

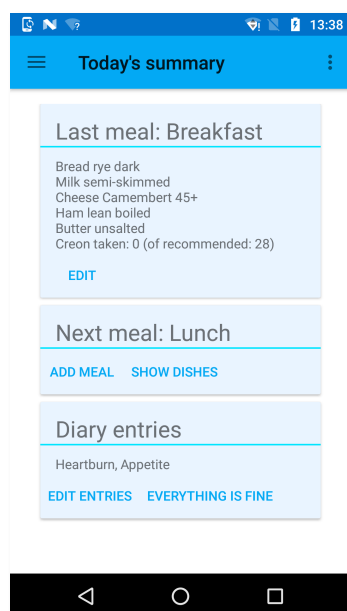
Multimedia Appendix 1: Features and screenshots

MyCyFAPP self-management app

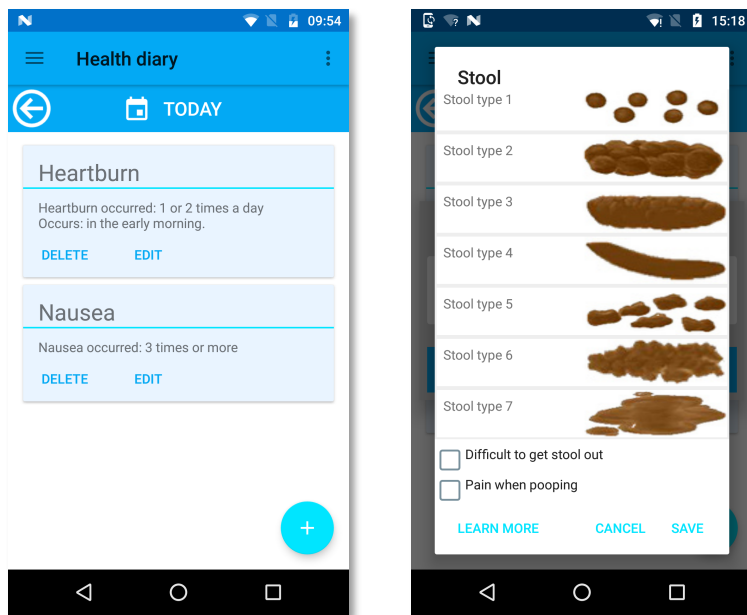
The self-management app targets parents of young children with CF and teenagers with CF. The following features are illustrated through screenshots: summary of today's recorded information; health diary for recording mood and GI symptoms; food diary for food recording and follow-up of food intake; calculation of a personalized enzyme dose depending on meal composition; educational handbook about the disease and the treatment with focus on nutrition.

In addition, other features are supported: access to MyCyFAPP dishes, a compilation of country-specific dishes, created specifically for the app, aiming at correcting specific nutritional imbalances; graphs for visualising the nutritional and health status over time; reminders for medication intake, medical appointments, or any other relevant due task; sharing of recorded data with the Professional Web Tool (PWT); retrieval of information set by HCPs on the PWT: nutritional goals, individual correction factor for the enzyme dose calculation and messages.

