Expanded Program on Immunization

National Immunization Policy

Federal Republic Somalia

Aug 2019

Contents

Acronyms

AD	Auto-disable syringes
AEFI	Adverse Events Following Immunizations
AFP	Acute Flaccid Paralysis
BCG	Bacillus Calmette–Guérin
cMYP	comprehensive Multi-Year-Plan
CBOs	Community Based Organizations
CHD	Child Health Days
CHW	Community Health Worker
CSOs	Civil Society Organizations
DPT	Diphtheria Pertussis Tetanus
DPT-HepB+Hib	Diphtheria, Pertussis, Tetanus, Hepatitis B and Haemophilus Influenza type b vaccine
EPHS	Essential Package of Health Services
EPI	Expanded Program on Immunization
EVM	Effective Vaccine Management
FHW	Female Health Workers
GAVI	Global Alliance for Vaccines and Immunization
GVAP	Global Vaccine Action Plan
HIV/AIDS	Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome
HiAP	Health-in All-Policies
ICC	Inter-agency Coordination Committee
IEC	Information Education and Communication
ILRs	Ice lined Refrigerators
IPV	Inactivated Polio Vaccine (Check the statement in the policy)
JRF	Joint Reporting Format (UNICEF/WHO)
MCH	Maternal and Child Health
MCH/OPDs	Maternal and Child Health/ Out Patient Department
MDG	Millennium Development Goal
MNT	Maternal and Neonatal Tetanus
MOH	Ministry of Health
NGOs	Non-Governmental Organizations
NID	National Immunization Days
NITAG	National Immunization Technical Advisory Group
NRA	National Regulatory Authority
OPV	Oral Polio Vaccine
PHC	Primary Health Care
REC	Reaching Every Child
RED	Reaching Every District
RMNCH	Reproductive, Maternal, Neonatal and Child health
SDGs	Sustainable Development Goals
SIA	Supplemental Immunization Activity
SWOC	Strengths, weaknesses, opportunities and challenges
SMA	Somali Medical association
TT	Tetanus Toxoid
UHC	Universal Health Coverage
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
VPD	Vaccine Preventable Diseases
VVM	Vaccine Vial Monitor
WCBA	Women of Child bearing Age
WHO	World Health Organization

Forward

Pursuant to the over-arching reforms in the health sector, the Federal Ministry of Health (FMOH) has laid out its strategic directions based on the existing capacities in terms of policy formulation, good governance, planning, implementation and effective monitoring and evaluation of priority programs. The maternal, neonatal, and child health is placed on the top of the national health agenda and the Somali government is a key partner with all Global Health Initiatives (GHI) and has endorsed the strategy of Global Alliance for Vaccines and Immunization (Gavi), the Global Vaccine Action plan (GVAP), and most recently the Global Financing Facility (GFF) for the Reproductive, Maternal, Newborn, Child and Adolescent Health (RMNCAH).

The Government of Somalia recognizes the importance of immunization as the most cost-effective tool to control certain major communicable diseases and has always been at the forefront to reach its people with equitable immunization services. The FMOH strongly believes that investing in immunization services throughout the country is investing the future of the nation. However, it underlines that EPI program will only achieve its objectives through a well-functioning health system. Thus, the FMOH policy is dedicated to immediately deploy two-pronged strategy, one which is addressing the vaccination activities and the other which tackles the health system issues.

The country ratified the Universal Declaration of the Convention of Children's Right and is guided by the principles and values attached to the convention. Somalia has so far, followed an outdated national immunization policy that had been in place for more than 30 years. With the evolving immunization and vaccines technology and with the specific introduction of DPT-HepB+Hib Pentavalent vaccine, and a future plan of subsequent introduction of other new and under-used vaccines, there was a pressing need to develop an updated policy that provides viable strategic directions for improving and scaling up national efforts towards the universal health coverage goal (UHC2030).

The new policy highlights the partnership goal of the SDGs, it reiterates the leadership commitment to the principles of aid-effectiveness and it underlines the importance of ownership by the nationals. In a nutshell, the Somali government believes that ownership without delivering should not be the case whatsoever, but it should be measured only against concrete EPI outcomes. The policy urges that the minimum acceptable vaccination coverage throughout the country should be at least 90% of infants receive all vaccines in the EPI schedule before age of 1 year and at least 80% of pregnant women receive minimum 2 doses of TT at least one month before delivery.

On behalf of the FMOH, I take this opportunity to reaffirm the full support of the FMOH to the States and Regions to further strengthen the local institution's capacities to enable them provide the necessary leadership in States' health system strengthening in general and in scaling up the immunization services in particular. The FMOH has already taken concrete steps in supporting the health sector decentralization process with focus on governance and financing. Every effort will be made to facilitate the State's planning process, implementation, capacity development, supervision and logistic support with regards to vaccination activities.

My sincere thanks to our partners who have been with us all the time to finally embark on a new platform for the benefit of our women and children. My special thanks goes to those who were involved in developing this policy that will consolidate all our efforts and will undoubtedly help all partners streamline their activities to ensure the attainment of the policy overarching goal which calls "leaving no one behind".

Dr Fawziya Nur
Minister of Health, Ministry of Health,
Federal Government of Somalia

1. Background and Introduction

The Health Sector of Somalia has been in transition moving from emergency through rehabilitation to a fully-fledged reconstruction of the health infrastructure. Given the political developments during the last decade, the national and international efforts had collectively made significant progress in scaling up their commitments through enhanced collaboration and ensuring programmatic responses. Following this, the health sector was among the few sectors that have made major strides in securing robust polices and medium term strategic plans. Among others, the service delivery mechanisms, commonly known as the essential package of health services (EPHS) has been a major milestone, not only in delivering basic services but it has turned out to be a far-reaching tool for unifying partners to stand behind one strategy, for better resource allocation, for improving quality and equity, and for monitoring program performance.

The health sector profile of the country is shaped by a combination of certain strengths, weaknesses and challenges. The key strengths include: the health system thinking at policy-making level; the continuous expansion in service delivery; the existing health sector strategic plans; the shifting of available resources from emergency to system development; the defined essential health packages; and the donors alignment around the national health policy; and the increasing role of the Diaspora. The overall weaknesses were documented as: fragmentation of health system functions; under-funding with rudimentary infrastructure in many districts; shortage of qualified health workers in remote districts; weak institutional capacities (MOH) in many States, scarcity of data; and unregulated private sector.

The challenges include: meager resources for the public health sector; poor health service infrastructure mainly in the south central; unpredictable external aid to the health sector; loss of human capital; poor access to health care delivery by the nomads and scattered population; inaccessibility to insecure areas; unhealthy lifestyle and harmful practices; and major determinants of health such as unplanned urbanization and deteriorating environmental factors. However, many opportunities are out there that requires to be thoroughly examined. Among others, the on-going political developments and increased stability in South-central areas, the growing pre-service training institutions, the advancing communication, the return of Diaspora health professionals, and the increasing role of civil society organizations in health sector are all encouraging signs for embarking on a far-reaching sector reform.

The country has failed to meet the MDGs health-related goals. Infant and under five mortality rates remain abysmally high, and the maternal mortality is among the worst in the world. A critical shortage of health workforce coupled with continuous challenges of recruitment for new professionals at all levels remain a daunting challenge. Emergency-oriented and humanitarian activities still play a major role in the health sector, and the burden of large numbers of internally displaced persons remains an overwhelming task for ministries of health and health-supporting agencies, especially in the South. Successive outbreaks of certain vaccine preventable diseases such as measles were frequenting and still remain a major public health threat in this country. Without strong and effective routine EPI program

the national efforts towards polio eradication will also be in jeopardy. Moreover, an incontrollable and open border poses a serious threat to the polio endgame.

The EPI is priority program which has relatively been successful especially in Somaliland and in Puntland, nonetheless, the overall immunization coverage in Somalia has been unacceptably low. As compared to other public health programs the EPI program is by far well-funded and has relatively adequate resources, both material and manpower but in reality it has not been translating this opportunity into acceptable gains. Only one reason might be accepted without further argument for not performing well but largely there are unknown factors that are responsible for the poor performance throughout the country. Needless to say that security remain the main culprit in many districts of the South-central Central regions and therefore lack of access to eligible population in these areas is considered as the key factor behind the missing children.

