

## Demographics: Shaping the Future of Physical Therapy

*As the American population changes, so too does its health care needs. PT Magazine looks at how these demographic shifts are affecting PTs, their patients, and their clients.*

By Sue Brissette

The United States is undergoing a transformation. Its population is aging and becoming more racially and ethnically diverse. Some regions are gaining population while others are losing residents. New lifestyles and advances in health care are affecting all age groups. These factors suggest that major changes are in store for the nation, its health profile, and its health care providers.

For example, the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) identifies three demographic trends that will have "profound implications" for the future health work force:<sup>1</sup>

- The population is aging and the size of the elderly population will increase substantially. An aging population will place greater demands on the health system at the same time that many health professionals will be retiring.
- The population is becoming more racially and ethnically diverse. As minorities constitute a larger proportion of people entering the workforce, the US population increasingly will rely on minority health care workers for their care.
- The population is shifting geographically, and a significant portion of the US population will continue to reside in areas with persistent shortages of health care workers.

Demographic projections such as these often lead to a second round of interpretive forecasts. For example, the Center for the Advancement of Health, a Washington-based national nonprofit organization, makes these predictions about "America's health chart" in the years to come:<sup>2</sup>

- The population will include a very large group of people who are old, the majority of whom are white and who will have chronic or disabling conditions, or both. They will be cared for by a younger population that is largely non-white and foreign born, and whose taxes will pay for the older generation's care.
- The prevention and care of disease will become more complex. Chronic diseases that have a lifestyle component will reign, interspersed with threats from emerging infectious agents requiring fast and effective public health responses and risk communication.
- Individuals increasingly will be on their own to make health decisions, and their ability to benefit from advances in biomedical research will be contingent upon education, race, ethnicity, income, and age.

Other analyses may come to slightly different conclusions, but many suggest similar patterns. These, in turn, are certain to affect the future of physical therapy and those who provide its services.

Here's a closer look at some of the changes expected to affect the practice of physical therapy.

### Aging

Jane Jones is 58 years old. She recently accepted her company's early retirement offer. She now is recovering from a total knee replacement. She's determined to get in shape, lose the weight that she's gained over the years, get her blood pressure under control, and start to enjoy the healthy lifestyle she could never quite fit into her busy schedule until now. Jane Jones is the new face of America.

"My patient population is changing," says Susan Welsh, PT, PhD, of the Wellness Therapy Institute in New Orleans. "They're aging and experiencing more degenerative diseases, but they also think about themselves very differently. Many of my patients believe that as you get older, you can get healthier."

If that's the case, then the future will offer expanded opportunities for physical therapists (PTs) whose practices include geriatrics. The population of the United States already includes more people who are elderly than ever before. And more changes are ahead:<sup>3</sup>

- In 1990, 31.1 million Americans were 65 years of age or older. By 2020, the elderly population is projected to increase to 54 million persons. In 2050, the elderly population will number about 79 million.
- In 1990, 1 in 8 Americans was elderly. In 2020, that ratio will fall to 1 in 6, and in 2050 1 in 5 Americans will be elderly.
- In 1990, life expectancy at birth was a little over 75 years old, more than a quarter of a century longer than in 1900. Life expectancy will continue to grow.

The population age 85 and over will be the fastest-growing large age group, doubling in size from 1995 to 2030, and increasing fivefold by 2050. In 1995, 3.6 million people were estimated to be 85 years and over. By 2050, this figure will increase to 18.2 million.<sup>4</sup>

The recent HHS report *Changing Demographics* identifies four major implications of an aging population on the health care workforce:

- The rapid growth in size of the elderly population could substantially increase overall demand for health care services and consequently the derived demand for health workers. Occupations and settings that disproportionately serve the elderly will experience the largest growth.
- Physicians will spend an increasing proportion of their time treating the

## The Changing Face of Physical Therapy

Even as the demographics of the population served by physical therapists is changing, so too is the profile of the physical therapist.