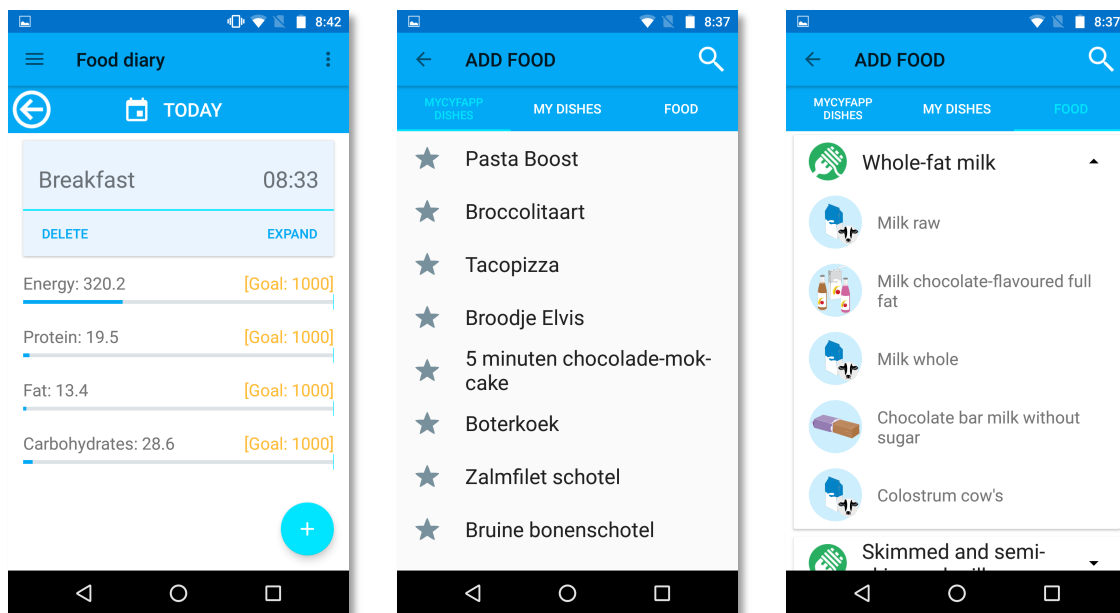
Today's summary



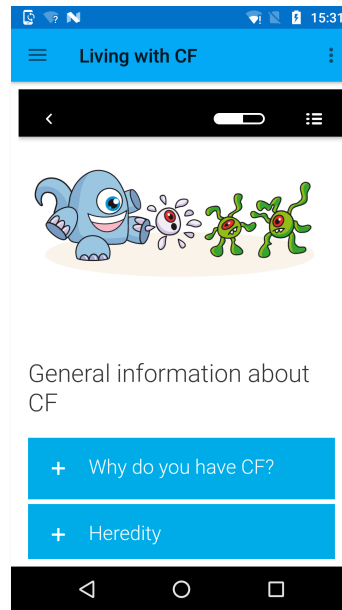
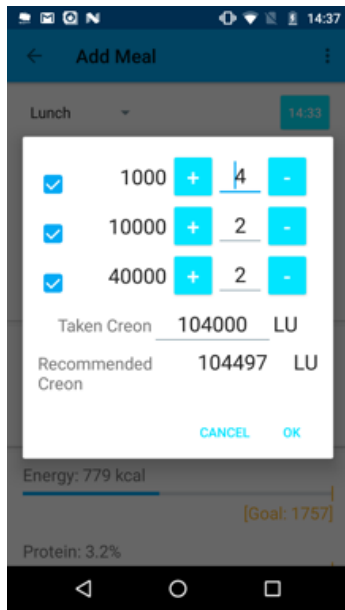
Health diary: overview and recording example for bowel movement