In light of the current situation, a pathfinder EPI policy with new strategic directions, and well-articulated action points that enjoys the full support of all stakeholders is being launched. The policy is based on lessons from past experiences, on the overall context, on profound SWOC analysis, and on innovative approaches intended to effectively address the immunization program gaps and challenges. It highlights the guiding principles and values of the development process, it outlines the health care delivery model- the EPHS through which EPI is being delivered, and more importantly, it outlines the core strategic directions for translating the policy objectives into activities and outcomes.

2. EPI Policy Development Methodology

Using the lessons learned, the process of developing an updated EPI policy was much more than formulating a document. It was designed to be a learning exercise where partners focus on innovative ways not only for EPI service delivery but for envisaging the long-term business in establishing an effective and sustainable immunization program which is an integral component of the overall Somali health system. The policy ingredients were collected through:

- ***Extensive document reviews for collecting as much information as possible:***

Huge efforts were made to search for appropriate and reliable information and intelligence that could help formulate a robust national EPI policy. Notably, the recent Somali health sector reviews, the health sector strategic plans, the Gavi strategy, the global vaccine action plan, and the UHC 2030 partnership have been very helpful to provide not only directions but a vision for embarking on a new platform for immunization.

- ***Engaging with Senior Health Authorities to ensure support and a common position:***

Two-pronged strategy were at the center of this task. Ensuring the leadership support to EPI program in general and the new directions in particular followed by sensitizing them to strive for mobilizing domestic resources and for reinforcing the health system thinking approach. Such interactions were found to be very useful for the new leaders to update them on the current global initiatives such as the UHC 2030 partnership; on collaborative programs related to immunization; and on global efforts towards SDGs health-related goals.

- ***Consultative meetings with UNICEF and key NGOs***:

Three objective were pursued under these activities: (i) to obtain as much technical and managerial information as possible (ii) to ensure inclusiveness and a common position; (iii) and to bolster existing collaboration and ensure a shared responsibility. Listening and understanding their perspectives were very useful to ensure synergy and harmonization.

- ***Devising instruments for facilitating the policy development process:***

For quality purpose, an assessment framework was proposed to ensure the development of well-structured policy document. As part of the methodology this exercise has divided the content of the policy into several key domains. The initial process, the context, the connectivity with higher frameworks, the service delivery model; and the main technical components of EPI program.

- ***Policy formulation process workshops:***

The workshops were designed to brainstorm on innovative approaches and interventions for the development of an effective program policy and minimum acceptable standards and benchmarks for implementing EPI at all levels of service delivery. Multiple stakeholders in EPI participated in and played a major role in hands-on working sessions, looking at the various components of an original draft.

2.1 The process guiding principles:

To ensure quality, openness, and balanced views of the process the following principles were effectively and consistently pursued throughout the process. For example, ownership by the government was considered as the fundamental principle for undertaking such an important initiative for strengthening the EPI program in Somalia with the purpose of reaching the missing children and pursuing the policy of leaving "no one behind". Moreover, bringing all stakeholders on board to stand behind the initiative was a key instrument for ensuring inclusiveness and a collective vision. The major principles and values for undertaking the policy process included:

- Ownership by the government
- Inclusiveness
- Collective vision
- Profound intelligence gathering
- Clear purpose and objectives
- Proper guidance
- Technical soundness
- Teamwork
- Solidarity
- Shared responsibility and mutual accountability

2.2 The Scope:

The policy operates within the framework of the national health policy, and is delineated by the overall objectives of the Somali health system. The national EPI Policy is a handy instrument that provides the overall strategic directions and key policy recommendations to the national health authorities and its partners on EPI program objectives and priorities. It covers the sub-national level including the States, the Regions, and Districts. The policy document conveys a clear message on the commitment to a priority program that is led and owned by the government. It represents a key component of the essential public health package that should be delivered under the universal health coverage principles. The document furnishes policy statements on the overall government decisions vis-à-vis immunization requirements, it underlines eligibility with clear technical guidelines on various antigens, on immunization schedule, on target diseases, on cold chain and vaccine management systems, on injection safety, and on reporting and monitoring procedures.

3. Context

This country occupies approximately 637,657 square kilometers of area in Africa, on the Eastern coast borders the Indian Ocean and the Gulf of Aden. Djibouti on the northwest, Ethiopia on the east and Kenya on the South. The population of the country is estimated of 14.3 million in 2016 with an overall population density of nearly 24 people per square kilometer[1]. Somalia has the second longest coastline in Africa, estimated of 3300 km. The defining feature of the country is vast expanses of semi-arid or arid, low-lying scrubland, most of which is suitable only for nomadic pastoralism. Because of climate change, severe drought affecting both agriculture and livestock remain some of the major challenges the country has been facing. Epidemics and outbreaks of communicable diseases are quite common. The internally displaced populations are scattered all over but are concentrated in the South.

The number and density of doctors, nurses and midwives in Somalia remain below four per 10,000, which is far below the minimum threshold of 23[2]. Challenges in recruitment exist as limited posts are provided by civil service commissions to employ trained health professionals. There are no incentives to attract and deploy health workers to rural and remote areas. Health workforce salaries are very low and often released after long delays. Salary top-ups are provided by donors through various externally funded projects to specific staff, leading to discrepancies and demotivation among others. The Per capita public expenditure on health is about US$ 10–12 per person per year[3], which increases the risk of financial burden especially on poor populations with high out-of-pocket expenditure.

3.1 Immunization System

The EPI was launched in 1978 with the support of bilateral and multilateral organizations. UNICEF and WHO were the lead agencies in technical and material support. The program expanded through PHC nationwide networks with the purpose of reaching the rural and the nomadic population as these segments of the Somali population forms the majority and remained underserved. The performance of the routine immunization was not very successful however, the policy of mass campaigns uplifted the coverage throughout the country. Whatever the program has achieved, the civil unrest and the national warfare that started in 1988 and 1991 has devastated the nation's infrastructure. The EPI was one of first public health preventive program that was re-launched again soon after stability returned to some parts of the country.

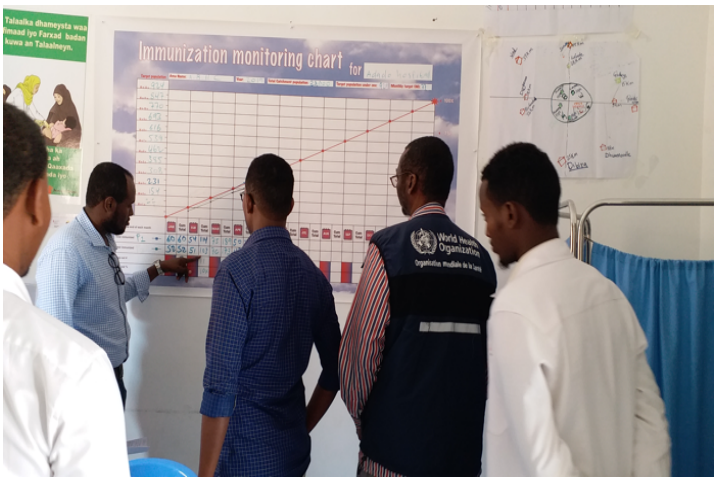
Currently there are more than 300 MCH centers that are providing immunization services. The MCH/OPD are networks of close-to-client outlets of primary health care unit. The ministry of health is fully responsible and provides leadership in policy formulation and in program implementation. UNICEF is the major financier and partner of EPI in Somalia. The UNICEF support to EPI includes: procurement and distribution of vaccines and injection equipment of assured quality, maintenance of cold chain, production and dissemination of monitoring and

[1] PESS, UNFPA https://somalia.unfpa.org/sites/default/files/pub-pdf/PESSBriefingNote_Nov13.pdf
[2] Somali high level health sector review, 2015
[3] WHO estimates in Somali health sector reviews, 2015

management tools, production and dissemination of IEC materials, provision of financial assistance to partners for implementing outreach immunization sessions.

WHO provides technical assistance to the government and all partners; and is the second major financier of immunization activities in the country. It provides technical guidelines and training programs to health workers and management structures. WHO supports an extensive network of the polio eradication initiative which helps the mass immunization campaigns; and the surveillance of vaccine preventable diseases (VPD. There are a number of international and national NGOs supporting immunization activities in the country which are accountable to the ministry of health. These NGOs run most of MCHs, and are involved in immunization service delivery, disease surveillance, social mobilization, training of health workers, supporting logistics and provision of technical and financial support.

