to as the "Essential Package of Health Services" (EPHS). The project was organized around four levels of service provision consisting of (a) primary health units, (b) health centers, (c) referral health centers, and (d) hospitals (WHO, 2011, p. 12). Prior to 2011, Somalia provided only the six vaccines defined as crucial by the World Health Organization's Essential Program on Immunization (EPI), which had been in use since the introduction of immunization to the country. Subsequently, the country considered introducing under-utilized new vaccines according to their availability. The introduction of new vaccines, such as Pentavalent (DPT-HepB-Hib) in 2013, was encouraged by support from institutions like GAVI, UNICEF, and the WHO (WHO, 2011, p. 27).

Save the Children has raised alarm over Somalia's poor performance in immunizing against preventable diseases. The country's children are among the large proportion of the 19.4 million infants who are yet to receive basic immunization, which "has left the nation with some of the most critical levels in health indicators in the world." And, as a consequence of this low performance, the country's healthcare aspirations have "...still a long way ahead until national and international goals of health, such as the Sustainable Development Goals (SDG), are met" (Save the Children, 2018).

In fact, Somalia introduced an expanded vaccination program in 2020 with the aim of maximizing the reach of inoculation interventions to the entire country. This free service is offered to every child and household in the country to help mothers and children protect themselves against preventable diseases such as tuberculosis, poliomyelitis, diphtheria, tetanus, hepatitis B, measles, and meningitis (Somali Ministry of Health and Human Services, 2020, p. 14).

The health sector is still undergoing a huge transition in which the focus of service delivery is shifting from emergency response to provision of comprehensive healthcare due to the development of the entire health system, as claimed by the Somali Ministry of Health and Human Services (MoHHS, 2020, p. 6). At the background of all these initiatives, the country is yet to forge ahead the establishment of an efficacious health workforce under a capable regulatory body that designs and enforces healthcare policies, rules and regulations. In a World Bank commissioned report, Tulenko *et al.*, (2021) summarize the challenges of the Somali healthcare sector as follows:

> After 30 years of civil war, Somalia is now experiencing challenges in the regulation of both Human Resources for Health (HRH) and pharmaceuticals and medical devices. The displacement of people, outmigration of skilled staff, disruption of education, shortage of health professionals and administrative professionals, insecurity, static budgets, and low budgetary absorptive capacity all create a challenging environment to design and implement regulation (p. 3).

Resource Challenges

Quite unlike the prewar governments—post-independence civilian administrations unprepared to revamp a national healthcare system inherited from the colonial governments, and a military dictatorship with a more elaborate policy of healthcare improvement and expansion of health services—Somalia's post-civil-war governments are afflicted by various factors that limit the ability to reform healthcare into a vibrant sector, despite recent technological advancements in the medical and healthcare industry. These issues include the strategic confusion and inefficacy caused by the protracted civil war, the lack of an independently achievable healthcare policy, the absence of a professional body to regulate the medical and healthcare sector, lack of sufficiently prepared medical and health professionals to spearhead the innovation of a robust national health program, and a disastrous practice of traditionalized malfeasance that regularly brings the Health Ministry into the spotlight for fiscal misconduct (Dhaysane, 2020; Horn Observer, 2024; Kaab TV, 2024; Amnesty International, 2021; Scek & Issa, 2019).

A glance at the available reports reveals discrepancies within the Somali Ministry of Health and Human Services' (MoHHS's) fiscal expenditure, complaints of low wages, and accusations of corruption against its officials. According to Amnesty International (2021), the country's entire national health budget in 2020 was only 2% of the overall national budget, much less than the 15% African governments promised to commit in the Abuja Declaration. Similarly, David Ngira comments on the incongruities in the Somali health budget as follows:

> Somalia's 2021, 2022, and 2023 budgets show a significant variance between the health budget and expenditure. For instance, 2022 expenditure indicates that only 1.3% of the overall budget was actually spent on health, against an overall allocation of 10.6% of the budget. Similarly, in 2023, Somalia allocated 8.5% of the overall budget to the health sector but only spent 7% of the overall budget on the same (Ngira, 2024).

