Seqota Declaration

Innovation Phase ~ Impact Assessment

Big Win

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Background

The Seqota Declaration is the government of Ethiopia's commitment to end stunting among children under two years by 2030. To attain this goal, their Excellencies at federal and regional level and in the inter-ministerial steering committee and regional cabinets have provided leadership and performance management. The government committed to allocate funding for an *Innovation Phase* (2016-2020), focusing on the implementation of priority intervention packages to generate learnings and evidence to inform the design and implementation of an *Expansion Phase* (2021-2025).

During the Innovation Phase, multi-sectoral nutrition specific, nutrition sensitive and infrastructure interventions were implemented in 40 woredas in Amhara and Tigray regional states covering over 4.7 million people. In the past three years, nine government sector ministries at federal and regional level jointly with development partners have been implementing the Innovation Phase Investment Plan which comprises ten strategic objectives and 50 strategic initiatives. Moreover, six innovations were tested to draw key learning in program management, data revolution, community labs, agriculture, and water technologies, costed woreda based multi-sectoral planning and first 1000 days plus public movement for social and behavior change. Lessons and insights from this phase will allow the government to outline and develop a program to address child stunting in the country during the Expansion Phase.

During the Innovation Phase, the government and development partners made remarkable progress to reach children under two and pregnant and lactating women through various interventions. Based on the inter-ministerial score card in 2012 E.C, over 300,821 children and pregnant and lactating women received access to health and nutrition interventions, 477,889 pregnant and lactating women benefited from homestead gardening and nutrient dense plant and animal source foods, and 319,000 people have access to clean and safe water supply. The overall coverage based on inter-ministerial score card for 2012 E.C was 72.1%. Trend review based on the growth monitoring and promotion (GMP) showed there was an increasing trend of children participation in GMP activities.

Several lessons can be drawn from Seqota Declaration Innovation Phase implementation. The Seqota Declaration provided a high-level coordination mechanism that seeks to mainstream and accelerates existing multi sector programs in Ethiopia. The SD goal of zero stunting by 2030 is widely known and has been embraced by actors from diverse government sectors, development partners and religious leaders at different levels from federal to kebele level. One of the key differences between the SD and other multi-sectoral program approaches in Ethiopia is the political 'face' that has been mainstreamed into its day-to-day roll-out. In terms of the sectors participation, the level of engagement of the different sectors has been based on the existence of nutrition-sensitive plans within the sectors, the previous presence and vibrancy of nutrition-sensitive programs, and the availability of nutrition staff or nutrition focal points in the SD implementing sectors. The leadership provided by the inter-ministerial steering committee and government financial contribution has been sustained to finance the Investment Plan in

past years. At the beginning of the Innovation Phase there was a huge budgetary deficit but in 2012 and 2013 E.C alone the government has made 477 Million and 460 Million birr treasury funding respectively.

As part of the preparation for the Expansion Phase, several activities are being undertaken by the government. An evidence review of the Innovation Phase is being developed by the R4D, which will inform the development of an investment case for the Expansion Phase. In addition, the government has also endorsed the concept note for the Expansion Phase. This will guide the development of the expansion phase geographic locations with the aim of reaching more stunting prevalent woredas across the country. The Expansion Phase will be implemented in all regions and city administration in phased approaches. Hence, this study is conducted to show the impact of the Seqota Declaration investment during the Innovation Phase and set the pace for the Expansion Phase.

Methods

To estimate the impact of the Innovation Phase of the Seqota Declaration, we modeled the effect of increased coverage of program interventions on stunting and child mortality. We considered the impact of agricultural, nutrition, heath, social behavior change communication, and WASH interventions – the same interventions that were included in the Seqota Declaration Baseline Report. Changes in intervention coverage from baseline were estimated using data from the Ethiopia Health Management Information System (HMIS) and the Seqota Declaration Program Performance Scorecard.