3.2 Higher Level Frameworks and Immunization Program:



The current policy emphasizes the importance of the EPI program that is well placed in the national health policy (NHP), it reflects the objectives of the Comprehensive Multiyear Plans; it is connected to the global vaccine action plan (GVAP); to the sustainable development goals(SDGs); and to the universal health coverage initiative (UHC). Immunization is documented as a priority program in the NHP, and remain one of the core programs in the national service delivery package. The NHP urges the Somali leadership and development partners to join hands in effectively pursuing the policy of sustainability. It recommends the holistic approach for building the country's health system and raises loud enough the role of EPI in moving towards the SDGs and ultimately the UHC goal.

The immunization policy strongly advocates for what the country has endorsed in the GVAP, it observes its guiding principles, and pursue the GVAP six strategic objectives which calls: (i) All countries commit to immunization as a priority; (ii) Individuals and communities understand the value of vaccines and demand immunization as both their right and responsibility; (iii) The benefits of immunization are equitably extended to all people; (iv) Strong immunization systems are an integral part of a well-functioning health system; (v) Immunization programs have sustainable access to predictable funding, quality supply and innovative technologies; and (vi) Country, regional and global research and development innovations maximize the benefits of immunization.

As for the SDGs, the Somali government has officially launched 2030 development agenda-SDGs in an event participated by more than 200 people representing national stakeholders and development partners[4]. This was a sensitizing event where the government reiterated its commitment to the social sector including health. The MOH capitalized the presence of all key stakeholders led by the highest government authorities and communicated loud enough and long enough with health agenda and priority goals including vaccine preventable diseases. The EPI programs will be an integral part of the global financing facility for RMNCAH. The latter is a country-driven partnership that aims to accelerate efforts to end preventable maternal, newborn, child and adolescent deaths and improve the health and quality of life of women, adolescents and children.

UHC means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care[5]. Full child immunization is among the WHO defined 16 essential health services. In 2018, Somalia joined the UHC Partnership (UHC-P), which supports the development of a roadmap towards health systems in emergencies and the launch of a humanitarian nexus to support health system strengthening in 2019[6]. The UHC-Partnership supports the planned revision of the essential package of health services to ensure a comprehensive package that includes hospitals, health facilities and community level health services to strengthen PHC. Immunization is well-placed in UHC framework with focus on those with greatest need.

3.3 Service Delivery Model: Essential Package of Health Services

The essential package of health services (EPHS) is designed for the four levels of health service provision and divided into 10 programs, of which six core programs are provided at all levels and four additional programs are provided only at the referral level. Full implementation of EPHS in all regions is not possible due to shortage of funds and trained staff, scarcity of medical supplies and indeed security concerns in certain districts[7]. Nevertheless, rolling out of EPHS in a relatively short time has helped turn around deteriorated facilities, improve standards of staff performance, implement essential drug lists and ensure better treatment.

The EPHS is the vehicle for the EPI delivery at all levels. The primary health unit (PHU) level which is the grass-root level has so many roles to play in immunization activities. The policy strongly advocates the use of the protocols provided in the Standard Operating procedures (SOPs) or Minimum Service Delivery standards (MSDS) for EPI under EPHS framework. In short, this level which is run by a CHW will help the immunization during the outreach services, during the campaigns, during microplanning and for routine activities related to advocacy, mobilization, organization and coordination. These are the requirements for EPI, they are considered as the input indicators at PHU level that will be measured against the work of the community health workers.

[4] Somalia Launching SDGs, http://sdgs.nayd.org/2016/04/somalia-launches-2030-sustainable,
[5] WHO UHC factsheet
[6] UHC 2030 partnership, 2018
[7] Somali high-level health sector review, 2015

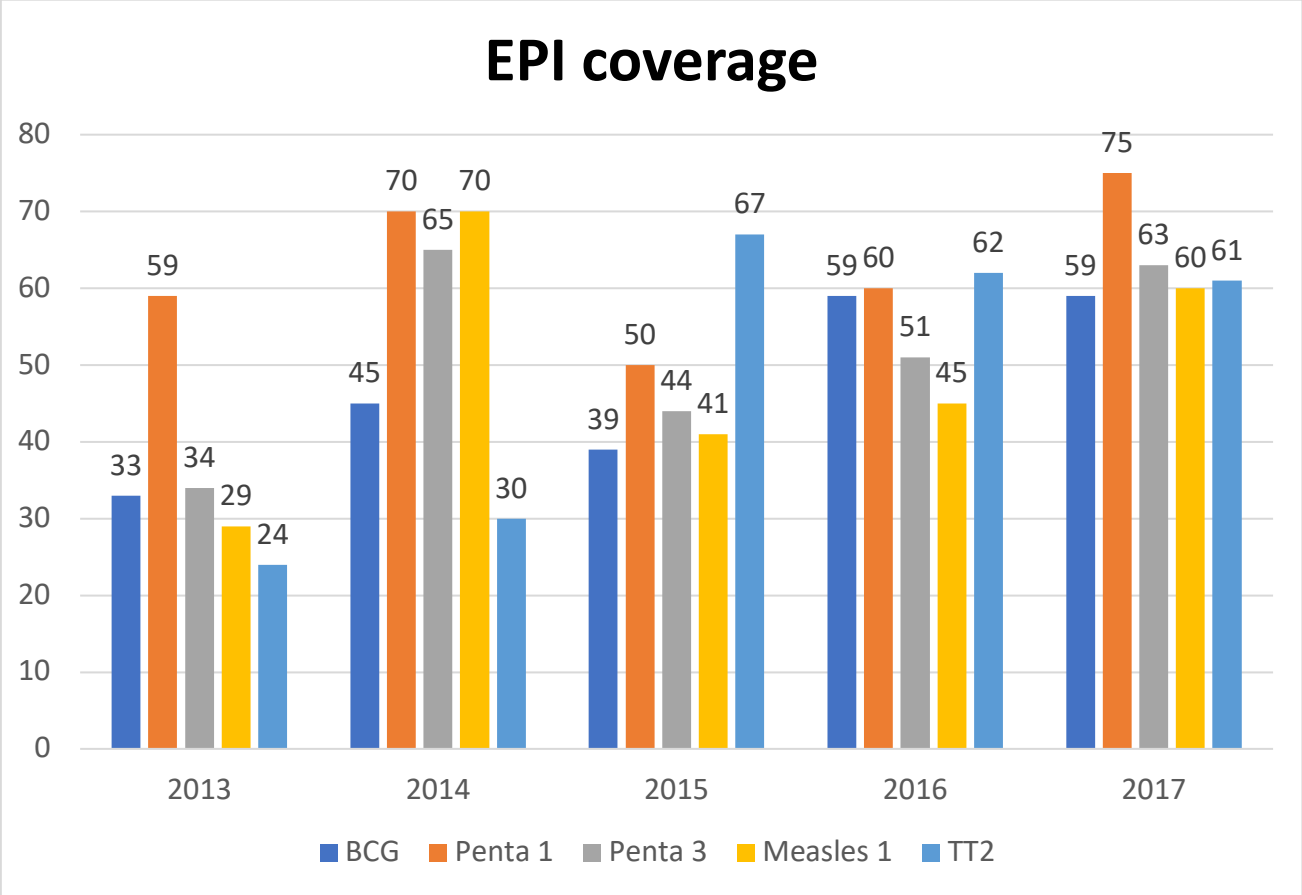
The health center level (HC) is the main delivery arm for immunization services. The policy recommends all HCs should be able to deliver the minimum acceptable level of services that achieves at least 90% of infants receive all vaccines in the EPI schedule before age 1 year and at least 80% of pregnant women receive minimum 2 doses of TT before delivery. The policy supports the provisions in the SOPs to be closely observed to ensure that EPI requirements are explicitly defined at the level of health center. The required minimum standard for human capital such as the number of workforce, skills and competencies, the equipment, the reporting mechanisms, and the system of program coordination are unambiguously provided in SOPs. Similarly, the requirements for EPI program delivery for the remaining two centers such as the referral health center and the hospital level should be defined and applied on the ground. Thus, the policy anticipates that the existing gap between immunization services and the EPHS delivery levels will be bridged once the minimum acceptable standards for the vaccination program are fulfilled.