Food diary: overview, recording a dish and food group classification



Enzyme dose recommendation and educational handbook



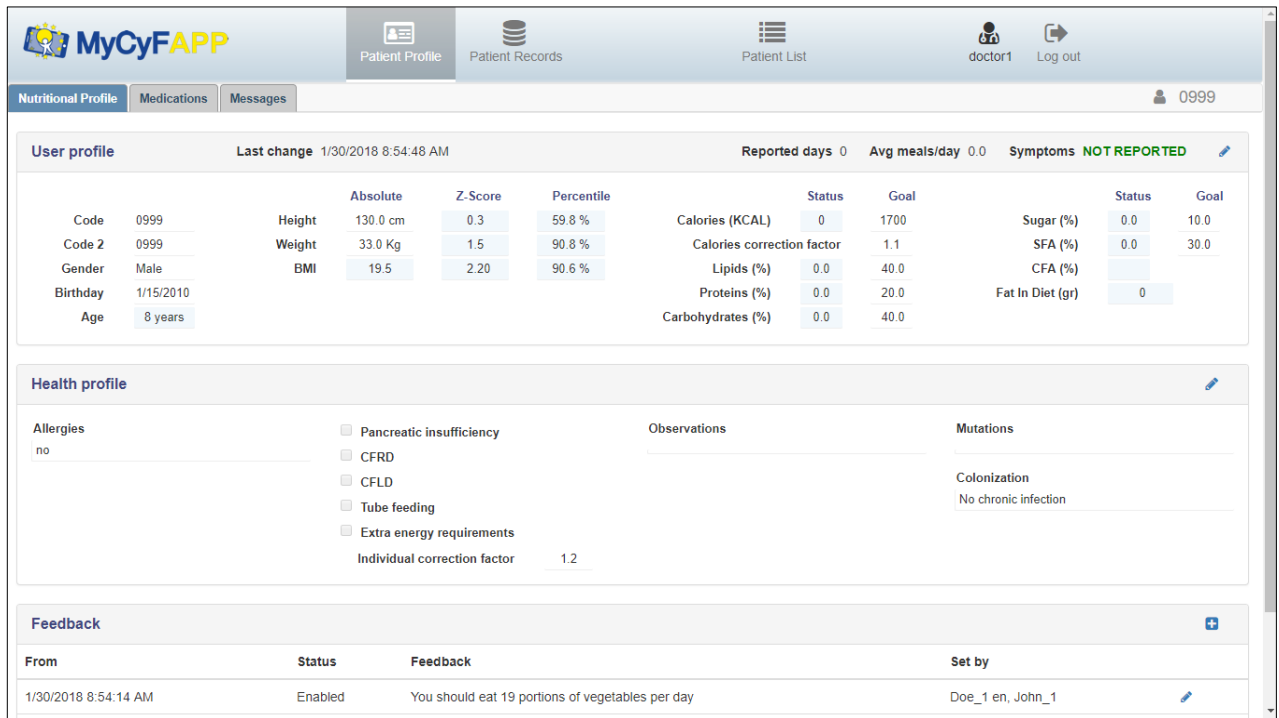
MyCyFAPP Professional Web Tool

The Professional Web Tool (PWT) targets HCPs. It provides an overview of the progress of the patients, mainly based on the data recorded using the self-management app. Some information is also gathered during consultations, e.g., weight and height. The monitored parameters are those included in CF nutritional guidelines: nutrient intake, enzyme dose and nutritional status. The tool entry point is the patients' list, from where HCPs can get access to patient information that consists of a Patient Profile and Patient Records. Through the Patient Profile, HCPs can register health information, set nutritional goals and send messages to patients. Patient Records provide a visualisation of the data recorded by the patients.

Patients' list screen

Code	Age	Gender	Symptoms	Reported Days	Avg Meals	Z Score BMI	Z Score Height	Z Score Weight	BMI	Energy	CH	L	P	Last Checked	Last Report
0000	3 years	Male	NOT REPORTED	0	0.0					0	0.0	0.0	0.0		2/6/2018
0101	10 years	Female	NOT REPORTED	0	0.0					0	0.0	0.0	0.0		
0102	8 years	Male	NOT REPORTED	0	0.0					0	0.0	0.0	0.0		
0201	18 years	Male	NOT REPORTED	0	0.0					0	0.0	0.0	0.0		
0308	1 months	Male	NOT REPORTED	0	0.0					0	0.0	0.0	0.0		
0500	8 years	Female	NOT REPORTED	0	0.0					0	0.0	0.0	0.0		6/5/2018
0599	8 years	Female	NOT REPORTED	0	0.0					0	0.0	0.0	0.0		4/17/2018

Patient profile (upper part) and health profile with GI characteristics (lower part)



MyCyFAPP Patient Profile | Patient Records | Patient List | doctor1 | Log out | 0999

Nutritional Profile | Medications | Messages

User profile | Last change: 1/30/2018 8:54:48 AM | Reported days: 0 | Avg meals/day: 0.0 | Symptoms: **NOT REPORTED**