Analysis of HMIS Data

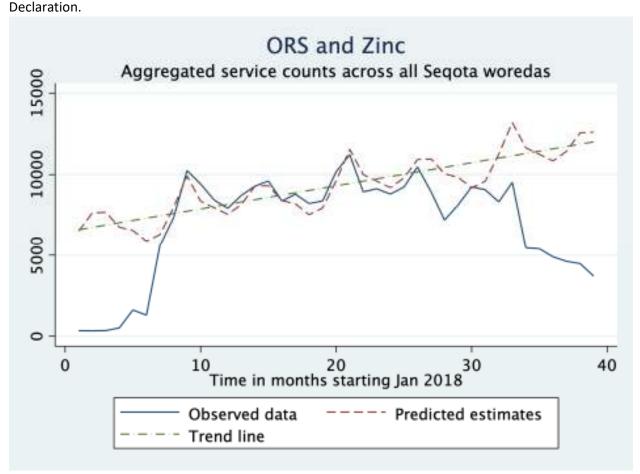
We took data on 12 child health and nutrition indicators from the Ethiopia HMIS, including indicators on antenatal care, iron folic acid supplementation, skilled birth attendance, vitamin A supplementation, oral rehydration solution, zinc, and screening and treatment for SAM and MAM. We only used HMIS data from March 2018 to February 2020. We excluded data from before March 2018, because in 2017 and early 2018 the HMIS was still being rolled out, and it was unclear whether increases in service counts in this period were due to actual program scale-up, or simply due to increased reporting as more facilities were adopting the HMIS. We also excluded data from March 2020 onwards, as there appeared to be a decline in service counts associated with the COVID-19 pandemic. Reports from various sources suggest that the COVID-19 pandemic may have disrupted health services in Ethiopia starting in March 2020. For these reasons, we thought it best to model the growth in service utilization from March 2018 to February 2020, and to extrapolate this trend for the whole period of the Innovation Phase, to represent the impact attributable to the Seqota Declaration. See Figure 1 for an example of why we chose to only use HMIS data from March 2018 to February 2020.

To estimate the trend in service counts for HMIS indicators, we used a multivariate linear regression model for service counts at time t, with a continuous predictor for time and categorical dummy predictors $D_2 = D_{12}$ for each month to account for seasonality.

$$count_t = \beta_0 + \beta_i \cdot t + \sum_{m=2}^{12} \beta_m \cdot D_m$$

We tested alternative models, including poisson and negative-binomial regression models, but found the linear model to have the greatest predictive power. We used the model to estimate service counts for each woreda and aggregated woreda-level estimates to obtain the total estimated counts for the entire Seqota Declaration area in the years 2018, 2019, and 2020. We used the relative change in service counts from 2018 to 2019, and from 2018 to 2020, to represent the relative change in coverage of interventions.

Figure 1: Example of HMIS modeling efforts, showing the need to exclude data prior to March 2018 (due to scale-up of HMIS/DHIS2) and the need to exclude data after February 2020 (due to disruptions associated with the COVID-19 pandemic). The green trend line shows the growth that we assumed to represent the impact of the Seqota



Analysis of Program Performance Scorecard Data

Data on Seqota Declaration program-specific activities were derived from the 3-year Program Performance Scorecard. The scorecard captures the number of target individuals receiving specific program interventions. Estimates of the total number of children aged 6 to 59 months, pregnant women, and total population were provided for the Seqota Declaration woredas. We derived coverage estimates calculating the proportion of the target population that received the intervention. For example, we estimated the proportion of women who received breastfeeding promotion using the proportion of pregnant and lactating women who participated in nutrition behavior change communication activities as a proxy indicator. Based on the performance scorecard, 49,065 pregnant and lactating women participated in the nutrition BCC programs translating to 31.6% of the population of 155,128 pregnant women.

Although the LiST model does not explicitly include agricultural interventions, we applied the same assumptions used in the Seqota Declaration baseline analysis report; namely, that agricultural interventions would (1) increase the proportion of low BMI women that received supplemental food, (2) increase the proportion of children receiving appropriate complementary feeding, and (3) decrease the proportion of households that are food insecure. Numerous agricultural interventions have been implemented as part of the Seqota Declaration. In the absence of data on the proportion of households receiving more than one of the interventions, we assumed perfect correlation in agricultural interventions (i.e., if a household received one agricultural intervention, they were more likely to receive additional agricultural interventions). Based on this, we chose the agricultural intervention with the highest coverage (homesteading) to reflect the reach of the agricultural program.

The only available indicator related to household WASH activities was the proportion of the population with access to a clean and safe water supply. We used this indicator as a proxy for the improvements in all WASH indicators included in the LiST model. Since the time of the baseline report, evidence around the efficacy of WASH interventions has evolved with the publication of numerous high-quality studies. WASH interventions and their associated efficacy values have been updated to reflect this improved evidence. We scaled our baseline WASH coverage assumptions to reflect differentials in coverage with the updated model.