The policy foresees the possibility of engaging selected private sector facilities in EPI service delivery where vaccination activities are regularly carried out, where the national EPI policy guidelines and recommendations are strictly followed and where vaccine safety norms and reporting systems are in line with the public system. The policy fully supports all workable strategies and approaches but indeed of acceptable quality for expanding the immunization services to reach the missing children. Every service delivery model, through public and/or private will remain central to national efforts in improving EPI program. The policy underlines equity as a value-based principle with focus on the vulnerable segments of the populations throughout the country to ensure the benefits of immunization are equitably extended to all people.

The public-private mix in health care is another delivery model that could be explored further. The advantage is linked to the fact the ministry of health is reaching out to private providers -be they for-profit or not-for-profit in order to tap into their resources and experiences. The policy supports all efforts for seeking innovative approaches for the purpose of expanding the immunization services.

3.4 Routine Immunization Performance:

The overall program performance was sluggish and the immunization coverage continuously remained low over the last decades. Instability and civil strife were largely responsible for the poor performance of the program albeit other factors were and still out there and should be profoundly examined. However, significant improvements in immunization coverage have been witnessed in recent years. BCG coverage was 33% in 2013, improved to 59% in 2017. Penta 1 was 59% in 2013 improved to 75% in 2017. Penta 3 has risen from 34% in 2013 to 63% in 2017, improvement is also observed in measles 1 coverage from 29% to 60% from 2017 to 2017. TT2 coverage has also improved from 24% in 2013 to 61% in 2017. Significant improvement was also observed in measles 1 coverage from 29% to 60% from 2017 to 2018. TT2 coverage has also improved from 24% in 2013 to 61% in 2017. The following chart shows increasing performance of vaccination coverage over the last 5 years.



EPI program performance in the 5 years.

The national EPI policy calls for partners in EPI to continuously review the program performance, not only in terms of outcomes such as the coverage but rather focus on higher level commitments, policy and strategic planning, program governance, partnerships, role of all stakeholders and service delivery models. The EPI program reviews should use relevant performance assessment frameworks and instruments that have multiple purpose and not looking immunization services in isolation. Previous reviews were sketchy and have not

produced any meaningful results as far as program performance is concerned. Proper templates for collecting data and information should be designed, field-tested and deployed.

Immunization equity assessment was conducted in 2017 to identify gaps in vaccination services and bottlenecks. The study was designed to focus on equity and SWOT analysis, using disaggregated data from Surveys, HIS, surveillance and other sources by geographic, demographic and socioeconomic factors . The study found disparities between the regions (Northeastern, Northwestern and Southcentral), disparities between the urban and the rural areas and disparities between the wealthiest quintile and the poorest quintile[8]. Based on data from 2006 MICS, the equity analysis found that the greatest disparity was noted for children born in the wealthiest quintile compared with those born to women in the poorest quintile showing an absolute difference of 22 and 23 percentage points for DPT3 and Measles coverage respectively[9].

[8] UNICEF, immunization equity assessment report
[9] MICS 2006 Somalia

4. Immunization Vision, Goal and Objectives

4.1 Vision

A healthy start early in life for all the Somali children, guaranteed through administration of safe, potent and effective vaccines against the vaccine Preventable childhood diseases, led by the UHC principles of leaving no one behind.

4.2 Goal and Objectives

4.2.1 *Overall Objective*

- Decrease mortality and morbidity levels from vaccine preventable diseases through providing vaccines of assured quality to all eligible target populations.

4.2.2 *Specific Objectives*

- Increase and sustain quality high immunization coverage rates
- Reach the missing children through increased access
- Ensure proper reporting and effective data management
- Ensure proper surveillance and outbreak response of vaccine preventable diseases

4.2.3 Strategic Directions

The EPI policy envisages eight strategic directions that will help attain the aforementioned goals and objectives of the program:

(1) Ensue and maintain policy commitment and ownership
(2) Reach every child and women of childbearing age through the realization of EPI initiative
(3) Increase and develop skilled human resources for EPI program
(4) Introduce new vaccines
(5) Scale up vaccine safety efforts
(6) Explore sustainable EPI financing mechanisms
(7) Enhance EPI partnership and coordination efforts
(8) Strengthen advocacy and communication for EPI

Ownership and commitment by the government will remain the key message of the policy. Every effort should be made to ensure that no one of EPI target population should be left out. The human capital for the program is at the forefront and should be underscored. The policy advocates for introduction of new and underused vaccines provided that the necessary conditions are satisfactorily met. A detailed action plan on vaccine and injection safety should be formulated and made available for all delivery outlets. Both domestic and external financing opportunities should be explored. Partnership is critical to ensure broader support. The existing coordination at all levels must be beefed up. Communication through all feasible and appropriate channels should be reinforced with focus on those who need most.

The policy strongly recommends that a detailed action plan is required for each strategic direction, highlighting the key interventions, outlining specific benchmarks, targets and indicators for each and every strategic direction. This will be an integral part of the comprehensive multiyear plan and should be reviewed periodically. An inclusive process is highly recommended when action plans for each strategic direction is being formulated.

5. The EPI Policy: Technical Component

The scope of the national EPI Policy is to provide policy and strategic framework for Federal, State, Region, District and Facility level immunization practices.

5.1 EPI target diseases, vaccines and target population

The national EPI Program provides immunization against the following childhood diseases: Tuberculosis, Poliomyelitis, Diphtheria, Pertussis, Tetanus, Hepatitis B, Meningitis diseases caused by Haemophilus influenza type B and Measles.

5.2 Policy on vaccine quality

1. All vaccines used in Somalia by EPI program are safe, procured exclusively through UNICEF from manufactures pre-qualified and accredited by WHO, under the guidance of the MOH.
2. The national EPI Program provides the following vaccines:
    a) BCG: It contains live attenuated Mycobacterium bovis (M. bovis) and comes in powder form. It must be reconstituted with a diluent before use. It is essential that only the diluent supplied with the same batch number of the vaccine be used. BCG vaccine should be kept at +2°C – +8°C after reconstitution. Any remaining reconstituted vaccine must be discarded after six hours or at the end of the immunization session, whichever comes first or according to the manufactures' instructions.

b) Oral Polio Vaccine (bOPV): It is prepared from attenuated live polio virus and is presented as a liquid vaccine that is provided in glass/plastic vials with droppers in a separate plastic bag. In consultation with global partners, the country will make an informed decision phasing-out of OPV. According to international guidelines, Somalia has switched from tOPV to bOPV and has successfully introduced one dose IPV as additional protection against polio disease.
c) IPV, inactivated polio virus vaccine, is provided in liquid form in glass vials. The vaccine should be kept in +2°C – +8°C at all time.
d) Pentavalent DTP-HepB +Hib vaccine: It contains diphtheria toxoid, tetanus toxoid, pertussis, Hepatitis B and Haemophilus influenza type b vaccine; and is provided as liquid form in vials of ten doses and the vaccine should be kept at +2°C – +8°C
e) Measles vaccines provided as a powder, with a diluent in a separate vial. Before it can be used, it must be reconstituted. It is essential that only the diluent supplied with the vaccine be used of the same batch number. After reconstitution, measles vaccine should be kept at +2°C – +8°C. Any remaining reconstituted vaccine must be discarded after six hours or at the end of the immunization session, whichever comes first or according to the manufactures' instructions.
f) Tetanus Toxoid (TT) is provided as a liquid in vials and also in prefilled auto-disable injection devices.

3. New vaccines shall be introduced by the Government of Somalia depending on burden of disease as well as technical, managerial and financial feasibility.
4. Other vaccines, though not part of routine immunization schedule, against *Yellow Fever*, *Meningitis*, *Influenza* or any other disease might be provided to travelers or special groups as the need arise.
5. National Immunization Technical Advisory Group or Immunization Coordination Committee (ICC) will advise the national EPI program on issues related with vaccines to be used in the country.

5.3 EPI Target Population

The following table illustrates who is eligible for the routine vaccination services. Eligibility reflects the fundamental principles of rights to health. The Somali government is committed to ensure that all eligible population should equitably benefit from the immunization services. The policy strongly advises periodic equity analysis to inspect gaps in accessibility.

