WHAT IS ALMANACH

For a parent it is important to be sure that their child receives the best attention and treatment possible when they are sick. For a health worker it is important to be confident in their decisions and to be supported in their job. For this, ALMANACH was born. In a tablet the most recent medical knowledge has been summarized by a group of international specialists in algorithms and childhood illnesses to guarantee the best consultation possible in compliance with international and validated guidelines.

The tablet leads the healthcare providers to seek and ask for the right symptoms, to perform an exhaustive physical examination, to request the laboratory tests really needed and to conclude with the correct diagnosis and the most effective treatment and, when needed, to refer the child if they cannot be treated in the health facility. ALMANACH has been designed for your health facility’s resources in terms of drugs, staff availability and laboratory tests and it can be used by medical practitioners including doctors, nurses and community health workers, even in remote, resource scarce locations. When a caretaker brings their child to the health facility, the health worker will consult the child with the help of the tablet. The health worker will enter the illness of the child and the tablet, based on the caretaker’s complaints, will provide the health workers with the right
diagnosis and treatment, ensuring better quality of care. With ALMANACH, caretakers can be sure their child is treated according to the most recent medical evidence, the child will receive a better consultation and only the medicine that are really needed.

ALMANACH has been already successfully implemented in Nigeria and it is now in use at the health facilities of Radar, Gubadhley, Afgol, Farjano, Beletweyne and Howlwadaag.
APRIL EPIDEMIOLOGICAL DATA

CONSULTATIONS

In April 2021, a total of 2328 children between the age of 2 to 59 months were consulted using ALMANACH tablet. An increase is observed in the clinics that were already implementing ALMANACH before April. One major reason is likely to be the decline of COVID-19 cases particularly in Mogadishu: people have again started attending the clinics as fear of COVID-19 spread is reduced. In April, ALMANACH was implemented in three new clinics, affecting the crude number of consultations: Hulwadag clinic of Baidoa, Farjanno clinic in Kismayo and Beletweyne.

Note! Unless separately mentioned, all figures in this bulletin are based on the SRCS reporting period from 26th of March to 25th of April, similarly to previous month.

![ALMANACH consultations February-April 2021](image)

Patient classification as routine ALMANACH data collection indicates that 98% (n=2281) of the overall consultations in April were new visits while 2% were planned follow-up visits. Of these total consultations, 46.2% were female while 53.8% were male.

All consultations for children aged 2–59 months can be conducted using ALMANACH, even if the final diagnosis is not likely to be one of those currently covered by ALMANACH. This is because the prevention and nutrition related parts of the algorithm will still be relevant for any child. Utilization rate is believed to be close to 100% in the facilities, however data on this remains inconsistent between facilities and requires further supervision.

NUTRITIONAL SCREENING

Before doing ALMANACH consultations, the under-five nurse and the health promoter conduct health education sessions in the waiting area on important topics such as COVID-19 prevention measures and acute watery diarrhea, alongside explaining the benefits of ALMANACH. Anthropometric measurements (MUAC and weight) and temperature are also taken from the under-five children, and children in need of urgent care identified for prioritization.
The figure shows the nutritional screening data for the month of April 2021.

1.9% (n=41) cases of the total screened children were identified as having severe acute malnutrition (SAM), out of which 8 were referred to stabilization centers as they presented complications that cannot be treated at the OTP level. 33 more children with SAM without complication were referred to OTPs. 10.4% (n=223) of the total number of children screened were identified with moderately acute malnutrition (MAM) and were referred to targeted supplementary feeding program (TSFP). The health workers provide general information related to feeding practices to the caretakers in order to prevent malnutrition, and health workers also emphasize exclusive breastfeeding during the first 6 months. The proportion of children with SAM was similar to that of last month (2.1%), with a slight decrease for the proportion of MAM (12.2% in March). Malnutrition is most common in Afgoye, where the combined proportion of SAM or MAM is constantly over 20%.

The figure below illustrates the patient flow in the clinics.

**MORBIDITIES**

Out of a total of 2328 consultations in the six clinics in April, the following morbidity categories were the most commonly diagnosed: respiratory infections (41.6%), gastrointestinal conditions (10.6%), ear infections (6.4%) and throat infections (6.1%). However, almost a third (29%) of the children were diagnosed with conditions that are currently not captured by ALMANACH, including e.g. skin conditions, wounds and burns. These children would end up with only nutrition and prevention related “diagnoses” on ALMANACH, such as “no malnutrition” or “deworming needed”.
RESPIRATORY INFECTIONS

Across the clinics, respiratory infections are the leading morbidity group representing 41.6% (n=969) of consultations. According to the reports from the health workers, the main contributing factor is poor hygiene conditions of the target population.

