



Lake County Physician Workforce Needs Assessment

June 2007





Lake County Physician Workforce Needs Assessment

Lake County Department of Community Services

Howard C. Lerner, MPH Community Access Network Project Director

Fletcher Smith Director, Lake County Department of Community Services

WellFlorida Council

Sandra Carroll Data and Technology Coordinator

Jeff Feller, MSISE Associate Director

Lindsey Michaels, MPH, MA, CHES Associate Planner

Douglas Monroe, MPH Executive Assistant

.....

Prepared by WellFlorida Council for the Lake County Comprehensive Health Care Committee and its community partners. WellFlorida Council 1785 NW 80th Blvd. Gainesville, FL 32606 Tel: (352) 313-6500 Fax: (352) 313-6515 Web: www.wellflorida.org

Table of Contents

	1-1
Demographic and Socioeconomic Characteristics	2-1
Introduction	2-1
Population	2-1
Population Growth and Distribution	
Population by Age, Race and Gender	2-7
Economic Characteristics	2-19
Income	2-20
Poverty	2-24
Summary of Key Findings	2-33
Physician Workforce	3-1
Introduction	3-1
Overall Physician Workforce	3-1
Physician Distribution by Specialty	3-6
Physician Specialty Rates.	3-10
Physician Specialty Benchmarks	3-18
Overall Physician Population Growth	3-23
Physician Growth by Specialty	3-25
Summary of Key Findings	3-30
Access to Healthcare	4-1
Introduction	4-1
Medically Underserved and Health Professional Shortage Areas	4-1
The Uninsured	4-3
Medicaid	4-4
Medicaid HMO Enrollment	4-4 4-9
Medicaid HMO Enrollment Avoidable Hospitalizations	4-4 4-9 4-10
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings	4-4 4-9 4-10 4-13
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007	4-4 4-9 4-10 4-13 5-1
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction	4-4 4-9 4-10 4-13 5-1 5-1
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology	4-4 4-9 4-10 4-13 5-1 5-1 5-1
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology Respondent Profile	4-4 4-9 4-10 5-1 5-1 5-1 5-1 5-1
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology Respondent Profile Analysis	4-4 4-9 4-10 4-13 5-1 5-1 5-1 5-1 5-5
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology Respondent Profile Analysis Summary of Key Findings	4-4 4-9 4-10 5-1 5-1 5-1 5-1 5-5 5-15
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology Respondent Profile Analysis Summary of Key Findings Physician Focus Groups	
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology Respondent Profile Analysis Summary of Key Findings Physician Focus Groups Introduction	4-4 4-9 4-10 4-13 5-1 5-1 5-1 5-5 5-15 5-15 6-1 6-1
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology Respondent Profile Analysis Summary of Key Findings Physician Focus Groups Introduction Methodology	4-4 4-9 4-10 4-13 5-1 5-1 5-1 5-5 5-15 5-15 6-1 6-1 6-1
Medicaid HMO Enrollment Avoidable Hospitalizations Summary of Key Findings Physician Survey 2007 Introduction Methodology Respondent Profile Analysis Summary of Key Findings Physician Focus Groups Introduction Methodology Analysis	4-4 4-9 4-10 4-13 5-1 5-1 5-1 5-1 5-5 5-15 6-1 6-1 6-1 6-1

This page intentionally left blank.

Executive Summary

Introduction

Interest in the size, distribution, and composition of the physician workforce in the United States began in earnest in the mid-1970s when the Secretary of the Department of Health, Education, and Welfare created the Graduate Medical Education National Advisory Committee (GMENAC). The mandate of this committee was to examine the supply, demand, and distribution of physicians across different specialty types and to make recommendations vis-à-vis the best policy for ensuring an appropriately sized workforce.

In 1980, GMENAC issued its final report, which concluded that the United States would suffer from a surplus of physicians by 1990. The committee recommended reducing the number of students admitted to graduate medical education programs 10.0 percent by 1984, and placing restrictions on the number of foreign medical graduates entering the U.S.

This conclusion that a surplus of physicians in the United States was on its way and should be averted if possible was the conventional wisdom throughout the 1980s and much of the 1990s. In 1992, the Council on Graduate Medical Education (COGME) issued its third report, which stated that first year residency positions should be restricted to 110.0 percent of domestic graduates, and that ideally the full workforce should consist of a 50-50 split of generalists and specialists.

Similarly, in 1993 the Physician Payment Review Commission (PPRC) concluded that first year residency positions should be reduced to 110.0 percent of domestically produced physicians, while warning that many kinds of specialty care were growing too expensive. That same year, the Institute of Medicine (IOM) recommended that medical school class sizes should be limited and that a moratorium should be placed on new medical schools.

In 2003, however, the Association of American Medical Colleges (AAMC) revised earlier statements it had made warning against an impending physician surplus by saying that it was now undecided on the issue. In 2005, AAMC came out on the opposite end of the debate, concluding that a physician shortage was more likely than a physician surplus. To counteract this, AAMC recommended a 15.0 percent increase in medical school class size, and a 15.0 percent increase in the number of medical schools in the United States. Furthermore, it advised the removal of Medicare caps on the number of funded residency positions, and an overall expansion of the National Health Service Corps.

Recently, in 2005, COGME issued its 16th report, which projected a physician deficit based in part on revised predictions of population growth among the elderly. Among its

recommendations, a 12.5 percent increase in first year residency positions and a 15.0 percent increase in medical school class size over the proceeding 10 years.

What has occurred over the past 25 years can be described as a paradigm shift, wherein policymakers, physicians, and social scientists have reevaluated previous positions based on the emergence of new evidence. This evidence suggests an increase in the efficacy of medical intervention, which has led to a corresponding increase in life expectancy, and consequently, an increase in the need and the demand for more medical intervention. At the same time, the skyrocketing costs associated with entitlement programs like Medicare and Medicaid and a continuum of economic challenges such as uninsurance and underinsurance facing many of the nation's most vulnerable citizens has increasingly served to limit access to necessary care.

It is within this social, economic, and medical milieu that communities must strive to create a well-structured healthcare delivery system and a balanced physician workforce to ensure the provision of quality healthcare services for all of its residents. Needless to say, this is at once a daunting challenge and a perennial goal. The purpose of the following needs assessment is to provide a context for understanding emerging healthcare issues in Lake County, Florida, and to equip policymakers and community stakeholders with data they can use to help maintain the current course, or, if necessary, change directions.

The assessment of Lake County and its physician workforce that follows includes a demographic and socioeconomic profile of the county. This section includes indicators that have been shown by research to have a demonstrable impact on health outcomes such as population distribution and growth by age, gender, race, and ethnicity. It also includes an analysis of income and poverty status. Zip code level data are presented where available and appropriate. The purpose of this section of the assessment is to describe the current and potential future market for health care in Lake County.

Secondly, the assessment presents an analysis of the current and potential future growth of the physician workforce by specialty type in Lake County and Florida utilizing data sources including the Florida Department of Health Licensure Database, physician staff directories of local hospitals, and American Medical Association Master File information. Moreover, the assessment compares physician rates in Lake County and Florida by specialty types to national benchmarks. This section provides insight into the composition of current healthcare workforce, as well as projections of the growth that will be necessary in the coming years to maintain that workforce at its current level.

The assessment also includes a brief discussion of various indicators known to impact access to healthcare in a community such as Medicaid eligibility, HMO enrollment, uninsurance, avoidable hospitalizations, and hospitalizations by payor source. The purpose of this section is to describe some of the opportunities and barriers presently available to patients and physicians who are engaged with the healthcare system in Lake County.

Finally, the assessment draws upon primary data collection methods to inform and augment the information provided in other sections. Primary data sources include a physician survey and an analysis of focus groups conducted with physicians who practice in the community. The purpose of primary this primary data collection and analysis is to gain insight into the various challenges that physicians and their patients face on a daily basis in Lake County.

Demographic and Socioeconomic Profile

The demographic and socioeconomic characteristics of Lake County residents are reviewed in this section. Demographic and socio-economic characteristics are often strong predictors of healthcare access and health outcome. Indicators selected for review in this section are the most influential in determining the extent of a community's overall health. The information provided in this section helps to establish a profile for the people of Lake County and to determine demographic and socio-economic barriers and opportunities for the improvement of community health.

Data in this section are presented for Lake County and compared to Florida. In addition, zip code data is also presented when available and appropriate. Data indicators include population breakdown by age, race and gender; population growth and projections; poverty status; and per capita and median income.

Population

Between 2000 and 2006, Lake County's population increased by 34.6 percent, from 210,528 to 283,296. This growth represents more than twice the growth for the state of Florida as a whole. For the period of 2006 to 2011, this growth trend is expected to continue. By 2011, Lake County's population is expected to increase by 74.4, compared to 30.5 percent in the state.

In Lake County, the percentage of individuals age 65 and over (25.2 percent) exceeds the percentage for the state (17.9 percent) by a substantial margin. With a large elderly population, Lake County may be considered "older" than some other communities in Florida. Within Lake County, the community with the largest elderly population is 32159 (Lady Lake) with 63.2 percent of its residents at or above the age of 65. Additionally, 6 of Lake County's 23 zip codes have elderly populations that constitute more than 30 percent of the total population residing within the zip code.

In terms of the racial distribution, Lake County has a higher percentage of White residents (85.0 percent) than Florida as a whole (75.7 percent). Correspondingly, in Lake County's population is only 9.6 percent Black, compared to 15.5 percent in Florida. The community with the largest percentage of White residents (96.5 percent) is 32767 (Paisley). Additionally, 9 of Lake County's 23 zip codes have White populations that exceed 90 percent of the total zip code population. At the zip code level, the largest percentage of Lake County's black residents (20.6 percent) reside in 34748 (Leesburg).

Only 4 of the county's 23 zip codes have Black populations that exceed 10 percent of the total zip code population.

The ethnic distribution in Lake County is similar to the racial distribution. Only 7.7 percent of Lake County's residents are Hispanic in origin as compared to 20.0 percent in the state of Florida. Correspondingly, 92.3 percent of residents in the county identify themselves as non-Hispanic, as compared to 80.0 percent for the state. The zip code reporting the largest percentage (37.5 percent) of Hispanic residents in Lake County is 34753 (Mascotte). Only 7 of Lake County's zip codes report Hispanic populations that exceed 10 percent of the total zip code population.

The distribution of males and females in Lake County is similar to the distribution for the state. Lake County as a whole is 51.6 percent female and 48.4 percent male, compared to Florida, which is 51.2 percent female and 48.8 percent male. This distribution remains fairly consistent across zip code areas in the county. However, 6 of Lake County's 23 zip codes have a slightly higher percentage of males than females.

Economic Characteristics

In Lake County the average median and per capita incomes are slightly lower than the state of Florida as a whole. The state boasts a median household income of \$46,736, compared to \$44,068 in Lake County. Likewise, Florida's per capita income is \$26,399 compared to \$24,043 in Lake County.

In Lake County, the zip code with the highest median household income is 34715 (Clermont) at \$61,319. At the same time, only 6 of Lake County's 23 zip codes have median household incomes over \$50,000. Conversely, the zip code with the lowest median household income is 32767 (Paisley) at \$34,395. At the same time, 10 of Lake County's 23 zip codes have median household incomes below \$40,000.

The zip code with the highest per capita income is 34714 (Clermont) at \$28,625. At the same time, only 4 of Lake County's 23 zip codes have per capita incomes above \$25,000. The zip code region with the lowest per capita income is 34753 (Mascotte). In total, 5 zip codes in Lake County have per capita incomes below \$25,000.

The zip code with the largest percentage of households subsisting on less than \$25,000 annually is (32767) Paisley, at 35.5 percent. Additionally, 7 of Lake County's 23 zip codes have 30.0 percent or more of their total households subsisting on less than \$25,000 annually. In total, 24.4 percent of Lake County's households subsist on \$25,000 annually as compared to 24.0 percent for the state of Florida as a whole.

Conversely, the Lake County zip code with the largest percentage of households subsisting on an income of \$150,000 and above is 34756 (Montverde), at 8.5 percent. However, 18 of Lake County's 23 zip codes have less than 5.0 percent of their total zip code populations subsisting on \$150,000 and above.

In terms of poverty, Lake County compares favorably to the state of Florida. While 12.5 percent of the state's population is below the federal poverty threshold, only 9.6 percent of Lake County's residents are. Moreover, while only 68.9 percent of Florida's population is at 200 percent of the federal poverty threshold and above, 71.8 percent of Lake County's residents fall into this category. Individuals who are within the interval of 100 percent and 199 percent of poverty account for the remaining 18.5 percent of Lake County's population, as compared to 18.7 for the state of Florida. The Lake County zip code with the highest percentage of all individuals living in poverty is 34762 (Okahumpka) at 42.4 percent. The zip code with the lowest percentage of all individuals living in poverty is 32735 (Grand Island) at 4.5 percent. In total, 8 of Lake County's 23 zip codes have poverty percentages for all individuals above the state level.

In Lake County the zip code with the highest percentage of children living in poverty is 34762 (Okahumpka) with 73.2 percent of children ages 0-17 living below the federal poverty threshold. The zip code with the lowest percentage of children living below the federal poverty threshold is 32702 (Altoona) at 3.2 percent. Out of the county's 23 zip codes, 7 have greater than 20 percent of their children living in poverty. For the county as a whole, 16.3 percent of children are living in poverty as compared to 17.6 percent for the state of Florida.

In terms of households in poverty, the zip code with the largest percentage in Lake County is 34762 (Okahumpka) at 31.8 percent. The zip code with the lowest percentage of households in poverty is 32735 (Grand Island) at 3.8 percent. Eight of Lake County's 23 zip codes have a percentage of households in poverty above the percentage for the state. However, the number of households in Lake County equals only 9.1 percent of the County's total households as compared to 11.7 percent for the state of Florida.

Physician Workforce

The size, composition, and potential growth of the physician population in Lake County are reviewed in this section. In the interest of maintaining a balanced perspective, data from three different sources are given consideration: the American Medical Association Masterfile, Local hospital physician staff rosters, and the Florida state Department of Health Division of Medical Quality Assurance Licensee Database. Utilizing these three sources, this section presents overall counts of physicians in various specialty categories, per capita rates in comparison to national benchmarks, and per capita rates in comparison to the state of Florida as a whole.

Currently, the distribution of physicians in Lake County favors specialty care. Specialists in Lake County account for 64.5 to 78.1 percent of the total physician population. Correspondingly, the primary care physician population equals between 21.9 and 35.5 percent of the total physician population. This distribution is similar to what can be observed at the state level. According to the Florida Department of Health, the current statewide physician workforce is 67.8 percent specialty care and 32.2 percent primary care. Among the primary care physicians, the largest percentage practice Internal Medicine, followed by Family Medicine, and Pediatrics. Per capita rates are also utilized in this section in order to establish a connection between the physician population and the aggregate population. In Lake County, the physician specialties with the highest rates per 100,000 population include: Internal Medicine, Family Medicine, Obstetrics and Gynecology, Pediatrics, Anesthesiology, Emergency Medicine, and Cardiology. The physician specialties with the lowest rates per 100,000 population are: Allergy/Immunology, Endocrinology, Physical Medicine, Dermatology, Rheumatology, Psychiatry, Nephrology, and Infectious Disease. Compared to the state of Florida, Lake County has lower rates of physicians in 15 out of 26 specialties. The most notable deficits in Lake County are for Pediatrics and Internal Medicine.

Additionally, rates of physician specialists in Lake County are compared to national benchmarks, which are designed to describe what a balanced physician workforce should look like. These benchmarks are used to identify possible physician shortages. In Lake County, the rate of Pediatricians consistently ranked below benchmarks. Other potential shortages may exist in: Obstetrics and Gynecology, Psychiatry, Infectious Disease, Family Medicine, Endocrinology, Rheumatology, Allergy/Immunology, Emergency Medicine, and Radiology.

Finally, growth in the physician population is charted as a function of overall population growth in the county. Baseline physician numbers are extrapolated through 2030 based on the projected percent growth of the aggregate population. The tables are not intended to predict the future size and distribution of the physician workforce, but rather, to illustrate the growth that will be needed in order for Lake County to maintain the status quo. Currently, the estimated physician population in Lake County is between 619 and 749. That population will have to grow by 68 to 83 percent between 2007 and 2030 to 1,040-1,258 physicians in order to maintain the current rate of physicians. The overall physician population in the state of Florida will have to increase from 46,755 in 2007 to 65,597 in 2030 in order to maintain the current rate.

Healthcare Access

Apart from having an adequate supply of physicians in a community, residents must be able to access the services that those physicians provide. The availability of health resources is a critical component of the health of a county's residents and a measure of the soundness of the area's healthcare delivery system. Indicators selected for review in this section include: Medical Underservice and Health Professional Shortage Area designations, Uninsurance, Medicaid eligibility, HMO enrollment, and avoidable hospitalizations.

The low income population in Lake County has been designated as a Medically Underserved population by the federal government. The Low Income/Migrant Farm Worker population has Dental Health and Mental Health HPSA designations, the Low Income population has Primary Health and Mental Health HPSA designations, the Correctional Institution population has Dental Health and Mental Health HPSA designations, and the Rural Health Clinic population has Primary Health and Mental Health HPSA designations.

In Lake County, 20.4 percent of the non-elderly population (0-64) is uninsured, compared to 19.2 percent in the state of Florida as a whole. The 34753 zip code (Mascotte) has the highest percentage (28.5 percent) of uninsured residents in the county, followed by 34736 (Groveland) at 23.1 percent, and 32726 (Eustis) at 22.2 percent. In total, 7 out of Lake County's 23 zip codes have uninsured populations that exceed 20 percent of the total population.

In Lake County, the number of Medicaid eligibles increased by 5,635 individuals between 2002 and 2006. As of December 31, 2006, there were 28,296 individuals in the county who were eligible to receive Medicaid. The zip codes in Lake County with the highest numbers of Medicaid eligibles include: 34748 (Leesburg) with 4,650 individuals, 34711 (Clermont) with 3,816 individuals, 32726 (Eustis) with 2,543 individuals and 32778 (Tavares) with 1,695 individuals. As is the case for the state of Florida, the majority of Medicaid eligibles in Lake County are under the age of 18. With regard to recipients of Medicaid in Lake County, the types of services that they receive and that also constitute the largest expenditure of Medicaid funds include: Home and Community-Based Services (22.9 percent), HMO-Physicians Health Plan (21.3 percent), Prescribed Drugs (10.4 percent), and Inpatient Hospital Services (10.3 percent).

According to Florida's Department of Insurance (DOI) 9 of Florida's 36 HMO's, or 25.0 percent, have enrollees in Lake County. The rate of HMO enrollees per 1,000 citizens is 118.8, which is substantially lower than the state rate of 203.4. In total, there are 33,656 HMO enrollees in Lake County as of June 30, 2006. The largest percentage of HMO enrollees in Lake County (58.6 percent) fall into the "All Other" category of HMO's, while 37.8 percent are enrolled in Medicaid HMO's, and 3.6 percent are enrolled in Medicaid HMO's.

