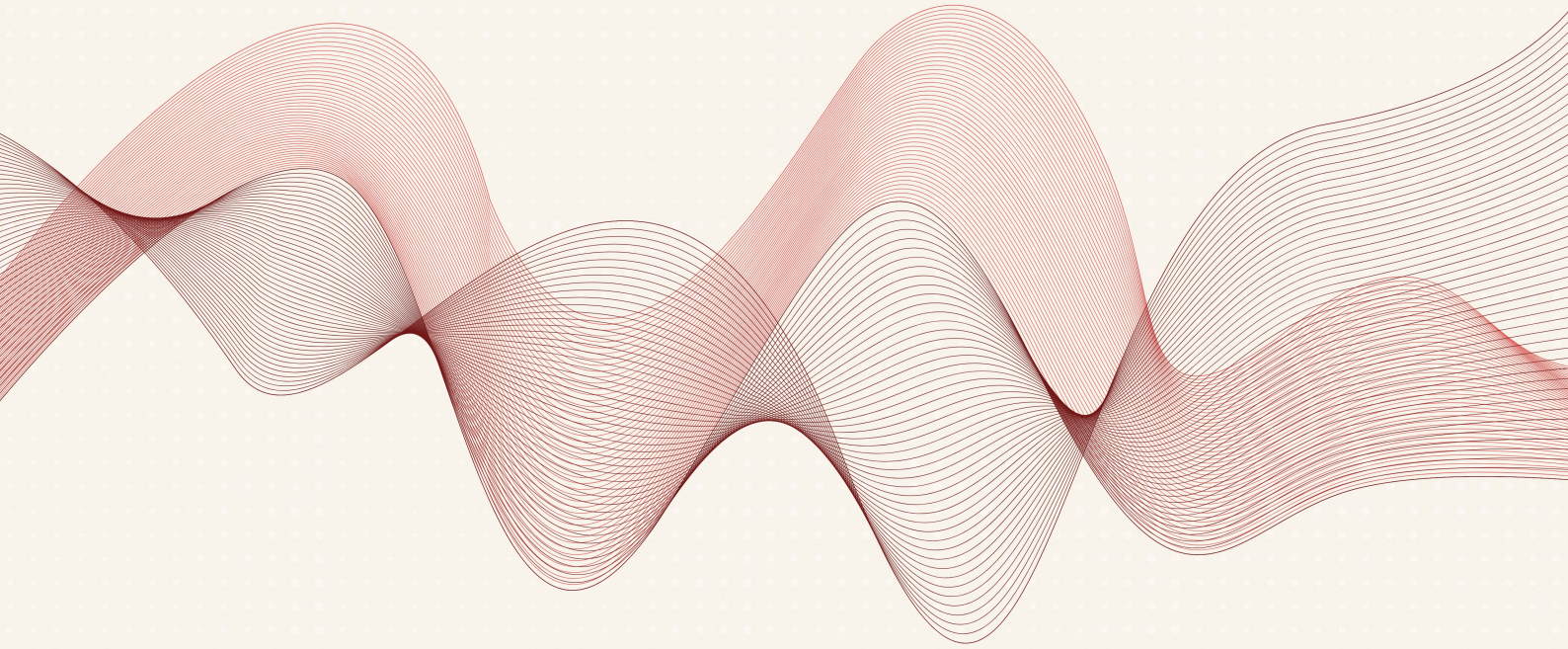

Disease Control Priorities, Fourth Edition
Volume 1, Disease Control Priorities in Practice

Developing Somalia's Essential Package of Health Services: An Integrated People-Centred Approach

Mohamed A. Jama, Abdullahi A. Ismail, Ibrahim M. Nur, Nur A. Mohamud, Teri Reynolds, Reza Majdzaheh, John Fogarty, Andre Griekspoor, Neil Thalagala, Marina Madeo, Mamunur R. Malik, and Fawziya A. Nur

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Title: **Developing Somalia's Essential Package of Health Services: An Integrated People-Centred Approach**

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Preface

Since the early 1990s, researchers involved in the Disease Control Priorities (DCP) effort have been evaluating options to decrease disease burden in low- and middle-income countries. This working paper was developed to support the Fourth Edition of this effort. It is posted to solicit comments and feedback, and ultimately will be revised and published as part of the DCP4 series.

DCP4 will be published by the World Bank. The overall DCP4 effort is being led by Series Lead Editor Ole F. Norheim, Director of the Bergen Centre for Ethics and Priority Setting in Health, University of Bergen. Core funding is provided by the Norwegian Agency for Development Cooperation and the Norwegian Research Council.

More information on the project is available at: https://www.uib.no/en/bceps/156731/fourth-edition-disease-control-priorities-dcp-4.

Developing Somalia's Essential Package of Health Services: An Integrated People-Centred Approach

Abstract

Somalia's UHC Service Coverage Index score of 27 out of 100 is significantly below the regional average of 46. Despite this, the country is committed to achieving progress towards UHC targets by redesigning its Essential Package of Health Service. The service package is tailored to address disparities in access to health services among communities including those in security compromised areas. It is the minimum possible but has the capacity to respond to the most critical health challenges faced by the Somali people. Its integrated, people-centered approach is a key characteristic of this service package.

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1.0 Background

Somalia has emerged from a long period of conflict that has rendered fragile the country's health system and continues to impact the delivery of health services. Over the past decade, the Federal Ministry of Health (MoH) has embarked on a process of rebuilding and transforming its health system with the goal of improving access to essential health services for all and achieving universal health coverage (UHC) by 2030 (UN, SDG 2015).
Somalia has emerged from a long period of conflict that has rendered fragile the country's health system and continues to impact the delivery of health services. Over the past decade, the Federal Ministry of Health (MoH) has embarked on a process of rebuilding and transforming its health system with the goal of improving access to essential health services for all and achieving universal health coverage (UHC) by 2030 (UN, SDG 2015).

Somalia is in the initial stages of a demographic and epidemiological transition, characterized by relatively declining maternal, infant and child mortality and increasing life expectancy at birth, reaching 56.5 years (males 54.0, females 59.2) (WHO, Eastern Mediterranean Regional Office 2021) Although, there has been a decline in maternal mortality ratio from an estimated 732 per 100 000 live births in 2015 to 692 per 100 000 live births in 2020, it remains alarmingly high (UN MMEIG 2017, SNBS 2020a). Similarly, the infant mortality rate is down from 86 deaths per 1000 live births in 2014 to 75 deaths per 1000 in 2019, yet it remains well above that of many neighbouring countries (UNICEF, 2020). Somalia lags behind its neighbors as indicated by the lowest 'UHC Service Coverage Index score of 27 out of 100, compared to the regional average of 42 (WHO, 2021).