Like America in general, the physical therapist population is aging. APTA's recent member survey reports that the average age of a physical therapist now is 40.7 years versus 39.4 years in 1999 and 35-37 years in the mid-nineties.<sup>1</sup>

Physical therapy does not yet reflect the racial and ethnic diversity of the population as a whole. However, it is moving in that direction. Current APTA data show that approximately 10% of the physical therapist and physical therapy assistant membership is made up of minorities, with Asians comprising the largest segment. Johnette Meadows, PT, MS, director of APTA's Department of Minority and International Affairs, notes that the profession will experience continued increases in minority membership as schools intensify their efforts to recruit a diversified student body. In the 2002 academic year, 16.6% of PT students represented minorities, up from 6.6% in the 1996 academic year.

Fewer people have entered the physical therapy profession in recent years. Jody Gandy, APTA's director of physical therapy education, explains that the Balanced Budget Act of 1997 (BBA) caused employment turbulence for physical therapists. That instability in the profession translated into reduced enrollment in professional physical therapy education programs for the following several years. In 2002, PT admissions returned to pre-BBA levels.

Physical therapists reporting full-time employment increased in 2002, suggesting that the job uncertainty associated with BBA in 1997 has begun to reverse itself.

1 American Physical Therapy Association. Physical Therapist Member Demographic Profile 1999-2002. Available for members only at [www.apta.org/documents/membersonly/research/demoreport2.pdf](http://www.apta.org/documents/membersonly/research/demoreport2.pdf). Accessed April 14, 2004.

elderly.

- The health care workforce is aging along with the general population. As health care professionals retire and the pool of potential entrants—those between the ages of 18 and 30—shifts, the supply of health care professionals may be inadequate to meet demand.
- The increase in health care expenditures likely will place pressures on the Medicaid and Medicare programs to control health care costs. Economic pressures to curb the growth in health care costs could result in policies to reduce the demand for and supply of health workers.

As the population ages or as certain conditions become more common, opportunities will arise for physical therapists to concentrate their practice in a particular area of concern. For example, Bridgid Ellingson, PT, MPT, OCS, has developed a practice that focuses exclusively on women's health issues such as osteoporosis, pelvic pain, and bladder control. Ellingson is owner of Lakeview Physical Therapy in Chicago.

Other forms of niche practices also may serve the aging population. Michael Weinper, PT, MPH, owner of Progressive Physical Therapy with multiple locations in California, says, "With Baby Boomers expecting to stay productive and young, they will have more disposable income and will be able to pay more out-of-pocket. This bodes well for physical therapy." Weinper also is founder and CEO of PTPN, Calabasas, California.

Changing Demographics describes another effect of a population that is aging: "Declining disability rates among the elderly, controlling for age, might allow more elderly to remain in their homes or in other community-based settings. This would place fewer demands on providers of institutional care, but would increase demand for home-based services provided by home health aides, nurses, physical therapists, and other paid professionals."

Vicki Tilley, PT, GCS, already has leveraged the demographics of aging to move her practice setting from her clinic in Durham, North Carolina, into her clients' homes. She explains, "Many of my patients have mobility problems and have difficulty leaving their homes. Other patients, such as those with dementia, do better in a small, familiar setting than in a clinic setting. Still other patients prefer the advantages of home-based therapy and are willing to pay for those advantages."

Tilley is convinced that physical therapists need to get out into the community and be seen and heard. She adds that because much of the public identifies physical therapists only with the medical model of health care, the public may not be aware of the full range of services that physical therapists can offer. Tilley gives this example: "One of my clients has leukemia and she uses me as her 'coach.' She feels comfortable with me because she knows I incorporate my knowledge of her disease process into my instruction."