URTI accounts for 86.4% (n=837) and pneumonia for 10.2% (n=99) of respiratory infections recorded in April, while 3.4% (n=33) had a wheezing episode. 3 out of the 6 clinics running ALMANACH reported pneumonia cases within the recommended range (10-20%). ALMANACH team will follow up with Gubadhley health worker to learn why cases of pneumonia are higher than elsewhere.

The below graph shows the proportion of antibiotic prescriptions for URTI children. On the left are the facilities that started implementing ALMANACH earlier (Radar, Gubadhley and Afgoi), which are all on the recommended range (<15%). On the right are the new ALMANACH clinics, all of which are showing high levels of antibiotic prescriptions for URTI. Health workers stated that majority of caretakers believe antibiotics are an appropriate treatment for a wide range of respiratory infections and thus expect health workers to prescribe them for their children. Through the weekly discussions with the health workers as well as other supervision activities, the new clinics are also expected to show improvement in the coming months.
**GASTROENTERIC CONDITIONS**

Gastroenteric conditions accounted for 10.6% of all consultations. 9.5% (n=220) of the total consultations were due to acute water diarrhea (AWD), being similar in the three first clinics from February to April. Farjano also reported a similar figure, AWD representing 9% of all consultations. However, Beletwein and Hulwadag reported 35% and 20%, respectively. Health workers will reinforce messages on hand washing and general hygiene to prevent diarrhea as we are already in the raining season and some regions reported floods. Clinics had a good stock of ORS and zinc, thus all children diagnosed AWD were appropriately treated as per ALMANACH recommendations.

![% acute watery diarrhea in all consultations, Feb-April 2021](chart1.png)

**ANAEMIA**

ALMANACH recommends the use of hemoglobin test with certain criteria, but children might also be identified by ALMANACH as having severe anaemia based on clinical signs and symptoms. In April, 1% (n=24) of children consulted through ALMANACH were diagnosed with anaemia. The proportion is constantly higher in Gubadhley (4.4% in April), while most facilities tend to have a proportion of 0–1%.

Strengthened referral compliance is a part of ALMANACH: anaemia cases are treated at PHC level for a 2-month period, during which the patient should come back to the clinic for evaluation every 2 weeks. Children with severe anaemia are immediately referred to a hospital for blood transfusion and further support. SRCS ambulances facilitate patient transportation from the health facilities in Gubadhley and Radar to hospitals in Mogadishu.

![% anaemia in all consultations, Feb-April 2021](chart2.png)
EAR INFECTIONS

150 cases of ear infections were diagnosed using ALMANACH in April, representing 6.4% of all consultations. This is slightly higher than in March, when 4.6% of consultations were due to ear infections. The treatment recommended by ALMANACH is wicking of the ear three times a day as well as antibiotic treatment (Amoxil syrup) and paracetamol for pain. These children are also recommended to be followed up after five days to see if there is improvement. Additionally, there were 10 children diagnosed with chronic ear infection with discharge. These children were treated with gentamycin ear drops and paracetamol, and caretakers were taught how to do wicking three times daily. If no improvement is seen after seven days, these children will be referred for assessment.

THROAT INFECTIONS

Children under five also present with throat infections, which ALMANACH has categorized into various types. During the month, 142 cases were diagnosed to have throat infections, representing 6.1% of all consultations. A clear increase is observed compared to 2.4% in March. Health workers report the reason being that children frequently drink cold water during the evening when their parents break the fast. A majority (94% or n=134) of throat infection cases were of viral nature, which do not require antibiotic treatment but only soothing of the throat with warm soup, honey or breast milk depending on the age. Only 6% (n=8) had possible streptococcal sore throat and were prescribed oral antibiotic medication, paracetamol and followed up in three days to see if there is improvement.

OTHERS

42 conjunctivitis cases were diagnosed and treated as per ALMANACH recommendations, accounting for 1.3% of all consultations. The proportion is similar to that of March (1.0%). Five complicated measles cases were reported, and all were referred to hospital for further support. There were 2 cases of severe febrile disease that were suspected to be malaria, but no RDT confirmed cases of malaria were reported in April.