In Lake County the rate of avoidable hospitalizations per 1,000 non-elderly citizens is 17.9, which is slightly higher than the state rate of 16.4. Payor sources for these hospitalizations are broken down into 3 separate categories: Medicaid, Self-Pay/Charity, and All Others. Of the 3,399 avoidable hospitalizations that occurred in Lake County during calendar year 2005, 67.3 percent were paid for by All Other sources of public and private insurance, as compared to 58.7 percent for the state. Below that, Medicaid paid for 20.9 percent, as compared to 26.1 percent in Florida, and 11.8 percent were Self Pay/Charity, as compared to 15.2 percent for the state. The leading causes of avoidable hospitalization in Lake County include: Dehydration/Volume Depletion, Bacterial Pneumonia, Congestive Heart Failure, and Chronic Obstructive Pulmonary Disease.

Physician Survey 2007

In addition to examining the size, composition, and distribution of the physician population, a survey was also conducted to gauge the perspectives of doctors currently

practicing in the community. The survey solicited information relating to the demographics, professional characteristics, and the points of view of physicians regarding emerging healthcare issues in Lake County.

Out of 82 respondents, the largest percentage of physicians were between the ages of 45 and 59. Only 18 physicians, or 22.0 percent identified themselves as female as opposed to 78.0 percent who identified as male. A total of 78 percent did not attend medical school in the state of Florida and only 19.5 percent completed their residency in the state of Florida. Of the total sample, 93.9 percent indicated that Lake County was their primary practice location and 79.3 percent indicated that they work 40 hours per week or more.

Of the total sample, 26.8 percent indicated that Family Medicine was their area of specialty, followed by 8.5 percent Internal Medicine, and 4.9 percent Pediatrics. The remaining 59.8 percent selected other specialties. The largest percentage of respondents (31.7 percent) indicated that they have been practicing medicine in Lake County for less than 5 years and 56.2 percent indicated that they intend to discontinue their practice of medicine in Lake County at or before 2020.

When asked about different types of reimbursement, the form of payment that physicians were least amenable to accepting was Medicaid. Of the 82 respondents, 42.7 percent said that they would not accept new patients whose primary method of payment was Medicaid. Below that, 26.8 percent said they would not accept new patients as Charity care, and 20.7 percent said that they were not accepting new patients whose primary method of payment was VA/Tricare.

When asked what the main barriers to providing quality healthcare were, the majority of respondents, 62.3 percent, cited formulary or prescription limitations. When asked about the most significant challenges facing physicians in the community, 68.3 percent cited malpractice insurance and tort claims. When asked about the most significant healthcare issue facing patients in the community, 72.0 percent of physicians answered: the cost of health insurance.

With regard to physician supply, the majority of respondents identified current physician shortages in: Dermatology, Endocrinology, Neurology, Obstetrics and Gynecology, and Rheumatology. Moreover, the majority of respondents anticipate future shortages in: Dermatology, Endocrinology, Neurology, Neurology, and Psychiatry in the next 5 years.

Asked to identify the leading causes of physician shortages in the community, more than 50 percent of respondents cited: malpractice insurance, overall population growth, better professional opportunities in other communities, and better public schools for their children in other communities.

Physician Focus Groups

In order to gain a deeper understanding of the survey results, 4 focus groups were conducted with physicians who practice medicine in Lake County. Participants were recruited through local hospitals and were invited to share their views on emerging healthcare issues in the community.

While the majority of participants were primary care physicians, several specialties were represented, including: Anesthesiology, Psychiatry, and Obstetrics and Gynecology. During the course of the groups, physicians identified: stress and frustration, a poor public school system, reimbursement rates, population growth, and proximity to urban centers as disincentives to continuing their practice of medicine in Lake County. At the same time, participants identified: lifestyle and climate as well as the proximity to urban centers as incentives to continue their practice of medicine in the community.

With respect to Medicaid, focus group participants discussed low reimbursement, high administrative costs, difficulties with referring patients, and patient non-compliance as barriers to providing quality care. Additionally, participants discussed problems they have encountered with VA/Tricare and Self-Pay forms of reimbursement.

Focus group participants identified Obstetrics and Gynecology, and Pediatrics as services that are in jeopardy in Lake County due to increasing liability rates and/or decreasing reimbursement rates. When asked to discuss potential physician shortages in the county, participants echoed the results of the survey and went on to note that the distribution of physicians in the community is just as important as the actual number of physicians.

Among the disincentives for pursuing a career in medicine, focus group participants discussed the high cost of medical education and the high cost of liability insurance once medical education is complete. Other reasons for avoiding a career in medicine included: a lack of respect for the medical profession and adversarial patient relations.

Focus group participants also discussed changes that could improve the overall healthcare landscape in Lake County. Some of the suggestions involved improving public schools and public transportation in the area, subsidizing underrepresented specialties, and placing more emphasis on treatment as opposed to prevention.

The institutions and organizations that focus group participants identified as being responsible for maintaining an adequate physician workforce in the community included: local hospitals, county government, and state government.

This page intentionally left blank.

Demographic and Socioeconomic Characteristics

Introduction

The demographic and socioeconomic characteristics of Lake County residents are reviewed in this section. Demographic and socioeconomic characteristics are often strong predictors of healthcare access and health outcomes. They also describe the market for health care in a community. Indicators selected for review in this section are the most influential in determining the extent of a community's overall health. The information provided in this section helps to establish a profile for the people of Lake County and to determine demographic and socioeconomic barriers and opportunities for the improvement of community health.

Data in this section are presented for Lake County and compared to Florida. In addition, zip code data is also presented when available and appropriate. Data indicators include population breakdown by age, race and gender; population growth and projections; poverty status; and per capita and median income. These indicators are presented because they drive the current and potential future demand for health care in Lake County.

Population

Clearly, the number of people in a community is the leading determinant of the demand for healthcare services. Lake County, which has a population of more than 280,000 (Table 2-1), is located in North Central Florida (Figure 2-1). The county is bordered by Marion County on the north, Volusia, Seminole, and Orange on the east, Polk County on the south, and Sumter County on the west. As seen in Figure 2-1, Lake is one of 16 counties in North Central Florida that comprise the Local Health Planning District 3 as designated by the Florida Agency for Health Care Administration (AHCA). The city of Tavares, the county seat, has a population of approximately 17,039 people.



Figure 2-1. Lake County and the Local Health Planning District 3.

Prepared by WellFlorida Council, 2007.





Prepared by WellFlorida Council, 2007.

Population Growth and Distribution

Between 2000 and 2006, Lake County's population increased from 210,528 to 283,296, a 34.6 percent increase. This increase represents more than double the growth that the state of Florida as a whole experienced during the same period of time. Current population projections suggest that growth in Lake County will continue to exceed growth in the state. As seen in Table 2-1, the percent change in population between 2006 and 2011 is projected to be 29.6 percent for Lake County, compared to 12.9 percent for the state. Between 2000 and 2011 the growth in Lake County is projected to equal 74.4 percent, compared to 30.5 percent for the state.

The largest zip code in Lake County by population size is the Leesburg zip code of 34748 with 30,206 residents. The second largest zip code by population is Lady Lake (32159) with 23,928 residents, followed by Clermont (34711) with 23,479 residents, and Eustis (32736) with 17,703 residents. At the zip code level, every zip code area is expected to grow faster than the state of Florida as a whole. Table 2-1 shows that the percent change in population of all zip code areas in Lake County for 2006 through 2011 exceeds the state percentage. From 2000 to 2006, 34714 (Clermont) had the greatest percent change of all zip code areas in Lake County. This area (34714) is projected to again have the greatest percentage increase (44.9 percent) from 2006-2011, with a total population increase of 248.7 percent from 2000-2011.

Area	2000 Population	2006 Population	2011 Population	Percent Change 2000 - 2006	Percent Change 2006 - 2011	Percent Change 2000 - 2011
32102 Astor	2,356	2,491	2,905	5.7	16.6	23.3
32159 Lady Lake	23,928	32,571	42,578	36.1	30.7	77.9
32702 Altoona	2,751	3,051	3,684	10.9	20.7	33.9
32726 Eustis	17,703	19,981	24,477	12.9	22.5	38.3
32735 Grand Island	2,309	2,980	3,789	29.1	27.1	64.1
32736 Eustis	7,190	8,603	10,690	19.7	24.3	48.7
32767 Paisley	2,355	2,700	3,311	14.6	22.6	40.6
32776 Sorrento	7,049	9,286	11,907	31.7	28.2	68.9
32778 Tavares	14,331	17,039	21,147	18.9	24.1	47.6
32784 Umatilla	9,607	11,578	14,263	20.5	23.2	48.5
34705 Astatula	2,135	3,102	4,136	45.3	33.3	93.7
34711 Clermont	23,479	47,789	68,337	103.5	43.0	191.1
34714 Clermont	6,310	15,190	22,005	140.7	44.9	248.7
34715 Clermont	9,240	16,393	23,057	77.4	40.7	149.5
34731 Fruitland Park	9,641	10,278	12,320	6.6	19.9	27.8
34736 Groveland	8,301	11,907	15,665	43.4	31.6	88.7
34737 Howey in the Hills	1,939	2,629	3,391	35.6	29.0	74.9
34748 Leesburg	30,206	36,178	45,087	19.8	24.6	49.3
34753 Mascotte	2,317	3,471	4,623	49.8	33.2	99.5
34756 Montverde	2,422	3,384	4,406	39.7	30.2	81.9
34762 Okahumpka	853	1,142	1,470	33.9	28.7	72.3
34788 Leesburg	15,639	17,378	21,317	11.1	22.7	36.3
34797 Yalaha	974	1,350	1,753	38.6	29.9	80.0
Lake County	210,528	283,296	367,117	34.6	29.6	74.4
Florida	15,982,378	18,478,309	20,864,908	15.6	12.9	30.5

 Table 2-1. Population growth and percent change by zip code, Lake County and Florida, 2000-2011.

Source: ESRI Business Solutions, 2006.

Prepared by: WellFlorida Council, 2007.

Please note that the data in Tables 2-1 and 2-2 come from two different sources, as zip code data projections are available from one source through 2011 and whole county population projections are available from another source through 2030. For this reason, total population estimates for all of Lake County for the same year might differ in the two tables as the sources employ different estimating techniques.

As stated, data are not available projecting population growth in zip code areas beyond 2011. Long-term (10-, 15-, 20- and 25-year) population growth projections for Lake County and Florida have been provided from the Bureau of Economic and Business Research at the University of Florida (Table 2-2). Table 2-2 shows that through 2030, Lake County will experience population growth at rates exceeding the state rate.

Voor	Num	nber	Percent Change			
Tear	Lake County	Florida	Year	Lake	Florida	
2005	263,017	17,918,227	County			
2010	313,154	19,920,348	2005-2010	19.1	11.2	
2015	359,898	21,767,503	2005-2015	36.8	21.5	
2020	403,774	23,475,838	2005-2020	53.5	31.0	
2025	443,159	24,998,018	2005-2025	68.5	39.5	
2030	480,109	26,419,166	2005-2030	82.5	47.4	

Table 2-2. Population growth and percent change, Lake County and Florida, 2005-2030.

Source: Bureau of Economic and Business Research, University of Florida, *Florida Population Studies, 2005.* Prepared by: WellFlorida Council, 2007.

As shown in Table 2-3, the population of the unincorporated areas of Lake County increased by 26.3 percent from 2000 to 2006 while the growth in all unincorporated areas in Florida increased by 11.6 percent.

			Change 2000-2006		
Area	2000 Population	2006 Population	Number	Percent Difference	
Astatula	1,298	1,591	293	22.6	
Clermont	9,338	22,097	12,759	136.6	
Eustis	15,106	17,766	2,660	17.6	
Fruitland Park	3,186	3,628	442	13.9	
Groveland	2,394	5,923	3,529	147.4	
Howey-in-the-Hills	956	1,156	200	20.9	
Lady Lake	11,828	12,805	977	8.3	
Leesburg	15,956	18,841	2,885	18.1	
Mascotte	2,687	4,270	1,583	58.9	
Minneola	5,435	9,440	4,005	73.7	
Montverde	882	1,183	301	34.1	
Mount Dora	9,418	11,125	1,707	18.1	
Tavares	9,700	12,552	2,852	29.4	
Umatilla	2,214	2,672	458	20.7	
Lake County	210,527	276,783	66,256	31.5	
Lake County Incorporated	90,398	125,049	34,651	27.7	
Lake County Unincorporated	120,129	151,734	31,605	26.3	
Florida	15,982,824	18,349,132	2,366,308	14.8	
Florida Incorporated	7,905,318	9,331,989	1,426,671	18.0	
Florida Unincorporated	8,077,506	9,017,143	939,637	11.6	

Table 2-3. Population by municipality, incorporated and unincorporated areas, Lake County and Florida, 2000 and 2006.

Source: Bureau of Economic and Business Research, University of Florida, *Florida Estimates of Population, 2006.* Prepared by: WellFlorida Council, 2007.

Population by Age, Race and Gender

Age, race and gender are all factors that contribute to, or at the very least, help describe aspects of healthcare access and health outcomes in the United States. For example, older persons will have more healthcare service needs and suffer from higher mortality compared to their younger counterparts. Additionally, healthcare research in the United States has long shown that racial disparities exist in access to healthcare and in key health outcomes. Gender also influences the healthcare needs of individuals, especially at different critical stages of life. Reviewing population characteristics by age, race and gender is a critical part of health needs assessment in order to identify differences and disparities that exist among population groups.

Age

As seen in Figure 2-3 and Table 2-4, Lake County has an older population than the state of Florida. More than 71,000 of Lake County's residents are age 65 and older. This equates to 25.2 percent of the population being age 65 and older while the state of Florida as a whole only has 17.9 percent of its population age 65 and older. Because of the high percentage of seniors in the Lake County population, the percentage of working-age adults (age 18-64) and children (age 17 and under) is lower than the percentages for the state of Florida as a whole.

Table 2-4 shows that while Eustis, Clermont, Umatilla, Sorrento, Mascotte, and Montverde all have lower percentages of residents aged 65+ than the state, other areas are substantially higher. For example, in Lady Lake (32159) 63.2 percent of residents are age 65 and older, followed by Yalaha (34797) with 45.0 percent, and Okahumpka (34762) with 42.8 percent.

With a relatively high proportion of adults age 65 and older compared to the state, it is expected that the proportion of those age 0-17 and 18 to 64 would be much lower for Lake and its zip code areas. As Table 2-4 demonstrates, 54.9 percent of Lake County residents are age 18 to 64 while 60.6 percent of Florida residents are within that age group. Not surprisingly, while 19.9 percent of Lake County residents are between the ages of 0 and 17, 21.6 percent of all Florida residents fall within that age group.

Table 2-5 provides a detailed breakdown of population by age. Of particular interest is the percentage of residents over the age of 65. A community's older residents have unique healthcare issues and, obviously, suffer mortality at greater rates than younger age groups. Typically, older residents are not as healthy as younger residents and generate many healthcare system needs. Communities with higher percentages of older residents will generate a greater demand for resources necessary to meet the needs of those older residents. Clearly, with over 25.0 percent of Lake County's population falling into the 65 and older age category as compared to 17.9 percent for the state, the demand for healthcare in Lake County currently exceeds the demand in Florida as a whole.



Figure 2-3. Lake County population by age compared to Florida, 2006.

	2006	0-1	7	18-6	4	65+	
Area	Population	Number	Percent	Number	Percent	Number	Percent
32102 Astor	2,491	511	20.5	1,457	58.5	523	21.0
32159 Lady Lake	32,571	2,019	6.2	9,967	30.6	20,585	63.2
32702 Altoona	3,051	656	21.5	1,824	59.8	571	18.7
32726 Eustis	19,981	4,156	20.8	10,470	52.4	5,355	26.8
32735 Grand Island	2,980	581	19.5	1,603	53.8	796	26.7
32736 Eustis	8,603	1,936	22.5	5,299	61.6	1,368	15.9
32767 Paisley	2,700	570	21.1	1,669	61.8	462	17.1
32776 Sorrento	9,286	2,201	23.7	5,924	63.8	1,161	12.5
32778 Tavares	17,039	2,334	13.7	8,605	50.5	6,100	35.8
32784 Umatilla	11,578	2,709	23.4	6,889	59.5	1,980	17.1
34705 Astatula	3,102	701	22.6	1,908	61.5	493	15.9
34711 Clermont	47,789	11,899	24.9	29,868	62.5	6,021	12.6
34714 Clermont	15,190	3,646	24.0	9,494	62.5	2,051	13.5
34715 Clermont	16,393	4,131	25.2	10,459	63.8	1,803	11.0
34731 Fruitland Park	10,278	1,912	18.6	5,612	54.6	2,755	26.8
34736 Groveland	11,907	2,441	20.5	7,013	58.9	2,453	20.6
34737 Howey in the Hills	2,629	431	16.4	1,351	51.4	847	32.2
34748 Leesburg	36,178	6,006	16.6	16,823	46.5	13,350	36.9
34753 Mascotte	3,471	975	28.1	2,072	59.7	423	12.2
34756 Montverde	3,384	748	22.1	2,183	64.5	453	13.4
34762 Okahumpka	1,142	146	12.8	507	44.4	489	42.8
34788 Leesburg	17,378	2,224	12.8	7,837	45.1	7,316	42.1
34797 Yalaha	1,350	155	11.5	587	43.5	608	45.0
Lake County	283,296	56,376	19.9	155,530	54.9	71,391	25.2
Florida	18,478,309	3.987,619	21.6	11,190,464	60.6	3,300,226	17.9

Table 2-4. Population by age, by zip code, Lake County and Florida, 2006.

	2006	0-4		5	5-9	10-1	14
Area	Population	Number	Percent	Number	Percent	Number	Percent
32102 Astor	2,491	149	6.0	149	6.0	132	5.3
32159 Lady Lake	32,571	554	1.7	489	1.5	651	2.0
32702 Altoona	3,051	186	6.1	177	5.8	183	6.0
32726 Eustis	19,981	1,179	5.9	1,079	5.4	1,219	6.1
32735 Grand Island	2,980	161	5.4	140	4.7	173	5.8
32736 Eustis	8,603	473	5.5	465	5.4	628	7.3
32767 Paisley	2,700	132	4.9	122	4.5	192	7.1
32776 Sorrento	9,286	585	6.3	594	6.4	613	6.6
32778 Tavares	17,039	579	3.4	545	3.2	750	4.4
32784 Umatilla	11,578	753	6.5	753	6.5	753	6.5
34705 Astatula	3,102	186	6.0	183	5.9	223	7.2
34711 Clermont	47,789	3,632	7.6	3,393	7.1	3,202	6.7
34714 Clermont	15,190	1,154	7.6	1,094	7.2	942	6.2
34715 Clermont	16,393	1,197	7.3	1,148	7.0	1,148	7.0
34731 Fruitland Park	10,278	493	4.8	483	4.7	555	5.4
34736 Groveland	11,907	667	5.6	619	5.2	738	6.2
34737 Howey in the Hills	2,629	108	4.1	118	4.5	118	4.5
34748 Leesburg	36,178	1,737	4.8	1,483	4.1	1,809	5.0
34753 Mascotte	3,471	292	8.4	264	7.6	274	7.9
34756 Montverde	3,384	183	5.4	193	5.7	223	6.6
34762 Okahumpka	1,142	42	3.7	42	3.7	37	3.2
34788 Leesburg	17,378	573	3.3	573	3.3	643	3.7
34797 Yalaha	1,350	36	2.7	36	2.7	47	3.5
Lake County	283,296	15,865	5.6	15,015	5.3	16,148	5.7
Florida	18,478,309	1,101,307	6.0	1,042,176	5.6	1,147,503	6.2

Table 2-5. Population by age, by zip code, Lake County and Florida, 2006.

