November 2021

COVID-19 information note 16

Accelerated immunization campaign for COVID-19 and childhood vaccines in Somalia, November 2020 to January 2021

Childhood immunization during COVID-19: an alarming relapse

The coronavirus disease 2019 (COVID-19) pandemic caused severe disruption to routine immunization programmes in Somalia and to almost every other health programme. WHO and UNICEF estimate that in 2020, as a result of disruptions to routine immunization programmes in Somalia caused by the pandemic, about 186 000 children younger than 1 year missed their measles vaccine, 170 000 children younger than 1 year missed the third dose of the pentavalent vaccine and 106 000 children missed their first dose of the pentavalent vaccine (up from 171 920, 140 110 and 66 957 children, respectively, the year before)

As an indirect effect of COVID-19 on the fragile health system in the country, more children (between 8% and 50% more) missed their routine immunization doses in 2020 compared with 2019 (Table 1). A modelling study[1] published during the early phase of the pandemic showed that the disruption to routine health care services for a prolonged period could have a devastating effect in Somalia, including:

- 20% reduction in life-saving vaccination coverage
- 4% reduction in facility-based health care delivery
- 13% increase in childhood mortality.

Another recent article in the Lancet showed that the estimated relative disruption to routine immunization coverage attributable to COVID-19 in Somalia could be 0.1% (95% uncertainty interval 0.1–0.4) for the measles-containing vaccine 1 and 0.1% (95% uncertainty interval 0.0–0.4) for the pentavalent 3 vaccine[2].

Table 1. Number of children missing out on routine immunization, Somalia 2019 and 2020

Vaccine	Children missing routine immunization in 2019, no.	Children missing routine immunization in 2020, no	Additional children missing out in 2020, no. (%)
Pentavalent 1	66 957	105 694	38 737 (57.9)
Pentavalent 3	140 110	169 278	29 168 (20.8)
Measles-containing vaccine 1	171 920	186 398	14 478 (8.4)

[1]Roberton T, Carter ED, Chou VB, Stegmuller AR, Jackson BD, Tam Y, et al. Early estimates of the indirect effects of the COVID-19 pandemic on maternal and child mortality in low-income and middle-income countries: a modelling study. Lancet Glob Health. 2020;8(7):e901–e908.

[2]Causey K, Fullman N, Sorensen RJD, Galles NC, Zheng P, Aravkin A, et al. Estimating global and regional disruptions to routine childhood vaccine coverage during the COVID-19 pandemic in 2020: a modelling study. Lancet. 2021;398(10299):522–34.

World Health Organization
Somalia

As explained in COVID-19 information note 13[3] , there could be many reasons for the disruption, including the diversion of health care resources to COVID-19 and mobility restrictions stopping people from accessing health care or health workers from reaching out to marginalized populations.

Despite a 50% drop in immunization activities in early 2020, an extraordinary effort has been made in 2021 to bring childhood vaccine programmes back on track. However, the intensified focus and attention on the COVID-19 vaccination programme, which is moving at a slow pace in the country, could also hinder the childhood immunization programme, because the COVID-19 vaccination programme is using the same immunization services, networks and vaccinators across the country. With resources and personnel diverted to support the COVID-19 vaccination programme for adults, the fatigue of the vaccinators could substantially disrupt the immunization services in Somalia.

Consequences of vaccination relapse: reversing health gains, letting children down

Vaccine-preventable diseases are the main contributors to morbidity and mortality among children in Somalia. The routine immunization rates in Somalia are traditionally low (Table 2). One out of every five children in Somalia, generally, misses out on routine vaccines. As such, owing to the disruption of routine immunization resulting in 50% drop in immunization activities in early 2020, the risk of resurgence of measles and other vaccines-preventable diseases is higher than ever before.

The WHO/UNICEF estimates of national immunization coverage show that Somalia's childhood routine immunization coverage has been one of the lowest in the world for pentavalent 1 vaccine (52%) and pentavalent 3 vaccine (42%), and that measles-containing vaccine 1 coverage has plateaued at 46% for the last 4 years. Administrative coverage data show that routine immunization coverage for pentavalent 1 vaccine, pentavalent 3 vaccine and measles-containing vaccine 1 dropped by about 6%, 4% and 1%, respectively in 2020 compared with 2019.

Because of security concerns and funding constraints for conducting outreach services in underserved and low-coverage areas, only 60–70% of children in the eligible age group in Somalia have access to basic immunization service. Therefore, the large number of children who missed out on their routine immunization in 2020 because of the COVID-19 pandemic remain a public health concern.