### Chronic Conditions

In 2000, an estimated 125 million Americans had at least one chronic condition and 60 million had multiple chronic conditions. By 2020, the RAND Corporation estimates that half the US population—157 million people—will have a chronic condition, with 81 million having multiple chronic conditions.<sup>6</sup> (See "An Overview of Chronic Disease.") According to the Centers for Disease Control and Prevention's (CDC) National Center for Chronic Disease Prevention and Health Promotion, seven of every 10 Americans who die each year die of a chronic disease such as diabetes, heart disease and stroke, or cancer.

### An Overview of Chronic Disease

According to the Centers for Disease Control and Prevention's National Center for Chronic Disease Prevention and Health Promotion, the profile of diseases contributing most heavily to death, illness, and disability among Americans changed dramatically during the last century. Today, chronic diseases—such as cardiovascular disease (primarily heart disease and stroke), cancer, and diabetes—are among the most prevalent, costly, and preventable of all health problems. Seven of every 10 Americans who die each year, or more than 1.7 million people, die of a chronic disease. Considering specific conditions:

The good news is that many Americans who are older are enjoying or looking forward to their later years with expectations of health and vitality, even if they have a chronic condition. Baby Boomers are credited with much of the change in attitude as they approach their later years with more education, higher income, fewer children, and increasingly more leisure time. But it's not just Baby Boomers. When individuals aged 65 and older were asked whether they considered themselves, "young," "middle aged," "old," or "very old," more than half of the 65-74 year olds and 33% of those 75 and older said that they considered themselves to be young or middle-aged. On the other hand, though, when asked if they were knowledgeable about how to prepare for a healthy old age, 64% said they were not.<sup>7</sup>

"Physical therapists are well suited to helping people deal with their chronic illnesses," Welsh says. "They are experienced at creating individualized programs and comfortable drawing on a variety of tools in their work."

Weinper observes, "As people survive catastrophic illness and diseases, there's a greater need for physical therapy. The future for physical therapy in this area is very bright. Baby Boomers are fearful of losing their function. The demand will jump dramatically in the next 5 years."

Robert DuVall, PT, DHSc, MMSc, OCS, FAAOMPT, agrees. DuVall, the owner of SportsMedicine of Atlanta Inc, says, "We're just seeing the tip of the iceberg with Baby Boomers with musculoskeletal issues."

### Obesity and Fitness

One of the most insidious health problems, obesity, is changing the complexion of some practices. "One of the disturbing trends in my practice is the increasing number of obese children and teenagers," says Doreen Frank, PT, of Columbia Physical Therapy in East Greenbush, New York. In fact, only two-thirds of adolescents get the recommended amount of weekly exercise. More than half of the adults in the United States are estimated to be overweight or obese.

In 1991, only 4 states had obesity rates of 15% or higher. By 2001, every state except Colorado showed obesity rates of 15% or more and 29 states reported rates of 20% or greater. More than 44 million Americans are obese, an increase of 74% since 1991.<sup>7</sup> The CDC estimates that the total cost of obesity in 2000 was \$117 billion, consisting of \$61 billion in direct medical costs and \$56 billion in lost productivity. A study released by the CDC in March concludes that deaths due to poor diet and physical inactivity rose by 33% over the past decade and soon may overtake tobacco as the leading preventable cause of death.<sup>8</sup>

As the effects of obesity increase the incidence of diseases such as diabetes and hypertension, physical therapists will be called upon to offer assistance with today's mobility problem within the context of their patients' larger health picture.

Weinper says, "Physical therapists will become more involved in wellness programs. And not just private practitioners, but those in hospitals and others, too. These wellness programs will address a wide range of ages, including young people-adolescents and

- Ten and a half million people have been diagnosed with diabetes in the past decade, while 5.5 million are estimated to have the disease but are undiagnosed.
- Studies dating from 1984 to 2001 show an increase in the prevalence of diseases of the heart from 17.2 cases per 1,000 people in 1984 to 22.2 cases per 1,000 people in 2001, a 29% increase over the 17 year period.
- Arthritis will affect more than 18% of all people in the United States (nearly 60 million) by the year 2020.
- One in three women and one in eight men aged 50 years and older will experience an osteoporotic-related fracture in their lifetimes.