	15-24		25-	44	45-64	
Area	Number	Percent	Number	Percent	Number	Percent
32102 Astor	234	9.4	488	19.6	812	32.6
32159 Lady Lake	1,107	3.4	2,215	6.8	7,003	21.5
32702 Altoona	360	11.8	744	24.4	833	27.3
32726 Eustis	2,358	11.8	4,036	20.2	4,755	23.8
32735 Grand Island	313	10.5	599	20.1	796	26.7
32736 Eustis	1,015	11.8	1,979	23.0	2,676	31.1
32767 Paisley	343	12.7	629	23.3	818	30.3
32776 Sorrento	1,133	12.2	2,396	25.8	2,804	30.2
32778 Tavares	1,465	8.6	3,016	17.7	4,601	27.0
32784 Umatilla	1,366	11.8	2,825	24.4	3,172	27.4
34705 Astatula	301	9.7	726	23.4	986	31.8
34711 Clermont	5,161	10.8	14,910	31.2	11,517	24.1
34714 Clermont	1,352	8.9	4,982	32.8	3,630	23.9
34715 Clermont	1,967	12.0	4,869	29.7	4,246	25.9
34731 Fruitland Park	1,100	10.7	2,035	19.8	2,868	27.9
34736 Groveland	1,345	11.3	2,893	24.3	3,203	26.9
34737 Howey in the Hills	234	8.9	444	16.9	762	29.0
34748 Leesburg	3,328	9.2	6,042	16.7	8,466	23.4
34753 Mascotte	521	15.0	968	27.9	725	20.9
34756 Montverde	389	11.5	860	25.4	1,086	32.1
34762 Okahumpka	71	6.2	162	14.2	299	26.2
34788 Leesburg	1,216	7.0	2,468	14.2	4,623	26.6
34797 Yalaha	88	6.5	181	13.4	354	26.2
Lake County	28,330	10.0	63,742	22.5	72,240	25.5
Florida	2,372,615	12.8	4,756,317	25.7	4,758,165	25.8

Table 2-5 Cont. Population by age, by zip code, Lake County and Florida, 2006.

	65-84		85	+	18+	
Area	Number	Percent	Number	Percent	Number	Percent
32102 Astor	481	19.3	42	1.7	1,980	79.5
32159 Lady Lake	19,315	59.3	1,270	3.9	30,552	93.8
32702 Altoona	503	16.5	67	2.2	2,395	78.5
32726 Eustis	4,436	22.2	919	4.6	15,825	79.2
32735 Grand Island	712	23.9	83	2.8	2,399	80.5
32736 Eustis	1,256	14.6	112	1.3	6,667	77.5
32767 Paisley	424	15.7	38	1.4	2,130	78.9
32776 Sorrento	1,077	11.6	84	0.9	7,085	76.3
32778 Tavares	5,231	30.7	869	5.1	14,705	86.3
32784 Umatilla	1,725	14.9	255	2.2	8,869	76.6
34705 Astatula	444	14.3	50	1.6	2,401	77.4
34711 Clermont	5,448	11.4	573	1.2	35,890	75.1
34714 Clermont	1,944	12.8	106	0.7	11,544	76.0
34715 Clermont	1,623	9.9	180	1.1	12,262	74.8
34731 Fruitland Park	2,487	24.2	267	2.6	8,366	81.4
34736 Groveland	2,286	19.2	167	1.4	9,466	79.5
34737 Howey in the Hills	778	29.6	68	2.6	2,198	83.6
34748 Leesburg	11,577	32.0	1,773	4.9	30,172	83.4
34753 Mascotte	396	11.4	28	0.8	2,496	71.9
34756 Montverde	416	12.3	37	1.1	2,636	77.9
34762 Okahumpka	450	39.4	39	3.4	996	87.2
34788 Leesburg	6,517	37.5	799	4.6	15,154	87.2
34797 Yalaha	575	42.6	32	2.4	1,195	88.5
Lake County	63,175	22.3	8,216	2.9	226,920	80.1
Florida	2,821,638	15.3	478,588	2.6	14,490,690	78.4

Table 2-5 Cont. Population by age, by zip code, Lake County and Florida, 2006.

Race and Ethnicity

Table 2-6 and Figure 2-4 provide information on the race of the population in Lake County. The percentage of the Florida population that is White is 75.7 percent, but Lake County's White residents comprise 85.0 percent of the county total. The greatest concentration of Whites as a percentage of total population, reside in the Paisley zip code of 32767 (96.5 percent) and the Lady Lake zip code of 32159 (95.2 percent). While the Black population in Florida is 15.5 percent of the total population, the Black population is 9.6 percent of Lake County's total. The greatest concentration of blacks as a percentage of total population, reside in the Leesburg zip code of 34748 (20.6 percent) and the Eustis zip code of 32726 (19.1 percent).

Area	2006 Population	Asian/Pacif	fic Islander	Black		
1.00	2000 1 0pulation	Number	Percent	Number	Percent	
32102 Astor	2,491	2	0.1	40	1.6	
32159 Lady Lake	32,571	228	0.7	945	2.9	
32702 Altoona	3,051	6	0.2	104	3.4	
32726 Eustis	19,981	180	0.9	3,816	19.1	
32735 Grand Island	2,980	15	0.5	72	2.4	
32736 Eustis	8,603	52	0.6	138	1.6	
32767 Paisley	2,700	14	0.5	19	0.7	
32776 Sorrento	9,286	111	1.2	492	5.3	
32778 Tavares	17,039	136	0.8	1,465	8.6	
32784 Umatilla	11,578	58	0.5	764	6.6	
34705 Astatula	3,102	9	0.3	53	1.7	
34711 Clermont	47,789	765	1.6	4,014	8.4	
34714 Clermont	15,190	243	1.6	532	3.5	
34715 Clermont	16,393	262	1.6	1,262	7.7	
34731 Fruitland Park	10,278	113	1.1	771	7.5	
34736 Groveland	11,907	71	0.6	1,250	10.5	
34737 Howey in the Hills	2,629	26	1.0	103	3.9	
34748 Leesburg	36,178	398	1.1	7,453	20.6	
34753 Mascotte	3,471	10	0.3	302	8.7	
34756 Montverde	3,384	24	0.7	41	1.2	
34762 Okahumpka	1,142	3	0.3	138	12.1	
34788 Leesburg	17,378	209	1.2	556	3.2	
34797 Yalaha	1,350	11	0.8	90	6.7	
Lake County	283,296	3,116	1.1	27,196	9.6	
Florida	18,478,309	386,197	2.1	2,860,442	15.5	

Table 2-6. Population by race, by zip code, Lake County and Florida, 2006.

Source: ESRI Business Solutions, 2006.

Prepared by: WellFlorida Council, 2007.

	Whi	te	Other		
Area	Number	Percent	Number	Percent	
32102 Astor	2,242	90.0	207	8.3	
32159 Lady Lake	31,008	95.2	391	1.2	
32702 Altoona	2,850	93.4	92	3.0	
32726 Eustis	15,285	76.5	699	3.5	
32735 Grand Island	2,825	94.8	69	2.3	
32736 Eustis	8,121	94.4	293	3.4	
32767 Paisley	2,606	96.5	62	2.3	
32776 Sorrento	8,255	88.9	427	4.6	
32778 Tavares	14,994	88.0	443	2.6	
32784 Umatilla	10,212	88.2	544	4.7	
34705 Astatula	2,674	86.2	366	11.8	
34711 Clermont	40,191	84.1	2,820	5.9	
34714 Clermont	13,428	88.4	987	6.5	
34715 Clermont	13,918	84.9	951	5.8	
34731 Fruitland Park	9,168	89.2	226	2.2	
34736 Groveland	9,585	80.5	1,000	8.4	
34737 Howey in the Hills	2,421	92.1	79	3.0	
34748 Leesburg	27,387	75.7	941	2.6	
34753 Mascotte	2,326	67.0	833	24.0	
34756 Montverde	3,167	93.6	152	4.5	
34762 Okahumpka	973	85.2	27	2.4	
34788 Leesburg	16,283	93.7	330	1.9	
34797 Yalaha	1,206	89.3	43	3.2	
Lake County	240,802	85.0	12,182	4.3	
Florida	13,993,623	75.7	1,238,047	6.7	

Table 2-6 Cont. Population by race, by zip code, Lake County and Florida, 2006.



Figure 2-4. Lake County population by race compared to Florida, 2006.

As seen in Table 2-7 and Figure 2-5, approximately 20 percent of Florida's total population is of Hispanic ethnicity. The percentage is substantially lower in Lake County (7.7 percent) than for the state as a whole. The Lake County zip code area with the lowest percentage (1.8 percent) of Hispanic residents is 34762 (Okahumpka), while the zip code area with the highest percentage (37.5 percent) is 34753 (Mascotte).

In total, the estimated number of Hispanic residents residing in Lake County is 21,814, as compared to 3,695,662 for the state of Florida.

A	2000 Deputation	Hisp	anic	Non-Hispanic		
Area	2006 Population	Number	Percent	Number	Percent	
32102 Astor	2,491	466	18.7	2,025	81.3	
32159 Lady Lake	32,571	782	2.4	31,789	97.6	
32702 Altoona	3,051	104	3.4	2,947	96.6	
32726 Eustis	19,981	1,359	6.8	18,622	93.2	
32735 Grand Island	2,980	182	6.1	2,798	93.9	
32736 Eustis	8,603	456	5.3	8,147	94.7	
32767 Paisley	2,700	95	3.5	2,606	96.5	
32776 Sorrento	9,286	696	7.5	8,590	92.5	
32778 Tavares	17,039	733	4.3	16,306	95.7	
32784 Umatilla	11,578	683	5.9	10,895	94.1	
34705 Astatula	3,102	509	16.4	2,593	83.6	
34711 Clermont	47,789	5,639	11.8	42,150	88.2	
34714 Clermont	15,190	1,929	12.7	13,261	87.3	
34715 Clermont	16,393	1,967	12.0	14,426	88.0	
34731 Fruitland Park	10,278	267	2.6	10,011	97.4	
34736 Groveland	11,907	1,667	14.0	10,240	86.0	
34737 Howey in the Hills	2,629	134	5.1	2,495	94.9	
34748 Leesburg	36,178	1,411	3.9	34,767	96.1	
34753 Mascotte	3,471	1,302	37.5	2,169	62.5	
34756 Montverde	3,384	230	6.8	3,154	93.2	
34762 Okahumpka	1,142	21	1.8	1,121	98.2	
34788 Leesburg	17,378	487	2.8	16,891	97.2	
34797 Yalaha	1,350	59	4.4	1,291	95.6	
Lake County	283,296	21,814	7.7	261,482	92.3	
Florida	18,478,309	3,695,662	20.0	14,782,647	80.0	

Table 2-7. Population by Hispanic ethnicity, by zip code, Lake County and Florida, 2006.



Figure 2-5. Lake County population by ethnicity compared to Florida, 2006.

Gender

Females typically have longer life expectancies in the United States and in Florida. Because of this phenomenon, communities that are older, such as Lake County, tend to have a higher percentage of females in the population. Table 2-8 shows that this is the case in Lake County. Similarly, while 51.2 percent of Florida residents are female and 51.6 percent of Lake County residents are female. Notably, the zip code with the highest percentage of elderly residents, 32159 (Lady Lake) is also among the highest in terms of its percentage of female residents (53.2 percent). Only 6 zip codes in Lake County have a higher percentage of males than females, including part of the city of Clermont, as well as Astor, Paisley, Eustis, Groveland, and Montverde.

Area	2006 Deputation	Males		Females	
Area	2006 Population	Number	Percent	Number	Percent
32102 Astor	2,491	1,273	51.1	1,218	48.9
32159 Lady Lake	32,571	15,276	46.9	17,328	53.2
32702 Altoona	3,051	1,513	49.6	1,538	50.4
32726 Eustis	19,981	9,271	46.4	10,730	53.7
32735 Grand Island	2,980	1,463	49.1	1,517	50.9
32736 Eustis	8,603	4,379	50.9	4,224	49.1
32767 Paisley	2,700	1,391	51.5	1,310	48.5
32776 Sorrento	9,286	4,643	50.0	4,643	50.0
32778 Tavares	17,039	8,111	47.6	8,945	52.5
32784 Umatilla	11,578	5,720	49.4	5,858	50.6
34705 Astatula	3,102	1,508	48.6	1,598	51.5
34711 Clermont	47,789	23,417	49.0	24,372	51.0
34714 Clermont	15,190	7,398	48.7	7,792	51.3
34715 Clermont	16,393	8,262	50.4	8,131	49.6
34731 Fruitland Park	10,278	4,995	48.6	5,283	51.4
34736 Groveland	11,907	6,215	52.2	5,692	47.8
34737 Howey in the Hills	2,629	1,291	49.1	1,338	50.9
34748 Leesburg	36,178	16,931	46.8	19,247	53.2
34753 Mascotte	3,471	1,895	54.6	1,576	45.4
34756 Montverde	3,384	1,675	49.5	1,709	50.5
34762 Okahumpka	1,142	547	47.9	595	52.1
34788 Leesburg	17,378	8,237	47.4	9,141	52.6
34797 Yalaha	1,350	657	48.7	693	51.3
Lake County	283,296	137,115	48.4	146,181	51.6
Florida	18,478,309	9,013,719	48.8	9,464,590	51.2

Table 2-8. Population by gender, by zip code, Lake County and Florida, 2006.

Economic Characteristics

The economic status of a region yields insights into the health status of that area, and is one of the most reliable predictors of health access. Some of the most critical measures include income, poverty status and employment. Higher incomes, lower poverty, and better employment have all been shown to impact health access and health outcomes favorably. Conversely, lower income, higher poverty, and poorer employment are definite predictors of a lack of access to healthcare and adverse health outcomes. In this section, these standard measures of income, poverty status and employment are used to compare Lake County with the state of Florida.

Income

As shown in Table 2-9, the median household income for Lake County (\$44,068) is slightly lower than the state (\$46,736). The median household income in Lake County varies from a low of \$34,856 in zip code 32102 (Astor) to a high of \$61,391 in 34715 (Clermont). Eight out of 24 zip codes in Lake County have a median income higher than the state of Florida.

Table 2-9 also shows per capita income levels for Lake County and all of its zip code areas as they compare to the state. As with median income, the per capita income in Lake County (\$24,043) is less than Florida (\$26,399). Per capita income in Lake County ranges from a low of \$17,403 in zip code 32702 (Altoona) to a high of \$29,297 in zip code 34756 (Montverde).

Area	Total Households	Average Household Size	Median Household Income	Per Capita Income
32102 Astor	1,165	2.1	34,856	20,403
32159 Lady Lake	16,494	2.0	42,536	27,681
32702 Altoona	1,223	2.5	37,296	17,402
32726 Eustis	8,332	2.3	38,552	22,529
32735 Grand Island	1,301	2.3	40,796	23,417
32736 Eustis	3,163	2.7	46,713	24,206
32767 Paisley	1,103	2.5	34,395	17,699
32776 Sorrento	3,381	2.8	50,220	22,935
32778 Tavares	7,819	2.1	39,272	25,318
32784 Umatilla	4,479	2.6	36,986	18,574
34705 Astatula	1,192	2.6	39,790	19,539
34711 Clermont	18,355	2.6	56,800	27,199
34714 Clermont	5,988	2.5	58,694	28,625
34715 Clermont	5,274	3.0	61,319	23,606
34731 Fruitland Park	4,319	2.4	41,702	23,253
34736 Groveland	4,470	2.6	45,784	21,377
34737 Howey in the Hills	988	2.7	53,002	24,537
34748 Leesburg	16,581	2.1	37,721	23,311
34753 Mascotte	1,051	3.3	41,047	15,626
34756 Montverde	1,278	2.6	60,157	29,297
34762 Okahumpka	522	2.2	39,036	23,422
34788 Leesburg	8,243	2.1	36,911	22,735
34797 Yalaha	612	2.2	41,108	23,449
Lake County	116,995	2.4	44,068	24,043
Florida	7,309,757	2.5	46,736	26,399

Table 2-9. Median household income and per capita income by zip code, Lake County and Florida,2006.

Table 2-10 depicts household income distribution in Lake County by zip code. The percentage of households with less than \$25,000 total household income ranges from 10.6 percent in zip code 34714 (Clermont) to 35.5 percent in zip code 32767 (Paisley). Thirteen of the 23 Lake County zip code areas have a higher proportion of residents with incomes under \$25,000 than the state of Florida.

At the opposite end of the spectrum, while 6.1 percent of Florida households have incomes over \$150,000, only 3.8 percent of Lake County households fall into this category. Only 1 of Lake County's 23 zip code areas, 34756 (Montverde), has a higher proportion of households with incomes above \$150,000 than the state.