The health sector in Somalia faces significant financial challenges, with public spending estimated at a mere 17% of the total health expenditure. The majority of health expenditure is covered by a combination of private spending and donor support, accounting for 43 percent and 40 percent respectively, of total health spending (Micah AE. et al. 2020).
The population of Somalia is estimated at 15.6 million in 2019 with total fertility rate at an average of 6.9 children per woman (UNFPA 2020). Nearly half of the population are under 15 years of age, and three quarters are under 30 years (SNBS 2020d) posing significant challenges for the health sector to keep up with the high growth rate of 3%.

2.0 Implementation of EPHS 2009 from 2010 to 2019

The first Essential Package of Health Services (EPHS) was developed in 2009 (MoHHS 2009a). The package was designed to address the high mortality and morbidity and serve as the prime mechanism for an organized and standardized strategic service provision by directing available resources to the EPHS implementation.

Uptake has increased when complementary demand-creation and household visiting and outreach clinics initiatives were integrated into EPHS delivery. This was accompanied by considerable innovations on the model of community care, with Community Health Workers (CHWs) in Primary Health Units (PHU) and Female Health Workers (FHW) conducting

household visits, and patient referrals, with creative use of mobile phone technology for data collection and for reporting.

An estimated 45% of the population in 47 districts out of 98 districts of the country were covered between 2010-2019(MoHHS 2020b). These substantial gains in service provision have saved lives, notwithstanding the challenges. Encountered.
Significant improvement of the capacity of Regional and District Health Management Teams were observed. The institutionalization of a regular supervision using management tools such as score cards, checklists, quality assessment tools, procurement and supply chain management tools and human resource management tools has substantially enhanced the implementation of the service package.

The expansion of the service delivery was limited by significant funding gaps, weak health system capacity and access to some areas due to security challenges, which had stymied the availability of the full package. Furthermore, interventions in NCDs, mental health and trauma care remained unfunded despite the increasing disease burden due to lack of resources.

3.0 Political Commitment to Package as a Means for Achieving UHC

A change of government in February 2017, has ushered in a renewed commitment to social and economic development as elaborated in Somalia's 9th national development plan (NDP-9, 2020).

Following the development of the Health Sector Strategic Plan (HSSP-II) of 2017 which defined key priorities of the sector necessary for increasing access to health services (MoHHS 2021c) and the UHC roadmap UHC of 2019, Somalia, has revised the EPHS, originally introduced in 2009.

The revised EPHS is based on the extensive review of experience, available evidence, disease burden, the country context and the lessons learned from the design and fragmented and inefficient implementation of the EPHS of 2009.

This decision was also informed by the improving political and security situation, and the reengagement with the World Bank, after a hiatus of three decade opening new funding opportunities for the health sector.

However, the EPHS revision process faced challenges due to different positions held by key stakeholders regarding the prioritization and financing of the package, the geographic scope and population coverage, and the delivery model. This necessitated an intensive policy dialogue to build consensus on the breadth of coverage and services within the package which took 18 months to finalize.

Figure 1 below shows the road map towards UHC 2030.

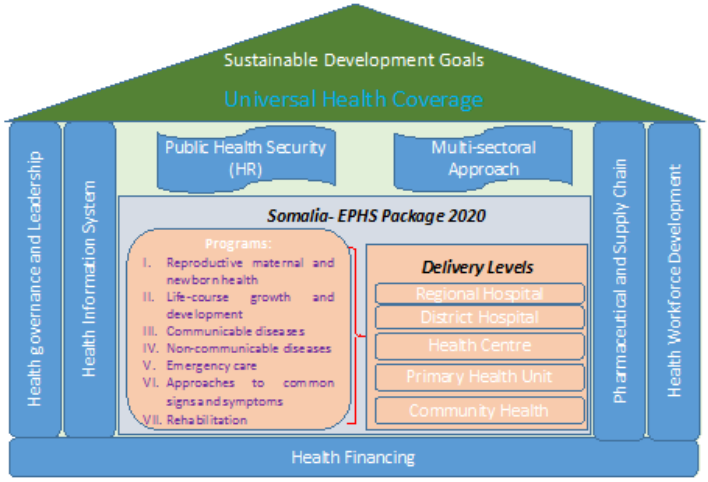

Figure 1. Road map towards UHC 2030.

4.0 Steps Adopted for the EPHS 2020 Revision Process

As the first step of a more comprehensive plan for moving towards UHC, a collective decision was made to revise the services package in Somalia. A concept note was developed, and a multidisciplinary team constituted to lead the revision process. Figure 2 below outlines the steps followed for the EPHS revision process.

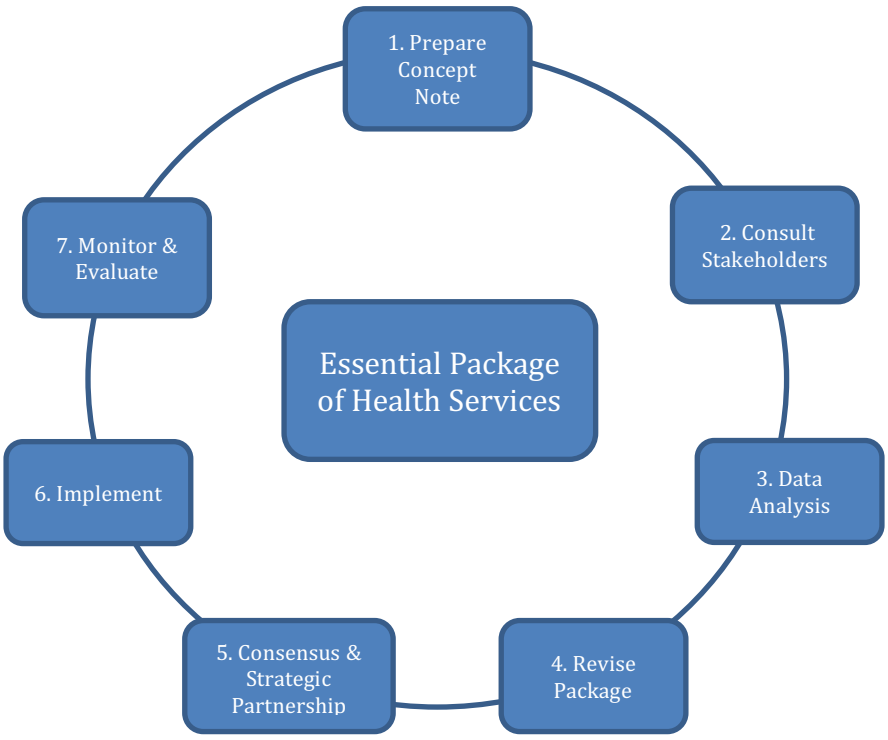

Figure 2. Steps followed for EPHS revision process.