No	Policy statement	Remarks
1	Immunization shall be delivered to all eligible children and all eligible women without any discrimination with respect to gender, race, religion or any other demographic attributes.	Value and equity based statement
2	Target populations for the routine EPI program are the following: - Children less than one year of age. All children should complete the primary immunization series by their first birthday and give MCV2 at 15 months - Children under two years of age: Children who have not completed the primary series by their first birthday will be eligible to finalize the series. Children above 1 year previously unvaccinated should receive OPV + MCV	Eligible population
3	Women of Child Bearing Age - All women of child-bearing age (15 to 49 years of age): - All pregnant women will be given special emphasis to ensure protection of all neonates against Neonatal Tetanus.	To control MNT
4	Target population for supplemental immunization activities - Children under five years of age, or any age as may be determined by the government with partners based on epidemiology of disease. - All women of child bearing age	As dictated by epidemiological picture

5.4 Immunization Schedule and Vaccine administration

5.4.1 Vaccination Schedule

According to the recommended schedule all children will receive one dose of BCG vaccine, 3 doses of DPT-HepB+Hib (Penta), 4 doses of OPV, one dose of IPV and one dose of measles vaccine at 9 months and second dose of measles in the second year of life. The routine program schedule is illustrated in table 1.

Table 1: Routine Immunization Schedule for infants, 0-11 months

Age	Vaccines	
At Birth[10] (up to 2 week)	BCG	OPV0
6 weeks (42 days)	DPT-HepB+Hib1	OPV1
10 weeks	DPT-HepB+Hib2	OPV2
14 weeks	DPT-HepB+Hib3	OPV3
14 weeks	IPV	
9 months	Measles	
15-18 months[11]	Measles	

Table 2: Immunization Schedule for Pregnant women and WCBA (15-49 YEARS)

Dose	Time for administration	Duration of protection
TT 1	at first contact OR as early as possible during pregnancy	None
TT 2	at least 4 weeks after TT1	1-3 years
TT 3	at least 6 months after TT2	5 years
TT 4	at least 1 year after TT3	10 years
TT 5	at least 1 year after TT4	For all child bearing years

The current policy emphasizes that due to the high prevalence of MNT in Somalia, pregnant women for whom reliable information on previous tetanus vaccinations is not available should receive at least 2 doses of TT with an interval of at least 4 weeks between the doses. To ensure protection for a minimum of 5 years, a third dose should be given at least 6 months later. A fourth and fifth dose should be given at intervals of at least 1 year, or during subsequent pregnancies, in order to ensure long-term protection. The policy calls that special attention should be given to the nomadic population.

[10]Give OPV-0 within 2 weeks of birth. If given later, it delays the first dose of OPV1 to be given at 6 weeks of age along with DTP-HepB+Hib1.BCG should be given at birth or as early in life as possible normally up to the 1st birthday

[11] The government of Somalia will soon introduce MCV2; and the age for MCV2 will be reviewed by the government.

5.5 Interval between multiple doses of the same antigen

An up-to-date technical information should be regularly provided to the concerned staff in EPI program. Locally translated guidelines, clearly indicating the recommended technical advices should be encouraged.

<table>
<tr><th>Vaccines</th><th>Recommended Action</th></tr>
<tr><td>For vaccines that require administration of more than one dose (DTP-HepB-Hib, OPV, TT, measles)</td><td>An interval of at least 4 weeks will be ensured between two doses of these vaccines, for development of an adequate antibody response</td></tr>
<tr><td colspan="2">✓ A dose of one of these vaccines must not be given at an interval of less than 4 weeks and if given must not be counted as part of the primary series.
✓ Longer-than-recommended intervals between doses do not reduce final antibody concentrations.</td></tr>
<tr><td>Supplementary immunization [NIDS/SNIDS/mop-ups]</td><td>OPV doses and /or measles doses will be given irrespective of the child's history of vaccination and will not be counted as part of the child's primary immunization series.</td></tr>
<tr><td colspan="2">✓ At all EPI centers (Health center, Referral Health Center and hospitals), BCG and measles vials should be opened daily as required. No specific day's need be assigned for BCG or measles vaccination to avoid missed opportunities.</td></tr>
</table>

5.6 Simultaneous administration of vaccines

1. To reduce the number of contacts required to complete the immunization series, as many antigens as possible are given at a single visit, at the recommended sites. This policy recommendation is vital especially in areas where the population are not easily accessible such as the nomadic people.

2. All the EPI antigens are safe and effective when administered simultaneously, i.e. during the same immunization session but at different sites. For example, a 1-year old child who has never previously been immunized should receive BCG, measles, and the first dose of DPT-HepB+Hib and polio vaccines.

5.7 Routes of Administration

The national EPI policy pursue the global standards and protocols for routes of administration. The following are instructions to be strictly observed:

1. Vaccine administration differs according to the vaccine antigenicity and composition:
    a. BCG is administered intra-dermally on left upper arm
    b. DPT-HepB-Hib is given intramuscularly on antero-lateral side of Right mid-thigh
    c. IPV is given intramuscularly on antero-lateral side of left mid-thigh
    d. TT is injected intramuscularly on Left Upper Arm
    e. Measles vaccine is administered subcutaneously on Right Upper Arm
2. The preferred site for intramuscular injection in infants and young children is the antero-lateral aspects of the mid-thigh since it provides the largest muscular mass.
3. In adult women, the deltoid is recommended for routine intramuscular administration of TT.
4. The buttock should not be used routinely as an immunization site for infants, children, or adults because of the risk of injury to the sciatic nerve.

Table 3: Summary of Route of Administration and Injection Site:

Vaccine	Route of administration	Injection site
BCG	Intradermal	Left upper Arm
DPT-HepB+Hib	Intramuscular	Outer mid-thigh of the right leg
IPV	Intramuscular	Outer mid-thigh of the left leg
OPV	Oral	By Mouth
Measles	Subcutaneous	Right upper arm
Tetanus toxoid	Intramuscular	Outer, upper left arm

The policy stresses that clear instructions including illustrative graphics for the vaccination injection site should be made available at all health centers. Orientation of new staff on standard operating procedures should always be prioritized. The policy reiterates that the standard of care and the overall requirements for immunization including injection safety should be continuously inspected.

5.8 Reconstitution of vaccines:

1. A freeze-dried vaccine will always be reconstituted using the diluent supplied with it for the purpose. It is essential that only the diluent (with the same batch number) supplied with the vaccine be used.

5.9 Missing doses

The policy objective reiterates that all children will be targeted to complete their immunization schedule before the age of one year. But, in cases where doses are missed and children reach ages of more than one year, those children are eligible to receive vaccination up to 23 months:

- All antigens that a child is eligible must be given as soon as possible with appropriate intervals between doses and recorded in the registers.
- Screening is preferably done on the basis of written records available at the facility in the registers or the vaccination card with the client. But, due to the low card retention rate in Somalia, verbal screening could/may also be done to determine vaccination status. If immunization history is not clear or unknown, child/ woman will be assumed to be vaccinated.

5.10 Contraindications to Immunization

The EPI policy highlights the few conditions that should be observed:

Policy recommendations
In general, the EPI recommends that health workers should use every opportunity to immunize eligible children; vaccines should be given to all eligible children attending outpatient clinics.
Children who are hospitalized should be immunized as soon as their general condition improves and at least before discharge from hospital.
Generally speaking, live vaccines should not be given to individuals with immune deficiency diseases or to individuals who are immune-suppressed due to malignant disease, therapy with immunosuppressive agents, or irradiation. However, both measles and oral poliomyelitis vaccines should be given to persons with HIV/AIDS. Children with symptomatic HIV infection should not be immunized with BCG and yellow fever vaccines. Children who are known to be HIV-infected, even if asymptomatic, should not be immunized with BCG vaccine.
A severe adverse event following a dose of vaccine (anaphylaxis, collapse or shock, encephalitis/encephalopathy, or non-febrile convulsions) is a true contraindication to immunization. Such events can be easily recognized by the mother and the health worker. A second or third DPT-HepB+Hib injection should not be given to a child who has suffered such a severe adverse reaction to the previous dose. Vaccines containing the whole cell pertussis component should not be given to children with an evolving neurological disease (e.g. uncontrolled epilepsy or progressive encephalopathy).
Persons with a history of anaphylactic reactions (generalized urticaria, difficulty in breathing, swelling of the mouth and throat, hypotension, or shock) following egg ingestion should not receive vaccines prepared on hen's egg tissues (e.g. yellow fever vaccine and influenza vaccine).
All adverse events following immunization must be reported and investigated.