Source: Chronic Disease Overview. National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Available at [www.cdc.gov/nccdphp/overview.htm](http://www.cdc.gov/nccdphp/overview.htm). Accessed December 31, 2003.

children who are obese."

Welsh says, "We have made the public aware that they can be more proactive in taking care of themselves. Even though we tend to focus on pathology, our curriculum is chock-full of wellness and fitness. We need to learn how to put it all together for people. That means taking a strong role in helping patients look at the choices they can make about their health and providing them the tools to act on those choices."

Obesity is not the only health issue arising from lack of activity, especially among children and adolescents. Frank says, "I frequently see children with postural syndromes related to long periods of time spent in front of a computer with poorly adjusted chairs, tables, monitors, and keyboards." For that reason, among others, ergonomics is another potential growth area for PTs.

## Geography

Between 1900 and 2000, the population density of the United States tripled from 26 to 80 people per square mile.<sup>9</sup> However, the growth was not uniform. During the 20th century, the US population increased by more than 200 million people. Four states alone—California, Texas, Florida, and New York—accounted for more than one-third of the increase. As a result, the median center of the nation's population has moved steadily westward and south. The population also has become far less rural. From 1950 to 2000, the population living in metropolitan areas of at least 1 million people accounted for 90% of the total US population growth.

Active Health Care Professionals			
Per 100,000 population			
Provider	1980	1990	2000
Nurses, registered	560.0	713.7	832.9
Occupational therapists	10.9	13.5	20.0
Physical therapists	21.8	36.6	52.3
Physicians, non-federal	182.0	221.8	270.0
Speech therapists	21.8	25.9	36.5

Source: Freid VM, Prager K, MacKay AP, Xia H. *Chartbook on Trends in the Health of Americans. Health, United States, 2003*. Table 102: Active health personnel according to occupation: United States, selected years 1980-2000. Hyattsville, Maryland: National Center for Health Statistics. 2003. Available at [www.cdc.gov/nchs/data/hs/hs03.pdf](http://www.cdc.gov/nchs/data/hs/hs03.pdf). Accessed April 12, 2004.

The shifting of rural and urban areas poses issues for both patients and those who care for them. Addressing the supply of physical therapists, Sarah Miller, APTA's assistant director of research services, points out, "Supply and demand are very regional in nature and also are highly affected by rural versus urban settings."

Mitch Windom, senior recruiter for Therapy Recruiters, in Hoover, Alabama, says it is difficult to recruit in rural settings despite the higher salaries that often are offered as an enticement. His firm continues to see a significant shortage of physical therapists. "Most candidates have between one and five job offers and have the ability to work wherever they want," Windom says.

If health care demand is related to population density, then an increasing number of PTs may find themselves in urban settings—both in general and in niche practices. Ellingson reports that her Chicago-based practice, which focuses on women's health issues, is doing well but cautions, "A niche practice will only work in an urban setting where there is adequate patient volume." The issue, though, is not exclusively one of urban versus rural settings. Rather, it is a question of the concentration of a "critical mass" of patients with common needs in any one area. Weinper, who envisions the growth of niche practices, poses the question, "Is there a large enough group of patients to support a niche practice?"

Population density, however, is only one piece of the geographic puzzle. Another factor is the composition of that population. A study by the Milken Institute says that an often overlooked issue is the "aging in place" of Baby Boomers.<sup>10</sup> The study comments, "Providers of health care products and services must be aware of the locations of retiring boomers. Those who age in place in the Northeast and Midwest will represent a large proportion of the total population. Fading industrial towns...are becoming retirement communities as young people leave for jobs elsewhere. These communities

are not affluent, but health care likely will be a large part of their budgets."