LiST Modeling

Once we had estimates of changes in coverage of interventions, we used the Lives Saved Tool (LiST) to estimate the impact of the interventions on health outcomes. LiST is a mathematical model that uses changes in coverage of interventions to estimate changes in child, neonatal, and maternal mortality, stillbirths, and various nutrition measures including birth outcomes, stunting, and wasting. The strength of LiST is that it can estimate the impact of multiple interventions at the same time – up to 70 different interventions along the continuum of care. LiST can estimate mortality changes at the subnational level, although the accuracy of subnational estimates depends on the availability and strength of data.

We used LiST to estimate changes in health outcomes from just prior to program implementation (baseline: 2018) to 2023. Baseline intervention coverage estimates were derived from the report, "Seqota Declaration Innovation Phase Impact Evaluation Baseline Household Survey, PART 2: SECONDARY ANALYSES." We applied changes in intervention coverage derived from either the HMIS or program scorecard analyses (Table 1 & Table 2). For interventions captured through the HMIS, changes in coverage were applied as a relative change in coverage from baseline. We based this on the assumption that HMIS captures the relative change in health service contacts. As such, the baseline coverage was multiplied by the relative change in intervention coverage to reflect the change in coverage over time.

For interventions captured through the program scorecard, we treated these changes as additive interventions to the existing baseline coverage. We assumed that program performance monitoring captures novel interventions and does not include coverage of interventions that exist outside of the program. As such, our estimates of the annual proportion of the population that received an intervention through the program was added to the existing baseline intervention coverage.

We modeled the effect of intervention coverage changes in LiST for 2019 and 2020. For the years 2021 and later, we assumed the higher intervention coverage from either 2019 or 2020 would be sustained. We included these future years to capture the impact of interventions with a lagged effect, particularly impacts on stunting as interventions received in infancy and early childhood translate to reductions in stunting as these cohorts age.

We used the LiST model to estimate changes in the neonatal mortality rate (NNMR), under-5 mortality rate (U5MR), stunting rate, additional lives saved, and stunting cases averted. Additional lives saved and stunting cases averted were calculated by estimating the number of cases or deaths averted under the observed scale-up compared to a scenario in which the 2018 baseline coverage was held constant.

Tigray	Baseline	Source of indicator change		Change 2019:2018	Change 2020:2018	2019 Coverage	2020 Coverage					
Pregnancy												
ANC1	91.6%	Base * % change ANC1	HMIS	9.7%	19.5%	99.0%	99.0%					
ANC4	56.8%	Base * % change ANC4	HMIS	4.7%	9.4%	59.5%	62.1%					
IFA	50.0%	Base * % change in IFA 90+	HMIS	31.3%	62.5%	65.6%	81.2%					
Food supplement for low BMI women	0.0%	Base + ag intervention coverage	Scorecard	74.6%	74.6%	74.6%	74.6%					
Childbirth												
Facility delivery	63.9%	Base * % change SBA at facility	HMIS	1.6%	3.3%	64.9%	66.0%					
Breastfeeding							1					
Promotion of breastfeeding	35.0%	Base + % PLW who participated in Nutrition BCC	Scorecard	31.6%	12.1%	66.6%	47.1%					
Preventative						-						
Complementary feeding (education only)	25.0%	Base + % PLW who participated in Nutrition BCC	Scorecard	31.6%	12.1%	56.6%	37.1%					
Complementary feeding (supplemental)	0.0%	Base + ag intervention coverage	Scorecard	74.6%	74.6%	74.6%	74.6%					
Vitamin A supplementation	36.2%	Base * % change VAS 6-59 m	HMIS	13.7%	27.5%	41.2%	46.2%					
WASH	-			_!								
Improved sanitation	29.6%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	37.3%	36.6%					
Improved water	72.0%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	79.7%	79.0%					
Water connection in the home	0.7%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	8.4%	7.7%					

Table 1. Intervention coverage, change from baseline, and source of indicator change ~ Tigray

