Since recent evidence regarding childhood obesity suggests a positive relationship between health knowledge and behaviors, it is increasingly important to provide children with a wealth of quality health instruction related to physical activity and good nutrition in the school setting. Unfortunately, many elementary teachers are not adequately trained to provide quality health instruction and many middle school students have health education only a few weeks a year. Internet technology makes it possible for schools to offer sound educational experiences designed to rely less on classroom time or the teacher’s expertise, and more on providing interactive and motivational materials for children and youth that increase knowledge, foster positive attitudes and affect healthy choices. The web-based e-learning modules Healthy Hearts 4 Kids (HH) (for 5th-6th grades) and Take Charge! Be Healthy! (TC) (for teens) have been designed to do just that.

HH has been implemented in over 1650 classrooms and used by 24,000 students from 2002-2008. HH’s summative effects on students’ health knowledge, attitude and behaviors were determined by analyzing pretest and posttest data collected electronically as children progress through the module. Teacher perceptions about the contextual, content, and technological functionality of HH and web-based instruction were measured through a questionnaire at registration, and end-of-the-year surveys. Student perceptions of learning using the web-based module were measured by a questionnaire at completion. The sample represents over 4000 children from 5 states with a mean age of 11 years. Pre/posttest scores showed a mean improvement in all knowledge content areas, and significant changes (p<0.01) in attitudes/behaviors in many instances. From the results of HH, it appears that web-based instruction is a viable alternative to traditional health instruction in schools for teaching important health concepts to children.

The development of a new instructional module for middle/high school module, Take Charge!, was completed in early 2007. The expert developed and reviewed content includes not only nutrition and physical activity but also weight management, diabetes, and heart disease. Strategies used in this module include learner self-empowerment, decision making, and critical thinking. Emphasis is also placed on recognizing environmental influences (media, home, community, school) and advocacy. Take Charge! was piloted with more than 1300 students during 2007-08 school year. Content development, website design, and built-in user incentives were studied and results will be presented.