Somalia's EPHS is a product of intensive consultations between the government and stakeholders. It builds on lessons learned from the implementation of the earlier version of EPHS and experiences from other countries (MoHHS 2020e, Eregata GT., Hailu A., et al. 2020, Wright J. and Holtz J. 2017, Newbrander W., Ickx P., et al. 2014).

5.0 Ownership and Governance

Somalia's economy is heavily reliant on remittances and international aid, with very limited contribution of domestic public financing options. The Gross Domestic Product (GDP) per capita was USD 445 in 2021.

The decentralized management of the health care system is Somalia necessitates the close collaboration and the leadership of the subnational health management teams who play critical roles in planning, organizing and implementing of the EPHS at district and community levels.

Somalia's revision process of the EPHS exemplified the power of building consensus and fostering collaboration among stakeholders, aligned with the journey towards UHC. With a clear recognition of financial limitations and implementation capacity, an incremental and pragmatic approach was embraced, prioritizing high-impact and cost-effective interventions within the revised service package.

The revision process entailed inclusive and in-depth discussions with all stakeholders, culminating in a harmonious agreement on the sequencing and scope of the package. This collective endeavor ensured the seamless and successful rollout of the revised EPHS, even amidst resource constraints, significantly advancing the healthcare landscape in Somalia. Through prudent decision-making, certain health services were thoughtfully prioritized for public accessibility, focusing on financing from available domestic and external resources. The unwavering dedication to equitable access extended inclusively to nomadic and security-compromised areas of the country underscores a solid commitment to enhancing healthcare accessibility and equity for all Somalis pursuing UHC.

However, the heavy reliance on donor funding comes with disproportionate influence of development partners which potentially undermines the country ownership, and erodes the principles agreed in the 2005 Paris Declaration on Aid Effectiveness and 2008 Accra Agenda for actions (OECD 2005, Accra Agenda for Action 2008).

The development partners can play a pivotal role in shaping the EPHS design and in strengthening the institutional capacity of the government in such a way that it strengthens the stewardship of the public sector, and the delivery of homegrown solutions that are likely to succeed, instead of perpetuating past failed donor driven solutions and approaches in many low-income countries (Noor AM. 2022).

National governments need to ensure decision making process on package development are inclusive and participatory. Similarly, countries should also endeavor to achieve the target Abuja Declaration of 2001 by allocating sufficient domestic resources to the health sector and

demonstrate value for money, by improving transparency and accountability for results (The Abuja Declaration, 2021).

6.0 Stakeholder Consultation

Recognizing the need to address the fragmented external aid and achieve synergy and alignment with national health priorities, and in order to forge consensus on the prioritization and financing of highly cost-effective interventions that could address the leading causes of high mortality and morbidity in Somalia, the ministry of health established an inclusive and participatory coordination structure and consultative process for the revision of the Essential Package of Health Services (EPHS).

At the invitation of the Federal MoH, all key stakeholders were invited to nominate representatives to a government led task force, chosen for their technical expertise and knowledge of the health sector in Somalia.

A concept note describing the scope and purpose of the EPHS revision process, along with a timeline and the expected contribution to the different stages of the planning cycle, such as evidence generation (data collection and analysis), priority setting, implementation strategy, and monitoring and evaluation.

This resulted in the formation of a task force with representatives from Ministry of Health from federal and state levels, Ministry of Finance, civil society organizations, private sector, academia, and development partners, including the World Bank, the Global Financing Facility (GFF), the Foreign, Commonwealth and Development Office of the United Kingdom (FCDO), WHO, UNICEF, UNFPA, the Italian, Swedish, German, and Canadian Embassies, USAID, the Global Fund, and Gavi, the Vaccine Alliance.

The task force examined the adequacy of the components and scope of the 2009 EPHS against the burden of disease and the evolving health needs of the Somali people.
The development of the EPHS has benefited from broad consultation and agreement with key relevant stakeholders, whose contributions played a pivotal role in shaping the EPHS 2020 and ensuring its alignment with the country's health goals and development priorities [9]. This was achieved through early engagement of stakeholders, actively soliciting, analyzing, and incorporating their contributions and feedback on the service package into the EPHS. (Mohamed A. Jama, Reza Majdizadeh, Abdullahi A. Ismail et al., 2023).

7.0 Data Sources

The Global Burden of Disease database and national data were used to prioritize services to address diseases with the highest burden of mortality and disability (IHME 2019a). Semi-structured interviews with public health experts were conducted to develop a preliminary list of conditions with public health concerns and the hazards as consequences of emergencies. Common symptomatic presentations at the primary care level were identified and shared with

a broader group of managers, experts and service providers for feedback through a web-based platform.

Somalia's Health and Demographic Survey of 2020 provided data on maternal and child health indicators, including utilization of services and vaccination coverages. The baseline coverage for services for some of the noncommunicable diseases was not available, and an assumption of 5% was used.

A study was conducted in which service provision data were reviewed, and implementers were interviewed to find gaps in the 2009 EPHS (MoHHS, 2009f). The Disease Control Priorities III (DCP3) and other materials were used to highlight cost-effective interventions and assist with service prioritization (WHO 2003b, Reich MR. 2016, Hall W. et al.2018, Glassman A., Giedion U., and Smith PC. 2017). All interventions proposed were highly cost-effective and considered as a minimum set of services. The package was deemed affordable based on costing analysis, and none of the selected services were excluded from the list. However, during the implementation plan, a core list of services was selected for initial implementation and an expanded list of interventions is being added to ensure progressive realization of services.