Code	Height	Absolute	Z-Score	Percentile	Status	Goal	Status	Goal
0999	130.0 cm	130.0 cm	0.3	59.8 %	0	1700	Sugar (%)	0.0 10.0
Code 2: 0999	Weight	33.0 Kg	1.5	90.8 %	Calories (KCAL)	0	SFA (%)	0.0 30.0
Gender: Male	BMI	19.5	2.20	90.6 %	Calories correction factor	1.1	CFA (%)	
Birthdate: 1/15/2010					Lipids (%)	0.0	Fat In Diet (gr)	0
Age: 8 years					Proteins (%)	0.0		
					Carbohydrates (%)	0.0		

Health profile

Allergies: no

Observations:

Mutations:

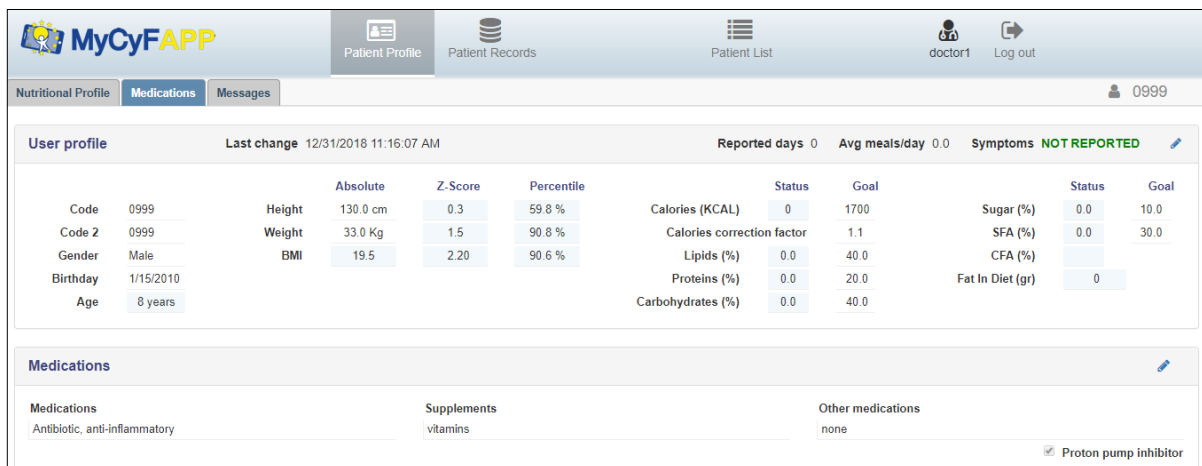
Colonization: No chronic infection

Extra energy requirements: Individual correction factor: 1.2

Feedback

From	Status	Feedback	Set by
1/30/2018 8:54:14 AM	Enabled	You should eat 19 portions of vegetables per day	Doe_1 en, John_1

Patient profile (upper part) and medication list (lower part)



MyCyFAPP Patient Profile | Patient Records | Patient List | doctor1 | Log out | 0999

Nutritional Profile | **Medications** | Messages

User profile | Last change: 12/31/2018 11:16:07 AM | Reported days: 0 | Avg meals/day: 0.0 | Symptoms: **NOT REPORTED**

Code	Height	Absolute	Z-Score	Percentile	Status	Goal	Status	Goal
0999	130.0 cm	130.0 cm	0.3	59.8 %	0	1700	Sugar (%)	0.0 10.0
Code 2: 0999	Weight	33.0 Kg	1.5	90.8 %	Calories (KCAL)	0	SFA (%)	0.0 30.0
Gender: Male	BMI	19.5	2.20	90.6 %	Calories correction factor	1.1	CFA (%)	
Birthdate: 1/15/2010					Lipids (%)	0.0	Fat In Diet (gr)	0
Age: 8 years					Proteins (%)	0.0		
					Carbohydrates (%)	0.0		

Medications

Medications: Antibiotic, anti-inflammatory

Supplements: vitamins

Other medications: none

Proton pump inhibitor

Patient profile (upper part) and recommendation messages (lower part)

