



# Sports Medicine Bulletin

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## Active Voice: Managing Chronic Disease Using Technologically Driven Wellness Solutions

By Dan Lynch

*Active Voice is a column by experts in science, medicine and allied health. The viewpoints expressed do not necessarily reflect positions or policies of ACSM.*

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Ken Dychtwald wrote about the aging of America in Age Wave in 1989. He discussed the tremendous influence baby boomers would have on the opportunities and challenges of the future. In today's world we are experiencing both ends of that perspective, though in reverse order: from challenges to opportunities.

The challenge in the health care environment is the rapid rise in the cost of health care. This rise is due to many causes, but one of the primary reasons relates to individual lifestyle choices that have led to premature chronic illnesses. Recent data indicates that only 12 percent of Americans over the age of 16 (of whom there are approximately 238 million) belong to health clubs, and a whopping 69 percent of the total American population have NEVER belonged to a health club. This recent data are not surprising since I have observed that upwards of 55 percent of members in medically integrated health-and-fitness centers come from what I call "first-time joiners."

A unique model being utilized in today's economy combines physicians' offices with medically integrated health-and-fitness centers. These small, cost-effective, exercise-based centers offer a unique tracking capability called [Radio Frequency Identification \(RFID\)](#). For an independent view on how this technology works in the gym, [click here](#). Let's first discuss the physician dilemma. A typical, unfit, sedentary, high-risk patient shows up in the doctor's office with an ailment. The doctor orders diagnostic tests and confirms that the patient is suffering from lifestyle-related diseases. The doctor prescribes medicines, provides directives to change lifestyle, and suggests beginning an exercise program and losing weight. The doctor sends the patient off, and no one knows what happens to the patient until he or she comes back later with either the same ailments or worse.

This is where a conveniently located, medically integrated health-and-fitness center (often right next to the doctor's office) becomes a solution for the chronically ill first-time joiner. The physician in the above scenario can now safely send those patients with confidence to a health club that acts as the physician extender. Once the physician sends a history of the patient, clearance to exercise and a list of biometric markers (such as blood pressure, A1Cs, percent body fat or bone density) to be tracked over time, the patient becomes a member in the center. The patient is then scheduled with a fitness professional who performs a baseline evaluation and discusses the member's goals and objectives.

When the evaluation process is complete, the exercise program and recommended biometric markers (and the appropriate time intervals for follow-up) are programmed into the database. Using RFID technology (which is [HL7-compliant](#) for HIPAA purposes), we can control the member's workout and prompt follow-up tests to measure the progress and changes in biometric markers associated with chronic illness. When members' biometric markers move in the wrong direction, this information can provide a clear and objective basis for sending them back to the doctor's office quickly. The treatment plans can be altered, as needed. The same tracking system might be used to document positive results by giving the doctor the option of reviewing reports via the electronic medical record (EMR) at chosen time intervals.

The clear benefit to the Exercise is Medicine® initiative is that physicians can now concentrate on disease management both in and out of their offices. While initially diagnosing patient illness, they can team up with an approach to track, monitor and report the outcomes of their chronically ill patients.

Effective management of patient outcomes will be in the headlines under the category of [Patient Centered Medical Homes \(PCMH\)](#), a system to incentivize physicians to produce healthy outcomes in their patients with chronic disease. As physicians move toward an incentivized payment system to improve the health of their patients, the direct cost of improving these chronic illnesses should result in significant savings in today's health care financial crisis.