Ngira expounds the massive budget reduction in the health sector, a funding which dropped "from 8.5% in 2023" down to a mere "4.8% in 2024 despite the reduction in debt repayment from 1.4% of the budget in 2023 to 0.12% of the budget in 2024." Ngira argues that although the overall national budget rose by 10%, the health sector has not received a similar increase (Ngira, 2024) to appreciate a budget breathing space. It is perturbing to imagine what better sectors could benefit from the 3.7% slushed from the health budget—a matter that calls into question the country's purported commitment to the citizen's *right to healthcare*.

In fact, publicly obtainable literature on immunization in Somalia indicates why the country is struggling even more than most of the so-called underdeveloped, low-income economies. First, the Somali health sector relies heavily upon aid from international partners and donors, which is either allocated directly to the government of distributed through UN institutions like UNICEF, which then partners with international and local implementing organizations to deliver health services across the country.

Second, in the case that, for instance, UNICEF's resources fall short of requirements, the Somali government is incapable of either covering the shortage of funds or embarking on an alternative strategy of self-dependency, self-funding, to implement its health program.

Third, although these partners have made some progress in improving the health situation of the Somali people, sometimes unable to exceed 50 percent of the planned targets, the fact remains that any UNICEF funding shortfall creates tangible deficits, thereby disrupting projected as well as continuing activities, ultimately causing "a significant hindrance in delivering vital life-saving services" (UNICEF, 2024, p. 1).

Fourth, because the Somali government's resource potential is virtually non-existent and in decline ("from 8.5% in 2023" down to a mere "4.8% in 2024) or, at best, heavily constrained, it is the UN aid agencies that have taken immense responsibility for ameliorating the living conditions of a large sector of the population in both urban and rural areas. The Somali authorities' incapability (both federal and state) and the nature of this broad-based and vital sector has necessitated UNICEF's intervention in various humanitarian and life-saving activities aimed at improving living conditions by providing assistance in "[the] Nutrition, Health, Water, Sanitation and Hygiene (WASH), and Child Protection sectors."

Finally, the gloomy consequences of under-funding can be gleaned from UNICEF's frustration as it reports its "apprehensive[ness] about the continual underfunding in the Social Protection and Education sectors, with funding gaps of 98 and 96 per cent, respectively" (UNICEF, 2024, p. 2). It is under such conditions of protracted budget constraints that the world expects Somalia to reach targets that the government lacks the resource potential to implement, and international organizations like UNICEF are given mandate but with inadequate funds that cannot help achieve desired results (UNICEF, 2024).

According to a 2014 population estimate survey by UNFPA—Somalia, the country's national health workforce works for very low wages while being hampered by delayed, unreliable payments (UNFPA—Somalia, 2014), a situation presumably not-much-improved to date, considering the recent budget slashes of 2023-2024—an ill-advised strategy against the overall national healthcare agenda. Due to the Somali MoHHS's inability to cover the high costs of its operations, it is donors and partners who intervene to supplement Somali healthcare workers' incomes through numerous projects mainly funded from outside the country. The Somali MoHHS's inadequate resources are indicated in the country's annual per capita health expenditure, which is estimated to be as low as $10–$12 per person, a vastly insufficient sum for an impoverished society struggling with recurrent natural calamities in cycles of drought, famine, and floods (Somali Ministry of Health and Human Services, 2020, p. 8).

Challenges of Coverage and Accessibility

The immunization dilemma in Somalia continues into recent times and amid the current global challenges. Data from UNICEF confirms that "In 2023, coverage of the first dose of measles-containing-vaccine (MCV1) stalled at 83%, with 22.2 million children not receiving the potentially life-saving vaccine." UNICEF further acknowledges that the global statistics demonstrate a deficit that undermines the desired "95 per cent coverage needed to prevent outbreaks, reduce deaths, and achieve elimination goals" (UNICEF, 2025).