8.0 Summary of Analysis Findings

Communicable diseases represent 48% of the DALYs (disability-adjusted life years) in Somalia, of which tuberculosis, meningitis, acute hepatitis, measles, and other respiratory and infectious diseases account for 48% of the communicable disease burden (IHME 2019b) Other important causes of death include noncommunicable diseases, maternal and neonatal disorders, and nutritional energy-protein malnutrition. Figure 3 below shows the percentage distribution of the causes of DALYS in Somalia.

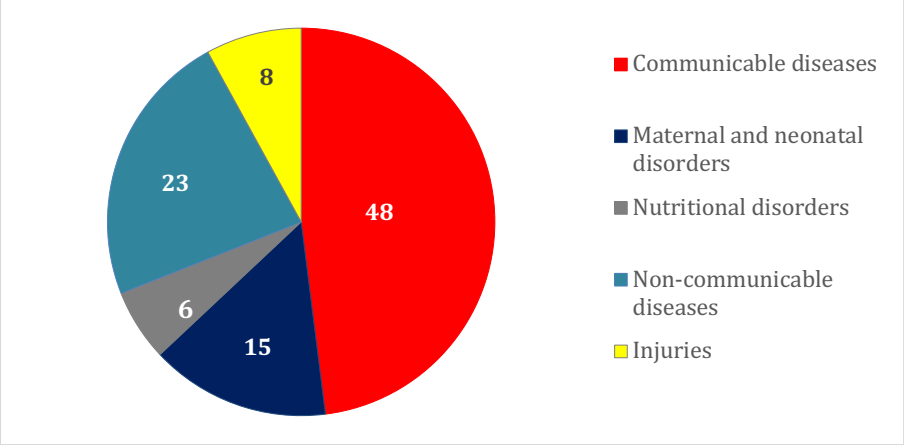

Figure 3. Causes of Disability Adjusted Life Years in Somalia.

The EPHS 2020 is divided into a core and an extended package. The core package constitutes a minimum service entitlement to be made available to the majority of Somali people, while the extended package contains additional interventions to be progressively implemented when additional resources become available.

9.0 Priority-Setting Processes and Criteria Used

A set of evidence-informed, prioritized, individual and population-based interventions including promotive, preventive, curative, rehabilitative and palliative care, and intersectoral actions, were defined through a deliberative process, which accounted for people's health needs, economic realities and societal preferences (WHO 2003c, Glassman A., Giedion U. and Smith PC., 2017, WHO 2014d, Glassman A. et al. 2016). The package aims at consolidating the health gains of the 2009 EPHS and achieve equity while extending and improving access to essential health services to as many as possible with protection from financial hardship.

The recognition that resources are finite, and prioritization is essential, was implicit in the guiding principles which considered (i) services that are likely to have the greatest impact on health outcomes, (ii) services that are highly cost-effective and affordable within the available resources, and (iii) services that can be scaled up and give equal access to nomadic, rural and urban populations.

Several important factors were considered for prioritization of interventions: a) associated with high burden of disease, b) cost effectiveness of the interventions from the international literature (WHO 2003e, Glassman A., Giedion U., Smith PC 2017, Glassman A. et al. 2016, Waddington C. 2017). Furthermore, we conducted generalized cost effectiveness analysis for 106 interventions of the package given the limited data on cost and cost effectiveness in literature, and, c) technical skills and infrastructure set up required for interventions.
The package was designed to support progressive implementation with a set of interventions designed to be implemented within existing resources, and health system capacity and context of Somalia.

10.0 Scope and Content

The overarching goal of the revised EPHS was to achieve progressive expansion of, and access to an equitable, efficient, affordable and quality essential health services, delivered as close to the communities they serve as possible, particularly the nomadic, rural and internally displaced populations. Certain elements of the EPHS design are specifically oriented to allow dynamic shifting of services to alternate delivery platforms and facilitate adaptation to different populations during implementation.

The revision of the EPHS was informed by several factors, including the evolving health needs of the Somali population, the gaps identified through a review of the 2009 EPHS and the increasing strategic emphasis on progress towards UHC. The overall objective was to

develop an implementable package that responds to the priority health needs of the Somali people.

11.0 Designing an Implementable Package

The development of the revised EPHS has progressed from data to dialogue- to decision underpinned by principles such as country values, inclusiveness, equity, effective collaboration and partnership. Recognizing that it is the actual implementation of a package that results in effectiveness, key package design elements to support service delivery implementation included entries expressed as services rather than diseases, which supported translation to the delivery context, including monitoring and mapping of health worker competencies.

Normative guidance from the Disease Control Priorities 3rd edition and WHO's UHC Compendium of Health Interventions were used (DCP3 2018, WHO UHC Compendium 2020b). The task force adopted an integrated service delivery approach covering complementary elements including the response of the health system to demands of people, continuum of care across delivery platforms and a package design that supported implementation.

The task force adopted a rationalized architecture of interventions with consistent and nested levels of granularity for different needs. Services were formulated with adequate detail and organized to support mapping of relevant human and material resources required for implementation. This guided decisions about the appropriateness of the total list of services assigned to a given platform.

Furthermore, the structures of the package allowed for the visual representation of the relationship of services across platforms (e.g., related interventions were aligned across rows and interdependent interventions were reviewed and prioritized together). The structure also supported mapping to integrated channels of service delivery.

A visual mechanism to indicate linkages to burden of disease was utilized and included a colour coding system for services that addressed the top causes of death and disability. This allowed for ongoing consideration of this criterion as others were discussed. Arrows indicating progressive goals for implementation were included to indicate both an initial delivery platform and an intended shift to an optimal platform for delivery once health capacity is strengthened and funding becomes available. Figure 4 is the health services pyramid of Somalia.