Not all Baby Boomers are "aging in place." The Milken Institute reports that metro areas with the fastest growing elder population are Las Vegas; Myrtle Beach, South Carolina; Las Cruces, New Mexico; Wilmington, North Carolina; Houston and Austin Texas; Phoenix; Orlando; Atlanta; Raleigh-Durham, North Carolina; and Denver.

### **Racial and Ethnic Diversity**

In 2000, 18% of the population was classified as non-white, according to the Bureau of the Census. By 2050, the percentage will rise to 25%. The white non-Hispanic population is projected to decline from 71% to 53% during the same period. Prominent countries of origin are Latin American and Asian nations. New immigrants and their children will account for more than half of the 50 million additional residents who will be added to the population during the next 25 years.<sup>3</sup>

The patterns of migration in the past will not repeat themselves in the future, according to some authorities. The Milken Institute suggests that the new demographic divisions will be regional in nature, distinguishing between "melting-pot regions" and "heartland regions." Melting-pot regions will become increasingly younger and multi-ethnic. They include California, Texas, southern Florida, the eastern seaboard, and Chicago.

Heartland regions will become older and less ethnically diverse. This region consists of 28 states characterized by populations that are largely white or white and African American. These states--such as Alabama, Indiana, Kansas, Maine, Ohio, Pennsylvania, and West Virginia--are characterized by an older age structure and a high percentage of population born in-state.

According to some research, health care utilization patterns vary both by the type of health care practitioner and by the patient's race or ethnicity. HRSA's *Changing Demographics* predicts, "If health care utilization patterns and physician productivity patterns remain constant over time, in 2020 physicians will be spending approximately 14% of patient care hours with African Americans and 26% of hours with other minority groups . . . percentages roughly comparable to each group's share of the total population. Physical therapists, optometrists, and podiatrists are seen to spend a disproportionate amount of time with non-Hispanic whites relative to their share of the population. While the gap for African Americans is small . . . the gap for other minority groups was large in 2000 and projected to remain so in 2020."

As patient ethnicity shifts, physical therapists must be aware of how race/ethnicity affects susceptibility to disease.<sup>11</sup> For example:

- Hypertension is 40% more prevalent in African-Americans and the effects are more frequent and more severe.
- The relative number of persons with diabetes in African American, Hispanic, and American Indian communities is one to five times greater than in white communities.
- Vietnamese women have an incidence rate of cervical cancer five times higher than white women. Men in African-American populations have more cancers of the lung, prostate, colon, and rectum than do white men.

Physical therapists also must understand how cultural differences can affect interactions with their clients and make every effort to respect and accommodate cultural issues, those interviewed for this article say. For instance, a growing number of PTs, especially in areas of increasing diversity, report hiring bilingual receptionists and PTs.

Johnette Meadows, PT, MS, director of APTA's Department of Minority and International Affairs, cautions that cultural awareness taken too far can become cultural stereotyping. "There are no absolutes," she says. "Physical therapists need to keep learning and remember that even though there may be cultural similarities among members of an ethnic group, everyone is an individual and his or her needs should be

individually respected."

For more information on minority health issues, see "PTs Confront Minority Health and Health Disparities" in the May issue of **PT**.

### Looking Ahead

Doreen Frank sees a growing emphasis on consumerism and a focus on results permeating health care practice. She and her husband Robert Frank, PT, have been in practice in upstate New York for over 16 years. Doreen says that they have grown their practice to 40 physical therapists by delivering on client expectations. "My clients are smart consumers who want value for their money. Their co-pays have gone up and they are checking to be sure they get all the services they are due." She recommends that physical therapists step back at the end of a session and ask themselves, "Would my client say they got their money's worth from that visit?"

Like Frank, DuVall sees a growing emphasis on consumerism and results, presenting new opportunities for physical therapists. He says, "Today's health care consumers do not want their options limited to surgery and pharmacology. They see physical therapy as an alternative. Those who are critical and accountable for their health care needs are very pleased with what physical therapy offers. It is a treatment of a cause. Patients want it fixed, not just palliated."