Handwashing with soap	0.7%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	8.4%	7.7%
Safe disposal of stools	29.0%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	36.7%	36.0%
Curative							
КМС	75.7%	Base * % change SBA at facility	HMIS	1.6%	3.3%	76.9%	78.2%
ORS	30.6%	Base * % change children treated with ORS	HMIS	18.9%	37.7%	36.4%	42.1%
Zinc for diarrhea treatment	10.1%	Base * % change children treated with ORS & zinc	HMIS	22.1%	44.2%	12.3%	14.6%
SAM treatment	33.0%	Base * % change children screened for acute malnutrition	HMIS	26.6%	53.1%	41.8%	50.5%
MAM treatment	20.0%	Base * % change children screened for acute malnutrition	HMIS	26.6%	53.1%	25.3%	30.6%
Household Assumptions							
HH with moderate/severe food insecurity	55.0%	Base * (1-ag intervention coverage)	Scorecard	74.6%	74.6%	14.0%	14.0%

Amhara	Baseline	Source of indicator change		Change 2019:2018	Change 2020:2018	2019 Coverage	2020 Coverage
Pregnancy	•	·		1	•		1
ANC1	72.2%	Base * % change ANC1	HMIS	9.7%	19.5%	79.3%	86.3%
ANC4	36.2%	Base * % change ANC4	HMIS	4.7%	9.4%	37.9%	39.6%
IFA	40.1%	Base * % change in IFA 90+	HMIS	31.3%	62.5%	52.6%	65.1%
Food supplement for low BMI women	0.0%	Base + ag intervention coverage	Scorecard	74.6%	74.6%	74.6%	74.6%
Childbirth							
Facility delivery	47.2%	Base * % change SBA at facility	HMIS	1.6%	3.3%	48.0%	48.7%
Breastfeeding			· ·				·
Promotion of breastfeeding	35.0%	Base + % PLW who participated in Nutrition BCC	Scorecard	31.6%	12.1%	66.6%	47.1%
Preventative		•		1	1		
Complementary feeding (education only)	25.0%	Base + % PLW who participated in Nutrition BCC	Scorecard	31.6%	12.1%	56.6%	37.1%
Complementary feeding (supplemental)	0.0%	Base + ag intervention coverage	Scorecard	74.6%	74.6%	74.6%	74.6%
Vitamin A supplementation	36.8%	Base * % change VAS 6-59 m	HMIS	13.7%	27.5%	41.8%	46.9%
WASH		•		1	1		
Improved sanitation	55.4%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	63.1%	62.4%
Improved water	72.0%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	79.7%	79.0%
Water connection in the home	7.0%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	14.7%	14.0%

Table 2. Intervention coverage, change from baseline, and source of indicator change ~ Amhara

Handwashing with soap	0.7%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	8.4%	7.7%
Safe disposal of stools	34.4%	Base + % people to have access to clean and safe water	Scorecard	7.7%	7.0%	42.1%	41.4%
Curative		·			·		
КМС	71.8%	Base * % change SBA at facility	HMIS	1.6%	3.3%	73.0%	74.2%
ORS	35.7%	Base * % change children treated with ORS	HMIS	18.9%	37.7%	42.4%	49.2%
Zinc for diarrhea treatment	6.1%	Base * % change children treated with ORS & zinc	HMIS	22.1%	44.2%	7.4%	8.8%
SAM treatment	33.0%	Base * % change children screened for acute malnutrition	HMIS	26.6%	53.1%	41.8%	50.5%
MAM treatment	20.0%	Base * % change children screened for acute malnutrition	HMIS	26.6%	53.1%	25.3%	30.6%
Household Assumptions							
HH with moderate/severe food insecurity	61.0%	Base * (1-ag intervention coverage)	Scorecard	74.6%	74.6%	7.8%	7.8%

Results

In the year 2021, we expect the Seqota Declaration interventions to reduce NNMR by 1.9% in Tigray and 2% in Amhara (Table 3). We expect a greater reduction in under-5 mortality, resulting in a 6.6% reduction in Tigray and 6.7% reduction in Amhara in 2021. The impact of intervention scale-up has a lagged effect on stunting, as changes in disease incidence and nutrition in early ages translate to reductions in stunting as these cohorts age. By 2023, we expect the intervention scale-up in 2019 and 2020 to result in a 10.5% absolute reduction or a 26.4% relative reduction in stunting in Tigray. A similar 11.8% absolute reduction or 22.8% relative reduction in stunting in Amhara is also anticipated.