Given this low coverage of routine immunization and disruptions caused by the COVID-19 pandemic, the number of children not reached with even a single vaccine dose (zero-dose children) was 66,957 in 2019 which increased to 105 694 in 2020, thus widening already immense inequities

Table 2. National immunization coverage of selected vaccines, Somalia, 2017 -2020

Vaccine	Data source	Percentage of children covered			
		2020	2019	2018	2017
DTP-1	Administrative coverage	83	89	80	75
	Official coverage	83	89	80	75
	WUENIC	52	52	52	52
DTP-3	Administrative coverage	73	77	69	63
	Official coverage	73	77	69	63
	WUENIC	42	42	42	42
Measles-containing vaccine 1	Administrative coverage	70	71	70	60
	Official coverage	70	71	70	60
	WUENIC	46	46	46	46

DPT: diphtheria–tetanus–pertussis; WUENIC: WHO UNICEF estimates of national immunization coverage.

[3] COVID-19 information note 13. Mogadishu: World Health Organization, Somalia Country Office; 2021
http://www.emro.who.int/images/stories/somalia/documents/covid-19-information-note-13.pdf

in vaccine access in the country. Many of these children live in underserved, hard-to-reach and remote areas or in informal urban slum settings, camps for internally displaced people and refugee camps, or in conflict-affected areas with no access to health care. People in these areas rely on outreach services in order to access any vaccines.

The alarming rise in zero-dose children also means they have less access to other health services, as immunization provides a crucial connection point with the health system. In turn therefore, this lower access of health services may lead to a rise in malnutrition, children being more likely to drop out of education and greater health care bills for families which may push them into poverty. In the long term, this relapse in vaccination could result in children dying of preventable causes in Somalia because of low immunity and a reversal of the country's gains in reducing under 5 and neonatal mortality rates.

It is vital therefore to reach a child with first vaccines as evidence shows that once zero-dose children receive their first vaccination, they are more likely to come back for the full course of vaccines.

The effect of the drop in immunization coverage of children has already been seen in the small pockets with measles outbreak reported across the country. To date, 2801 suspected cases of measles have been reported in drought-affected districts, which is higher than in preceding years in the country[4]. This rise in measles cases can be directly attributed to the decrease in routine immunization uptake and coverage of the measles vaccine.

Although efforts are underway to reverse the decline, the findings of the pulse survey in Somalia showed that the disruption to routine immunization services has persisted even after 1 year of the pandemic, with up to a 20% disruption in certain areas and for certain vaccines. If the routine immunization services cannot be restored rapidly and an accelerated campaign organized to offset the effects of the disruption, the important and hard-won health gains made in Somalia in the past few years could be reversed.

Accelerated immunization campaign: reversing the vaccination relapse, targeting zero-dose children

To improve not only the routine immunization coverage, but also to reach out to children who have missed the childhood vaccines, WHO and UNICEF are supporting the federal and state ministries of health of Somalia including Somaliland to conduct three rounds of accelerated campaign over a period of 8 days a month from November 2021 to January 2022. The first round of this accelerated campaign will be held from 21-29 November followed by second round on 21-29 December 2021. The third and final round of the campaign will be held in January 2022 from 21 to 29 January 2022. The accelerated campaign will target 42 districts (Table 3).These districts have been targeted because of their low immunization coverage, number of

Table 3. Districts targeted for the accelerated immunization campaign, Somalia

Sl no.	Southern states	Somaliland	Puntland
1	Hudur	Zaila	Galkacayo
2	Baidoa	Lughaya	Jarriban
3	Dusamarreb	Borama	Galdogob
4	Bardera	B/gubadle	Burtinle
5	Garbaharey	Odweine	Garowe
6	Belet Weyne	Buhotle	Qardho
7	Kismayo	Burao	Armo
8	Barawe	Sheik	Bosaso
9	Marka	Berbera	Iskushuban
10	Guricel	Huddun	Dhahar
11	Balad	Taleh	Badhan
12	Jowhar	Lasanod	Buhotle
13	Galkacyo South	Badhan	Taleh
14	Abudwak		Boocame
15	Afmadow		

[4] See Epi watch for week 40–41 (http://www.emro.who.int/images/stories/somalia/epi-2021-week-40-41.pdf).

zero-dose children, population density and reported outbreaks of vaccines-preventable diseases. According to the policy of the national Expanded Programme on Immunization (EPI), all children under 2 years who are due vaccinations or who have missed out on vaccinations will be targeted. However, in places where there is an ongoing measles outbreak, the target age group will be extended to 5 years.

The aim of this acceleration immunization activity is to reverse the relapse in immunization coverage, vaccinate the children who missed out on basic immunization owing to the COVID-19 pandemic, and thereby boost immunity of children, improve immunization coverage within a short time and prevent the occurrence of outbreaks of vaccine-preventable diseases. This activity will also focus on children in hard-to-reach populations and special groups such as internally displaced people, nomadic people and refugees.

