

# Addressing Physical Activity Needs of Survivors by Developing a Community-Based Exercise Program: LIVESTRONG® at the YMCA

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**Background:** Although methods of cancer detection and treatment have improved, the side effects of treatment can cause profound debilitation that may linger years after treatment ends. Exercise during and after cancer treatment is safe, and it minimizes many of the deleterious physical and emotional side effects. With this evidence in mind, the LIVESTRONG Foundation and the YMCA of the USA collaborated to develop a community-based physical activity program for survivors, LIVESTRONG® at the YMCA.

**Objectives:** This article provides in-depth information about the development of the LIVESTRONG at the YMCA program and its subsequent spread to meet the physical activity needs of survivors across the country.

**Methods:** Participating YMCAs engage in regular data collection efforts to track progress on organizational change and program delivery. These efforts include a staff evaluation survey, functional assessment of participants, patient-reported health status assessment, and patient program evaluation.

**Findings:** From the time of its development, the LIVESTRONG at the YMCA program has served more than 29,000 survivors and trained more than 2,200 LIVESTRONG at the YMCA instructors. A national survey of more than 1,600 program participants demonstrates positive outcomes on health and well-being, as well as intent to continue exercising after the program's end.

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**B**ecause of advancements in the methods of early detection and treatment of cancer, about 14.5 million Americans with a history of cancer were alive on January 1, 2014; by January 1, 2024, estimates project that this number will increase to about 19 million (American Cancer Society [ACS], 2014). With slightly less than 1 in 2 men and a little more than 1 in 3 women predicted to be diagnosed with cancer in their lifetime (ACS, 2015), the need for services that focus on quality of life during and after treatment is becoming increasingly important. Cancer treatment can cause a person to lose as much as 35% of his or her physical ability, limiting participation in activities of daily living, negatively affecting social and emotional function, and

spurring other physical problems (e.g., bone loss, weakened heart and lung function) (Justice-Gardiner & Heston, 2011; Schwartz, 2004). The adverse effects of cancer treatment may be immediate, resolving during a period of days or weeks, or they may be persistent, lasting years after treatment is completed (Schmitz et al., 2010).

Since the first research study on patients with cancer and exercise was conducted in 1986, a growing body of evidence has demonstrated that exercise during and after cancer treatment is safe and minimizes the adverse effects of treatment (Karvinen, Carr, & Stevinson, 2013; MacVicar & Winningham, 1986). Exercise has been shown to improve cardiovascular fitness, muscle strength, body composition, fatigue, anxiety,