MyCyFAPP Patient Profile Patient Records Patient List doctor1 Log out

Nutritional Profile Medications **Messages** 0999

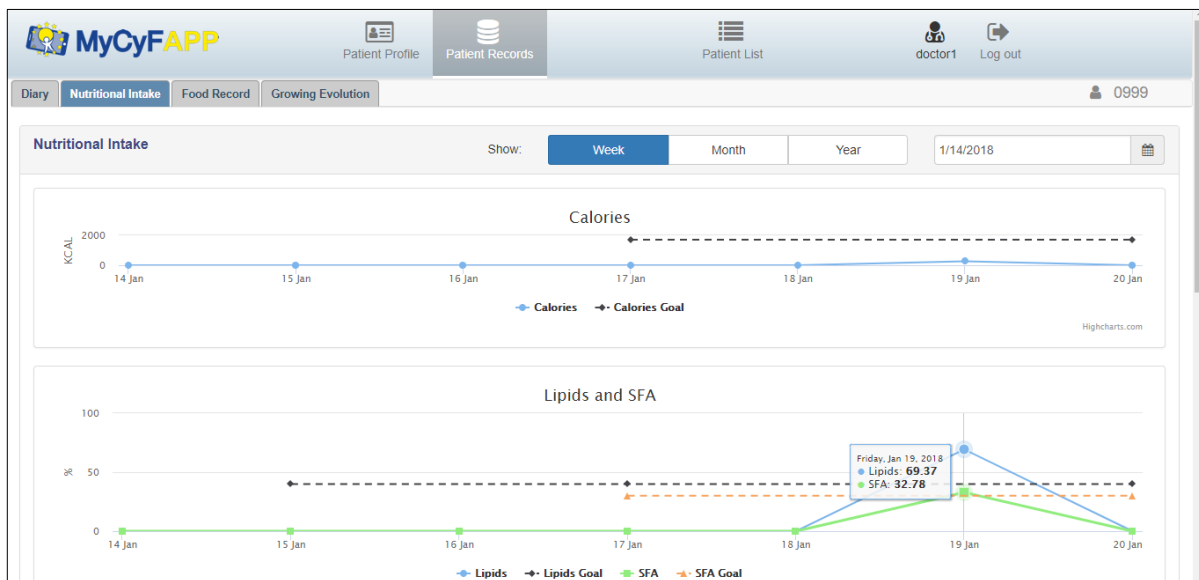
User profile Last change 12/31/2018 11:18:01 AM Reported days 0 Avg meals/day 0.0 Symptoms **NOT REPORTED**

	Absolute	Z-Score	Percentile	Status	Goal	Status	Goal
Code 0999	Height 130.0 cm	0.3	59.8 %	Calories (KCAL) 0	1700	Sugar (%) 0.0	10.0
Code 2 0999	Weight 33.0 Kg	1.5	90.8 %	Calories correction factor 1.1		SFA (%) 0.0	30.0
Gender Male	BMI 19.5	2.20	90.6 %	Lipids (%) 0.0	40.0	CFA (%)	
Birthday 1/15/2010				Proteins (%) 0.0	20.0	Fat In Diet (gr) 0	
Age 8 years				Carbohydrates (%) 0.0	40.0		