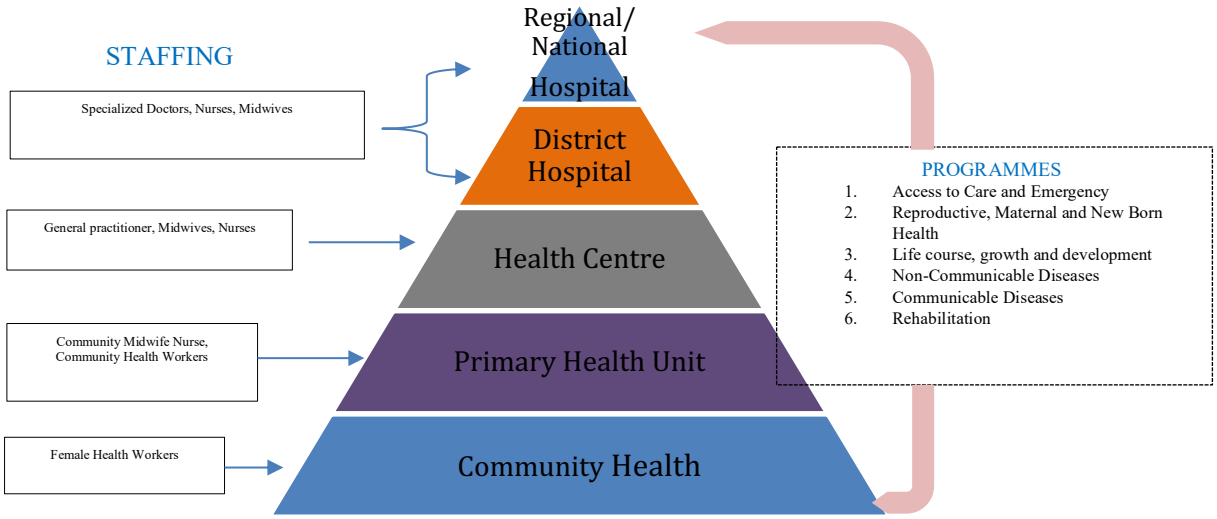

Figure 4. The five delivery platforms of the health care system in Somalia.

11.1 Emphasizing Integrated People-Centred Health Services

The Somalia EPHS 2020 was built on the notion that frontline health workers deliver care across a range of conditions based on the demands of people. People routinely seek care for symptoms (e.g., cough or fever) rather than diseases (e.g., pneumonia or tuberculosis), and many of these symptoms and syndromes are managed and even resolved without a specific diagnosis. The task force therefore highlighted the importance of including demand-driven services for common symptoms and syndromes to avoid distortion of services delivery based only on diseases and to ensure a package responsive to the demands of people.

12.0 Costing and Impact Analysis of EPHS 2020 Somalia

The Somalia EPHS 2020 contains 412 interventions aggregated into six programme areas: 1) Emergency care and approaches to common signs and symptoms; 2) Reproductive, maternal and newborn health; 3) Life-course, growth, and development; 4) Noncommunicable diseases; 5) Communicable diseases; 6) Rehabilitation and palliative care.

The cost of the interventions was estimated using the OneHealth Tool (OHT) (Avenir Health, 2020). The impact of some interventions, for which OHT impact data was available was determined. The scope of cost estimates included: 1) cost of drugs and other supplies, 2) capital, and recurrent costs of health institutions 3) cost of remunerating the health staff participating in EPHS implementation, 4) logistic costs, 5) programme costs.

OneHealth Tool uses a three-step process to estimate drug and supply costs. Firstly, potential numbers of patients/recipients of interventions are estimated based on the user-defined target populations and intervention coverages. Secondly, the average cost of supplying drugs and other supplies of an intervention is estimated based on the user-defined treatment inputs, management protocols, and unit prices of drugs and other supply items. Thirdly, the number

of patients/recipients of intervention was multiplied by the average cost of managing a patient to produce the drugs and supply estimates of the intervention. This procedure was repeated for all interventions in the package throughout the costing period to obtain annual costs. New construction of health facilities was not envisaged in the proposed cost scenario.

Annualized capital costs of the existing health facilities, medical equipment and furniture attached to them were estimated as the rehabilitation cost requirements. The running costs of the facilities: electricity, water, etc. were estimated based on current reported expenditures. Relevant baseline and target numbers of infrastructures and respective cost parameters were obtained from MoH sources and entered into OHT for analysis.

Human resource costs were estimated based on the salary rates provided by MoH. The number of health workers would be increased over time when the staff gaps would be filled to meet the facility-based standards. This increase was factored into the human resource costs over the projection period. As there were data constraints, the costs of logistics were calculated as a percentage (25%) of drug and supply costs. However, human resource and infrastructure costs related to the regional drug supply stores were estimated based on the actual parameters.

The cost of programme activities related to a) the adaptation of guidelines to suit the revised EPHS package; b) in-service training related to the EPHS; c) supervision of the EPHS implementation; d) monitoring and evaluation including the adaptation of the information system, and e) health promotion and community mobilization were considered as required for creating an enabling environment. These costs were calculated using the "quantity x price" approach. Resource requirements of each activity were enumerated based on the nature of the activity and the past program experiences in Somalia for similar activities. This information along with the various unit costs was obtained from implementation partners.

The impact modules of OHT were used for the impact analysis of EPHS scale-up in Somalia. This was based on the scaling up interventions from baseline population coverages currently estimated at 45% to 80% coverage in 2030 were assessed.

The cost analysis of EPHS examines key required resources and suggests a gradual scale-up of the implementation of the EPHS 2020 interventions across the five delivery platforms. At the baseline (2020) with existing coverage, the EPHS implementation cost amounted to USD 105 million. We estimated the cost to gradually increase to reach around USD 626 million in 2030 at universal coverages. This figure reflects an estimated per capita expenditure of US$33 by 2030, with the largest portion of cost increase being attributed to the expansion of priority intervention coverage to cover a bigger population, current non-covered and projected population growth with essential health services.

Table 1 shows the composition of EPHS 2020 implementation costs (US$ mn) from 2020 to 2030.