		2018	2019	2020	2021	2022	2023			
Tigray										
NNMR	Seqota implementation	20.82	20.54	20.46	20.42	20.42	20.42			
	Reference (no intervention)	20.82	20.81	20.81	20.81	20.81	20.81			
U5MR	Seqota	41.56	39.27	38.58	38.24	38.14	38.1			
	Reference	41.56	41.21	40.98	40.93	40.94	40.92			
Stunting Rate	Seqota	39.71	36.73	34.66	32.31	30.05	29.42			
	Reference	39.71	39.79	39.91	39.97	40	39.95			
Amhara										
NNMR	Seqota	25.11	24.73	24.69	24.61	24.61	24.61			
	Reference	25.11	25.1	25.1	25.1	25.09	25.09			
U5MR	Seqota	46.88	44.22	43.53	43.1	43.01	42.96			
	Reference	46.88	46.5	46.27	46.21	46.22	46.2			
Stunting Rate	Seqota	51.05	47.68	45.56	43.06	40.58	39.88			
	Reference	51.05	51.26	51.5	51.64	51.71	51.65			

Table 3. Impact of Seqota Declaration on mortality and stunting rates in Tigray and Amhara

By the year 2021, the Seqota Declaration will prevent almost 400 child deaths in Tigray and Amhara annually. By 2023, the Seqota Declaration will avert over 70,000 stunting cases in the intervention area each year. The impact of the program disaggregated by age of child death prevented or stunting case averted is presented in Table 4. The greatest impacts on mortality occur in the youngest age groups where the greatest mortality burden occurs. Stunting impact is greatest in the 6 to 23 month age groups, which is the age period in which stunting typically emerges as breastfeeding wanes and IYCF practices have significant effects.

	2018	2019	2020	2021	2022	2023
Tigray				·		
Lives Saved (0-59 m)	0	139	175	199	209	212
0-1 m	0	20	26	29	29	30
1-5 m	0	20	19	25	26	26
6-11 m	0	23	26	27	28	28
12-23 m	0	60	74	79	81	81
24-59m	0	17	33	40	47	49
Stunting Cases Averted (0-59 m)	0	10,390	18,238	27,130	35,818	37,967
0-1 m	0	16	16	17	17	17
1-5 m	0	89	75	91	92	93
6-11 m	0	2,219	2,085	2,279	2,301	2,324
12-23 m	0	7,723	9,291	9,809	10,116	10,214
24-59m	0	342	6,771	14,934	23,291	25,319
		Amhara				
Under-5 Lives Saved (0-59 m)	0	143	172	195	201	200
0-1 m	0	23	25	30	29	29
1-5 m	0	23	19	27	27	27
6-11 m	0	24	27	27	27	27
12-23 m	0	58	70	75	75	74
24-59m	0	16	32	37	43	44
Stunting Cases Averted (0-59 m)	0	10,498	17,726	25,849	33,578	34,979
0-1 m	0	19	17	19	18	18
1-5 m	0	107	85	106	105	104
6-11 m	0	2,482	2,304	2,464	2,443	2,424
12-23 m	0	7,611	9,051	9,388	9,511	9,430
24-59m	0	280	6,270	13,871	21,500	23,003

Table 4. Impact of Seqota Declaration on additional lives saved and stunting cases averted by age group in Tigray and Amhara

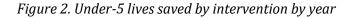
Increased coverage of numerous interventions contributed to the observed reductions in under-5 mortality in the program area. Intervention contribution was similar in Tigray and Amhara, as only differences in baseline coverage contributed to differences in impact. Agricultural, nutrition, social behavior change communication (SBCC), water, sanitation, and hygiene (WASH), and improvements in

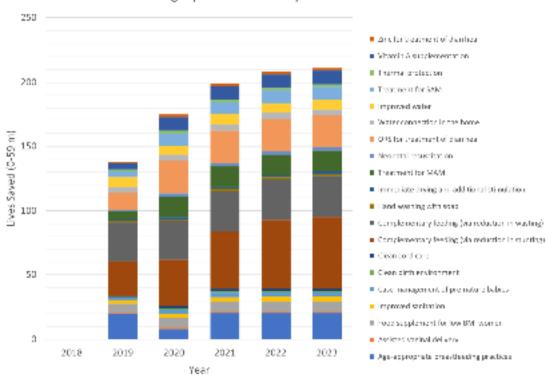
treatment of sick children accounted for the greatest reductions in mortality. Agricultural interventions resulting in improved coverage of complementary feeding among infants and young children averted the greatest number of child deaths. These agricultural interventions also translated to food supplementation among low BMI women, resulting in improved birth outcomes and reduced child mortality. Increased treatment of diarrhea (with ORS) and treatment of children with acute malnutrition also accounted for significant reductions in mortality. SBCC to promote breastfeeding was the 4th and 3rd most impactful intervention in Tigray and Amhara respectively. Increased vitamin A supplementation in children was the 6th and 8th most impactful intervention in Tigray and Amhara respectively. Improvements in water sources also contributed to reductions in under-5 mortality.

