Indeed, in some medical specialties and some areas of the country, that shortage already exists.

Recently, the Association of American Medical Colleges (AAMC), the American Hospital Association (AHA), the American Orthopaedic Association (AOA), the Robert Woods Johnson Foundation, the U.S. Department of Health and Human Services’ Health Resources and Services Administration (HRSA), and the AAOOS have all examined the issue of physician workforce trends. Most of the current analyses agree that a physician shortage may be imminent, although the extent of the shortage and the steps, if any, that can be taken to reduce it are still under debate.

Supply and demand
“The problem with current workforce data,” says Gordon M. Aamoth, MD, chair of the AAOOS workforce project team, “is that it’s population-based—numbers of people, their ages, their geographic locations. Based on those numbers and current ratios, we could face a shortage of orthopaedic surgeons in the future. But they don’t consider the impact of efficiencies or changing practice patterns.”

Just last year, the AAMC called for a 30 percent increase in the number of medical students—a total of 21,434 new matriculants—by 2015. That’s double their previous (2004) estimate.

Although the number of orthopaedists has grown by approximately 40 percent during the past 20 years, one third of all practicing orthopaedists are older than age 55 and will be retiring over the next 20 years. Additionally, the number of orthopaedic residents who graduate each year has remained fairly consistent in recent years at about 600—not enough to replace those who are now approaching retirement.

“By determining the number of residency spots,” reports Frances A. Farley, MD, writing in the Journal of the AAOOS (May 2007), “the Residency Review Committee (RRC) in effect determines the number of orthopaedic surgeons entering the pipeline....Throughout the last decade, the number of graduates of orthopaedic residency programs has ranged from 610 to 620 per year. Importantly, the RRC has not made any official statement of plans to change the number of orthopaedic residency positions in the near future.”

At the AOA meeting in June 2007, David C. Goodman, MD, of the Dartmouth Institute for Health Policy and Clinical Practice (previously the Center for the Evaluative Clinical Sciences at Dartmouth), advised caution in estimating the demand for more orthopaedic surgeons, in part due to regional variances in care and per capita supply (Fig. 1).

“Does demand equal want or utilization?” he asked, pointing to the variations in delivery patterns across the country. Although the variations occur within the bounds of appropriate care, Dr. Goodman noted that the use of patient decision aids to help patients weigh the benefits and risks of various therapeutic alternatives frequently results in lower surgical rates.

“Workforce planning needs to be linked to the work that we do,” he said, “and the goals we have as physicians, recognizing the reality of the environment and the need to find ways to practice more efficiently, particularly in procedure-sensitive specialties such as orthopaedics.”

But demand will definitely increase (Fig. 2). According to the AHA, “Between 2000 and 2020, the supply of orthopaedic surgeons will increase by only 2 percent while the