5.11 Conditions which are NOT Contraindications to immunization

a) Minor illnesses such as upper respiratory infections or diarrhea, with fever <38.5 C
b) Allergy, asthma or other atopic manifestations, hay fever
c) Prematurity, (small for dates) babies
d) Malnutrition
e) Breastfed child or non-breastfed child.
f) Family history of convulsions
g) Treatment with antibiotics, low-dose corticosteroids or locally acting (e.g. topical or inhaled) steroids
h) Dermatoses, eczema or localized skin infection
i) Chronic diseases of the heart, lung, kidney and liver
j) Stable neurological conditions, such as cerebral palsy and Down's syndrome
k) History of jaundice soon after birth.

6.Immunization Service Delivery Strategy

6.1 Service delivery outlets and strategies:

a) Immunization services should be delivered primarily at all health facilities (Health Centre, Referral health Centre and hospitals), as an integral component of child health services in EPHS and primary health care.

b) Immunization services should also be provided through outreach sessions and through mobile teams by adopting RED(reach every district) approach or any other mass campaign strategies.

c) Outreach services from the health facilities should be provided in all areas in the jurisdiction of the concerned facility.

d) EPI Mobile teams are recommended and may be deployed in hard to reach areas.

e) At fixed EPI centers, immunization of all target groups with all antigens will be carried out by a trained health worker on Immunization in all working days of the week.

f) Outreach activities in the specified areas will provide immunization services to all target groups with all antigens by a trained health worker on Immunization at least once every month or as planned in the maintenance phase.

6.2 Health Workers roles & responsibilities in immunization

1. At fixed center, immunization services should be provided by the trained staff, specifically designated for this duty by head of the facility.

2. Health workers engaged in vaccination activities are responsible to ensure quality and safety.

3. Health workers at facilities should be responsible for outreach and mobile activities to the communities within their catchment area.

4. Community health workers should be responsible for social mobilization for routine immunization activities in their own catchment areas.

6.3 Supplemental Immunization Activities

The ministry of health through its EPI department shall decide to conduct SIAs against polio, measles, MNT, CHD or any other disease as deemed necessary. The policy also recommends that partners in EPI should be part of the decision-making process.

6.3.1 Vitamin A supplementation

Policy Recommendations

- Vitamin A supplementation will be provided to all children between 6 months to 59 months with the recommended doses along with OPV on National Immunization Days and during any other supplemental immunization activities (e.g. Measles follow up campaign)
- Vitamin A supplementation will also be provided to children at the time they receive the first measles dose (9months) and the second measles dose (15-18 months) as a part of the essential routine EPI service delivery package. It must also be provided between 6 months to 59 months with the recommended doses during supplemental immunization activities against measles.
- WHO recommends that Vitamin A should be administered to children with acute measles. Once measles is diagnosed, one dose of 50,000 IU to children less than 06 months, 100,000IU to children aged 06 to 11 months and 200,000 UI to children above 12 months and above. A second dose should be administered the following day.
- Vitamin A supplement of one dose of 200,000 IU will be given to all women post-partum within 6 weeks of delivery.

6.4 Minimizing missed opportunities:

1. A missed opportunity for immunization occurs when a child or woman of childbearing age comes to a health facility or outreach site and does not receive any or all of the vaccine doses for which he or she is eligible.
2. To reduce missed opportunities, all health facilities seeing women and children should offer immunization services as frequently as possible, according to the immunization schedules.

3. The immunization status of all children and child bearing women in the target age group should be screened routinely and immunization should be provided at every opportunity. Health workers should be taught which are true and which are false contraindications, and supervisors should monitor compliance with recommendations. Steps for minimizing missed opportunity will include:

1. All vaccines, for which a child and women of child bearing age are eligible, will be administered simultaneously.
2. A false contra indication must never be the cause of refusing immunization to a child.
3. Multi- dose vial policy will be fully implemented. Health workers shall not refuse vaccination to avoid opening a multi-dose vial for a small number of eligible children or even for one child.
4. All health facilities shall screen patients and accompanying children / women for incomplete immunization or missed doses and will offer immunization services.

6. Recording, Reporting and Storing of Data

The national immunization policy continue to strive for better recording and reporting mechanisms. The facility level vaccination activities' recording and reporting is critical for the program and special attention is required. The health facility staff should be always encouraged to keep up the momentum of improving the recording and reporting activities. Checking and cross-checking of the vaccination records is recommended. Feedback from the higher levels on the regular reports they receive is absolutely vital and should be practiced at all levels. Regular orientation for staff on the importance of quality recording and reporting is strongly recommended. Exploring options for keeping the records, for example, in the event of loss or damage to the facility is very helpful. In other words a backup system should always be made available.

7.1 Recommended action points at health facility Level
1. All health workers providing immunization services should keep records of all immunizations provided, in the daily registers, vaccination cards and tally sheets.
2. All immunizations given in static center or outreach site or during mobile round should be entered in the daily register.
3. Every child or WCBA immunized for the first time should be given a vaccination card with instructions for card retention. In case of card loss, a new card will be given to the child/woman with entry of previous vaccination based on the facility record.
4. On the last working day of the month there should be a meeting at the facility level which should be attended by the vaccinator and head nurse during which vaccination records should be checked and monthly report prepared.
5. Reporting of adverse events following immunizations (AEFI) should be incorporated in the routine monthly reporting systems. Reporting of adverse events following immunization should be the responsibility of every health worker especially the worker who administered the vaccine and his/ her supervisor.
6. All health facilities with established EPI Centers and all outreach sites, should send activity report at the end of every month to the next higher office. 7. The monthly report should reach the next higher health office before the end of first week of the next month.
8. All facilities shall retain a copy of all reports and are required to produce the copies of reports for data quality assessment needs.

The recommended policy action points with regards to recording and reporting procedures from the district to higher levels in the country is outlined in the following table:

Table 4: Reporting procedures by level

Level	Recommended actions for reporting
District Level	1. All reports will be compiled at the district level by the EPI focal person. 2. Report will be submitted to the regional office regularly at the designated reporting timeframe.
Regional Level	1. All reports will be compiled at the regional level by the EPI Coordinator. 2. Report will be submitted to the state office regularly at the designated reporting timeframe.
State Level	1. The state office will compile all district/regional reports by the designated reporting timeframe for feedback and onward submission to the Federal EPI department. 2. Feedback will be given to the district/regional offices monthly
Federal Level	3. The federal MOH will compile, analyze and interpret all reports by the designated timeframe for feedback and onward submission to partners. 4. Feedback will be given to the state offices monthly.

The performance of the vaccination activities depends on the quality of reporting. The EPI national policy recommends the report compilation, the cross-checking, the submission, the analysis and the feedback should be meticulously undertaken. Periodic staff orientation on the importance of reporting is advised. The leadership and management at all levels should be closely monitoring the reporting quality. Different reporting levels are required to establish necessary forums for reviewing the process on regular basis. Strong collaboration between the different levels and all partners on recording and reporting is advised.

8.Monitoring and Evaluation

1. The national EPI program shall have a five-year cMYP and annual work plans for the country against which all EPI achievements shall be monitored
2. All regions/districts and facilities shall have their respective micro-plan to guide immunization activities.
3. The country will conduct regular data quality assessment to ensure quality, accuracy, timeliness and completeness of the immunization coverage reporting system.
4. The policy recommends the health system strengthening (HSS) activities for EPI should be regularly monitored.
5. The EPI policy recommends skill development initiatives such as in-service and on-the-job training sessions on program monitoring

8.1 Indicators for monitoring and evaluation

The country will use the following indicators for monitoring and evaluation of its national EPI program.

Indicator type/level	**Indicator description**
National	1. Immunization coverage indicators at national level
Subnational	2. Immunization coverage at FMOH, State, Regional, District and facility level
Drop-out	3. Annual drop-out rate
VitA	4. Vitamin A supplementation coverage
Supply	5. Vaccine supply and vaccine wastage
Safety	6. Injection Safety data
Financing	7. Financing and details of expenditure
AEFI	8. Number of AEFI cases reported and outcome
Outbreak	9. Number of Vaccine preventable diseases cases reported

8.2 Use of monitoring chart and minimizing dropout rate

1. All facilities are required to have a catchment population and annual, quarterly and monthly target.

2. All health facilities should use the immunization monitoring chart to track performance of immunization activities as against the facility's monthly, quarterly and annual targets

3. The health workers should convey EPI standard essential messages to the parents/caregiver during the immunization session to minimize dropouts.