PREVENTION

VITAMIN A AND DEWORMING

ALMANACH constantly reminds the health worker to inquire if the child received vitamin A and deworming tablets in the last 6 months. If the child did not receive them, ALMANACH gives the recommendation for the child to be given the vitamin A or deworming tablets. Overall 1632 children were given vitamin A as preventive while 1273 children were given deworming. The below table demonstrates the proportion of children identified with need for vitamin A and deworming among all children. After ALMANACH has been used in a facility for a while, the proportion could get lower as children have already received their vitamin A and deworming during previous visits.

<table>
<thead>
<tr>
<th></th>
<th>VIT A</th>
<th></th>
<th>DEWORMING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>% OF ALL CHILDREN</td>
<td>#</td>
<td>% OF ALL CHILDREN</td>
</tr>
<tr>
<td>Afgoye</td>
<td>559</td>
<td>69.5</td>
<td>436</td>
<td>54.2</td>
</tr>
<tr>
<td>Gubadhley</td>
<td>198</td>
<td>54.2</td>
<td>174</td>
<td>47.7</td>
</tr>
<tr>
<td>Radar</td>
<td>377</td>
<td>80.4</td>
<td>316</td>
<td>67.4</td>
</tr>
<tr>
<td>Beletwein</td>
<td>57</td>
<td>67.9</td>
<td>39</td>
<td>46.4</td>
</tr>
<tr>
<td>Hulwadag</td>
<td>124</td>
<td>62.9</td>
<td>69</td>
<td>35</td>
</tr>
<tr>
<td>Farjanno</td>
<td>317</td>
<td>77.5</td>
<td>239</td>
<td>58.4</td>
</tr>
<tr>
<td>Total</td>
<td>1,632</td>
<td></td>
<td>1273</td>
<td></td>
</tr>
</tbody>
</table>
IMMUNIZATIONS

Immunizations are an important part of prevention measures for children under-five. ALMANACH does not produce reports of which vaccines were given, but coverage here has been produced using the ICRC Medical Activity Database (MAD), from 1st of January until 30th of April. The below chart indicates the immunization coverage of the six clinics from January to April, adapted as yearly coverage. Afgoi clinic shows a relatively good coverage of 51.8% for polio and 28.4% for measles, while Beletwein clinic shows the lowest coverage. ALMANACH reminds the health workers to check the vaccination status of the children by the end of each consultation, and according to the status the children are referred to the vaccination site.

<table>
<thead>
<tr>
<th>Clinic</th>
<th>Polio Coverage</th>
<th>Measles Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afgoi</td>
<td>51.8%</td>
<td></td>
</tr>
<tr>
<td>Gubadhley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Radar</td>
<td>62.9%</td>
<td></td>
</tr>
<tr>
<td>Hulwadag</td>
<td>49.0%</td>
<td></td>
</tr>
<tr>
<td>Farjanno</td>
<td>77.5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>51.8%</td>
<td></td>
</tr>
</tbody>
</table>

CONCLUSIONS

• Three new clinics (Farjanno, Hulwadaag and Beletwein) implemented ALMANACH in April. Prior to the implementation, the health workers received a 5-days in-house ALMANACH training as well as a practical session.
• Weekly health worker discussions took place, creating a safe space for the health workers to discuss challenges openly. The high level of commitment from health workers that is demonstrated from week to week is the single most important factor for a successful running of the ALMANACH project, while the ICRC team supports them with all the doubts, challenges and questions that may arise. Another positive finding has been how the more experienced health workers support those new to ALMANACH.
• In general, the number of consultations has increased compared to March. In April, COVID-19 cases have decreased and thus the fear of disease has also reduced, which resulted in people attending the clinics again.
• The most common illnesses consulted through ALMANACH continue to be respiratory infections, followed by gastrointestinal conditions. This month the proportion of children with diagnoses outside of ALMANACH was lower than in March (29% vs. 47%).
A VOICE FROM THE FIELD

During weekly health worker discussions, Nasra from Gubadhley clinic have encouraged the nurses from new health facilities that implemented ALMANACH and said: “ALMANACH is a step-by-step guide from diagnose to treatment including proper dosage calculations. ALMANACH will make our job easier and increase the confidence to reach a correct diagnosis.”

NEXT STEPS

The ALMANACH team is preparing for the implementation of ALMANACH in the next batch of clinics, first by conducting focus group discussion for health workers and branch health officers (BHOs) and then moving on to community sensitizations and baseline assessments. The team will also continue to conduct routine health worker meeting to discuss the monthly bulletins as well as any challenges they come across. The routine health worker meeting provides opportunity for the ALMANACH team and health workers to exchange and share updates from ALMANACH and learn from one another. The team will also conduct supervision visits in the clinics to ensure implementation of ALMANACH goes on as required, security situation allowing. Finally, ALMANACH team will be preparing to plan for the second round of clinical observations in Farjano, Howlwadaag and Beletwein clinics.

