



Cope with Chronic Conditions. Anytime. Anywhere.

Scenario: Teenager with Cystic Fibrosis

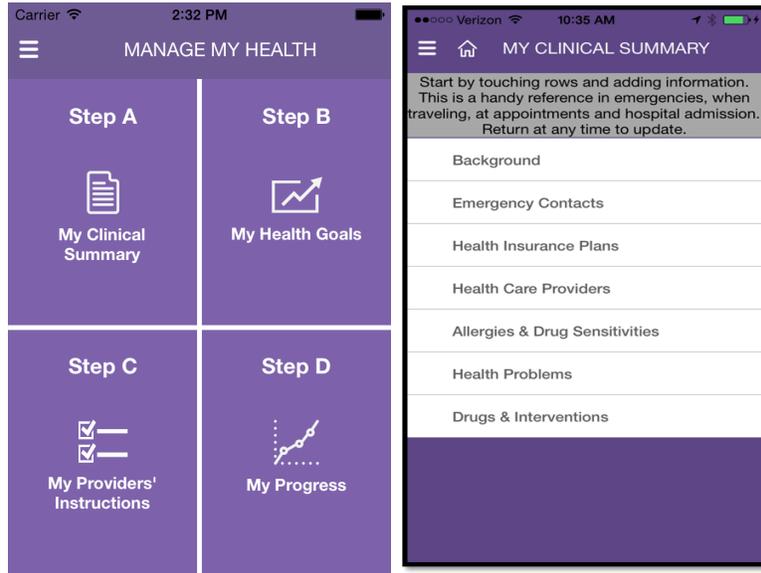
This scenario illustrates how the SmartPHR Health Aware app might be used by an imaginary teenager with cystic fibrosis. This is not medical advice. Always consult with your health care providers about app usage for chronic disease management.

Cystic fibrosis (CF) is a life-threatening genetic disease. Approximately 30,000 individuals in the US are afflicted with this condition. Serious health problems start in infancy and, in the past, most individuals with CF died during childhood. Most often individuals with CF encounter serious and recurrent lung and sinus infections and pancreas problems, leading to diabetes and an inability to absorb needed nutrition, in turn leading to failure to grow. In the past few decades, new scientific knowledge about CF has emerged and most patients reach adulthood with the help of intensive treatment programs. However, to benefit from these treatment successes, child, adolescent, and young adult patients and their caregivers must evidence exceptional motivation, diligence and commitment to complex and time-consuming regimens.

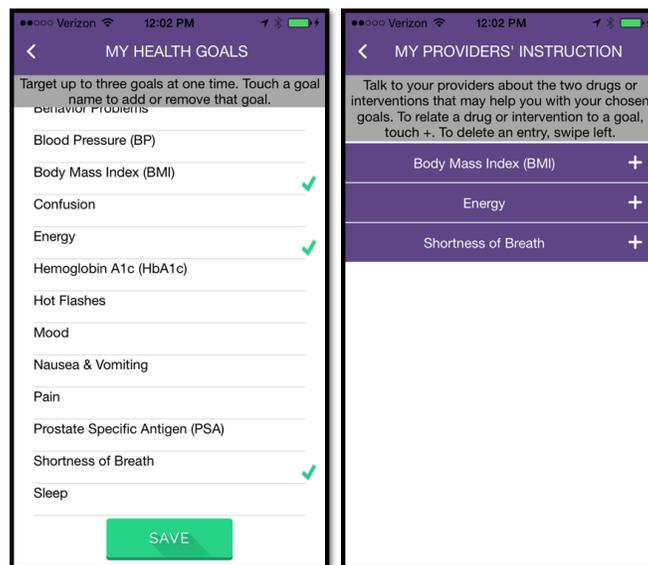


Elsie is a 14 year old teenager with cystic fibrosis. She has received a long list of medications to take and instructions for physical and respiratory therapy to be followed 4 times daily. She is discouraged by the time these treatments take each day and

wonders if following all these instructions really makes a difference in her ability to function as normally as possible. With encouragement from her mother, Elsie downloads the app to her mobile phone. The app guides Elsie and her mother through Four Easy Steps for care coordination across primary-care, pulmonary, physical therapy and other providers of health care, educational, and social services.

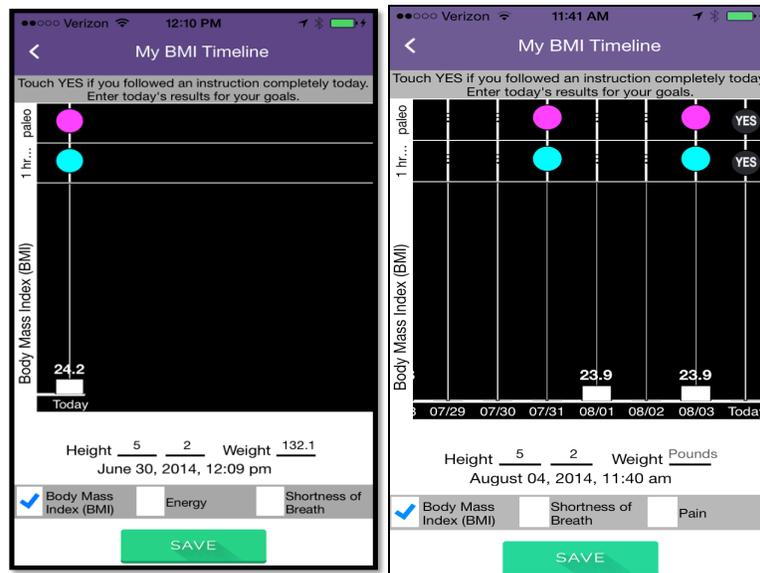


Step A. Using the app's MY CLINICAL SUMMARY tool, Elsie and her mother enter information that they supply each time they sign in for health care visit such as emergency contacts, health insurance plans, health care providers, allergies and drug sensitivities, health problems, and drugs and interventions. They go to Step A as needed to update health information.



Step B. With the app's MY HEALTH GOALS tool, Elsie, her mother and health care providers team up in collaborative identification of measurable goals important to CF patient health and function, including Activities of Daily Living, Body Mass Index or BMI (including weight and height), Energy, Hemoglobin A1c, and Shortness of Breath. From these, they choose BMI, Energy, and Shortness of Breath. Elsie and her team have selected three goals--BMI, energy, and shortness of breath--for their first focus. They go to Step B as needed to update goals.

Step C. With the app's MY PROVIDER INSTRUCTIONS tool, Elsie and her team link selected goals (BMI, energy, and shortness of breath) with relevant physician instructions, for physical therapy regimens (postural drainage and percussion, exercise and posture training), inhalation (nebulizer) therapies with a number of agents, and medications and supplements. They take advantage of the option for grouping instructions together in an "Inhalation Therapy" intervention, including bronchodilator, antibiotic and enzyme agents all taken by nebulizer at set times during the day. They go to Step C as needed to update links between goals and instructions.



Step D. At 6pm each day, Elsie's phone reminds her to use the app's MY PROGRESS tool. Elsie enters information on graphic timelines about her three selected goals and her compliance (yes or no) with goal-related drugs or interventions. In less than a minute, Elsie rates goals, such as shortness of breath, by moving a slider from 0 (worst) to 10 (best). And, she measures goals, such as body mass index (calculated automatically from height and weight), by entering today's weight. Elsie and her team can see patterns in goal attainment over time related to starting new or stopping previous medications, or complying with goal-related instructions. At Step D, they confirm the meaning of patterns, fine-tune and reevaluate treatment plans.