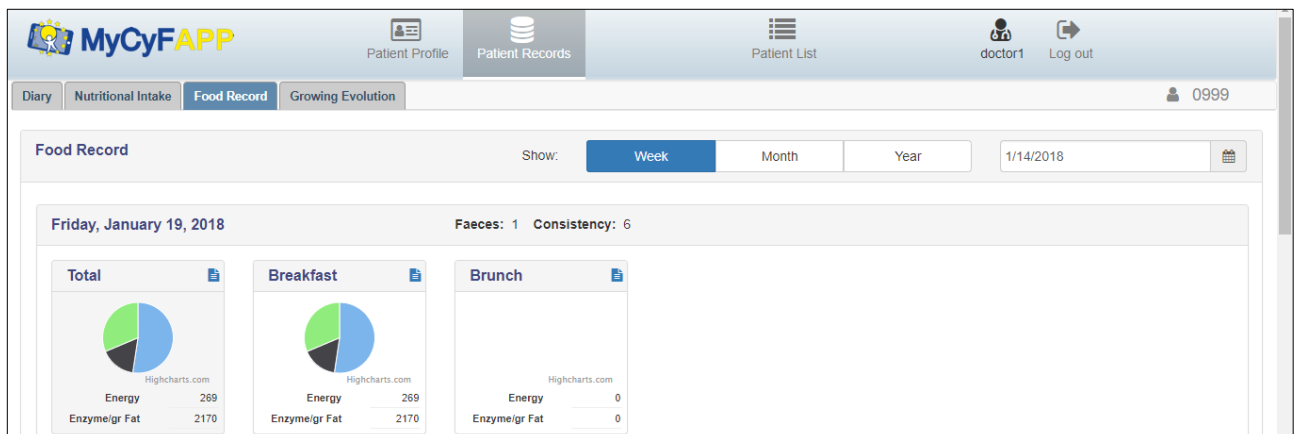
Messages

Date	Message	Educational content	Set by
12/31/2018 11:18:01 AM	Good morning! let's start the day reading about CF	CHAPTER 1: Cystic Fibrosis	Doe_1 en, John_1

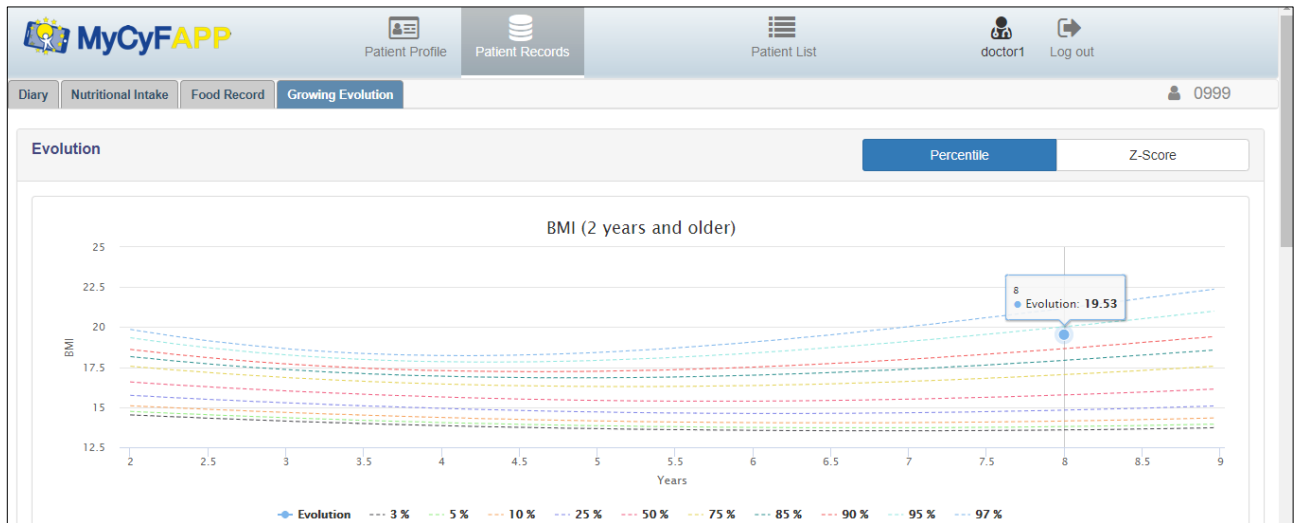
Patient records: nutritional intake



Patient records: food records over time



Patient records: growth in percentile or Z-score scales



Patient records: health diary including mood and GI symptoms

The screenshot shows the 'Diary' tab in the MyCyFAPP interface. The 'Show' dropdown is set to 'Week'. The table displays reported symptoms for the week of 1/14/2018 to 1/20/2018.

Reported symptoms	1/14/2018 Sunday	1/15/2018 Monday	1/16/2018 Tuesday	1/17/2018 Wednesday	1/18/2018 Thursday	1/19/2018 Friday	1/20/2018 Saturday
Bowel movements:							
Consistency:				6		6	
Difficulty:				No		No	
Pain:				No		No	
Consistency:				3			
Difficulty:				No			
Pain:				No			
Abdominal pain:							
Daily frequency:				Once or twice		Once or twice	