Area	2006 Total Households	Less than \$25,000		\$25,000-\$49,999	
		Number	Percent	Number	Percent
32102 Astor	1,165	372	31.9	416	35.7
32159 Lady Lake	16,494	3,662	22.2	6,284	38.1
32702 Altoona	1,223	393	32.1	416	34.0
32726 Eustis	8,332	2,683	32.2	2,483	29.8
32735 Grand Island	1,301	349	26.8	433	33.3
32736 Eustis	3,163	800	25.3	905	28.6
32767 Paisley	1,103	392	35.5	390	35.4
32776 Sorrento	3,381	700	20.7	980	29.0
32778 Tavares	7,819	2,283	29.2	2,643	33.8
32784 Umatilla	4,479	1,500	33.5	1,478	33.0
34705 Astatula	1,192	286	24.0	478	40.1
34711 Clermont	18,355	2,551	13.9	5,139	28.0
34714 Clermont	5,988	635	10.6	1,713	28.6
34715 Clermont	5,274	649	12.3	1,361	25.8
34731 Fruitland Park	4,319	1,127	26.1	1,477	34.2
34736 Groveland	4,470	1,091	24.4	1,350	30.2
34737 Howey in the Hills	988	156	15.8	294	29.8
34748 Leesburg	16,581	5,057	30.5	5,538	33.4
34753 Mascotte	1,051	270	25.7	371	35.3
34756 Montverde	1,278	176	13.8	300	23.5
34762 Okahumpka	522	112	21.5	234	44.8
34788 Leesburg	8,243	2,473	30.0	3,025	36.7
34797 Yalaha	612	131	21.4	229	37.4
Lake County	116,995	28,547	24.4	37,204	31.8
Florida	7,309,757	1,757,266	24.0	2,124,946	29.1

Table 2-10. Households by income levels, by zip code, Lake County and Florida, 2006.
Area	\$ 50,000-\$99,999		\$100,000·	-\$149,999	\$150,000 and Over	
Alea	Number	Percent	Number	Percent	Number	Percent
32102 Astor	310	26.6	57	4.9	10	0.9
32159 Lady Lake	4,948	30.0	1,089	6.6	528	3.2
32702 Altoona	358	29.3	50	4.1	6	0.5
32726 Eustis	2,216	26.6	700	8.4	267	3.2
32735 Grand Island	372	28.6	114	8.8	33	2.5
32736 Eustis	927	29.3	351	11.1	177	5.6
32767 Paisley	247	22.4	61	5.5	14	1.3
32776 Sorrento	1,248	36.9	298	8.8	152	4.5
32778 Tavares	2,072	26.5	524	6.7	297	3.8
32784 Umatilla	1,165	26.0	219	4.9	116	2.6
34705 Astatula	319	26.8	85	7.1	25	2.1
34711 Clermont	7,287	39.7	2,460	13.4	936	5.1
34714 Clermont	2,491	41.6	862	14.4	287	4.8
34715 Clermont	2,220	42.1	781	14.8	264	5.0
34731 Fruitland Park	1,274	29.5	302	7.0	138	3.2
34736 Groveland	1,524	34.1	362	8.1	143	3.2
34737 Howey in the Hills	380	38.5	109	11.0	49	5.0
34748 Leesburg	4,527	27.3	945	5.7	514	3.1
34753 Mascotte	311	29.6	75	7.1	24	2.3
34756 Montverde	515	40.3	179	14.0	109	8.5
34762 Okahumpka	130	24.9	34	6.5	12	2.3
34788 Leesburg	2,085	25.3	453	5.5	198	2.4
34797 Yalaha	197	32.2	43	7.0	12	2.0
Lake County	36,736	31.4	10,062	8.6	4,446	3.8
Florida	2,219,973	30.4	758,753	10.4	448,819	6.1

Table 2-10 Cont. Households by income levels, by zip code, Lake County and Florida, 2006.

Source: ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Poverty

Each year, the United States' Department of Health and Human Services (DHHS) establishes national poverty levels (Table 2-11). These levels are established by comparing annual income to "poverty thresholds." The thresholds vary by family size. For example, a family of four living in the 48 contiguous states and D.C. is considered to be living in poverty in 2006 if the household income is below \$20,650. A poverty rate for a county is the percentage of the county's individuals that have an annual income or live in a household with an annual income below the poverty threshold.

Persons in Family Unit	48 Contiguous States and D.C.	Alaska	Hawaii
1	\$ 10,210	\$ 12,770	\$ 11,750
2	13,690	17,120	15,750
3	17,170	21,470	19,750
4	20,650	25,820	23,750
5	24,130	30,170	27,750
6	27,610	34,520	31,750
7	31,090	38,870	35,750
8	34,570	43,220	39,750
For each additional person add	\$ 3,480	\$ 4,350	\$ 4,000

Source: Federal Register, vol 72, no. 15, January 24, 2007.

Prepared by: WellFlorida Council, 2007.

Poverty data is estimated during each decennial census. The latest poverty rates available are for the 2000 census (based on 1999 income). In order to calculate numbers of persons, children and households in poverty (Tables 2-12 through 2-14), the 2000 census poverty percentages are applied to the 2006 population data.

Figure 2-6 shows that, in terms of poverty rates, Lake County compares favorably to the state as a whole. While 12.5 percent of Florida's population is estimated to be in poverty, only 9.6 percent of Lake County's population lives below the poverty threshold (i.e., 100 percent of the federal poverty level). Figure 2-6 and Table 2-12 show that 18.5 percent of Lake County residents are estimated to be between 100 and 200 percent of the federal poverty level compared to 18.7 percent for all of Florida. In addition, 71.8 percent of Lake County residents are at or above 200 percent of the federal poverty level compared with 68.9 percent in the state.

An examination of poverty status by zip code (Table 2-13) reveals that 8 of the 23 zip codes in Lake County have a poverty rate higher than that of Florida (12.5 percent). While in Florida, 17.6 percent of all children live at or below the poverty threshold, Lake County has a smaller percentage (16.3 percent) of its children in poverty than the state. Eight of Lake County's 23 zip codes have a higher percentage of their households in poverty than Florida as a whole. Table 2-

14 shows that 11 of Lake County's 23 zip codes have a higher percentage of individuals living at or above 200 percent of the federal poverty threshold than the state of Florida as a whole. The zip code with the highest percentage of individuals living at or above 200 percent of poverty is Montverde (34756), at 84.6 percent, followed by Clermont (34711) at 81.7 percent, and Howey-In-The-Hills (34737) at 80.3 percent.



Figure 2-6. Lake County estimated persons in poverty by level of poverty compared to Florida, 2006.

Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

	La	ke	Florida		
Level of Poverty	Estimated Number (2006)	Percent	Estimated Number (2006)	Percent	
< 100%	27,288	9.6	2,312,107	12.5	
100%-124%	12,035	4.2	802,383	4.3	
125%-149%	14,120	5.0	893,484	4.8	
150%-174%	13,040	4.6	865,072	4.7	
175%-184%	5,957	2.1	375,594	2.0	
185%-199%	7,469	2.6	506,570	2.7	
200% +	203,386	71.8	12,723,099	68.9	
Total Population (2006)		283,296		18,478,309	

Table 2-12. Estimated persons in poverty by level of poverty, Lake County and Florida, 2006.

Note: Poverty percentages from the 2000 Census are used as poverty percentage estimates for 2006 in order to estimate the number in poverty in 2006.

Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Table 2-13. Estimated persons, children and households in poverty, by zip code, Lake County and Florida, 2006.

	Pe	ersons (All Age	s)	Children (0-17)			
Area	Total Population	Percent in Poverty	Estimated Number in Poverty	Total Population	Percent in Poverty	Estimated Number in Poverty	
32102 Astor	2,491	14.6	364	511	25.1	128	
32159 Lady Lake	32,571	6.5	2,103	2,019	20.1	406	
32702 Altoona	3,051	5.2	159	656	3.2	21	
32726 Eustis	19,981	14.5	2,889	4,156	23.0	954	
32735 Grand Island	2,980	4.5	133	581	6.4	37	
32736 Eustis	8,603	10.4	896	1,936	14.5	280	
32767 Paisley	2,700	24.2	654	570	28.7	164	
32776 Sorrento	9,286	5.6	516	2,201	4.2	92	
32778 Tavares	17,039	9.1	1,551	2,334	16.4	382	
32784 Umatilla	11,578	13.7	1,585	2,709	16.9	458	
34705 Astatula	3,102	10.6	330	701	14.4	101	
34711 Clermont	47,789	5.3	2,522	11,899	8.4	999	
34714 Clermont	15,190	NA		3,646	NA		
34715 Clermont	16,393	NA		4,131	NA		
34731 Fruitland Park	10,278	7.2	738	1,912	9.1	173	
34736 Groveland	11,907	14.0	1,669	2,441	20.5	500	
34737 Howey in the Hills	2,629	6.7	176	431	10.2	44	
34748 Leesburg	36,178	12.6	4,564	6,006	29.6	1,780	
34753 Mascotte	3,471	14.1	490	975	17.1	167	
34756 Montverde	3,384	6.5	221	748	12.0	90	
34762 Okahumpka	1,142	42.4	484	146	73.2	107	
34788 Leesburg	17,378	8.9	1,546	2,224	15.5	345	
34797 Yalaha	1,350	6.6	89	155	7.6	12	
Lake County	283,296	9.6	27,288	56,376	16.3	9,183	
Florida	18,478,309	12.5	2,312,107	3,987,619	17.6	702,126	

Note: Poverty percentages from the 2000 Census are used as poverty percentage estimates for 2006 in order to estimate the number in poverty in 2006.

NA = Zip code was not valid in 2000 Census. Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Table 2-13 Cont. Estimated persons, children and households in poverty, by zip code, Lake County and Florida, 2006.

	Households				
Area	Total Number	Percent in Poverty	Estimated Number in Poverty		
32102 Astor	1,165	13.4	157		
32159 Lady Lake	16,494	5.9	980		
32702 Altoona	1,223	7.9	97		
32726 Eustis	8,332	12.9	1,072		
32735 Grand Island	1,301	3.8	49		
32736 Eustis	3,163	9.0	284		
32767 Paisley	1,103	27.1	299		
32776 Sorrento	3,381	6.0	204		
32778 Tavares	7,819	9.1	710		
32784 Umatilla	4,479	15.2	680		
34705 Astatula	1,192	9.2	109		
34711 Clermont	18,355	5.1	930		
34714 Clermont	5,988	NA			
34715 Clermont	5,274	NA			
34731 Fruitland Park	4,319	7.3	313		
34736 Groveland	4,470	13.2	591		
34737 Howey in the Hills	988	6.3	62		
34748 Leesburg	16,581	10.4	1,732		
34753 Mascotte	1,051	13.3	140		
34756 Montverde	1,278	7.5	96		
34762 Okahumpka	522	31.8	166		
34788 Leesburg	8,243	9.2	755		
34797 Yalaha	612	11.9	73		
Lake County	116,995	9.1	10,705		
Florida	7,309,757	11.7	857,102		

Note: Poverty percentages from the 2000 Census are used as poverty percentage estimates for 2006 in order to estimate the number in poverty in 2006. NA = Zip code was not valid in 2000 Census.

Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Table 2-14.	Estimated persons in poverty by level of poverty, by zip code, Lake County and
Florida, 200	δ.

		< 100% of Poverty		100%-124% of Poverty		
Area	Total Number	Percent	Estimated Number	Percent	Estimated Number	
32102 Astor	2,491	14.6	364	7.8	195	
32159 Lady Lake	32,571	6.5	2,103	2.2	724	
32702 Altoona	3,051	5.2	159	3.6	110	
32726 Eustis	19,981	14.5	2,889	6.6	1,316	
32735 Grand Island	2,980	4.5	133	4.1	122	
32736 Eustis	8,603	10.4	896	5.0	432	
32767 Paisley	2,700	24.2	654	9.9	266	
32776 Sorrento	9,286	5.6	516	4.7	434	
32778 Tavares	17,039	9.1	1,551	4.4	742	
32784 Umatilla	11,578	13.7	1,585	6.8	782	
34705 Astatula	3,102	10.6	330	6.5	202	
34711 Clermont	47,789	5.3	2,522	2.5	1,179	
34714 Clermont	15,190	NA		NA		
34715 Clermont	16,393	NA		NA		
34731 Fruitland Park	10,278	7.2	738	1.9	198	
34736 Groveland	11,907	14.0	1,669	4.9	579	
34737 Howey in the Hills	2,629	6.7	176	2.0	54	
34748 Leesburg	36,178	12.6	4,564	4.6	1,672	
34753 Mascotte	3,471	14.1	490	8.5	296	
34756 Montverde	3,384	6.5	221	2.4	82	
34762 Okahumpka	1,142	42.4	484	5.1	58	
34788 Leesburg	17,378	8.9	1,546	3.0	530	
34797 Yalaha	1,350	6.6	89	6.3	86	
Lake County	283,296	9.6	27,288	4.2	12,035	
Florida	18,478,309	12.5	2,312,107	4.3	802,383	

Note: Poverty percentages from the 2000 Census are used as poverty percentage estimates for 2006 in order to estimate the number in poverty in 2006. NA = Zip code was not valid in 2000 Census. Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Table 2-14 Cont. Estimated persons in poverty by level of poverty, by zip code, Lake County and Florida, 2006.

		125%-149%	of Poverty	150%-174% of Poverty		
Area	Total Number	Percent	Estimated Number	Percent	Estimated Number	
32102 Astor	2,491	11.8	294	5.0	125	
32159 Lady Lake	32,571	4.2	1,364	3.9	1,279	
32702 Altoona	3,051	8.4	257	7.2	220	
32726 Eustis	19,981	5.0	1,006	3.9	783	
32735 Grand Island	2,980	6.2	184	5.0	150	
32736 Eustis	8,603	3.2	274	3.4	289	
32767 Paisley	2,700	4.4	119	3.3	90	
32776 Sorrento	9,286	5.2	483	5.9	544	
32778 Tavares	17,039	5.4	926	4.8	824	
32784 Umatilla	11,578	4.5	527	5.8	673	
34705 Astatula	3,102	5.2	161	9.2	286	
34711 Clermont	47,789	3.5	1,690	3.7	1,755	
34714 Clermont	15,190	NA		NA		
34715 Clermont	16,393	NA		NA		
34731 Fruitland Park	10,278	4.4	454	3.7	383	
34736 Groveland	11,907	5.9	701	4.2	495	
34737 Howey in the Hills	2,629	5.4	142	2.2	58	
34748 Leesburg	36,178	6.6	2,379	5.5	2,001	
34753 Mascotte	3,471	7.6	264	5.8	202	
34756 Montverde	3,384	1.7	58	1.7	58	
34762 Okahumpka	1,142	-	0	7.3	84	
34788 Leesburg	17,378	4.3	753	4.5	789	
34797 Yalaha	1,350	3.1	41	2.9	39	
Lake County	283,296	5.0	14,120	4.6	13,040	
Florida	18,478,309	4.8	893,484	4.7	865,072	

Note: Poverty percentages from the 2000 Census are used as poverty percentage estimates for 2006 in order to estimate the number in poverty in 2006. NA = Zip code was not valid in 2000 Census.

Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Table 2-14 Cont. Estimated persons in poverty by level of poverty, by zip code, Lake County and Florida, 2006.

		175%-184%	of Poverty	185%-199% of Poverty		
Area	Total Number	Percent	Estimated Number	Percent	Estimated Number	
32102 Astor	2,491	1.3	34	3.6	90	
32159 Lady Lake	32,571	1.7	552	2.0	666	
32702 Altoona	3,051	0.2	7	5.0	154	
32726 Eustis	19,981	2.4	485	3.9	782	
32735 Grand Island	2,980	1.9	56	0.2	7	
32736 Eustis	8,603	2.5	211	0.5	47	
32767 Paisley	2,700	1.4	38	3.3	90	
32776 Sorrento	9,286	2.5	235	2.2	203	
32778 Tavares	17,039	3.4	588	3.1	536	
32784 Umatilla	11,578	4.2	489	4.6	533	
34705 Astatula	3,102	3.0	94	2.9	91	
34711 Clermont	47,789	1.1	533	2.2	1,049	
34714 Clermont	15,190	NA		NA		
34715 Clermont	16,393	NA		NA		
34731 Fruitland Park	10,278	2.4	248	1.9	199	
34736 Groveland	11,907	1.7	205	3.3	391	
34737 Howey in the Hills	2,629	1.9	50	1.5	39	
34748 Leesburg	36,178	2.5	909	2.3	836	
34753 Mascotte	3,471	1.6	55	6.3	217	
34756 Montverde	3,384	0.5	17	2.5	84	
34762 Okahumpka	1,142	4.5	51	-	0	
34788 Leesburg	17,378	2.0	348	3.1	538	
34797 Yalaha	1,350	1.3	17	1.4	19	
Lake County	283,296	2.1	5,957	2.6	7,469	
Florida	18,478,309	2.0	375,594	2.7	506,570	

Note: Poverty percentages from the 2000 Census are used as poverty percentage estimates for 2006 in order to estimate the number in poverty in 2006. NA = Zip code was not valid in 2000 Census.

Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Table 2-14 Cont. Estimated persons in poverty by level of poverty, by zip code, Lake County and Florida, 2006.

		200% + of Poverty			
Area	Total Number	Percent	Estimated Number		
32102 Astor	2,491	55.8	1,391		
32159 Lady Lake	32,571	79.5	25,882		
32702 Altoona	3,051	70.3	2,144		
32726 Eustis	19,981	63.7	12,721		
32735 Grand Island	2,980	78.1	2,329		
32736 Eustis	8,603	75.0	6,453		
32767 Paisley	2,700	53.5	1,444		
32776 Sorrento	9,286	74.0	6,871		
32778 Tavares	17,039	69.7	11,873		
32784 Umatilla	11,578	60.4	6,989		
34705 Astatula	3,102	62.5	1,938		
34711 Clermont	47,789	81.7	39,062		
34714 Clermont	15,190	NA			
34715 Clermont	16,393	NA			
34731 Fruitland Park	10,278	78.4	8,059		
34736 Groveland	11,907	66.1	7,867		
34737 Howey in the Hills	2,629	80.3	2,111		
34748 Leesburg	36,178	65.8	23,817		
34753 Mascotte	3,471	56.1	1,948		
34756 Montverde	3,384	84.6	2,864		
34762 Okahumpka	1,142	40.8	466		
34788 Leesburg	17,378	74.1	12,874		
34797 Yalaha	1,350	78.5	1,060		
Lake County	283,296	71.8	203,386		
Florida	18,478,309	68.9	12,723,099		

Note: Poverty percentages from the 2000 Census are used as poverty percentage estimates for 2006 in order to estimate the number in poverty in 2006.

NA = Zip code was not valid in 2000 Census.

Source: U.S. Department of Commerce, Census Bureau, Summary File 3, 2000; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Summary of Key Findings

Population

- Lake County's population now exceeds 263,000.
- During the 25-year period of 2005-2030 the population is projected to grow by 45.2 percent, compared to 32.2 percent for the state of Florida.
- The zip code that experienced the largest percentage growth between 2000 and 2006 was (34714) Clermont at 140.7 percent. Moreover, this zip code is projected to continue experiencing a larger percent growth than the rest of Lake County through 2011.
- With 25.2 percent of its population older than age 65 compared to 17.9 percent for Florida as a whole, Lake County is "older" than many other counties in Florida.
- The zip codes with more than 40 percent of their populations age 65 and older are: 32159 (Lady Lake), 34797 (Yalaha), 34762 (Okahumpka), and 34788 (Leesburg).
- Lake County has a higher percentage of white residents (85.0 percent) than Florida as a whole (75.7 percent). Commensurately, Lake County has a lower percentage (9.6 percent) of black residents than the state (15.5 percent).
- Only 7.7 percent of Lake County residents are Hispanic, compared to 20.0 percent for all of Florida's residents.
- Females outnumber males in Lake County, as in the state as a whole.

Economic Characteristics

- Median and per capita incomes of Lake County residents are lower than those of all Florida residents.
- In Lake County, 24.4 percent of households have an income of less than \$25,000, compared to 24.0 percent for the state.
- While 6.1 percent of Florida households have incomes over \$150,000, only 3.8 percent of Lake County are in this category.
- In Lake County, 9.6 percent of all persons fall below the federal poverty threshold, compared to 12.5 percent for the state. At the same time, 18.5 percent of the population falls between 100 percent and 200 percent of the federal poverty threshold, compared to 18.7 percent for all of Florida.
- Lake County has a smaller percentage (16.3 percent) of its children living in poverty than the state (17.6 percent).