		2018	2019	2020	2021	2022	2023
Гigray							
1.	Complementary feeding (via reduction in stunting)	0	27	36	45	54	56
2.	Complementary feeding (via reduction in wasting)	0	31	31	32	32	32
3.	ORS for treatment of diarrhea	0	13	26	25	25	25
4.	Age-appropriate breastfeeding practices	0	20	8	21	21	21
5.	Treatment for moderate acute malnutrition	0	7	16	16	16	16
6.	Vitamin A supplementation	0	5	11	11	11	11
7.	Treatment for severe acute malnutrition	0	5	10	10	10	10
8.	Improved water	0	8	7	8	8	8
9.	Food supplementation for low BMI women	0	7	8	8	8	8
10.	Water connection in the home	0	5	5	5	5	5
mhara	1						
1.	Complementary feeding (via reduction in stunting)	0	26	33	41	48	49
2.	Complementary feeding (via reduction in wasting)	0	34	34	34	34	33
3.	Age-appropriate breastfeeding practices	0	26	10	26	26	26
4.	ORS for treatment of diarrhea	0	13	26	25	25	24
5.	Treatment for moderate acute malnutrition	0	7	17	17	16	16
6.	Treatment for severe acute malnutrition	0	6	10	10	10	10
7.	Food supplementation for low BMI women	0	8	8	9	9	9
8.	Vitamin A supplementation	0	4	9	9	9	9
9.	Improved water	0	7	6	7	7	7
10.	Water connection in the home	0	4	4	4	4	4

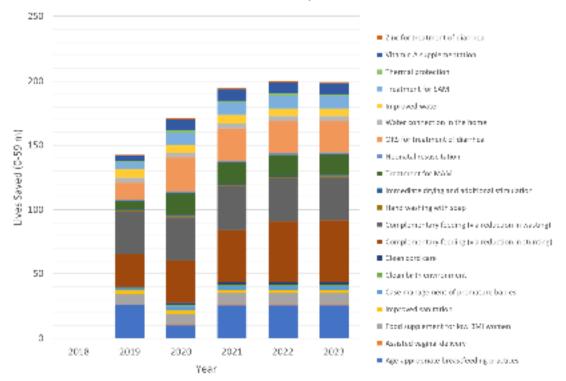
Table 5. Top 10 interventions accounting for lives saved (0-59 m) each year

Beyond the top interventions noted in Table 5, increased ANC and facility delivery rates also had subtle effects on under-5 deaths (Figure 2). Improved ANC and facility delivery rates resulted in increased coverage of interventions delivered during these service contacts, such as clean cord care.





Tigray: Lives Saved by Intervention



Amhara: Lives Saved by Intervention

Ten interventions or risk factors accounted for the significant reductions in child stunting (Table 6). Increased complementary feeding was the primary driver of stunting reductions, accounting for over 90% of the stunting cases averted. Vitamin A supplementation, improved water source, food supplementation for low BMI women, improved sanitation, improved breastfeeding practices due to promotion, and increased handwashing also contributed to reductions in stunting. There was no difference in the relative contribution of interventions to stunting cases averted between Tigray and Amhara.

