

Supporting information: Report of vaccination with individual vaccines

Only 108 out of 2673 children had vaccination cards or documents, representing 4% of the total. The information regarding the individual vaccines that the children received was incomplete, with a high percentage of missing data for all individual childhood vaccines. A total of 61.4% of the BCG vaccine, 67.1% of the third dose of the polio vaccine, 71.5% of the third dose of the pentavalent vaccine, and 43.5% of the first dose of the measles vaccine had missing values (S1 Table).

Based on the available cases without missing data (excluding missing values), 35.6%, 28.1%, 48.2%, and 14.2% of those with complete data never received the Bacillus Calmette-Guérin (BCG) vaccine, the third dose of the polio vaccine, the third dose of the pentavalent vaccine and the first dose of the measles vaccine, respectively (S1 Table).

Table S1. The proportion of basic childhood vaccinations among children under five years of age in Somaliland (including missing data) by age in months based on a national expanded program of immunization (EPI) guidelines.

Having a health card or vaccination document	Number	Percentage			
No	2,565	96%			
Yes	108	4%			
Total	2673	100%			

Ever had any vaccinations	Number	Percentage %	Age group in months	
			Minimum age	Maximum age
Never vaccinated	1763	66%	0	56
Ever vaccinated	910	34%	0	57
Total	2673	100%

Bacillus Calmette-Guérin (BCG) vaccine	Number	Valid data (%)	Percentage %	Age group in months	
				Minimum age	Maximum age
Not vaccinated	367	35.6%	13.7%	0	49
On time vaccinated	80	7.8%	3%	0	10

Delayed time vaccinated	584	56.6%	21.9%	11	56
Subtotal	1031	100%	..		
Missing values	1642	..	61.4%	0	59
Grand total	2673	..	100%	---	----

Polio vaccine dose 3	Number	Valid data (%)	Percentage %	Age group in months	
				Minimum age	Maximum age
Not vaccinated	247	28.1%	9.2%	6	55
On time vaccinated	93	10.6%	3.5%	6	18
Delayed time vaccinated	169	19.2.0%	6.3%	19	47
Not applicable	371	42.1%	13.9%	0	5
Subtotal	880	100%	..		
Missing values	1793	..	67.1%	6	59
Grand total	2673	..	100%	---	----

Pentavalent vaccine dose 3	Number	Valid data (%)	Percentage %	Age group in months	
				Minimum age	Maximum age
Not vaccinated	368	48.2%	13.8%	3	56
On time vaccinated	82	10.7%	3%	3	18
Delayed time vaccinated	127	16.6%	4.7%	19	52
Not applicable	186	24.4	7%	0	2
Subtotal	763	100%			
Missing values	1910	..	71.5%	3	59
Grand total	2673	..	100%	---	----

Measles vaccine dose 1	Number	Valid data (%)	Percentage %	Age group in months	
				Minimum age	Maximum age
Not vaccinated	215	14.2%	8%	12	56
On time vaccinated¹	72	4.8%	2.7%	12	15
Delayed time vaccinated²	537	35.5%	20.1%	16	56
Not applicable³	687	46.5%	25.7%	0	11
Sub total⁴	1511	100%			
Missing values	1162		43.5%	12	59
Grand total⁵	2673		100%	---	----

¹Received the vaccine within the time recommended by the WHO

² Received the vaccine after the time recommended by the WHO

³ Received the vaccine before the age scheduled by the WHO

⁴ Total valid data without missing values

⁵ Total value, including missing values

The prevalence of basic childhood BCG vaccines was 70.4%, the prevalence of polio vaccine dose three was 13.8%, the prevalence of measles vaccine dose one was 63.8%, and the prevalence of pentavalent vaccine dose three was 13.8%.