In addition to the generally acknowledged global problems, the implementation of vaccination campaigns in Somalia poses tremendous challenges relating to numerous factors, a major one among them being the large proportion of nomads and rural peasants who are either wandering or are too remote for health personnel to access them. The situation is further aggravated by the complete inaccessibility of certain areas due to security threats to the vaccinators and health professionals monitoring the vaccination exercises (DNS, 2020; Haydarov *et al.*, 2016; GPEI, 2018).

Therefore, as a consequence of a combination of complex factors including prolonged conflict, disintegration of socio-economic infrastructure, very

frail healthcare system, loosely organized health infrastructure, and lack of financial capability, Somalia is categorized among the countries with the lowest rates of immunization and vaccination coverage across the world "with WUENIC reporting approximately 52% coverage for DPT1 (zero dose indicator)," according to (Aiken *et al.*, 2024, p. 12).

An earlier confirmation of similar challenges was established in a study by Mohamed-Hayir et al., (2020) who outlined the attitude of the Somali parents as a major factor among the multiple barriers affecting the immunization exercise in the country. Furthermore, Mohamed-Hayir et al., meaningfully indicate the negative implication age of the child can have on immunization, suggesting that younger children stand better chances of taking the vaccines compared to their older counterparts.

With their focus on the impact of immunization on the residents of Banadir region, namely Mogadishu, the capital of the country, Mohamed-Hayir et al., (2020) discover how indirect costs related to transportation fees to and from health centers providing immunization vaccines, and other medical expenses incurred as a result of illnesses acquired from the effect of the vaccines have a very significant impact on the parent's decisions and motivations regarding whether to vaccinate the child or not. Along with the abovementioned causes, other challenges associated with the guardian's income and level of education paly another role in determining children's participation in immunization (Mohamed-Hayir et al., p. 2667; see also Landoh et al. 2016 raising the acknowledging the same challenges in the context of the Republic of Togo).

In a study on the immunization situation in Somalia, Mohamoud *et al.*, reported that the low level of childhood immunization seriously impacts children's health. Citing scholarly studies conducted in different parts of the world, they reveal how the Somali situation is comparable to other poverty-ridden countries where out of the more than 17 million children assumed to be unvaccinated worldwide mostly live in poor conditions in slums and rural villages far from urban settings or are found in war-ravaged nations (Mohamoud *et al.*, 2024, p. 2).

While some achievements have verily been made over the years, the Somali National Bureau of Statistics (SNBS) reveals vaccine hesitance in some mothers whose children do not receive a complete course of vital preventive vaccine doses. According to the SNBS (2021, p. 72), although 36% of children receive the first dose of polio vaccine at 12–23 months old and 35% receive the first doses of DPT-HepB-Hib vaccine and BCG, only 15% and 18% get the required three doses of the DPT-HepB-Hib vaccine and measles vaccine, respectively, and [that] there is a dropout of 16% between the first and third doses of the polio vaccine. In the SWSS's Bakool region, "14 percent of the children received BCG and the first dose of DPT-HepB-Hib vaccine, while only 4 percent have received three doses of the DPT-HepB-Hib vaccine. Only seven percent of the children had received the three doses of polio vaccine, while a mere 7% of the children had been vaccinated against measles" (SNBS, 2021, p. 72).

Mohamoud *et al.*'s (2024) research supports the SNBS report when they state that most children under the age of two years in Somalia are classified as unvaccinated and remain susceptible to preventable diseases. The situation is much worse in rural areas where nomads and peasants have no access to healthcare, and the number of people affected by diseases remains unknown for lack of data. Mohamoud *et al.*, added that one factor behind the unvaccinated number of children is mothers' lack of education and community awareness; as most do not attend healthcare facilities during pregnancy.

Abdullahi *et al.*, (2022) investigated the vaccination of children in the city of Galkayo in the regional administration of Puntland in Somalia and identified some drawbacks from the health system's perspective, such as "[limited] awareness raising, hard to reach areas, negative attitudes and perceived knowledge of health workers, inadequate supplies and infrastructure, and missed vaccination opportunities," which seriously distress child immunization efforts. They also highlighted community and individual viewpoints, emphasizing issues including "low trust in vaccines, misinterpretation of religious beliefs, vaccine refusals, Somalia's patriarchal system, and rumors and misinformation" as being among the factors posing problems (p. 1).