4. Using the register and the tickler file, the Health workers should prepare a list of dropouts by village/section and engage[12] CHWs, FHW and local elders to trace dropouts and advise on the resumption of their vaccination.

5. A difference of more than 10% between DPT1 and DPT3 coverage should alert the facility and should be discussed during monthly review meetings.

8.3 Program implementation review meetings

1. A review meeting for routine EPI activities should be conducted once every month in the Facility and district levels and will be attended by all EPI related staff including all supervisors.

2. Recommendations of the review meeting should be shared with the regional EPI office and implemented at the district.

3. A review meeting should be held at the regional level at least once every three months attended by concerned district supervisors.

4. A review meeting should be held at State level at least every 6 months and attended by regional supervisors.

5. A national review meeting, with the participation of all stakeholders, should be conducted on an annual basis.

8.4 Reporting of administrative coverage

1. Administrative coverage will be calculated using doses administered
2. The ministry of health in collaboration with WHO and UNICEF will compile annual administrative coverage and shall submit JRF to WHO and UNICEF on time.

[12]Engaging CHWs and the community through its local and traditional leaders is an integral component of RED approach and is a requirement for local ownership and sustainability of immunization programs.

3. The figures submitted in the JRF shall be the official estimate of the country.

8.5 Coverage evaluation and external EPI review

The immunization policy underscores the importance of evaluation of the programs through all possible mechanisms. The periodic vaccination coverage survey is hereby recommended with the support of Somali partners. In addition, the policy urges partners to give attention to equity analysis through periodic studies.

1. EPI coverage evaluation survey should be conducted in the country at least once in 5 years, before development of new cMYP.
2. External EPI review of various aspects of the program including service provision, coverage, surveillance, monitoring mechanisms, inventories etc. will be carried out as required.

8.6 Reporting requirements

Somalia recognizes its international obligation regarding reporting requirements with respect to:

1. Joint Reporting Form, to WHO and UNICEF
2. Annual Progress Report to GAVI, and
3. Other reporting requirements as will be advised by WHO and UNICEF in the spirit of international health.
4. UHC progress report to WHO with focus on women and children is essential

9.Ensuring Safety Injections

The policy on safety promotes strict rules and protocols to be consistently observed:

Policy Action Level	What has to be done
Safe injection	1. Every injection given to administer a vaccine must be safe (for the vaccinator, recipient, community and environment). 2. Safety will be ensured by administering vaccine using appropriate equipment and according to the recommended procedures for injection, ensuring sterilization and safe disposal.
Type of syringe and equipment	1. Only AD syringes will be used in all immunization sessions to administer injectable vaccines. 2. Puncture resistant containers for collecting and disposing of used syringes, needles and other injection materials must be provided and used in all immunization activities.
Incineration equipment	1. In facilities with incinerators, all immunization wastes (safety box filled with used syringes) will be incinerated daily or when required. 2. In facilities without incinerators, all immunization wastes (safety box filled with used syringes) will be burnt and buried in pits within the compound of the health facility.

10.Cold Chain and Vaccine Management

10.1 Cold chain inventory: Policy recommendations and action points

1. Ensure that Cold chain equipment inventory at federal, state, region, district and facility level should be developed and updated annually.
2. Cold chain inventory will be used to plan for repair, maintenance and replacement of equipment.
3. Decisions for any cold chain equipment replacement should be made on the basis of the cold chain inventory and results of periodic assessments by MOH. The policy reiterates the importance of staff capacities in logistics and cold chain management.

10.2 Availability of cold chain equipment

1. Facilities functioning as fixed centers should ideally have:
    - At least one ice-lined refrigerator with freezing compartment or a simple ILR with a separate freezer (for freezing of icepacks), Temperature chart, two cold boxes and four vaccine carriers.
    - At least one cold box; and at least two vaccine carriers for every outreach team
2. Cold chain and other required equipment for these centers will be provided by federal and state EPI offices.
3. Central/middle-level and peripheral EPI stores should have cold rooms / sufficient ILRs and freezers according to their needs.

10.3 Repairs and maintenance

1. The state EPI offices should be equipped so that it may provide support for major repairs for the state cold rooms and equipment in its jurisdiction.
2. All regions and districts should be equipped to carry out minor repairs and maintenance of the cold chain equipment.

10.4 Vaccine management

1. The systems of shipment, storage, handling, reconstitution and administration should ensure that the quality of vaccines is maintained in line with international standards.
2. Vaccines should ideally not be stored for more than a period of six months at federal level, three months at the state/regional level, one month at both the district and facility level.
3. All vaccine should be stored at a temperature in between +2 to +8 degrees except OPV that should be stored at –15 to -25 degrees, if stored for three or more months.
4. Vaccines, syringes and safety boxes will always be supplied as “bundle” of all three items to all levels from the federal to service delivery level.
5. All vaccines will be procured with the support of UNICEF from a WHO pre-qualified and accredited manufacturers.
6. The government of Somalia will establish National Regulatory Authority that will be the body responsible for ensuring quality of the incoming vaccines.
7. Vaccine management assessment, using standard WHO/UNICEF tools such as Effective Vaccine Management (EVM), will be carried out regularly.

10.5 Supply of vaccines, syringes and safety boxes

1. Vaccine supply should be on the basis of target population.
2. Federal MOH should be responsible for ensuring regular supply of vaccines to all levels.
3. Federal MOH should maintain reserve supply of vaccines for six months' country wide requirement.
4. Facilities should ensure collection/receipt of one months' supply of vaccines for all EPI activities in their catchment area.
5. Buffer stock of three months must be maintained at the state/regional level, of one month at the district cold rooms and of two weeks at least at the facilities with fixed centers.

10.6 Use of multi-dose vials of vaccine in subsequent immunization sessions

1. Multi dose vials of OPV, DPT-HepB +Hib, IPV and TT from which one or more doses of vaccines have been removed during an immunization session maybe used in subsequent immunization sessions for up to a maximum of 4 weeks, provided that all of the following conditions are met:
    a. the expiry date has not passed;
    b. the vaccines are stored under appropriate cold chain conditions;
    c. the vaccine vial septum has not been submerged in water;
    d. aseptic technique has been used to withdraw all doses;
    e. The vaccine vial monitor (VVM), if attached, has not reached the discard point.
2. The policy underlines that vaccine vials without labels must not be used.

Given the quality with respect to efficacy and safety, the policy fully supports the global WHO guidelines on the use multi-dose vials as illustrated above.

10.7 Use of vaccine vial monitors in immunization services

1. VVMs should be used to monitor the potency of the vaccine at every level and to identify the weak link in the cold chain if any, and to calculate the wastage of the vaccine.

2. All vaccines will be procured with VVMs, where available.

3. Everyone responsible for cold chain and those who use the vaccine must know how to use and interpret the VVMs.

11.Surveillance and Outbreak Response

11.1 Surveillance of Vaccine Preventable Diseases

The EPI policy is to enhance and sustain national efforts for strengthening the epidemiological surveillance of vaccine preventable diseases in the country. The policy strongly recommends to scale up disease surveillance efforts and keep the country free from polio virus circulation, control measles, diphtheria, hepatitis B, tetanus and pertussis diseases through the watchful eye of integrated disease surveillance system and the delivery of quality immunization services. The policy encourages all partners to work on feasible options for tackling the challenges facing the surveillance program.

1. The surveillance system of VPD should collect aggregate data on all VPD diseases; and case-based data on selected diseases as will be determined by the government.

The following VPD diseases are currently under surveillance:

   - Acute Flaccid Paralysis (AFP)
   - Measles/Rubella
   - Diphtheria
   - Pertussis
   - Hepatitis B
   - Neonatal Tetanus

2. All the above disease should be reported by all health facilities
3. The list of reportable VPD will be regularly updated by the government.
4. The designated health worker in the facility will be responsible for reporting of VPDs to the higher levels. Weekly reporting of AFP and measles and monthly reporting of other VPD is recommended.
5. Prompt and appropriate outbreak response should be an integral component of VPD surveillance.