Cost item	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Total human resources cost	48.2	54.1	60.2	66.6	73.2	80.0	87.2	94.6	102.3	110.3	118.6	895.3
Total infrastructure cost of all facilities	10.5	10.7	11.0	11.2	11.4	11.7	12.0	12.2	12.5	12.8	13.0	128.9
Infrastructure rehabilitation costs	4.4	4.5	4.6	4.7	4.8	4.9	5.0	5.1	5.2	5.3	5.4	53.6
Maintenance and operating cost of all existing facilities	6.1	6.3	6.4	6.5	6.7	6.8	7.0	7.1	7.3	7.5	7.6	75.3
Total medicines and supply cost	36.0	43.3	54.3	68.2	85.7	107.8	136.7	174.4	223.9	288.9	375.1	1,594.3
Total logistics cost	9.6	11.7	14.8	18.9	24.1	30.7	39.6	51.5	67.4	88.6	117.3	474.2
Warehouse cost	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1
Logistic worker cost	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	6.5
Drug transport cost	9.0	11.1	14.2	18.2	23.4	30.1	38.9	50.8	66.6	87.9	116.6	466.6
Total program costs	0.2	1.5	1.1	1.3	1.2	1.3	1.3	1.3	1.3	1.4	1.5	13.3
Grand total	104.6	121.3	141.5	166.1	195.6	231.6	276.7	334.1	407.3	501.9	625.5	3,106.0

The largest share of the EPHS implementation cost is attributed to human resources (46%) followed by medicines and other supplies (34%). The infrastructure and logistics costs account for 10% and 9%, respectively. The distribution of these resources is similar to the results identified in a 2014 costing study of the EPHS in Somalia (Balaakman A. 2014).

Figure 5 below shows the cost components of the EPHS.

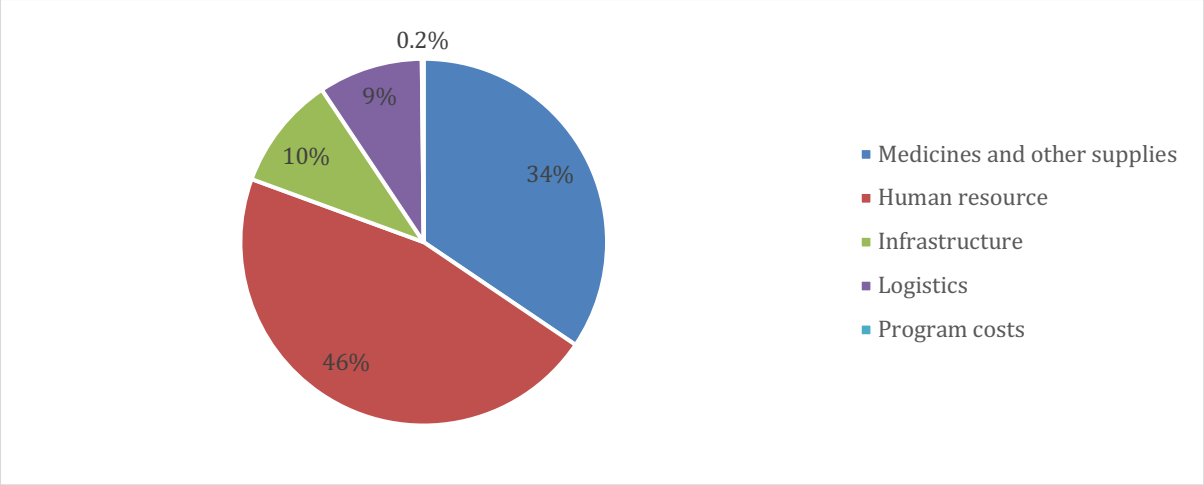

Figure 5. Per cent of estimated baseline cost of EPHS by cost components in 2020.

Analysis of EPHS implementation costs by facility type shows that nearly 80% of EPHS implementation costs would be consumed by primary health care institutions. Figure 6 presents the total cost of the EPHS by the five delivery platforms and the regional health management teams.

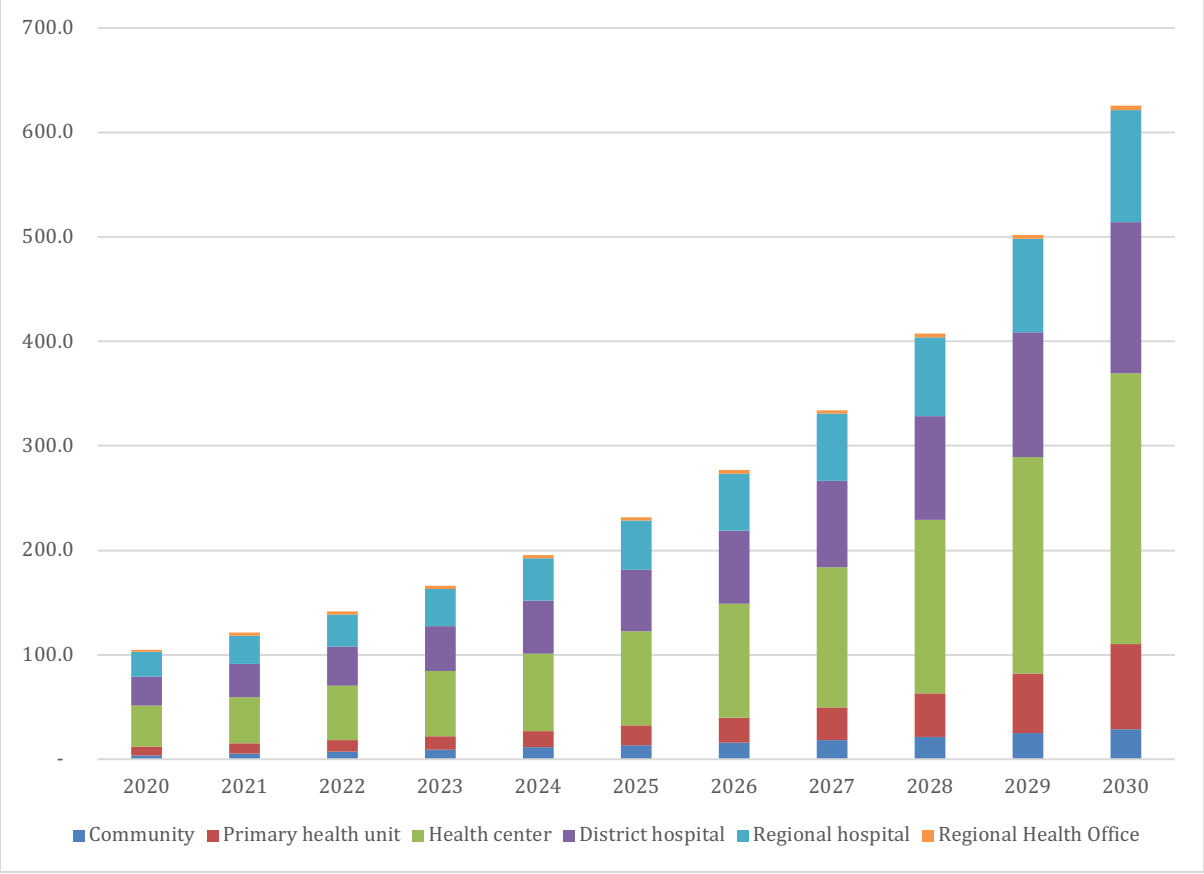

Figure 6. Total cost of EPHS implementation from 2020–2030 by type of facility.