The Challenge of Coping with IDPs

While emergency services and humanitarian activities still form part of the Somali MoHHS's core service delivery, the enormous burden of dealing with over 2.6 million displaced people in IDP camps, mainly in the southern regions of the country, augments the challenges to be addressed within the national healthcare system's general framework and health service provision strategy. What the MoHHS terms "recurrent outbreaks of vaccine-preventable illnesses, like measles," continue taking the lives of a large number of children under age five, as well as others, who could be saved with a prompt delivery of immunization programs and other necessary healthcare provisions.

Yet, appropriate statistics from reliable authorities are either scant or non-existent, making the estimates often provided suspect as the mortality of a

large number of victims of preventable diseases, in both urban and rural areas of the country, remains unknown.

A survey titled "South West Health and Demographic Survey: South West State Report," carried out in limited urban areas in the regions of Bay and Bakool in the SWSS by the Somali National Bureau of Statistics (SNBS), demonstrates details of the immunization situation in the covered areas as a meagre "15 percent of children in Bay had received all the basic vaccines (one BCG vaccine, three doses of pentavalent and polio vaccines, and one dose of measles vaccine) compared to 4 percent of children in Bakool" (SNBS, 2021, p. 71). Bay and Bakool are selected here as examples of hosting enormous numbers of internally displaced persons (IDPs) who exert a huge burden on the residents of areas where seek a safe haven.

Even though various agencies solidified their efforts to improve healthcare, inevitable shocks and challenges negatively impact the vulnerable IDPs and their host communities in situations where many planned immunization schemes are suspended or delayed beyond the required schedule. Here we produce an example:

> MSF aimed to support a mass vaccination campaign before the peak measles season. In conjunction with SMOH (Society of Medical Officers of Health) SWSS, the campaign was planned for October 2023, targeting 352,004 children under the age of ten for measles and 262,364 under seven for the pentavalent vaccine—which includes 5 antigens—for Baidoa's host and IDP populations. There was agreement that these activities were needed, that the proposed intervention would take place, and that supply would be made available. However, there was no supply made available. ***Thus, the campaign did not take place, a significant missed opportunity***, (Aiken *et al.*, 2024, p. 13). (Emphasis added).

Challenges are vast that pose huge threats to child healthcare and wellbeing, not only within the national borders; but also across-borders and as a result of the potential spread of disease to neighboring countries, thereby frustrating the efforts towards the eradication of illnesses such as polio (Somali Ministry of Health and Human Services, 2020, p. 7). Much as the MoHHS is praiseworthy for its remarkable improvement of the health sector within the limits of its capacity and meagre resources, little attention has been given (if any at all) to crucial challenges such as linguistic unintelligibility. In the next segment, we provide some evidence on the linguistic neglect and the negative impact it can lend to the success of Somalia's immunization program.

Linguistic Challenge: An Unacknowledged Factor

The phenomenon surrounding language barrier has been the least acknowledged of all the challenge in Somalia's immunization scheme until recently. The language factor has not been considered among the most daunting issues in the eradication of preventable diseases through vaccination. The reason for the oversight is partly because language diversity within Somalia has frequently been obscured by the age-old fallacy that Somali society is homogeneous (of Arab origin), monocultural (all pursuing cultural mode of nomadic pastoralism), and monolingual (all speaking the same and single Somali language—in this case, the state-sponsored version known as Mahaatiri). These misperceptions are dominantly used to deny the cultural diversity, mutually unintelligible languages, and socio-ethnic distinctions that form and inform the reality on the ground (Eno, 2008; Eno & Kusow, 2014; Kusow & Eno, 2015; Eno et al.,, 2016).