		2018	2019	2020	2021	2022	2023
Tigray							
1.	Appropriate complementary feeding	0	9,564	16,534	25,014	33,259	35,311
2.	Vitamin A supplementation	0	126	458	527	613	632
3.	Improved water	0	234	405	509	606	627
4.	Water connection in the home	0	148	255	320	381	395
5.	Food supplementation for low BMI women	0	124	295	311	405	424
6.	Improved sanitation	0	97	167	210	250	258
7.	Age-appropriate breastfeeding practices	0	55	45	139	183	193

Table 6. Interventions accounting for stunting cases averted (0-59 m) each year

8.	Hand washing with soap	0	41	71	89	106	109
9.	Rotavirus vaccine	0	0	4	6	5	5
10.	Maternal age and birth order	0	0	3	5	9	10
Amhara		•					
1.	Appropriate complementary feeding	0	9,723	16,196	23,956	31,321	32,677
2.	Vitamin A supplementation	0	106	389	443	510	517
3.	Improved water	0	209	355	441	519	528
4.	Food supplementation for low BMI women	0	136	289	303	382	392
5.	Water connection in the home	0	132	224	278	327	332
6.	Improved sanitation	0	89	151	188	221	225
7.	Age-appropriate breastfeeding practices	0	65	52	151	193	200
8.	Hand washing with soap	0	36	62	77	90	92
9.	Rotavirus vaccine	0	0	4	6	5	5
10.	Maternal age and birth order	0	0	3	5	9	10

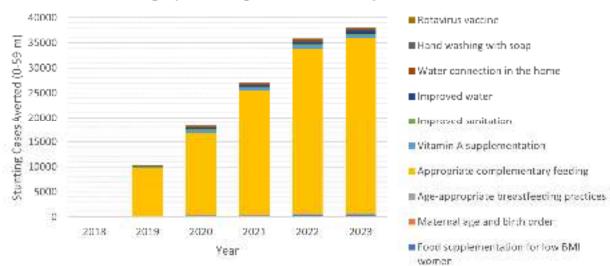
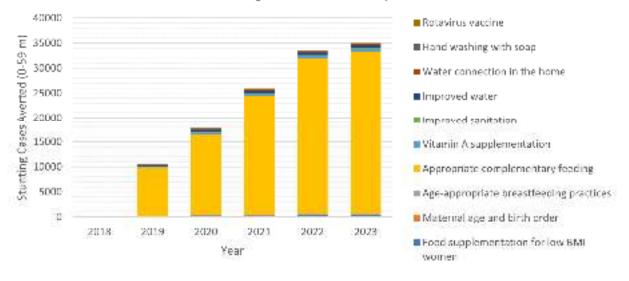


Figure 3. Under-5 stunting cases averted by intervention by year

Tigray: Stunting Cases Averted by Intervention

Amhara: Stunting Cases Averted by Intervention



Discussion

Implementation of the Innovation Phase of the Seqota Declaration succeeded in increasing coverage of interventions to reduce stunting and child mortality. The program focused on interventions to reduce stunting, including agricultural, nutrition, SBCC, and WASH interventions and improvements in treatment of nutrition-related conditions. In the Innovation Phase target population, the program reduced stunting rates by 25% of baseline levels.

Agricultural interventions had the greatest impact on stunting. Based on program performance records, over 75% of households in the target population were reached with at least one agricultural intervention. Improved agriculture translates to reduced household food insecurity and better nutrition for pregnant women and young children. Improvements in infant and young child nutrition, achieved through complementary feeding and reduced household food insecurity, accounted for 90% of the stunting cases averted. Reductions in stunting and child undernutrition also resulted in fewer child deaths from infectious diseases. Again, improved child nutrition was a driving force in preventing child deaths via reductions in both stunting and wasting.

SBCC targeting improved nutrition practices also contributed to reductions in child mortality. Approximately a third of pregnant and lactating women were reached through the nutrition BCC intervention, resulting in improvements in breastfeeding practices. Increases in vitamin A supplementation also reduced child deaths by reducing diarrhea-related mortality. During the program period, vitamin A supplementation increased by 27.5% in the program area.

Improvements in treatment of diarrhea and malnutrition also contributed to reductions in child mortality. During the Innovation Phase, HMIS data showed increased treatment of diarrhea with ORS (38%) and zinc (44%), while screening and treatment for malnutrition increased 53% compared to the rates observed prior to program implementation. Together, improved treatment of diarrhea and malnutrition accounted for a quarter of the expected lives saved by the Seqota Declaration in 2021.

The contribution of WASH interventions was more limited, due to the limited number of households reached by efforts to improve water and sanitation infrastructure and improve hygienic behaviors. Data on WASH program implementation was limited to the number of people to gain access to clean and safe water through the program. Data on latrine construction and behavior change was unavailable. However, the data showed that only 7.7% of the population in targeted woredas were reached with interventions to increase access to clean and safe water, which limited the impact of the WASH interventions on nutrition and mortality.