The revised EPHS was designed to be flexible and adaptable to resource constraints and it indicates core and extended scenarios to support progressive realization and future expansion of the service package. This allows for the need to ramp up capacity and for flexible operationalization for different contexts that may have distinct platforms/constraints including geographical/security constraints affecting access.

13.0 Linkage with Monitoring and Evaluation

MoH adopted a right-to-health approach with an emphasis on ensuring access for the most vulnerable. The EPHS sets the direction for the development of an implementation plan that progressively adds more services of increased quality that are made available to more people. At the time of the design of the EPHS, there was not yet a unified and standardized national Health Information Management System, or a harmonized list of indicators. The EPHS implementation plan sets measurable objectives that can be monitored with a well-established information system. Special attention was given to sex-disaggregated data and data on vulnerable populations. Mechanisms to enhance access to EPHS services have been designed, including an integrated disease surveillance system, and complaint mechanisms.

EPHS design process was used as entry point to define the purpose and scope for a system, so it supports an area-based, district health management approach with supportive supervision, as a cornerstone for the implementation of the package and for improving overall accountability. Users of the information include facility managers who oversee quality improvement processes, health management teams who manage EPHS implementation and plan services based on population health needs, and national authorities who report achievements, increase accountability and design incentives.

Routine data collection systems complemented by surveys and community-based surveillance systems and mechanisms to collect qualitative information constitutes the basis of an integrated health information system. The District Health Information System (DHIS2) is the platform used to upload and analyse this type of information, as this has already been introduced in Somalia. This platform is used to calculate a range of key performance indicators that monitor trends in outputs, utilization and coverage such as the number of outpatient department visits (per person per year), proportion of births attended by skilled health personnel or immunization coverage levels (WHO 2015f, PHCPI 2018).

The integrated disease surveillance and response (IDSR) system complements the Routine Health Information System, to manage alerts, investigation and response to potential epidemics. Indicators for monitoring has been defined, including timeliness and completeness of the reporting, and investigations done within 48 hours building on the experience of the countries in the region (Fall IS., Rajatonirina S. et al. 2019).

A national list and mapping of all public and private health facilities obtained from the Service Availability and Readiness Assessment Survey (SARA) of 2016 and the HeRAMS (Health Resources Availability and Monitoring System) allows regular updating of functionality of facilities to support the humanitarian programme (MoHHS 2016g, WHO 2018g). A standard list of key indicators was developed to monitor the number of health

facilities offering specific services per 10 000 population, and meeting minimum service standards based on tracer criteria for specific services, the percentage of the population living within a 5 km radius or one hour's travel to a health facility and the total number of beds per 10 000 (WHO 2016h).

Table 2. Overview of data sources as an engine for improvement in data completeness and quality

	Facility-based routine information and data			Household surveys	
M&E domains	RHIS	IDSR	Facility mapping	SHDS	Expenditure, health-seeking behaviour and barriers
Availability of package	√		√	√	√
Provider performance	√				
Quality of services					
Utilization & barriers				√	√
Preparedness		√			
Patient satisfaction				√	
Service coverage	√		√	√	√
Financial protection					√
Burden of disease	√			√	

The data sources and indicators generated through these systems are integrated in comprehensive district and regional dashboards. Dashboards include indicators on service availability, their effective use, unmet needs, service quality and outcome measures necessary for monitoring and evaluating the EPHS and quality of services and their impact.

For accountability, the implementation strategy includes an independent monitoring and evaluation by a third-party monitoring agency and complaint and resolution mechanism so people can be supported to reach a solution to problems.

14.0 Linkage to Other Health System Functions

The EPHS translates HSSP-II and the Roadmap towards UHC to an implementable EPHS to address the significant gaps in service delivery. The EPHS also serves as the foundation for improving the overall effectiveness of the health system performance. The policy options elaborated in the revised Health Sector Strategic Plan-III of 2022, guides the health system strengthening strategy (MoHHS 2022h).

The implementation strategy of the EPHS has revealed a critical shortage and the unequal distribution of health worker, particularly in the rural and nomadic communities. This has led to a review of human resources for health which identified priority areas for action related to

production and deployment of critical midlevel health workers, including, but not limited to midwives, nurses and community health workers (MoHHS 2021i).

Improving oversight and regulatory functions, strengthening procurement and supply chain management, health financing and public health management are other reforms the government is implementing to ensure the delivery of quality health services to the Somali population.

15.0 Strengthening Subnational Governance

Regional and district health offices are key to ensuring successful implementation of the EPHS 2020. District and regional health authorities tasked to ensure that services are available and effectively delivered. Being close to the field, regional and district health offices are well positioned to hold providers accountable and to collect feedback on service delivery from users. They play a key role in informing policymakers on the need for package adjustments and delivery modalities, as well as providing input on resource allocations in their districts.

District management teams serve as an interface with the community to generate demand and provide crucial oversight of resources to optimize service delivery, increase equity and efficiency and improve how patients access and move through the health system. These roles are defined in the revised EPHS (MoHHS 2020j).

16.0 Adaptation of Package to Different Contexts to Foster the Humanitarian-Development Nexus

The design of the EPHS allows for a quick ramp-up of capacity as well as for flexible operationalization for different contexts that may have distinct platforms or constraints, while the package is intended to be delivered through a district primary health care approach that includes standards on the number of delivery platforms per district to serve the population in the district.

Additional adaptations include the nomadic populations to facilitate referral pathways and support transportation. Special considerations are applied using outreach and mobile facilities in insecure/limited accessibility areas.

Table 3 illustrates possible adaptations for district health and service delivery platforms in different operational contexts. While some general benchmarks are proposed, they are adapted to local conditions. Adaptations are led by district health management teams who are responsible for assessing and managing the accessibility and functionality of the health facilities in their areas.