This page intentionally left blank.

Physician Workforce

Introduction

In this section the size and distribution of the physician workforce in Lake County is reviewed. Comparisons to the state of Florida are included where data are available and appropriate.

Research suggests that the size of the physician workforce in a community is one of the leading indicators of health outcomes among its residents regardless of insurance status and individual behavior. Even when residents within a specified geographic area have access to health insurance and engage overall in healthy behaviors they may still be vulnerable to various types of morbidity and mortality because they do not receive primary healthcare services from a physician.

Overall Physician Workforce

Over the last 5 years, the size of the physician workforce and the broader healthcare workforce has changed in the state of Florida, and so has the methodology for counting them. According to the Florida Department of Health's (DOH) Division of Medical Quality Assurance's 2001-2002 annual report, there were 45,109 licensed Allopathic physicians and 4,117 Osteopathic physicians practicing in the state. That number dropped precipitously in the subsequent annual report to only 29,555 Allopathic physicians and 2,688 Osteopathic physicians. In previous years, Florida's DOH included in their reports physicians who were licensed to practice in the state, but who self-reported out-of-state addresses. In fiscal year 2002-2003 these physicians were removed from the count to ensure that the numbers did not overstate the size of the workforce. Only those physicians who are most likely to be engaged in medical practice in the state e.g. those with a Florida address are included in more recent reports.

As is evident in Table 3-1, the numbers of physicians and nurses have been increasing within the framework of this new methodology. Between fiscal year 2002-2003 and 2005-2006 the number of active licensed Allopathic physicians in the state of Florida increased by 10,258, and the number of Osteopathic physicians increased by 843. Growth in the field of nursing was similar for the observed period. Between FY 2002-2003 and 2005-2006, the number of registered nurses in the state increased by 41,849, and the number of licensed practical nurses increased by 16,357. Likewise, the rates of physicians and nurses per 100,000 population has been increasing. Between fiscal years 2002-2003 and 2005-2006, the rate of Allopathic physicians per capita increased from 174.2 to 218.5. During the same period, the rate of Osteopathic physicians per capita increased from 15.8 to 19.4, the rate of registered nurses increased from 778.7 to 954.8, and the rate of licensed practical nurse increased from 259.6 to 331.5.

Table 3-2 illustrates the number of new licenses issued to physicians and nurses during the same period of time. As can be seen, a total of 9,876 Allopathic physicians were given license to practice medicine in the state of Florida between FY 2002-2003 and 2005-2006, as were 1,009 Osteopathic physicians. Concurrently, the state licensed an additional 56,100 Registered Nurses and 22,607 Licensed Practical Nurses.

Between FY 2002-2003 and 2005-2006 the rate of new licenses issued to Allopathic physicians increased from 12.0 per 100,000 population, to 14.6. For new licenses issued to Osteopathic physicians, the rate increased from 0.9 to1.6, and for licensed practical nurses, the rate increased from 24.4 to 35.9. For registered nurses there has been a decrease in the rate of new licenses issued in Florida even though the registered nurse population has experienced growth. In FY 2002-2003 rate of new licenses issued was 79.6 per 100,000 population. Although, there was a spike in FY 2003-2004, the rate decreased to 73.1 in FY 2005-2006.

 Table 3-1.
 Active licensed physicians and nurses in Florida, FY 01/02-05/06, number and rate per 100,000.

Fiscal	Allopathic Physician		Osteopathic Physician		Registered Nurse		Licensed Practical Nurse	
Year	Number	Rate per 100,000	Number	Rate per 100,000	Number	Rate per 100,000	Number	Rate per 100,000
2005/2006	39,813	218.5	3,531	19.4	173,972	954.8	60,402	331.5
2004/2005	38,950	218.6	3,403	19.1	169,829	953.2	57,812	324.5
2003/2004	30,215	173.8	2,793	16.1	138,305	795.4	47,125	271.0
2002/2003	29,555	174.2	2,688	15.8	132,123	778.7	44,045	259.6
2001/2002	45,109	271.9	4,117	24.8	190,157	1146.1	59,157	356.5

Note: Only active licensed physicians and nurses with a known address in Florida are counted.

Source: Florida Department of Health Division of Medical Quality Assurance Annual Reports: FY01/02-05/06. Prepared by: WellFlorida Council, 2007

Fiscal Year	Allopathic P	hysician	Osteopathic Physician Registered Nur		l Nurse	Licensed Practical Nurse		
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
2005/2006	2,656	14.6	290	1.6	13,316	73.1	6,535	35.9
2004/2005	2,804	15.7	313	1.8	14,081	79.0	7,196	40.4
2003/2004	2,382	13.7	247	1.4	15,199	87.4	4,736	27.2
2002/2003	2,034	12.0	159	0.9	13,504	79.6	4,140	24.4
2001/2002	2,471	14.9	276	1.7	10,408	62.7	3,431	20.7

Table 3-2. New licenses issued to physicians and nurses in Florida, FY01/02-05/06, number and rate per 100,000.

Source: Florida Department of Health Division of Medical Quality Assurance Annual Reports: FY01/02-05/06. Prepared by: WellFlorida Council, 2007

Overall Physician Distribution

Physicians are categorized according to the types of healthcare they provide. The broadest categorizations of physicians are: primary care and specialty care. Physicians who engage in primary care include: Family Medicine, Internal Medicine, and Pediatrics. Other types of medicine are often considered to be primary care sub-specialties, requiring additional application-specific training. The primary care sub-specialties include: Cardiology, Endocrinology, Obstetrics and Gynecology, Neurology, and Psychiatry, to name a few. Some research has recommended that an ideal healthcare situation would include an equal distribution of primary care and specialty care physicians. Moreover, the proliferation of specialty care physicians has been identified as one possible contributing cause to observed increases in the cost of healthcare in the United States because of the additional training as well as the additional risk associated with some procedures. It is important to examine the distribution of primary physicians and specialty physicians in a specified region in order to understand what types of care may be available to the population.

According to the American Medical Association's Masterfile in 2005, the overall distribution of physicians in Lake County was similar to the distribution observed at the national level. The majority of all physicians (64.5 percent) reported themselves as practicing specialty care. Of primary care physicians, 14.4 percent were engaged in Family Medicine, 16.3 percent in Internal Medicine, and 4.8 percent in Pediatrics (Figure 3-1).

The current staff rosters at Florida Hospital Waterman, Leesburg Regional Medical Center, and South Lake Hospital paint a different picture with 78.1 percent of physicians identifying themselves as specialists. Of those in primary care, 7.6 percent practice Family Medicine, 11.2 percent practice Internal Medicine, and the remaining 3.1 percent practice Pediatrics (Figure 3-2). Data provided by the Florida Department of Health's Division of Medical Quality Assurance also suggests a higher percentage of specialists than previous Masterfile data. According to DOH, 70.2 percent of physicians in Lake County provide specialty care, while primary care physicians are: 10.3 percent Family Medicine, 15.0 percent Internal Medicine, and 4.5 percent Pediatrics (Figure 3-3). Since DOH data for Lake County can be compared to Florida as a whole, Figure 3-4 illustrates the overall distribution of physicians in the state. Similar to Lake County, Florida has a higher percentage of specialist physicians (64.8 percent) than primary care physicians (32.2 percent). Of those primary care physicians, 8.8 percent self-reported their practice as Family Medicine, 16.2 percent as Internal Medicine, and 7.2 percent as Pediatricians.



Figure 3-1. AMA Physician distribution in Lake County, 2005.

Source: AMA Masterfile: physician related data sources, December 16, 2005. Prepared by: WellFlorida Council, 2007.



Figure 3-2. Local Hospital Physician distribution in Lake County, 2007.

Source: Physician Directory, Florida Hospital Waterman, 2007; Physician Directory, Leesburg Regional Medical Center, 2007; Physician Directory, South Lake Hospital, 2007. Prepared by WellFlorida Council, 2007.



Figure 3-3. DOH Physician distribution in Lake County, 2007.





Source: Florida Department of Health Division of Medical Quality Assurance, Licensee Database, 2007. Prepared by: WellFlorida Council, 2007.

Physician Distribution by Specialty

In addition to counting the number of physicians in a community overall, it is also important to examine the numbers of physicians within various specialty categories as a maldistribution of specialist physicians within a community might have an impact on a patient's ability to receive the types of healthcare that they need.

In 2005, according to the American Medical Association's Masterfile, the largest percentage (16.3 percent) of physicians in Lake County were specialists in Internal Medicine. A total of 14.4 percent were specialists in Family Medicine. Below that, 6.1 percent reported themselves as OBGYN's, and 5.3 percent reported themselves as Anesthesiologists. None of the other specialty or sub-specialty categories constituted more than 5 percent of the total physician population.

More recently, physician staff rosters from the three hospitals in Lake County indicate that 11.2 percent of the physician population are specialists in Internal Medicine, followed by 11.2 percent Cardiology, 7.6 percent Family Medicine, 6.0 percent Emergency Medicine, and 5.3 percent Radiology. None of the other specialty or subspecialty categories constitute more than 5.0 percent of the total physician population.

According to the Florida Department of Health's Division of Medical Quality Assurance, 15.0 percent of Lake County's physicians practice Internal Medicine, followed by 10.3 percent that practice Family Medicine. None of the other specialty categories represented more than 5.0 percent of the total physician population. It should be noted that according

to all three sources Pediatrics has the lowest percentage of physicians among the primary care specialties.

In the state of Florida, the largest percentage of physicians (16.2 percent) practice Internal Medicine, followed by 8.8 percent Family Medicine, and 7.2 percent Pediatrics. None of the other specialty categories represent more than 5 percent of the total physician population.

Specialty	Number	Percent
Allergy and Immunology	2	0.3
Anesthesiology	38	6.1
Cardiology	23	3.7
Dermatology	8	1.3
Emergency Medicine	18	2.9
Endocrinology	1	0.2
Family Medicine	90	14.4
Gastroenterology	11	1.8
General Surgery	25	4.0
Infectious Disease	1	0.2
Internal Medicine	102	16.3
Nephrology	5	0.8
Neurology	7	1.1
Obstetrics/Gynecology	38	6.1
Oncology/Hematology	3	0.5
Ophthalmology	21	3.4
Orthopedics	20	3.2
Otolaryngology	11	1.8
Pathology	18	2.9
Pediatrics	30	4.8
Physical Medicine/Rehabilitation	0	0.0
Plastic Surgery	4	0.6
Psychiatry	21	3.4
Pulmonology	9	1.4
Radiology	25	4.0
Rheumatology	1	0.2
Urology	8	1.3
All other specialties	85	13.6
Total	625	100.0

Table 3-3. AMA physicians in Lake County by specialty, number and percent, 2005.

Source: AMA Masterfile: Physician related data sources, December 16, 2005.

Prepared by WellFlorida Council, 2007.

Specialty	Florida Hospital Waterman 2007	Leesburg Regional Medical Center 2007	South Lake Hospital 2007	Total by Specialty	Percent of total physician population
Allergy/Immunology	1	1	2	4	0.5
Anesthesiology	13	15	6	34	4.5
Cardiology	18	43	23	84	11.2
Dermatology	0	0	0	0	0.0
Emergency Medicine	17	17	11	45	6.0
Endocrinology	1	2	0	3	0.4
Family Medicine	27	22	8	57	7.6
Gastroenterology	6	8	4	18	2.4
General Surgery	7	4	5	16	2.1
Infectious Disease	2	2	3	7	0.9
Internal Medicine	34	29	21	84	11.2
Nephrology	4	6	7	17	2.3
Neurology	5	7	4	16	2.1
Obstetrics/Gynecology	5	7	8	20	2.7
Oncology/Hematology	7	10	14	31	4.1
Ophthalmology	16	4	9	29	3.9
Orthopedics	4	8	10	22	2.9
Otolaryngology	3	3	8	14	1.9
Pathology	4	3	13	20	2.7
Pediatrics	4	7	12	23	3.1
Physical Medicine/Rehabilitation	4	4	0	8	1.1
Plastic Surgery	2	2	2	6	0.8
Psychiatry	2	4	0	6	0.8
Pulmonology	4	7	8	19	2.5
Radiology	7	0	33	40	5.3
Rheumatology	2	2	0	4	0.5
Urology	3	4	15	22	2.9
Other Specialty	15	49	36	100	13.4
Total	217	270	262	749	100.0

			-			
Table 3-4 Local	Hospital nh	veiciane in Lak	County by	v enocialty	number and	norcont 2007
	i nospital pri	y sicialis ili Lak	5 County D	y specially,	, number, and	

Source: Physician Directory, Florida Hospital Waterman, 2007; Physician Directory, Leesburg Regional Medical Center, 2007; Physician Directory, South Lake Hospital, 2007. Prepared by WellFlorida Council, 2007.

Specialty	Number	Percent
Allergy/Immunology	1	0.2
Anesthesiology	28	4.5
Cardiology	17	2.7
Dermatology	6	1.0
Emergency Medicine	15	2.4
Endocrinology	3	0.5
Family Medicine	64	10.3
Gastroenterology	12	1.9
General Surgery	22	3.6
Infectious Disease	2	0.3
Internal Medicine	93	15.0
Nephrology	4	0.6
Neurology	13	2.1
Obstetrics/Gynecology	24	3.9
Oncology/Hematology	18	2.9
Ophthalmology	20	3.2
Orthopedics	18	2.9
Otolaryngology	9	1.5
Pathology	21	3.4
Pediatrics	28	4.5
Physical Medicine/Rehabilitation	5	0.8
Plastic Surgery	5	0.8
Psychiatry	14	2.3
Pulmonology	10	1.6
Radiology	13	2.1
Rheumatology	2	0.3
Urology	10	1.6
All Other Specialties	142	22.9
Total	619	100.0

Table 3-5. DOH physicians in Lake County by specialty, number and percent, 2007.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Specialty	Number	Percent
Allergy/Immunology	214	0.5
Anesthesiology	1,798	3.8
Cardiology	1,448	3.1
Dermatology	709	1.5
Emergency Medicine	1,353	2.9
Endocrinology	226	0.5
Family Medicine	4,112	8.8
Gastroenterology	770	1.6
General Surgery	1,829	3.9
Infectious Disease	298	0.6
Internal Medicine	7,587	16.2
Nephrology	385	0.8
Neurology	475	1.0
Obstetrics/Gynecology	1,752	3.7
Oncology/Hematology	751	1.6
Ophthalmology	1,130	2.4
Orthopedics	1,251	2.7
Otolaryngology	557	1.2
Pathology	1,173	2.5
Pediatrics	3,347	7.2
Physical Medicine/Rehabilitation	232	0.5
Plastic Surgery	483	1.0
Psychiatry	1,475	3.2
Pulmonology	568	1.2
Radiology	1,445	3.1
Rheumatology	236	0.5
Urology	630	1.3
All Other Specialties	10,521	22.5
Total	46,755	100.0

Table 3-6. DOH physicians in the state of Florida by specialty, number and percent, 2007.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Source: Florida Department of Health Division of Medical Quality Assurance, Licensee Database, 2007. Prepared by: WellFlorida Council, 2007.

Physician Specialty Rates

The rates of physicians per 100,000 population are provided below for review. Again, data from 3 sources are presented for comparison. The data available through the Florida Department of Health's Division of Medical Quality Assurance allows for comparisons between Lake County and the state of Florida as a whole.

According to American Medical Association Masterfile data from December 2005, Internal Medicine specialists were practicing in Lake County at a rate of 38.8 per 100,000 population. Internists were followed by Family Practitioners at 34.4, Anesthesiologists at 14.4, and Obstetrics and Gynecology also at 14.4. Pediatrics completed the top 5 with 11.4 per 100,000. The specialty categories with the lowest rate of physicians in Lake County were: Physical Medicine at 0.0, Endocrinology at 0.4, Rheumatology at 0.4, Infectious Disease at 0.4, and Allergy and Immunology at 0.8 per 100,000 (Table 3-7).

Current physician staff rosters from the local hospitals in Lake County paint a somewhat different picture. The highest rates for specialists are: 29.3 for Internal Medicine, 29.3 for Cardiology, 19.9 for Family Medicine, 15.7 for Emergency Medicine, and 11.9 for Anesthesiology. The specialists with the lowest rates per 100,000 in Lake County are: Dermatology with 0.0, Rheumatology with 1.4, Psychiatry and Pulmonology, each with 2.1, and Infectious Disease with 2.4 per 100,000 (Table 3-8).

According to the Department of Health's Division of Medical Quality Assurance, the highest rates of specialists in Lake County are: Internal Medicine with 32.5, Family Medicine with 22.3, Pediatrics and Anesthesiology, each with 9.8, and Obstetrics and Gynecology with 8.4. The specialties with the lowest rates of physicians are: Allergy and Immunology with 0.3, Infectious Disease and Rheumatology, each with 0.7, Endocrinology with 1.0, and Nephrology with 1.4 per 100,000 (Table 3-9).

In the state of Florida as a whole, the highest rates of specialists are: Internal Medicine with 40.3, Family Medicine with 21.8, Pediatrics with 17.8, Anesthesiology with 9.6, and Obstetrics and Gynecology with 9.3 per 100,000. The specialties with the lowest rates of Physicians are: Allergy and Immunology with 1.1, Endocrinology and Physical Medicine, each with 1.2, Rheumatology with 1.3, and Infectious Disease with 1.6 per 100,000 (Table 3-10).

When compared side-by-side with the state of Florida, Lake County has fewer physicians per 100,000 residents in 16 out of 27 specialties. The most notable deficits are in Pediatrics with 9.8 in Lake County compared to 17.8 in Florida, and Internal Medicine with 32.5 in Lake County compared to 40.3 in Florida (Table 3-11, Figure 3-6).

As seen in Figure 3-5, the only primary care specialty for which Lake County compares favorably to the state of Florida is Family Medicine with 22.3 per 100,000 in Lake County and 21.8 in the state.

Specialty	Number	Rate per 100,000
Allergy and Immunology	2	0.8
Anesthesiology	38	14.4
Cardiology	23	8.7
Dermatology	8	3.0
Emergency Medicine	18	6.8
Endocrinology	1	0.4
Family Medicine	90	34.2
Gastroenterology	11	4.2
General Surgery	25	9.5
Infectious Disease	1	0.4
Internal Medicine	102	38.8
Nephrology	5	1.9
Neurology	7	2.7
Obstetrics/Gynecology	38	14.4
Oncology/Hematology	3	1.1
Ophthalmology	21	8.0
Orthopedics	20	7.6
Otolaryngology	11	4.2
Pathology	18	6.8
Pediatrics	30	11.4
Physical Medicine/Rehabilitation	0	0.0
Plastic Surgery	4	1.5
Psychiatry	21	8.0
Pulmonology	9	3.4
Radiology	25	9.5
Rheumatology	1	0.4
Urology	8	3.0
All other specialties	85	32.3
Total	625	237.6

Table 3-7. AMA physicians in Lake County by specialty, number and rate per 100,000, 2005.