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### References

- 1 Health Resources and Services Administration, US Department of Health and Human Services. *Changing Demographics: and the Implications for Physicians, Nurses, and Other Health Workers*. Available at <http://bhpr.hrsa.gov/healthworkforce>. Accessed April 7, 2004.
- 2 "Demography Is Destiny." Center for the Advancement of Health. Available at [www.cfha.org/about/essay/destiny.cfm](http://www.cfha.org/about/essay/destiny.cfm). Accessed March 11, 2004.
- 3 Day, JC. *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995-2050*. US Bureau of the Census, Current Population Reports, P25-1130, US Government Printing Office, Washington, DC 1996.
- 4 Everett, W, "Health & Healthcare 2010: The Forecast, The Challenge," The Robert Wood Johnson Foundation, 1997.
- 5 Multiple Chronic Conditions: Complications in Care and Treatment. Partnership for Solutions, Baltimore, MD. Available at [www.partnershipforsolutions.org/DMS/files/2002/multiplecoitions.pdf](http://www.partnershipforsolutions.org/DMS/files/2002/multiplecoitions.pdf). Accessed April 14, 2004.
- 6 "Myths and Realities of Aging," The National Council on the Aging, 2000.
- 7 Obesity Trends: 1991-2001 prevalence of obesity among US adults by states. National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Available at [www.cdc.gov/nccdphp/dnpa/obesity/trend/pref\\_reg.htm](http://www.cdc.gov/nccdphp/dnpa/obesity/trend/pref_reg.htm). Accessed April 13, 2004.
- 8 "Citing 'Dangerous Increase' in Deaths, HHS Launches New Strategies Against Overweight Epidemic." Available at [www.os.dhhs.gov/news/press/2004pres/20040309.html](http://www.os.dhhs.gov/news/press/2004pres/20040309.html). Accessed March 11, 2004.
- 9 Hobbs F and Stoops N. Census Bureau, *Census 2000 Special Reports, Series CENSR-4, Demographic Trends in the 20th Century*, US Government Printing Office. Washington, DC 2002.
- 10 Frey WH and DeVol RC. *American Demography in the New Century: Aging Baby Boomers and New Immigrants as Major Players*. Milken Institute, March 2000.
- 11 Chronic Disease Overview. National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention. Available at [www.cdc.gov/nccdphp/overview.htm](http://www.cdc.gov/nccdphp/overview.htm). Accessed December 31, 2003.

### US Population Projections (in thousands)

	2000	2025	2050	2075	2100
Population	275,306	337,814	403,686	480,504	570,954
White	226,265	265,305	302,453	348,027	403,696
Percent of Total	82.2	78.5	74.9	72.4	70.7

Black	35,332	47,089	59,239	71,705	85,579
Percent of Total	12.8	13.9	14.7	14.9	15.0
American Indian	2,433	3,399	4,405	5,413	6,442
Percent of Total	0.9	1.0	1.1	1.1	1.1
Asian and Pacific Islander	11,275	22,020	37,589	55,357	75,235
Percent of Total	4.1	6.5	9.3	11.5	13.2
Hispanic	32,478	61,433	98,228	141,719	190,330
Percent of Total	11.8	18.2	24.3	29.5	33.3
White, Non-Hispanic	196,669	209,339	212,990	218,923	230,236
Percent of Total	71.4	62.0	52.8	45.6	40.3
Black, Non-Hispanic	33,490	43,527	53,466	63,348	74,360
Percent of Total	12.2	12.9	13.2	13.2	13.0

Source: US Census Bureau, *National Population Projections, Total Population by Race, Hispanic Origin, and Nativity*. Available at [www.census.gov/population/www/projections/natsum-T5.html](http://www.census.gov/population/www/projections/natsum-T5.html) Accessed April 12, 2004.