12.Adverse Events Following Immunization

1. Although vaccines are extremely safe, as with all medicinal products vaccines are not totally free of adverse reactions. The occurrence of an adverse event after the administration of a vaccine, however, does not prove that the vaccine caused the symptoms.
2. All immunization programs should monitor adverse events following immunization.
3. Each Adverse Event Following Immunization (AEFI) should be investigated and efforts should be made to determine its cause.
4. The detection of AEFI should be followed by appropriate measure and communication with parents, health workers, and if several persons are affected, with the community.
5. If the adverse event was determined to be due to program errors, operational problems must be solved, by appropriate logistical support, training and supervision.
6. All AEFI will be reported by the concerned health care provider to the next higher Office for response using standard reporting format.
7. District health office will share the reports with the regional offices for any further action on monthly basis. The district will also maintain a line listing of AEFI.
8. Reporting of AEFI will form an integral part of the routine reporting of the program.

13.Advocacy and Communication

The policy underlines the importance of advocacy in EPI program and urges the concerned institutions and organizations to scale up advocacy efforts. The policy strongly recommends consolidated efforts by all stakeholders including the community and civil society organizations (CSOs) to promote the benefits of immunization, the importance of equity and the overarching call of UHC. Religious leaders and structures should be encouraged to assist in all matters related to promoting the vaccination program against the target diseases. Communication is critical and should be thoroughly reviewed in order to identify and pinpoint the major obstacles the program has experienced. The current policy calls for immediate attention to the following few action points:

1. Currently existing advocacy and communication strategies for health, should be reviewed and a uniform and comprehensive communications strategy developed to be used across the country.

2. Advocacy at all levels should target the key decision makers including political leaders, religious leaders, clan elders and all opinion leaders.

3. Social mobilization activities should continue to target the whole population in general and the parents in particular.

4. Program communication should use all forms of mass media and other sources of information and dissemination with focus on the following:

- House hold/community and caretaker mobilization and education towards the benefits of Immunizations and information related to Vaccine Preventable Diseases.
- The importance of completing immunization schedule of all antigens
- The importance of community participation and acceptance

5. The ministry of health will conduct annual vaccination weeks in line with Global and Regional themes.

14.Collaboration with Local Institutions

Intersectoral collaboration (IC) is critical for all health programs including immunization. The EPI policy outlines that IC is the joint action taken by health and other government sectors, as well as representatives from private, voluntary and non-profit groups, to improve the health of populations. The policy, therefore, calls for pursuing all options to strengthen collaboration with line ministries, CSOs through health-in-all policies (HiAP) approach. Alliances, coalitions, cooperatives whatever form possible should be established at all levels. Every efforts should be made to explore innovative approaches and options for reinforcing the existing collaboration. Seeking international experiences on intersectoral action will remain a key aspect of the national effort towards strengthening partnerships on immunization. The Somali government is committed to the SDGs and particularly honors the partnerships goal, where a collective vision is absolutely necessary for pursuing the UHC 2030 goal in particular and SDGs in general.

14.1 Collaboration with other government Institutions

1. The ministry of health should collaborate with the ministry of education to make screening of children for vaccination a mandatory procedure for school enrollment. A mechanism to vaccinate children for missed doses will be established.
2. The health sector should collaborate and seek the assistance of all other ministries such as ministries of Finance, Information, Religion, Women and Family Affairs and other government agencies in the implementation of vaccination activities.
3. The health sector should collaborate and seek the assistance of all government organs in making reporting of reportable diseases a mandatory requirement as will be stipulated in further and successive directives.
4. National and State-level collaboration bodies working under the national high level intersectoral action (ISA) for promoting EPI program should be established. A clear TOR for the intersectoral group should be developed and endorsed by all line ministries.

14.2 Collaboration and Partnership with Non- governmental Organizations and UN Agencies

Based on the strategic directions of the national health policy, the EPI policy reaffirms the government's aspirations for stronger partnership with the global vaccine alliance (Gavi), UNICEF, and WHO. Such partnerships, will continue with greater spirit and with a collective vision for improving immunization outcomes in this country. The policy upholds the establishment of high-level interagency forum where joint decisions are collectively taken, where agencies transfer expertise to locals, where high level national EPI benchmarks and targets are deliberated, and where program sustainability and financing (external and domestic) are examined. Action points and policy recommendation are provided below:

1. The MOH should provide leadership in all collaborative programs related to policy development, joint planning, implementation, joint monitoring and joint evaluation

2. The MOH should periodically undertake stakeholder analysis and develop database for partnership to use as observatory tool for EPI partnership program

3. The health sector will collaborate with UN health supporting agencies in all matters related to EPI activities. The policy acknowledges the existing collaboration and meanwhile recommends that there is always a room for improvement vis-à-vis cooperation and partnership with all UN agencies and notably with UNICEF, WHO, UNFPA, WFP, UNDP, FAO and UN Habitat. On SDGs the health goal is a cross-cutting which brings many key players together and improving the lives of women and children, and is indeed a key component of the polices of all these agencies

4. Collaboration with professional associations, academic institutions, and non-governmental organizations through technical forums are strongly recommended. The academia is expected to play a major role in program planning and evaluation. It is a major collaborator with MOH in research activities and in health surveys, including the vaccination program. Further areas of collaboration in expanding immunization activities should be explored with medical and public health schools.

15.EPI Capacity-building initiatives

The national immunization policy reiterates the high level commitment of the government to strengthen skill development activities under the capacity building initiatives, through continuous transfer of knowledge and expertise. It addresses to all partners, particularly the World Health Organization and UNICEF to assist in the following areas:

Skill development session on measles

1) Leadership and management of immunization managers at national, Regional and States level.
2) Immunization practices
3) Microplanning
4) Cold chain training along with UNICEF.
5) Data quality improvement
6) Surveillance
7) Health system strengthening [planning, proposal writing etc..etc]
8) UHC 2030 and SDGS
9) Role of CSOs
10) Integrated and supportive supervision & monitoring
11) Communication strategy
12) Equity analysis

16.Program Coordination

Coordination in immunization program is a governance function and is a key ingredient for improving the performance of the vaccination. Strong coordination among actors in EPI is vital and should always remain central to the overall health system strengthening efforts especially in countries in political transition. The presences of large number of actors often pose a serious challenge to the health authorities. Among others, poor coordination undermines the ownership and always impedes efforts to achieve successful and sustained aid and cooperation. Ownership, itself presents particular difficulties in situations of fragility and conflict which is further aggravated by the large number of health supporting agencies

engaged in delivering various programs and projects. Poor coordination affects the focus on results where national benchmarks and targets are poorly met given the fragmentation of efforts. Effective coordination fosters ownership which once developed represents a win-win situation for the government and its partners. Coordination ensures joint assessments, progress towards shared responsibility and mutual accountability. It promotes inclusive development partnerships where issues are collectively addressed, and decisions are made through a broader consultative process.

Given the importance of program coordination the policy advises that regular assessments should be undertaken to ensure that coordination at all levels is running smoothly. It is crucial to review the organizational structure at national and subnational levels; to review the tools and resources such as stakeholder's data-base ,and communication channels; and to examine the implementation of proposed tasks for coordinating bodies.

The national policy EPI calls that necessary technical and material support should be provided to Federal and State level national teams to strengthen EPI coordination at all levels. The EPI teams at regional and district level should be strengthened through skill development interventions. The national EPI policy recognizes the following coordinating forums and urges for continuous improvement of the existing structures, TORs, composition, organization, methodology, and input and output performance indicators. The nationals should provide the necessary leadership for convening the following immunization coordination activities on regular basis.

- EPI working group (Monthly)
- EPI review meetings (Monthly at district level, Quarterly at Regional /State level).
- EPI Planning meetings (Quarterly and Annually)
- Cold chain review meeting jointly with UNICEF.
- Facilitating ICC meetings at national level and State level
- Joint appraisals
- GAVI review meetings.

17.Conclusion

The EPI policy document is a living document which is subject to continuous review, adjustments and updates. Fifteen health agencies were engaged in deliberating the development of an evidence-based policy, designed to tackle the major challenges facing the vaccination program. The policy development process identified several strategic directions for improving planning, implementation and monitoring phases of EPI program. High level commitment to program sustainability through enhanced collaboration and dedicated leadership is one of the key policy messages. Linking the immunization to the higher national development frameworks such as the universal health coverage and SDGs is a priority decision for the government to ensure the immunization services remain central to attaining some of the SDGs health-related goals. The policy recommends the functional integration of EPI into the overall health system framework, it calls for exploring innovative approaches in reaching the missing children and it supports the introduction of new vaccines. The guiding

principles of the immunization program as expressed in the national policy is the realization of equitable services with the purpose of “leaving no one behind”.