Source: AMA Masterfile: Physician related data sources, December 16, 2005.

Bureau of Economic and Business Research, University of Florida, Florida Population Studies, 2005. Prepared by WellFlorida Council, 2007.

Specialty	Number	Rate per 100,000
Allergy/Immunology	4	1.4
Anesthesiology	34	11.9
Cardiology	84	29.3
Dermatology	0	0.0
Emergency Medicine	45	15.7
Endocrinology	3	1.0
Family Medicine	57	19.9
Gastroenterology	18	6.3
General Surgery	16	5.6
Infectious Disease	7	2.4
Internal Medicine	84	29.3
Nephrology	17	5.9
Neurology	16	5.6
Obstetrics/Gynecology	20	7.0
Oncology/Hematology	31	10.8
Ophthalmology	29	10.1
Orthopedics	22	7.7
Otolaryngology	14	4.9
Pathology	20	7.0
Pediatrics	23	8.0
Physical Medicine/Rehabilitation	8	2.8
Plastic Surgery	6	2.1
Psychiatry	6	2.1
Pulmonology	19	6.6
Radiology	40	14.0
Rheumatology	4	1.4
Urology	22	7.7
Other Specialty	100	34.9
Total	749	261.4

 Table 3-8. Local Hospital physicians in Lake County by specialty, number and rate per 100,000, 2007.

Source: Physician Directory, Florida Hospital Waterman, 2007; Physician Directory, Leesburg Regional Medical Center, 2007; Physician Directory, South Lake Hospital, 2007. Prepared by WellFlorida Council, 2007.

Lake County Physician Workforce Needs Assessment

Specialty	Number	Rate per 100,000
Allergy/Immunology	1	0.3
Anesthesiology	28	9.8
Cardiology	17	5.9
Dermatology	6	2.1
Emergency Medicine	15	5.2
Endocrinology	3	1.0
Family Medicine	64	22.3
Gastroenterology	12	4.2
General Surgery	22	7.7
Infectious Disease	2	0.7
Internal Medicine	93	32.5
Nephrology	4	1.4
Neurology	13	4.5
Obstetrics/Gynecology	24	8.4
Oncology/Hematology	18	6.3
Ophthalmology	20	7.0
Orthopedics	18	6.3
Otolaryngology	9	3.1
Pathology	21	7.3
Pediatrics	28	9.8
Physical Medicine/Rehabilitation	5	1.7
Plastic Surgery	5	1.7
Psychiatry	14	4.9
Pulmonology	10	3.5
Radiology	13	4.5
Rheumatology	2	0.7
Urology	10	3.5
All Other Specialties	142	49.6
Total	619	216.0

Table 3-9. DOH physicians in Lake County by specialty, number and rate per 100,000, 2007.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Specialty	Number	Rate per 100,000	
Allergy/Immunology	214	1.1	
Anesthesiology	1,798	9.6	
Cardiology	1,448	7.7	
Dermatology	709	3.8	
Emergency Medicine	1,353	7.2	
Endocrinology	226	1.2	
Family Medicine	4,112	21.8	
Gastroenterology	770	4.1	
General Surgery	1,829	9.7	
Infectious Disease	298	1.6	
Internal Medicine	7,587	40.3	
Nephrology	385	2.0	
Neurology	475	2.5	
Obstetrics/Gynecology	1,752	9.3	
Oncology/Hematology	751	4.0	
Ophthalmology	1,130	6.0	
Orthopedics	1,251	6.6	
Otolaryngology	557	3.0	
Pathology	1,173	6.2	
Pediatrics	3,347	17.8	
Physical Medicine/Rehabilitation	232	1.2	
Plastic Surgery	483	2.6	
Psychiatry	1,475	7.8	
Pulmonology	568	3.0	
Radiology	1,445	7.7	
Rheumatology	236	1.3	
Urology	630	3.3	
All Other Specialties	10,521	55.9	
Total	46,755	248.4	

Table 3-10. DOH physicians in the state of Florida by specialty, number and rate per 100,000, 2007.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Specialty.	Lake County	Florida
Specially	Rate per 100,000	Rate per 100,000
Allergy/Immunology	0.3	1.1
Anesthesiology	9.8	9.6
Cardiology	5.9	7.7
Dermatology	2.1	3.8
Emergency Medicine	5.2	7.2
Endocrinology	1.0	1.2
Family Medicine	22.3	21.8
Gastroenterology	4.2	4.1
General Surgery	7.7	9.7
Infectious Disease	0.7	1.6
Internal Medicine	32.5	40.3
Nephrology	1.4	2.0
Neurology	4.5	2.5
Obstetrics/Gynecology	8.4	9.3
Oncology/Hematology	6.3	4.0
Ophthalmology	7.0	6.0
Orthopedics	6.3	6.6
Otolaryngology	3.1	3.0
Pathology	7.3	6.2
Pediatrics	9.8	17.8
Physical Medicine/Rehabilitation	1.7	1.2
Plastic Surgery	1.7	2.6
Psychiatry	4.9	7.8
Pulmonology	3.5	3.0
Radiology	4.5	7.7
Rheumatology	0.7	1.3
Urology	3.5	3.3
All Other Specialties	57.2	65.6
Total	216.0	248.4

Table 3-11. DOH physicians in Lake County and the state of Florida by specialty, number and rate per 100,000, 2007.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.



Figure 3-5. DOH primary care physician rate per 100,000, Lake County and Florida, 2007.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.



Figure 3-6. DOH physician rates per 100,000 by specialty, Lake County and Florida, 2007.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Physician Specialty Benchmarks

Since 1980, when the Graduate Medical Education National Advisory Committee issued its final report, which included benchmarks for the rates of physicians in various specialties, researchers and healthcare consulting firms have endeavored to establish an ideal set of circumstances in terms of the number of physicians in a community needed in order to ensure community health. For instance, in 2003, Solucient, LLC published a set of benchmarks for specialists, which can be compared to earlier recommendations from GMENAC. Since Solucient is a for-profit entity and its clients are for-profit healthcare organizations, much of their research is proprietary and not available to the public. However, Solucient's 2003 benchmarks will be utilized alongside GMENAC's as points of reference for Lake County. For the purpose of simplicity, physician specialties in Lake County are identified as experiencing a possible shortage only if the current Lake County rates fall below both the GMENAC and Solucient recommendations. Again, data from 3 different sources on the current physician rates in Lake County are given consideration. Data available from Florida's Department of Health also allow for comparisons between Lake County and the state as a whole.

When the end of year 2005 data from the American Medical Association's Masterfile is compared to the GMENAC and Solucient benchmarks, a number of potential shortages emerge. Specifically, Emergency Medicine, Endocrinology, Infectious Disease, Pediatrics, and Rheumatology in Lake County fell below both of the benchmarks (Table 3-12).

More current data provided by local hospitals in Lake County yield slightly different rates of physicians in various specialties and consequently different potential shortages. According to current hospital data, the specialties that fall below both Solucient and GMENAC benchmarks are: Dermatology, Family Medicine, General Surgery Obstetrics and Gynecology, Pediatrics, and Psychiatry (Table 3-13).

The Florida Department of Health's Division of Medical Quality Assurance database suggests more potential shortages than the other 2 sources when compared to the 2 benchmarks. According to DOH data, current shortages may exist in: Allergy and Immunology, Dermatology, Emergency Medicine, Family Medicine, Infectious Disease, Obstetrics and Gynecology, Pediatrics, Psychiatry, and Radiology (Table 3-14).

In contrast, when state level data from DOH are compared to the benchmarks, potential shortages emerge in fewer specialties: Emergency Medicine, Family Medicine, Obstetrics and Gynecology, and Radiology (Table 3-15).

It is noteworthy that all 3 data sources in comparison to 2 benchmarks are in agreement with regard to a potential shortage of Pediatricians in Lake County. Moreover, at least 2 of the data sources in comparison to benchmarks are in agreement with regard to potential shortages in Obstetrics and Gynecology, Psychiatry, Infectious Disease, and Family Medicine in Lake County.

· · · · ·	,		GMENAC
Specialty	Lake County Rate	Solucient recommended	recommended rate
Specially	per 100,000	nopulation	per 100,000
		population	population
Allergy/Immunology	0.8	1.7	0.8
Anesthesiology	14.4		8.3
Cardiology	8.7	4.2	3.2
Dermatology	3.0	3.1	2.9
Emergency Medicine	6.8	12.4	8.5
Endocrinology	0.4		0.8
Family Medicine	34.2	22.5	25.2
Gastroenterology	4.2	3.5	2.7
General Surgery	9.5	6.0	9.7
Infectious Disease	0.4		0.9
Internal Medicine	38.8	19.0	28.8
Nephrology	1.9	0.7	1.1
Neurology	2.7	1.8	2.3
Obstetrics/Gynecology	14.4	10.2	9.9
Oncology/Hematology	1.1	1.1	3.7
Ophthalmology	8.0	4.7	4.8
Orthopedics	7.6	6.1	6.2
Otolaryngology	4.2		
Pathology	6.8		5.6
Pediatrics	11.4	13.9	12.8
Physical Medicine/Rehabilitation	0.0		
Plastic Surgery	1.5	2.2	1.1
Psychiatry	8.0	5.7	15.9
Pulmonology	3.4	1.3	1.5
Radiology	9.5		8.9
Rheumatology	0.4	1.3	0.7
Urology	3.0	2.9	3.2
All Other Specialties	41.8		
Total	237.6	118.3	159.8

Table 3-12. AMA Ph	vsicians rates per	r 100,000 in Lake Count	ty in comparison to benchmar	ks.
				-

Source: AMA Masterfile: Physician related data sources, December 16, 2005. Solucient LLC, 2003.

Graduate Medical Education National Advisory Committee, 1980.

Bureau of Economic and Business Research, University of Florida, Florida Population Studies, 2005. Prepared by: WellFlorida Council, 2007.

Specialty	Lake County Rate per 100,000	Solucient recommended rate per 100,000 population	GMENAC recommended rate per 100,000 population
Allergy/Immunology	1.4	1.7	0.8
Anesthesiology	11.9		8.3
Cardiology	29.3	4.2	3.2
Dermatology	0.0	3.1	2.9
Emergency Medicine	15.7	12.4	8.5
Endocrinology	1.0		0.8
Family Medicine	19.9	22.5	25.2
Gastroenterology	6.3	3.5	2.7
General Surgery	5.6	6.0	9.7
Infectious Disease	2.4		0.9
Internal Medicine	29.3	19.0	28.8
Nephrology	5.9	0.7	1.1
Neurology	5.6	1.8	2.3
Obstetrics/Gynecology	7.0	10.2	9.9
Oncology/Hematology	10.8	1.1	3.7
Ophthalmology	10.1	4.7	4.8
Orthopedics	7.7	6.1	6.2
Otolaryngology	4.9		
Pathology	7.0		5.6
Pediatrics	8.0	13.9	12.8
Physical Medicine/Rehabilitation	2.8		
Plastic Surgery	2.1	2.2	1.1
Psychiatry	2.1	5.7	15.9
Pulmonology	6.6	1.3	1.5
Radiology	14.0		8.9
Rheumatology	1.4	1.3	0.7
Urology	7.7	2.9	3.2
Other Specialty	40.5		
Total	261.4	118.3	159.8

 Table 3-13. Local Hospital physician rates per 100,000 in Lake County in comparison to benchmarks.

Source: Physician Directory, Florida Hospital Waterman, 2007; Physician Directory, Leesburg Regional Medical Center, 2007; Physician Directory, South Lake Hospital, 2007.

Solucient LLC, 2003.

Graduate Medical Education National Advisory Committee, 1980.

Florida CHARTS; Florida Legislature's Office of Economic and Demographic Research (EDR) Prepared by WellFlorida Council, 2007.

	1 1		GMENAC
	Lake County Rate per	Solucient recommended	recommended rate
Specialty	100,000	rate per 100,000	per 100,000
		population	population
Allergy/Immunology	0.3	1.7	0.8
Anesthesiology	9.8		8.3
Cardiology	5.9	4.2	3.2
Dermatology	2.1	3.1	2.9
Emergency Medicine	5.2	12.4	8.5
Endocrinology	1.0		0.8
Family Medicine	22.3	22.5	25.2
Gastroenterology	4.2	3.5	2.7
General Surgery	7.7	6.0	9.7
Infectious Disease	0.7		0.9
Internal Medicine	32.5	19.0	28.8
Nephrology	1.4	0.7	1.1
Neurology	4.5	1.8	2.3
Obstetrics/Gynecology	8.4	10.2	9.9
Oncology/Hematology	6.3	1.1	3.7
Ophthalmology	7.0	4.7	4.8
Orthopedics	6.3	6.1	6.2
Otolaryngology	3.1		
Pathology	7.3		5.6
Pediatrics	9.8	13.9	12.8
Physical Medicine/Rehabilitation	1.7		
Plastic Surgery	1.7	2.2	1.1
Psychiatry	4.9	5.7	15.9
Pulmonology	3.5	1.3	1.5
Radiology	4.5		8.9
Rheumatology	0.7	1.3	0.7
Urology	3.5	2.9	3.2
All Other Specialties	57.2		
Total	216.0	118.3	159.8

Table 3-14. DOH physician rates per 100,000 in Lake County in comparison to benchmarks.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Source: Florida Department of Health Division of Medical Quality Assurance, Licensee Database, 2007. Solucient LLC, 2003.

Graduate Medical Education National Advisory Committee, 1980.

Florida CHARTS; Florida Legislature's Office of Economic and Demographic Research (EDR) Prepared by: WellFlorida Council, 2007.

			GMENAC
	Florida Rate per	Solucient recommended	recommended rate
Specialty	100,000	rate per 100,000	per 100,000
		population	population
Allergy/Immunology	1.1	1.7	0.8
Anesthesiology	9.6		8.3
Cardiology	7.7	4.2	3.2
Dermatology	3.8	3.1	2.9
Emergency Medicine	7.2	12.4	8.5
Endocrinology	1.2		0.8
Family Medicine	21.8	22.5	25.2
Gastroenterology	4.1	3.5	2.7
General Surgery	9.7	6.0	9.7
Infectious Disease	1.6		0.9
Internal Medicine	40.3	19.0	28.8
Nephrology	2.0	0.7	1.1
Neurology	2.5	1.8	2.3
Obstetrics/Gynecology	9.3	10.2	9.9
Oncology/Hematology	4.0	1.1	3.7
Ophthalmology	6.0	4.7	4.8
Orthopedics	6.6	6.1	6.2
Otolaryngology	3.0		
Pathology	6.2		5.6
Pediatrics	17.8	13.9	12.8
Physical Medicine/Rehabilitation	1.2		
Plastic Surgery	2.6	2.2	1.1
Psychiatry	7.8	5.7	15.9
Pulmonology	3.0	1.3	1.5
Radiology	7.7		8.9
Rheumatology	1.3	1.3	0.7
Urology	3.3	2.9	3.2
All Other Specialties	65.6		
Total	248.4	118.3	159.8

Table 3-15.	DOH physici	an rates per	100.000 in Florida i	n com	parison to benchmarks.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Source: Florida Department of Health Division of Medical Quality Assurance, Licensee Database, 2007. Solucient LLC, 2003.

Graduate Medical Education National Advisory Committee, 1980.

Florida CHARTS; Florida Legislature's Office of Economic and Demographic Research (EDR) Prepared by WellFlorida Council, 2007.

Overall Physician Population Growth

The growth of the physician population is of great concern to communities such as Lake County that are experiencing aggregate population growth at a rate that exceeds the state and national average.

In the case of the tables below, the ratio between growth in the physician population and growth in the overall population is held constant, allowing for an analysis of the increases that will be needed in order to maintain the status quo in Lake County. These growth projections are intended to serve as a starting point for discussions vis-à-vis actions and policies that may be implemented in order to promote additional growth of the physician population in the community.

Data from 3 sources are utilized as baselines for the physician population and data from a 2 source are used to predict aggregate population growth in Lake County through 2030. Data are also presented for comparison between Lake County and the state of Florida.

The American Medical Association's Masterfile data establishes a baseline of 625 physicians in Lake County in 2005. When this number is divided by the 2005 population estimate from the Bureau of Economic and Business Research at the University of Florida and is then multiplied by 100,000, it yields a rate of 237.7 physicians. In order to maintain this rate through 2030, the physician population in Lake County, like the overall population, will have to grow by 83.0 percent to 1,144 physicians.

More recently, the local hospitals in Lake County establish a baseline of 749 physicians practicing in the community, which translates into a rate of 261.4 per 100,000 residents based on population estimates provided by the state of Florida's Office of Economic and Demographic Research. Extrapolating to 2030, the physician population will have to grow by 68.0 percent to 1,258 physicians in order to maintain the current rate.

Data from the Florida Department of Health's Division of Medical Quality Assurance establishes a physician baseline of 619, which yields a rate of 216.0 per 100,000 residents. Given this baseline, and the predicted 68.0 percent growth in the county, the number of physicians will have to increase to 1,040 by 2030.

Overall, growth in Florida is robust, but it is proceeding at a slower pace than in Lake County. DOH data establishes a baseline of 46,755 physicians licensed to practice, which yields a rate of 248.4 per 100,000 residents. In order to maintain the current rate, Florida's physician population will have to grow by 40.3 percent to 65,597 by 2030.
Year	2005	2010	2015	2020	2025	2030
Percent change		19.0	37.0	54.0	68.0	83.0
County population	263,017	313,154	359,898	403,774	443,159	480,109
Physician population	625	744	856	963	1,050	1,144
Physician rate per 100,000	237.7	237.5	238.0	238.0	237.0	238.2

Table 3-16. AMA physician population projected growth, 2005-2030, Lake County.

Source: AMA Masterfile: Physician related data sources, December 16, 2005.

Bureau of Economic and Business Research, University of Florida, Florida Population Studies, 2005.

Prepared by: WellFlorida Council, 2007.

Table 3-17. Local Hospital physician population projected growth, 2007-2030, Lake County.

Year	2007	2010	2015	2020	2025	2030
Percent change		9.0	26.0	41.0	55.0	68.0
County population	286,514	313,154	359,898	403,774	443,159	480,109
Physician population	749	816	944	1,056	1,160	1,258
Physician rate per 100,000	261.4	260.6	262.2	262.0	262.0	262.0

Source: Physician Directory, Florida Hospital Waterman, 2007; Physician Directory, Leesburg Regional Medical Center, 2007; Physician Directory, South Lake Hospital, 2007. Florida CHARTS; Florida Legislature's Office of Economic and Demographic Research (EDR) (2007 estimate); Bureau of Economic and Business Research, University of Florida, Florida Population Studies, 2005 (2010-2030 estimates).

Prepared by WellFlorida Council, 2007.

Table 3-18. DOH physician population projected growth, 2007-2030, Lake County.

Year	2007	2010	2015	2020	2025	2030	
Percent change		9.0	26.0	41.0	55.0	68.0	
County population	286,514	313,154	359,898	403,774	443,159	480,109	
Physician population	619	675	780	873	960	1,040	
Physician rate per 100,000	216.0	215.5	216.7	216.2	216.5	216.6	

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Source: Florida Department of Health Division of Medical Quality Assurance Licensee Database, 2007. Prepared by: WellFlorida Council, 2007.