Table 3. Adapting package operationalization in different contexts.

Context characteristics	District in rural context	District in urban context	Nomadic populations	Insecure and/or inaccessible areas
	Lower population per district, with lower population density	Larger population per district, with higher population density	Populations that move across administrative boundaries of districts	Boundaries based on accessibility and security; areas served through humanitarian hubs
Assumption for adaptation	Local differences in population density need to be considered when planning locations for the facilities for upgrading the health network to progressively increase coverage of service availability based on with 5 kms distance and/or 1 hr travel time	More efficient to increase the capacity of one health centre or district hospital to serve the catchment population within 5 km/1 hr travel, rather than rigidly adhering to the standards for rural contexts	For smaller nomadic populations it is more efficient to invest in first aid and stabilization capacities of the community health worker, and transport for referral	Referral pathways need to be defined for each hub, whereby it may be desirable to upgrade a health centre to district hospital, or district hospital to regional hospital. Special consideration is given to support transport to referral facilities
Community services	1 community health worker per 600–1000 population	Same	Same	Same in accessible areas
Primary health unit	1 primary health unit per 1000–10 000 population	Same	Same	Same in accessible areas
Health centres	1 health centre per 20–30 000 population	1 health centre per 20–30 000 population, with capacity adapted to catchment population within 5 kms or 1 hr	Mobile clinic that follows the population, or flexible referral pathways to nearest health centre with investment in transport capacities	mobile health and nutrition teams to provide services

			within nomadic population	
District hospitals	1 district hospital 120 000–150 000 per population	1 district hospital per 120 000–150 000 population, with capacity adapted to catchment population within 5 km/1 hr	Flexible referral pathways to nearest district hospital, with investment in transport capacities within nomadic population	District hospital in a town that services as the humanitarian hub for a geographical area or upgrade to district hospital in the accessible area.
Regional/national hospital	Existing national, regional or specialized hospitals			
Surge capacity or specialized treatment centres linked to acute or chronic emergencies	Temporary treatment centres, when there are epidemics, drought, floods or nutrition rehabilitation units when there is increased food insecurity phase. Additional temporary staff is recruited for the duration of the increased health needs, but in other cases, existing staff is repurposed to these treatment centres. When this happens, there is an inevitable effect on the capacity to maintain services as per the EPHS, and further reprioritization needs to be anticipated in contingency plans to suspend temporarily noncritical services.			

17.0 Linkage to Service Delivery Reforms

The revised EPHS aims to address all high burden conditions through simple, low-cost, high-impact interventions; establish demand-driven services to facilitate more accurate costing, facilitate integrated service delivery; link services to level of care; allow operationalization of the package in variable contexts with distinct delivery platforms; provide a foundation for service planning, workforce mapping and training competencies; support progressive realization and account for the need to increase service delivery capacity over time; and support expansion to additional services when additional resources become available.

The private sector plays a critical role in the health sector of Somalia. It is, however, largely concentrated in the urban centres and predominantly focuses on clinical and surgical care. Somalia's private sector delivers an estimated 60% of health services and supplies 70% of medicines (Buckley J., O'Neil and Aden AM., 2015) To realize the full potential of the private sector, the government is strengthening its regulatory bodies with the objective of ensuring the quality and safely of pharmaceuticals and medical devices (MoHHS, 2021k).

18.0 Linkage to Financing Mechanisms

During the EPHS revision process, Somalia encountered several challenges related to financial affordability, limited implementation capacity, and weak governance, compounded by the COVID-19 pandemic, which pressured the already-stretched service delivery capacity. of the available resources to ensure the feasibility and success of the revised EPHS. Somalia has developed an investment case for the health sector 2021–2026 as the main instrument to support transformational changes and financial reforms that can unlock and accelerate efforts to secure predictable financing for the delivery of the EPHS (MoHHS, 2021).

While sustainable public financing is expected in the long term, the short-term implementation of the EPHS will depend on a combination of domestic resources and sustainable and predictable foreign aid and private financing that can reduce the high out of pocket payment and its devastating impact on household income.

19.0 Limitations and Future Directions

Weak health system capacity, inconstant quality of care, lack of financial information and data gaps, limited analytical skills in economic evaluation and fiscal analysis, community consultation and institutionalization were some of the key challenges the EPHS revision process has encountered.

While the Somalia Health and Demographic Survey of 2020 and the Global Burden of Disease database filled some of the data gaps, the absence of some critical data required the use of expert opinion which was complemented by the data extracted from the health management information system and other reports.

To overcome the data gaps and fragmentation, the government developed an integrated Health Information Management System which uses a single digital platform for data collection, validation and analysis provided by DHIS2. Digital mobile solutions for data collection and reporting are also deployed in remote areas.

20.0 Lessons Learned

The importance of country preparation and the establishment of a deliberative approach through a structured coordination, and an inclusive consultation process involving all stakeholders was critical in achieving consensus on a prioritized, highly cost-effective package of health services that are responsive to the health needs of the people.

Ensuring government ownership of the design and implementation of the EPHS, and mapping of potential financial resources available for EPHS service delivery, was an integral part of the EPHS development process and provided a clear roadmap for the implementation of the EPHS.

Implementation models must continue to prioritize the capacity of Regional and District Health Management Teams with supervision and integrated action planning and tracking at all levels.

Similarly, expenditure tracking and strategic rationalization decisions need to be made annually by region and district to improve coverage (breadth) and to determine size of the package (depth).

The establishment of clear criteria supported by locally generated evidence on the prioritization of EPHS service package is essential. Similarly, local capacity-building for skills on burden of disease analysis, economic evaluation and costing of the service packages are also critically important for the development of the package.

The inclusion of implementation considerations and the ability to adapt the package to various local conditions as part of the design and organization of the EPHS package has facilitated the planning process of the district management teams. Similarly, the implementation of public administration reforms, including public financial management and establishment of a functioning supply chain management were deemed critical for the implementation of the package.

The establishment of a monitoring and evaluation mechanism of the EPHS, which includes the generation of evidence such as UHC service index considered central for garnering the support from decision-makers and stakeholders.

Engagement of the private sector to enhance access to quality primary health care services is crucial for expanding the EPHS. Similarly, the engagement of other sectors in the design of the package and the promotion of a multisectoral approach are necessary for tackling the social determinants of health.

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