Vaccination teams and logistics

It is estimated that between November 2021 and January 2022, 151 000 children will be reached with life-saving childhood vaccines (Table 4). A total of 231 teams (50 teams for Puntland, 40 for Somaliland and 141 for South-central states) will be deployed for this acceleration campaign. Each team will comprise of two vaccinators, one data collector and one social mobilizer who will be deployed for vaccine delivery. A 1-day orientation workshop is also planned for the team members to upgrade their skills in vaccine administration, injection safety, proper recording and reporting, and preparation of EPI outreach microplans. Every team will have the needed transport to deploy the teams and the cold chain to the target communities. The teams will be supervised by team supervisors, and district and regional monitors will provide on-the-job training and guidance. More than 200 polio staff at state, regional and district levels will also be engaged in supervision and monitoring.

Vaccination strategy

Three strategies will be used for immunization service delivery – fixed, outreach and mobile services. However, the most deprived communities who have no access to fixed vaccination services will be prioritized and outreach services will be conducted in the hard-to-reach areas. Vaccination teams at outreach sessions will be expected to vaccinate 40 to 50 children a day according to the reaching every district/reaching every community/reaching every child (RED/REC) approach, but the teams will try to vaccinate a maximum number of children each day by linking services to the community. Social mobilization drives will be undertaken in advance of organizing outreach services to help more children to reach the vaccination post. All eligible children (children younger than 2 years) will receive the following vaccines: one dose of the BCG vaccine, three doses of the oral polio vaccine, three doses of the pentavalent vaccine, one dose of the inactivated polio vaccine, and one dose of the measles vaccine. In addition, tetanus and diphtheria vaccines will be provided to women of child-bearing age in these target communities and districts.

COVID 19 vaccine rollout

Somalia is expected to receive 997 000 doses of COVID-19 vaccines in October and November 2021. WHO and UNICEF will also support the federal and state ministries of health in

Table 4. Children targeted and estimated budget for the accelerated immunization activities by state, Somalia, November 2021–January 2022

State	Children targeted for vaccination during the accelerated campaign for 3 months, no.	Estimated funds needed (US$)
Puntland	30 000	114 975
Somaliland	32 000	195 540
South-central states	89 200	342 648
Total	**151 200**	**653 163**

the planning and implementation of COVID 19 vaccination along with the accelerated campaign which will be held for 8 days in every month from November 2020 to January 2021. The large number of outreach, mobile and fixed immunization posts which will be deployed during this accelerated campaign will be used to administer 865 000 doses of COVID-19 vaccines. The social mobilization activities, which will run during these 3 months for the accelerated childhood immunization campaign, will also be used to encourage adults to come to the vaccination centres to receive the COVID-19 vaccine. The cost of administering these 865 000 doses of COVID-19 vaccines to adults will be about US$ 1.9 million.

Every child counts: driving forward vaccination coverage

Immunization is one of the most valuable and cost–effective public health interventions available, preventing over 4 million deaths every year. In addition to offering protection from preventable diseases, immunization also brings children and families into contact with health systems, offering an avenue for the delivery of other basic health services and laying the foundation for primary health care. Evidence has shown that delivering vaccines to households provides a contact point between families and primary health care services at least five times during the first year of a child's life, and ensuring universal access to vaccines is a critical entry point for universal health coverage. Childhood vaccination has not only helped to halve the number of child deaths worldwide since 1990 but represents a sound financial investment. Every US$ 1 spent on childhood immunization returns an estimated US$ 44 in economic and social benefits[5].

In Somalia, spending, on average, only US$ 7 per child, it is possible to fully vaccinate all vulnerable children against all routine diseases targeted in the Expanded Programme on Immunization, Using a combination of fixed and accelerated outreach services and with involvement of community health workers who make house-to-house visits and look for missing children, Somalia was able to achieve over 90% vaccination coverage in highly marginalized populations including reaching thousands of zero-dose children. Now, more than ever, that experience needs to be replicated to make every child count and help thousands of children who have missed out on their routine immunization so that they too have a chance of an equal opportunity in their life. That is what a fairer and more equitable health system is all about. That should be the focus of every humanitarian agency.

[5] Ozawa S, Clark S, Portnoy A, Grewal S, Brenzel L, Walker DG. Return on investment from childhood immunization in low- and middle-income countries, 2011–20. Health Affairs. 2016;35(2):199–207.

Country Office in Mogadishu, Somalia
Correspondence: +252616695096;
Email: emacosomwr@who.int; emacosomexr@who.int
URL: http://www.emro.who.int/countries/somalia/index.html

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