Table 3-19. DOH physician population projected growth, 2007-2030, Florida.

Year	2007	2010	2015	2020	2025	2030
Percent change		6.0	15.6	24.7	32.8	40.3
Florida population	18,825,637	19,920,348	21,767,503	23,475,838	24,998,018	26,419,166
Physician population	46,755	49,560	54,049	58,304	62,091	65,597
Rate per 100,000	248.4	248.8	248.3	248.4	248.4	248.3

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Source: Florida Department of Health Division of Medical Quality Assurance Licensee Database, 2007. Prepared by: WellFlorida Council, 2007.

Physician Growth by Specialty

Just as the growth in the physician workforce overall is of concern to Lake County, so is growth in various specialties. Robust growth in one specialty field rather than another may inhibit the ability of particular population groups like women, for example, to gain access to necessary care. In other words, physician population growth by specialty should be equitable.

In the tables that follow, baseline physician populations by specialty are extrapolated through 2030 using the percent growth of the aggregate population. Again, these numbers are not intended to predict the size and composition of the future physician population, but rather to illustrate the growth that will be required in order to maintain the status quo in Lake County.

American Medical Association Masterfile from 2005 identifies 90 Family Medicine physicians in Lake County. In order to keep pace with projected population growth, that number will have to increase to 165 by 2030. Likewise, the number of Internal Medicine physicians in the county will have to increase from 102 in 2005 to 187 in 2030, and the number of Pediatric physicians will have to increase from 30 to 55 during the same period of time (Table 3-20).

Data provided by local hospitals in Lake County places the number of Family Medicine physicians at 57 in 2007. That number will have to increase to 96 by 2030. As for Internal Medicine and Pediatric physicians, their numbers will have to grow from 84 to 141 and 23 to 39, respectively (Table 3-21).

The Department of Health's Division of Medical Quality Assurance database lists 64 Family Medicine physicians in 2007. By 2030, that number will have to increase to 108 in order to maintain its current rate per capita. Likewise, Internal Medicine physicians will have to increase from 93 in 2007 to 156 in 2030, and Pediatric physicians will have to increase from 28 in 2007 to 47 in 2030 (Table 3-22).

DOH data for the state of Florida lists 4,112 Family Medicine physicians in 2007. That number will have to increase to 5,769 by 2030 in order to maintain the current rate per capita. The number of Internal Medicine physicians will have to increase from 7,585 in 2007, to 10,645 by 2030, and the number of Pediatric physicians will have to increase from 3,347 in 2007 to 4,696 by 2030 (Table 3-24).

Specialty	2005	2010	2015	2020	2025	2030
Allergy/Immunology	2	2	3	3	3	4
Anesthesiology	38	45	52	59	64	70
Cardiology	23	27	32	35	39	42
Dermatology	8	10	11	12	13	15
Emergency Medicine	18	21	25	28	30	33
Endocrinology	1	1	1	2	2	2
Family Medicine	90	107	123	139	151	165
Gastroenterology	11	13	15	17	18	20
General Surgery	25	30	34	39	42	46
Infectious Disease	1	1	1	2	2	2
Internal Medicine	102	121	140	157	171	187
Nephrology	5	6	7	8	8	9
Neurology	7	8	10	11	12	13
Obstetrics/Gynecology	38	45	52	59	64	70
Oncology/Hematology	3	4	4	5	5	5
Ophthalmology	21	25	29	32	35	38
Orthopedics	20	24	27	31	34	37
Otolaryngology	11	13	15	17	18	20
Pathology	18	21	25	28	30	33
Pediatrics	30	36	41	46	50	55
Physical Medicine/Rehabilitation	0	0	0	0	0	0
Plastic Surgery	4	5	5	6	7	7
Psychiatry	21	25	29	32	35	38
Pulmonology	9	11	12	14	15	16
Radiology	25	30	34	39	42	46
Rheumatology	1	1	1	2	2	2
Urology	8	10	11	12	13	15
All Other Specialties	85	101	116	131	143	156
Total	625	744	856	963	1,050	1,144

Table 3-20. AMA physician population growth in Lake County by specialty 2005-2030.

Source: AMA Masterfile: Physician related data sources, December 16, 2005. Bureau of Economic and Business Research, University of Florida, Florida Population Studies, 2005. Prepared by: WellFlorida Council, 2007.

Specialty	2007	2010	2015	2020	2025	2030
Allergy/Immunology	4	4	5	6	6	7
Anesthesiology	34	37	43	48	53	57
Cardiology	84	92	106	118	130	141
Dermatology	0	0	0	0	0	0
Emergency Medicine	45	49	57	63	70	76
Endocrinology	3	3	4	4	5	5
Family Medicine	57	62	72	80	88	96
Gastroenterology	18	20	23	25	28	30
General Surgery	16	17	20	23	25	27
Infectious Disease	7	8	9	10	11	12
Internal Medicine	84	92	106	118	130	141
Nephrology	17	19	21	24	26	29
Neurology	16	17	20	23	25	27
Obstetrics/Gynecology	20	22	25	28	31	34
Oncology/Hematology	31	34	39	44	48	52
Ophthalmology	29	32	37	41	45	49
Orthopedics	22	24	28	31	34	37
Otolaryngology	14	15	18	20	22	24
Pathology	20	22	25	28	31	34
Pediatrics	23	25	29	32	36	39
Physical Medicine/Rehabilitation	8	9	10	11	12	13
Plastic Surgery	6	7	8	8	9	10
Psychiatry	6	7	8	8	9	10
Pulmonology	19	21	24	27	29	32
Radiology	40	44	50	56	62	67
Rheumatology	4	4	5	6	6	7
Urology	22	24	28	31	34	37
All Other Specialties	100	109	126	141	155	168
Total	749	816	944	1,056	1,161	1,258

Table 0.04				and a state base		NOT 0000
1 able 3-21.	I OCAL HOSD	nital privisicia	n population	arowin by s	speciality, Zl	107-20.50.
	=======	near priyorona	n population	9.0	opoolaity, =0	

Source: Physician Directory, Florida Hospital Waterman, 2007; Physician Directory, Leesburg Regional Medical Center, 2007; Physician Directory, South Lake Hospital, 2007. Florida CHARTS; Florida Legislature's Office of Economic and Demographic Research (EDR) (2007 estimate); Bureau of Economic and Business Research, University of Florida, Florida Population Studies, 2005 (2017-2030 estimates).

Prepared by WellFlorida Council, 2007.

Specialty	2007	2010	2015	2020	2025	2030
Allergy/Immunology	1	1	1	1	2	2
Anesthesiology	28	31	35	39	43	47
Cardiology	17	19	21	24	26	29
Dermatology	6	7	8	8	9	10
Emergency Medicine	15	16	19	21	23	25
Endocrinology	3	3	4	4	5	5
Family Medicine	64	70	81	90	99	108
Gastroenterology	12	13	15	17	19	20
General Surgery	22	24	28	31	34	37
Infectious Disease	2	2	3	3	3	3
Internal Medicine	93	101	117	131	144	156
Nephrology	4	4	5	6	6	7
Neurology	13	14	16	18	20	22
Obstetrics/Gynecology	24	26	30	34	37	40
Oncology/Hematology	18	20	23	25	28	30
Ophthalmology	20	22	25	28	31	34
Orthopedics	18	20	23	25	28	30
Otolaryngology	9	10	11	13	14	15
Pathology	21	23	26	30	33	35
Pediatrics	28	31	35	39	43	47
Physical Medicine/Rehabilitation	5	5	6	7	8	8
Plastic Surgery	5	5	6	7	8	8
Psychiatry	14	15	18	20	22	24
Pulmonology	10	11	13	14	16	17
Radiology	13	14	16	18	20	22
Rheumatology	2	2	3	3	3	3
Urology	10	11	13	14	16	17
All Other Specialties	142	155	179	200	220	239
Total	619	675	780	873	959	1,040

Table 3-22. DOH physician population growth in Lake County by specialty 2007-2030.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Source: Florida Department of Health Division of Medical Quality Assurance, Licensee Database, 2007.

Florida CHARTS; Florida Legislature's Office of Economic and Demographic Research (EDR)

Prepared by WellFlorida Council, 2007.

Specialty	2007	2010	2015	2020	2025	2030
Allergy/Immunology	214	227	247	267	284	300
Anesthesiology	1,798	1,906	2,078	2,242	2,388	2,523
Cardiology	1,448	1,535	1,674	1,806	1,923	2,032
Dermatology	709	752	820	884	942	995
Emergency Medicine	1,353	1,434	1,564	1,687	1,797	1,898
Endocrinology	226	240	261	282	300	317
Family Medicine	4,112	4,359	4,753	5,128	5,461	5,769
Gastroenterology	770	816	890	960	1,023	1,080
General Surgery	1,829	1,939	2,114	2,281	2,429	2,566
Infectious Disease	298	316	344	372	396	418
Internal Medicine	7,587	8,042	8,771	9,461	10,076	10,645
Nephrology	385	408	445	480	511	540
Neurology	475	504	549	592	631	666
Obstetrics/Gynecology	1,752	1,857	2,025	2,185	2,327	2,458
Oncology/Hematology	751	796	868	936	997	1,054
Ophthalmology	1,130	1,198	1,306	1,409	1,501	1,585
Orthopedics	1,251	1,326	1,446	1,560	1,661	1,755
Otolaryngology	557	590	644	695	740	781
Pathology	1,173	1,243	1,356	1,463	1,558	1,646
Pediatrics	3,347	3,548	3,869	4,174	4,445	4,696
Physical Medicine/Rehabilitation	232	246	268	289	308	325
Plastic Surgery	483	512	558	602	641	678
Psychiatry	1,475	1,564	1,705	1,839	1,959	2,069
Pulmonology	568	602	657	708	754	797
Radiology	1,445	1,532	1,670	1,802	1,919	2,027
Rheumatology	236	250	273	294	313	331
Urology	630	668	728	786	837	884
All Other Specialties	10,521	11,152	12,162	13,120	13,972	14,761
Total	46,755	49,560	54,049	58,303	62,091	65,597

Table 3-24. DOH physician population growth in Florida by specialty, 2007-2030.

Note: Physicians reported a primary practice location within the specified geographic area, or a secondary practice location within the specified geographic area. Only active licensed physicians with a known address are counted. Physicians are counted without adjustment for hours worked.

Source: Florida Department of Health Division of Medical Quality Assurance, Licensee Database, 2007.

Florida CHARTS; Florida Legislature's Office of Economic and Demographic Research (EDR)

Prepared by WellFlorida Council, 2007.

Summary of Key Findings

- The current distribution of physicians in Lake County favors specialty care. The percentage of physicians who practice specialty care ranges from 64.5 percent to 78.1 percent. Correspondingly, the percentage of physicians engaged in primary care ranges from 21.9 percent to 35.5 percent.
- The percent distribution for the state of Florida is similar with 67.8 percent primary care and 32.2 percent specialty care physicians.
- Among primary care physicians, between 11.2 and 16.3 percent practice Internal Medicine, and between 7.6 and 14.4 percent practice Family Medicine. According to all secondary sources, fewer than 5 percent of the total physician population practice Pediatrics.
- When compared to the state of Florida, Lake County has a lower rate of physicians in 15 out of 26 specialties. The most notable deficits between Lake County and Florida are in Pediatrics and Internal Medicine.
- According to all secondary sources, Lake County has a rate of Pediatricians below national benchmarks, suggesting a potential shortage.
- According to 2 out of 3 secondary sources, Lake County rates for Obstetrics and Gynecology, Psychiatry, Infectious Disease, Dermatology, and Family Medicine are below national benchmarks, suggesting potential shortages.
- According to at least 1 secondary source, Lake County rates for Rheumatology, Emergency Medicine, and Radiology are below national benchmarks, which may suggest a potential shortage.
- In order to maintain the current rate of physicians in Lake County, the physician population will have to increase by 68 to 83 percent between 2007 and 2030.
- Overall, the physician population will have to increase from between 619 and 749 to between 1,040 and 1,258 by 2030.
- The physician population in Florida will have to increase from 46,755 to 65,597 by 2030, in order to maintain the current rate of 248.4 per 100,000 residents.

This page intentionally left blank.

Access to Health Care

Introduction

In addition to simply having an adequate supply of physicians in a community, residents must be able to access the services that those physicians provide. This section will address health care access for residents of Lake County. The availability of health resources is a critical component of the health of a county's residents and a measure of the soundness of the area's health care delivery system. Without an adequate supply of healthcare facilities and services, maintaining good health status is a daunting challenge. Fewer facilities and services equates to diminished opportunities to obtain healthcare in a timely fashion. Limited supply of health resources results in the limited capacity of the healthcare delivery system to absorb indigent and charity care, as there are fewer venues among which to distribute the burden. The purpose of this section is to describe some of the opportunities and barriers presently available to patients and physicians who are engaged with the healthcare system in Lake County.

Medically Underserved and Health Professional Shortage Areas

Medically Underserved Areas (MUAs) may be a whole county or a group of contiguous counties; a group of county or civil divisions; or a group of urban census tracts in which residents have a shortage of personal health services. Medically Underserved Populations (MUPs) may include groups of persons who face economic, cultural, or linguistic barriers to healthcare.

As defined by the federal government's Health Resources and Services Administration (HRSA), the medically underserved area or population (MUA/P) designation involves the application of the Index of Medical Underservice (IMU) to data on a service area to obtain a measurement of underservice for a defined area or population. The IMU scale ranges from 0 to 100, where 0 represents completely underserved and 100 represents best served or least underserved. Under the established criteria, each service area found to have an IMU of 62.0 or less qualifies for designation as an MUA.

The IMU involves 4 variables – ratio of primary medical care physicians per 1,000 population; infant mortality rate; percentage of population with incomes below the federal poverty level; and percentage of the population age 65 or older. The value of each of these variables for the service area is formulated to a weighted value, according to established criteria. The 4 values are then summed to obtain an area's IMU score.

HRSA evaluates primary care, dental and mental health care shortage areas and populations on a regular basis. The Shortage Designation Branch in the HRSA Bureau of Health Professions has developed shortage designation criteria and utilizes them to determine whether or not a geographic area or population group is a Health Professional Shortage Area (HPSA) in one of

the three critical service areas. More than 34 federal programs depend on the shortage designation to determine eligibility or as a funding preference. About 20 percent of the U.S. population resides in primary medical care HPSAs. The following criteria are utilized for primary medical care shortage designations:

A geographic area will be designated as having a shortage of primary medical care professionals if the following 3 criteria are met:

- 1. The area is a rational area for the delivery of primary medical care services.
- 2. One of the following conditions prevails within the area:
 - a. The area has a population to full-time-equivalent primary care physician ratio of at least 3,500:1.
 - b. The area has a population to full-time-equivalent primary care physician ratio of less than 3,500:1 but greater than 3,000:1 and has unusually high needs for primary care services or insufficient capacity of existing primary care providers.
- 3. Primary medical care professionals in contiguous areas are over utilized, excessively distant, or inaccessible to the population of the area under consideration.

Lake County has HPSA designations for all 3 of the core service areas: primary medical care, dental care and mental health care. These designations are for different populations and are summarized in Table 4-1.

The low income/migrant farmworker, correctional institution populations, and rural health clinic have been designated as primary medical care HPSAs. Likewise, the low income/migrant farmworker and correctional institution populations have been designated as dental health HPSAs and the low income and the entire county has been designated as mental health HPSAs.

Professional Shortage		Designation Type					
Area/ Designation Low Underserved Area Farmwork Populatio		Low Income/Migrant Farmworker Population	Low Income Population	Correctional Institution	Rural Health Clinic		
Primary Health	Yes	Yes	No	No	Yes		
Dental Health	Yes	Yes	No	Yes	No		
Mental Health	Yes	Yes	Yes	Yes	Yes		
Medically Underserved	Yes	Yes	Yes	Yes	Yes		

Table 4-1. Summary of Health Professional Shortage Areas (HPSAs) and MedicallyUnderserved Area Populations (MUA/Ps), Lake County.

Source: US Department of Health and Human Services, Bureau of Health Professions 2007. Prepared by: WellFlorida Council, 2007.

The Uninsured

Lack of insurance has been identified in research as one of the most significant barriers to healthcare. According to estimates from the *2004 Florida Health Insurance Study*, conducted by the Florida Agency for Health Care Administration, in 2006 19.2 percent of Floridians, more than 2.9 million residents under the age of 65, were uninsured. The rate of the uninsured in Florida increased to 19.2 percent compared to 16.8 percent in 2000. In Lake County, 43,229 residents age 0-64, more than 20 percent, had no form of public or private health insurance coverage in 2006.

Table 4-5 illustrates the number and percent of uninsured residents in Lake County by zip code. As can be seen, the area with the highest percentage (28.5 percent) of uninsured residents is zip code 34753 (Mascotte). This area is followed by 34736 (Groveland) with 23.1 percent uninsured, and 32726 (Eustis) with 22.2 percent uninsured. The areas with the largest number of uninsured residents include: 34711 (Clermont) with 8,938; 34748 (Leesburg) with 4,908; and 32726 (Eustis) with 3,247.

Table 4-5. Estimated number of non-elderly (0-64) uninsured by zip code, Lake County and Florida, 2006.

	2006 Deputation	Uninsured		
Area	(0-64 years of age)	Percent	Estimated Number	
32102 Astor	1,968	20.2	398	
32159 Lady Lake	11,986	17.1	2,050	
32702 Altoona	2,480	18.8	466	
32726 Eustis	14,626	22.2	3,247	
32735 Grand Island	2,184	19.0	415	
32736 Eustis	7,235	18.5	1,338	
32767 Paisley	2,238	18.3	410	
32776 Sorrento	8,125	19.8	1,609	
32778 Tavares	10,939	19.9	2,177	
32784 Umatilla	9,598	19.7	1,891	
34705 Astatula	2,609	21.6	563	
34711 Clermont	41,768	21.4	8,938	
34714 Clermont	13,139	NA		
34715 Clermont	14,590	NA		
34731 Fruitland Park	7,523	18.6	1,399	
34736 Groveland	9,454	23.1	2,184	
34737 Howey in the Hills	1,782	19.3	344	
34748 Leesburg	22,828	21.5	4,908	
34753 Mascotte	3,048	28.5	869	
34756 Montverde	2,931	18.8	551	
34762 Oakhumpka	653	18.3	120	
34788 Leesburg	10,062	18.1	1,821	
34797 Yalaha	743	19.0	141	
Lake County	211,905	20.4	43,229	
Florida	15,178,083	19.2	2,914,192	

NA = Zip code was not available when the insurance report was completed.

Source: ESRI Business Solutions, 2006. Agency for Health Care Administration, Florida Health Insurance Study 2004, Zip Code Estimates of People Without Health Insurance.

Prepared by: WellFlorida Council, 2007.