OUR PARTNER IN SWITZERLAND

ALMANACH Somalia is the product of four years of experience and passion from a solid collaboration between the ICRC and the Swiss TPH. The Swiss TPH team is adapting the clinical algorithms and programming the software, to keep ALMANACH updated with latest clinical evidence applicable for the Somali context.

But who is the Swiss TPH? The Swiss Tropical and Public Health Institute (Swiss TPH, www.swisstph.ch) is a world-leading institute in global health with a focus on low- and middle-income countries.
Swiss TPH teams work on innovative ideas like ALMANACH and combine research, education and implementation services at local, national and international levels. Our aim is to take science and innovation to impact, to enable and bring novel diagnostics, drugs and vaccines directly to people, communities, policy and decision makers in a way to improve health comprehensively around the globe.

About 850 people from 80 nations work at Swiss TPH, focusing on infectious and non-communicable diseases, environment, society and health as well as health systems and interventions.

In 2020, Swiss TPH is managing more than 285 projects in more than 100 countries. ALMANACH Somalia is one of these projects.
ALMANACH IN THE COMMUNITIES

ALMANACH is a new programme in Somalia that needs to get ownership and support from the community. To achieve this, the ALMANACH team conducted community awareness campaigns to enhance community understanding about the programme. The ALMANACH team first sensitized the clinic staff (nurses, health promoters, Community Health Committees (CHCs) and Female Community Health Workers (FCHWs) using various educational materials developed for the programme (Flip charts and posters). Thereafter, the health promoter together with CHCs and FCHWs developed a schedule for going out to the community to discuss ALMANACH programme. The discussion revolved around target beneficiaries, benefits of ALMANACH, discussing the story of Bishara, a girl in the flip chart to trigger community discussion as well as welcoming their testimonies of real life situations they encountered. The feedback and opinion we can collect from the population is extremely important for us to develop the tool. The community engagement is not one-off activity continues to happen in the three clinics. The goal is to have a community that understands, supports and fully utilizes the programme.

WHAT IS AN ALGORITHM

You have heard many times that ALMANACH is based on algorithms but... what is an algorithm? An algorithm is a set of steps to be followed to complete a process. Even the recipe to cook a chocolate cake could become an algorithm: it takes inputs (ingredients) and produces an output (the chocolate cake). We could call an algorithm a “list of steps”. Obviously, the medical algorithms behind ALMANACH are a bit more complex than the recipe for the chocolate cake but the concept is the same.

The little computer in the hand of your health workers suggests him/her which steps to complete to pursue the best consultation possible for your child. ALMANACH will lead the nurse from collecting the symptoms to performing the examination, to request a laboratory test to finally reach a diagnosis and provide a therapy. These steps have been scientifically proven and international recognized so little is left to chance.

ALGORITHM TO PREPARE A CHOCOLATE CAKE

Recipe
CHOCOLATE CAKE
4 oz. chocolate  3 eggs
1 cup butter  1 tsp. vanilla
2 cups sugar  1 cup flour
Melt chocolate and butter. Stir sugar into melted chocolate.
Stir in eggs and vanilla. Mix flour. Spread mix in greased pan. Bake at 350_ for 40 minutes or until inserted fork comes out almost clean. Cool in pan before eating.

Program Code
Declare variables
Chocolate  Eggs  Mix
butter  vanilla
sugar  flour
mix=melted ((4w chocolate) + butter)
mix=stir (mix + (2w sugar))
mix=stir (mix + (3w eggs) + vanilla)
mix=mix + flour
spread (mix)
While not clean (fork)
bake (mix, 350)
**Algorithm to Diagnose Anaemia in ALMANACH**

1. **Anaemia**
   - Look at the child’s eyes.
   - The white of the eye has a yellowish or greenish colour.
2. **Jaundice**
   - The child looks pale.
3. **Severe Anaemia**
   - Test for haemoglobin saturation?
   - Hb < 2 g/dL?
   - Hb between 2 - 11 g/dL?
   - Hb > 11 g/dL?
4. **Anemia**
   - The white of one or both eyes is red and inflamed, or yellowish yellow discharge or constantly watering.
5. **Conjunctivitis**

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If you like this bulletin, if you have any suggestion, question or if you want to collaborate with us... don't hesitate! You can write an email or text a WhatsApp to Hassan Ali: habdulahiali@icrc.org; WhatsApp +254 722 409106

*Made for the people with love…. ALMANACH team*