The impact of the linguistic barrier within Somali society was thoroughly evidenced in a recent report by the Minority Rights Group (MRG, 2023) carried out in collaboration with Clear Global and three local Somali non-governmental organizations (NGOs) in several IDP camps in Mogadishu and its outskirts. The report, entitled "Language Barriers in Polio Vaccine Campaigns in Somalia: Focus on Maay Speakers in Banadir," utilized a qualitative approach and triangulation of data collection tools including voice recordings, interviews, and visual aids (campaign posters), to uncover how linguistic unintelligibility between Maay and Mahaatiri speakers is a potential threat contributing to the barriers affecting the aspirational goals of the country's immunization program, in addition to other critical issues like trust which has been identified as a factor basically emanating from the linguistic unintelligibility of the two variations.

The report highlights a very worrisome situation as "Most monolingual Maay speakers do not understand most of the health messages on polio and polio vaccination campaigns disseminated in Mahaatiri by health workers." Similarly, it emphasizes how even "visual aids and images" initially designed to facilitate understanding of the polio campaign have limited value (if any), as they are "accompanied with Mahaatiri text" that can neither be decoded nor comprehended by this section of the target population unaccustomed to using the Mahaatiri language in their rural villages and prior to coming to Mogadishu (MRG, 2023, p. 1).

The failure of the MoHHS's polio messaging and the frustration it has caused to the Maay-only speaking segment of the target community is explicated by an interviewee who said: "'We want to listen to something that we can understand and learn from. If they

speak Maay, I can understand. In Mahaatiri, it's very difficult for us"' (MRG, 2023, p. 3). In its qualitative analysis of Maay speakers' sentiments, the MRG report divulges:

> It can be extremely difficult for them [Maay-only speakers] to understand new or complicated information on unfamiliar topics, such as health information on diseases, transmission pathways, and vaccinations. Because of this, Maay speakers who do not speak Mahaatiri are more likely than Mahaatiri speakers to miss vaccinations and other life-saving health care, (MRG, 2023, p. 1).

The MRG report unraveled several issues which were hitherto unmentioned in the context of Somalia's immunization challenges. Although the report affirms the similarity of certain words in Maay and Mahaatiri, it finds that the terms used in the vaccination campaigns "were distinctly different in the two languages" (MRG, 2023, p. 6). Moreover, it revealed that cultural, traditional, superstitious, and spiritual beliefs lead people to avoid vaccinating their children. The linguistic difference between Maay and Mahaatiri creates a tendency which "some Maay speakers do not sign up for vaccination outreach programs due to distrust, or resort to alternative healing strategies" (MRG, 2023, p. 1).

IV. EFFORTS AND ACHIEVEMENTS

The GREDO Approach: Expertise and Motivated Personnel

Though the challenges facing the health regime are huge, complex, and real, efforts are nonetheless underway to address them according to the availability of resources and expertise and the motivation of the health personnel. McGill *et al.,* comment on one of the most difficult vaccination campaigns in recent times, carried out in some of the SWSS's districts, including Bardaale, Buurhakaaba, Yeed, Ceelbarde, and Diinsoor, during the devastating floods of 2023. McGill and coauthors highlight the remarkable accomplishments of Gargaar Relief and Development Organization (GREDO), an outstanding local NGO with its headquarters in Baidoa, which mobilized expert teams of extremely motivated vaccinators (McGill *et al.,* 2024).

As a result of these two key factors, staff expertise and motivation, GREDO administered "4,191 doses of the first dose of the pentavalent jab (containing vaccines against diphtheria, tetanus, pertussis, hepatitis B, and Hib), called Penta 1; 2,987 doses of Penta 3; 3,549 doses of a first dose of measles vaccine (MCV1); [and] 1,097 doses of MCV2" in a precarious situation in which, as one of the GREDO implementing officers explained, the vaccinators took many risks, "even using boats to reach the isolated areas." In addition, GREDO exceeded expectations in its operations from October to December 2024 by reaching 111% of the targeted population within Baidoa City, 198% in Awdinle, and 125% of its target in Hudur. This immunization exercise provided 6,289 doses of Penta 1, 6,106 doses of Penta 3, and 5,809 doses of measles vaccine that were urgently needed by the communities in those areas (McGill *et al.,* 2024).

The collaboration between national and international institutions has led to remarkable advancements over the last decade by strengthening the healthcare strategy and ensuring the accomplishment of tangible programmatic actions. This collaborative endeavor has also paved the way toward making the health sector one of the first service provision institutions to make significant progress in meeting the Somali MoHHS's medium-term strategic plans (MoHHS, 2020, p. 6).

Service Delivery: The Essential Package of Health Services (EPHS)

To execute its strategic plans and improve the national healthcare sector's service provision, the MoHHS introduced a service delivery framework widely referred to as the "essential package of health services" (EPHS) which, in spite of the hurdles, connotes symptoms of success. The EPHS produced tangible progress, not merely in making fundamental services available to the public but also by being an influential mechanism for aligning and engaging partners.

The logical approach behind the multi-partner collaboration is its focus on a single strategy of facilitating service provision. Throught that mechanism, the partners can embark on improving resource distribution and utilization with the aim of enhancing quality and equity. It is a strategy framed to develop an environment that would allow the implementation of an enhanced apparatus with which they can monitor and evaluate program challenges and achievements within the prescribed implementation timeframe, (MoHHS, 2020, p. 6).

The UNICEF Approach

Notwithstanding the shortcomings discussed above, Somalia has overcome more than its fair share of burdens while also exerting a major focus on preventing measles and polio, alongside other life-threatening, vaccine-preventable diseases which the country gives much attention. The reason for this focus is evident from the statements of senior officials of Somalia's partner organizations, such as Steven Lauwerier, the former UN Children's Fund (UNICEF) Country Representative, who emphasized in a news release that "among vaccine-preventable diseases, none is more deadly than measles" (UN, 2017). Somalia addresses the challenge of measles

by conducting annual state- and nationwide vaccination drives to reach the vulnerable.

An example of such campaign was held in Baidoa and other parts of the country. It was an exemplary project of finely-tuned collaborative partnership that brought together the efforts of the Somali MoHHS, the regional administrations' State Ministries of Health, WHO, and several local NGOs that are stakeholders in the health sector. In addition to the needed vaccines, vitamin A and other nutrition supplements were provided to boost children's immunity. Much needed supplies of deworming tablets to children and the needy among the community were delivered (UN, 2017).

In a time of declining global resources, donor fatigue, and increasingly stringent intervention prioritization, UNICEF stands at the forefront of Somalia's immunization and other health sector activities. As recently as mid-February 2025, UNICEF, in conjunction with the World Health Organization (WHO) and the Global Polio Eradication Initiative, played a vital role in "a four-day nationwide polio vaccination campaign targeting 2.5 million children under the age of five." The campaign, which covered several regional/state administrations that include Galmudug, Southwest State, Hirshabelle, Jubaland, and the Banadir Regional Administration, was an attempt intended to halt the communication of type 2 poliovirus, a variant that has been circulating and devastating the lives of Somali children since 2017 (UNICEF, 2025).

V. CONCLUSION

Somalia's challenges in the eradication of fatal diseases preventable by vaccines and through immunization, are far from over. Indeed the study covered the various efforts invested in addressing the problem collaboratively between the various Somali state and federal authorities and international institutions, the progress made over the years, and the introduction of policies and health frameworks whose primary objectives underpinned the eradication or at least mitigation of these diseases across the country.

However, in light of the current situation of insufficient resources, inaccessibility in certain areas, inadequate/ lack of awareness, corruption, and lack of education of a considerable number of rural and pastoral parents, the continuation of Somalia's undesirable situation in immunization is more likely to hold than see an eradication in the near future. An extensive focus needs to be put on the amelioration of some of the factors contributing to the challenges in order to deal with the problem at the local grassroots and institutional (state/federal) precincts for the interventions of the country's global partners to make a lasting impact.

More importantly, enough consideration needs to be paid to increasing the level of social awareness above and beyond the limited periodic the reach-out made during vaccination campaigns. Educative healthcare seminars and workshops for mothers and culturally conservative fathers should be conducted to sufficiently engage all types of guardians to persuade them change their negative attitude and break them into the benefits of the immunization exercises.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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