Medicaid

The Florida Medicaid program provides healthcare to various low-income and other special needs groups. The program is administered by the Agency for Health Care Administration and is funded through federal and state cost-sharing, with local counties contributing to inpatient hospital and nursing home services.

In Florida, policy has dictated that eligibility for most Medicaid primary medical care is reserved for pregnant women (up to 185 percent of the federal poverty level) and children. All Medicaid recipients are required to enroll in one of the managed care systems (either a Medicaid HMO or Medipass) implemented by Florida's Medicaid program.

The number of individuals eligible to receive Medicaid varies month by month. Figure 4-1 and Table 4-6 display data for the year-end number of eligibles on December 31 of each year. At year's end in 2006, there were 28,296 Medicaid eligibles in Lake County compared to only 22,661 as of December 31, 2002.



Figure 4-1. Number of Medicaid eligibles in Lake County as of December 31, 2002-2006.

Source: Agency for Health Care Administration, Medicaid Program Analysis, 2006. Prepared by: WellFlorida Council, 2007.

Table 4-6 shows the number of Medicaid eligibles by zip code for Lake County from 2002 through 2006. As seen in Table 4-6, a large portion of the Medicaid population growth is attributable to the Medicaid population growth in the 34714 (Clermont) and 34715 (Clermont) zip codes.

Area	December 2002	December 2003	December 2004	December 2005	December 2006	Average 2002-2006
32102 Astor	328	283	276	313	297	299
32159 Lady Lake	1,379	1,225	1,354	1,528	1,499	1,397
32702 Altoona	453	418	470	483	468	458
32726 Eustis	2,720	2,374	2,495	2,630	2,498	2,543
32735 Grand Island	163	164	183	215	209	187
32736 Eustis	551	555	597	706	717	625
32767 Paisley	479	454	479	471	488	474
32776 Sorrento	767	769	790	839	806	794
32778 Tavares	1,626	1,523	1,777	1,802	1,745	1,695
32784 Umatilla	1,506	1,381	1,451	1,536	1,459	1,467
34705 Astatula	313	277	307	322	352	314
34711 Clermont	3,904	4,035	3,917	3,736	3,490	3,816
34714 Clermont	52	351	821	1,191	1,468	777
34715 Clermont	296	402	674	920	1,014	661
34731 Fruitland Park	912	901	987	1,033	1,054	977
34736 Groveland	1,266	1,297	1,374	1,574	1,537	1,410
34737 Howey in the Hills	111	99	103	118	115	109
34748 Leesburg	4,551	4,382	4,587	4,898	4,832	4,650
34753 Mascotte	1,079	1,006	1,156	1,104	1,106	1,090
34756 Montverde	179	208	218	220	221	209
34762 Oakhumpka	188	167	182	154	148	168
34788 Leesburg	1,079	1,097	1,111	1,203	1,207	1,139
34797 Yalaha	93	80	87	76	73	82
Lake County	22,661	22,420	24,283	28,302	28,296	25,192
Florida	2,164,531	2,151,561	2,238,229	2,301,213	2,178,957	2,206,898

Table 4-6. Number of Medicaid eligibles by zip code, Lake County and Florida, as of December 31, 2002-2006.

Source: Agency for Health Care Administration, Medicaid Program Analysis, 2007. Prepared by: WellFlorida Council, 2007.

Table 4-7 shows the average monthly number of Medicaid eligibles in various age groups for 2006. In Lake County in 2006, on average, 59.7 percent of the Medicaid eligibles were age 0-18 compared to 56.6 percent for Florida.

A = -	Lake C	County	Flo	rida
Age	Number	Percent	Number	Percent
0-5	7,553	26.8	550,485	25.2
6-10	4,002	14.2	293,233	13.4
11-18	5,266	18.7	394,039	18.0
19-20	533	1.9	42,552	1.9
21-35	3,270	11.6	244,678	11.2
36-59	3,551	12.6	276,226	12.7
60-64	622	2.2	48,056	2.2
65-74	1,454	5.2	151,410	6.9
75-84	1,224	4.3	121,597	5.6
85+	719	2.5	61,174	2.8
Total	28,195	100.0	2,183,449	100.0

Table 4-7. Average monthly number of Medicaid eligibles by age in Lake County and Florida,2006.

Source: Agency for Health Care Administration, Medicaid Program Analysis, 2006. Prepared by: WellFlorida Council, 2007.

Table 4-8 shows Medicaid expenditures by type for Lake County and Florida for a recent 8-month period. Expenditures for this period amounted to more than \$44 million. In Lake County, Home and Community Based Services accounted for 22.9 percent of the expenditures compared to 9.5 percent for the state. HMO-PHP services accounted for 21.3 percent of the expenditures compared to 18.5 percent in Florida as a whole. In addition, prescription drugs accounted for 10.4 percent of all Medicaid expenditures in Lake County compared to only 8.9 percent for the state of Florida as a whole.

		La	ake County				Florida	
Type of Medical Assistance	Clie	ents	Dollars		Clier	its	Dollars	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Adult Day Care	0	-	\$0.00	-	0	-	\$0.00	-
Ambulatory Surgical	110	0.7	\$23,649.05	0.1	31,268	1.1	\$11,624,634.60	0.1
Birthing Center	1	0.0	\$50.00	0.0	1,885	0.1	\$993,797.00	0.0
Case Management	262	1.8	\$227,635.00	0.5	64,342	2.2	\$27,535,329.68	0.3
Chiropractor Services	29	0.2	\$2,666.80	0.0	7,583	0.3	\$896,911.60	0.0
Comm Mental Services	708	4.7	\$778,418.43	1.8	88,825	3.1	\$124,567,650.84	1.5
Dental Care	898	6.0	\$223,773.93	0.5	271,816	9.4	\$68,081,680.17	0.8
DME Dial Crossover	321	2.1	\$193,151.91	0.4	46,409	1.6	\$28,106,388.11	0.3
End-Stage Renal	6	0.0	\$49,667.25	0.1	1,388	0.0	\$10,894,948.77	0.1
EPSDT	415	2.8	\$45,956.83	0.1	311,130	10.7	\$40,970,824.15	0.5
Family Planning	0	-	\$0.00	-	0	-	\$0.00	-
Hearing Services	22	0.1	\$6,191.00	0.0	15,090	0.5	\$2,891,652.58	0.0
HMO - Physicians Health Plan	7,995	53.5	\$9,423,491.60	21.3	1,855,859	64.0	\$1,585,773,381.69	18.5
Home and Comm Based Services	1,158	7.7	\$10,150,238.77	22.9	237,697	8.2	\$812,456,084.58	9.5
Home Health	483	3.2	\$1,127,558.15	2.5	100,699	3.5	\$207,392,128.27	2.4
Hospice	91	0.6	\$830,714.61	1.9	14,687	0.5	\$184,351,958.59	2.1
ICF - MR	2	0.0	\$10,139.85	0.0	3,243	0.1	\$238,017,599.34	2.8
Inpatient Hospital	3,489	23.3	\$4,567,122.19	10.3	329,071	11.3	\$1,575,037,251.68	18.4
Lab and Xray	1,606	10.7	\$127,556.44	0.3	386,454	13.3	\$39,104,379.00	0.5
Medipass	2,776	18.6	\$51,390.68	0.1	970,806	33.5	\$18,417,851.71	0.2
Nurse Practitioner	628	4.2	\$114,638.08	0.3	176,420	6.1	\$32,683,398.35	0.4
Outpatient Hospital	2,940	19.7	\$1,404,760.17	3.2	845,933	29.2	\$402,812,827.16	4.7
Physician Care	4,000	26.8	\$1,583,620.04	3.6	1,168,806	40.3	\$486,850,694.46	5.7
Podiatry	87	0.6	\$7,296.58	0.0	32,064	1.1	\$2,667,129.50	0.0
Portable Xray	65	0.4	\$2,680.09	0.0	24,573	0.8	\$1,228,263.87	0.0
Practitioner Crossover	6	0.0	\$220.22	0.0	317	0.0	\$9,931.39	0.0
Prescribed Drugs	3,372	22.6	\$4,609,567.12	10.4	919,637	31.7	\$763,653,830.75	8.9
Primary Care Management	0	-	\$0.00	-	0	-	\$0.00	-
Rural Health	1,331	8.9	\$303,397.16	0.7	176,371	6.1	\$48,859,962.97	0.6
Rural Hospital Swing Bed	0	-	\$0.00	-	45	0.0	\$900,965.37	0.0
SNF	978	6.5	\$7,446,230.08	16.8	117,838	4.1	\$1,717,730,592.56	20.0
State Mental Hospital	0	-	\$0.00	-	143	0.0	\$3,689,950.37	0.0
Therapy Services	167	1.1	\$702,855.12	1.6	53,325	1.8	\$87,458,350.09	1.0
Transportation	627	4.2	\$143,551.48	0.3	144,695	5.0	\$34,608,046.45	0.4
Unassigned	0	-	\$0.00	-	57	0.0	\$267,281.33	0.0
Visual	764	5.1	\$71,840.16	0.2	143,761	5.0	\$14,430,590.08	0.2
Total	14,953		\$44,230,028.79	100.0	2,901,970		\$ 8,574,966,267.06	100.0

Table 4-8. Medicaid expenditures by type, Lake County and Florida, July 1, 2006 - March 31, 2007.

Source: Agency for Health Care Administration Medicaid Management Information System Recap of Welfare Medical Assistance Report, July 2006-March 31, 2007. Prepared by: WellFlorida Council, 2007.

HMO Enrollment

Health maintenance organization (HMO) health insurance plans are often more affordable than standard private insurance and preferred provider organization (PPO) plans, and they are also one of the most common forms of reimbursement for healthcare services. In theory, the insured person is engaged in managed care by a primary care provider that leads to more efficient utilization of healthcare resources and subsequent lower costs.

According to the Florida Department of Insurance (DOI), 9 of Florida's 36 HMOs are enrolling clients in Lake County (Table 4-9). As of June 30, 2006 nearly 27,000 Lake County residents were enrolled in HMOs. Lake County's HMO enrollment rate of 84.2 persons per 1,000 population is substantially lower than the state of Florida rate of 203.4 per 1,000.

Table 4-10 shows that more than 12 percent of Lake County's HMO enrollment is in Medicare plans compared to 17.3 percent statewide. At the same time, 37.8 percent of Lake County's HMO enrollment is in Medicaid plans compared to 20.8 percent for the state.

as of Julie Ju	, 2000.				
	Total F	IMO's	Tot	al HMO Enrolle	es
Area	Number	Percent of State	Number	Percent of State	Rate Per 1,000 Population
Lake	9	25.0	33,656	0.9	118.8
Florida	36	100.0	3,758,544	100.0	203.4

Table 4-9. Total HMO's and total HMO enrollment, Lake County and Florida, as of June 30, 2006.

Note: All Others include: Individuals, Small Groups, Healthy Kids and Federal Employees. Source: State of Florida, Department of Insurance Regulation, Managed Care Enrollment Data Summary as of June 30, 2006; ESRI Business Solutions, 2006. Prepared by: WellFlorida Council, 2007.

Table 4-10. Total HMO enrollment and percent enrollment by type, Lake County and Florida, as of June 30, 2006.

		HMO Enrollment Type					
Area	Total HMO Enrollees	Medi	care	Medi	caid	All Oth	iers
		Number	Percent	Number	Percent	Number	Percent
Lake	33,656	1,223	3.6	12,723	37.8	19,710	58.6
Florida	3,758,544	651,903	17.3	779,909	20.8	2,326,732	61.9

Note: All Others include: Individuals, Small Groups, Healthy Kids and Federal Employees.

Source: State of Florida, Department of Insurance Regulation, Managed Care Enrollment Data Summary Report as of June 30, 2006.

Prepared by: WellFlorida Council, 2007.

Avoidable Hospitalizations

In order to determine appropriate and effective utilization of hospital services and availability of primary care, a methodology has been developed to analyze hospital discharge data for (nonelderly) residents to determine the level of hospitalization for certain illnesses susceptible to primary care intervention. The Institute of Medicine (IOM) defines access as the "timely use of personal health services to achieve the best possible outcome." This definition suggests that an evaluation of effective utilization and access must include consideration of indicators of health status or health outcomes.

The methodology is based on a study of the impact of socioeconomic status on hospital use in New York, the results of which were released in 1993. In that study, specific diseases from the International Classification of Disease (ICD) codes were selected and proven in research to be reflective of the efficiency and effectiveness of access to the healthcare delivery system in the region. These diseases were called ambulatory care sensitive (ACS) because they had been shown to be avoidable in many cases if timely and appropriate ambulatory and primary care is available and utilized.

In 2005, there were approximately 17.9 avoidable hospitalizations per 1,000 population in Lake County, which was slightly more than the 16.4 avoidable hospitalizations per 1,000 population for the state as a whole (Table 4-11).

Table 4-12 and Figure 4-2 break out these avoidable hospitalizations by payor or insurance status. Oftentimes, the Self-Pay/Charity and Medicaid populations demonstrate a disproportionately high number of avoidable hospitalizations since timely access can be a questionable proposition for these groups. However, in Lake County this is not the case.

The percentage of Self Pay/Charity avoidable hospitalizations is 11.8 in Lake County, which is less than the percentage (15.2) for Florida. In addition, the percentage of Medicaid avoidable hospitalizations is 20.9 in Lake County compared to 26.9 in Florida. It is the "all other" category (which includes Medicare and all other forms of private insurance) that comprises the largest percentage (67.3 percent, Lake County; 58.7 percent, Florida) of avoidable hospitalizations for both the county and the state.

In total, there were 3,399 avoidable hospitalizations in 2005 resulting in more than \$89 million in charges. As seen in Table 4-13, the leading cause for avoidable hospitalization was dehydration/volume depletion, which accounted for almost a third of all avoidable hospitalizations. Bacterial Pneumonia, Congestive Heart Failure, and Chronic Obstructive Pulmonary Disease followed dehydration as leading causes of avoidable hospitalization.

Table 4-11. Avoidable hospitalization rates per 1,000 population (age 0-64), Lake County and Florida, calendar year 2005.

Area	Discharges	Rate per 1,000 Population
Lake	3,399	17.9
Florida	240,572	16.4

Source: AHCA Detailed Discharge Data, 2005; ESRI Business Solutions, 2005.

Prepared by: WellFlorida Council, 2007.

Table 4-12. Avoidable hospitalizations by payor source for residents 0-64 years of age, Lake County and Florida, calendar year 2005.

Payor	Lake County				
	Discharges	Percent	Patient Days	Total Charges	
All other Public and Private Insurance	2,288	67.3	10,235	48,579,615	
Medicaid	711	20.9	3,102	11,879,577	
Self Pay/Charity	400	11.8	1,603	6,973,281	
Total	3,399	100.0	14,940	67,432,473	
	Florida				
Payor		Flo	orida		
Payor	Discharges	Fle	prida Patient Days	Total Charges	
Payor All other Public and Private Insurance	Discharges 141,136	Fle Percent 58.7	prida Patient Days 689,360	Total Charges \$3,723,983,868	
Payor All other Public and Private Insurance Medicaid	Discharges 141,136 62,908	Fic Percent 58.7 26.1	orida Patient Days 689,360 303,898	Total Charges \$3,723,983,868 1,439,627,985	
Payor All other Public and Private Insurance Medicaid Self Pay/Charity	Discharges 141,136 62,908 36,528	Fit Percent 58.7 26.1 15.2	orida Patient Days 689,360 303,898 158,962	Total Charges \$3,723,983,868 1,439,627,985 806,574,641	

Source: AHCA Detailed Discharge Data, 2005; ESRI Business Solutions, 2005. Prepared by: WellFlorida Council, 2007.



Figure 4-2. Percent of avoidable hospitalizations by payor source for residents (age 0-64), Lake County and Florida, calendar year 2005.

Note: All Others includes all other forms of insurance that are not Medicaid or Self Pay/Charity (i.e., all forms of private insurance, all other forms of public insurance including Medicare and military/VA insurance plans).

Source: AHCA Detailed Discharge Data, 2005.

Prepared by: WellFlorida Council, 2007.

Table 4-13. Top 10 avoidable hospitalizations for residents (age 0-64), Lake County, calendar year 2005.

Avoidable Hospitalization	Number	Percent of Total
Dehydration - Volume Depletion	945	27.8
Bacterial Pneumonia	426	12.5
Congestive Heart Failure	336	9.9
Chronic Obstructive Pulmonary Disease	248	7.3
Cellulitis	239	7.0
Asthma	228	6.7
Kidney/Urinary Infection	131	3.9
Convulsions (Over 5 Years of Age)	108	3.2
Gastroenteritis	94	2.8
Diabetes Type I	86	2.5
All Others	558	16.4
Total	3,399	100.0

Source: AHCA Detailed Discharge Data, 2005; ESRI Business Solutions, 2005. Prepared by: WellFlorida Council, 2007.

Summary of Key Findings

- The low income population of Lake County has been designated as a medically underserved population by the federal government.
- The low income and the rural health clinic populations have been designated as Health Professional Shortage Areas by the federal government for primary medical care.
- The low income/migrant farm worker and correctional institution, and rural health clinic populations have been designated as Health Professional Shortage Areas by the federal government for dental and mental health care.
- In 2006, there were over 43,000 non-elderly uninsured in Lake County.
- The percentage of non-elderly uninsured in Lake County in 2006 was 20.4 percent compared to 19.2 percent for the state of Florida.
- As of December 31, 2006 there were 28,296 Medicaid eligibles in Lake County.
- The number of Medicaid eligibles increased by 5,635 individuals between 2002 and 2006.
- Medicaid expenditures for Lake County and Florida for a recent 8-month period amounted to more than \$44 million.
- Home and community based service expenses were considerably higher for Lake County (22.9 percent) compared to Florida (9.5 percent).
- Prescription drugs accounted for nearly 11 percent of all Medicaid expenditures in Lake County compared to only 9 percent for the state of Florida as a whole.
- As of June 30, 2006 there were 118.8 HMO enrollees per 1,000 population in Lake County compared to 203.4 per 100,000 for the state of Florida as a whole.
- The avoidable hospitalization rate in Lake County is 17.9 per 1,000 population compared to 16.4 per 1,000 for Florida.
- In 2005, there were 3,399 avoidable hospitalizations, which incurred more than \$67 million in charges.

This page intentionally left blank.

Physician Survey 2007

Introduction

In addition to examining the size, composition, and potential growth of the physician population in Lake County, it is also important to identify the various factors that exert a positive or negative influence on the practice of medicine in the community. Accordingly, a survey was designed to gauge the perspectives of physicians currently practicing medicine in Lake County. The survey solicited information relating to demographics, professional characteristics, and points of view on emerging healthcare issues in the county. The purpose of this section is to provide some insight into the various challenges and opportunities that physicians face on a daily basis.

Methodology

A survey instrument, consisting of 18 questions, was developed over a period of 2 months by the WellFlorida Council in consultation with the Lake County Comprehensive Health Care Committee. When finalized, the survey was distributed to physicians throughout the county. Administrative staff at local hospitals assisted in the dissemination of the survey either by "broadcast faxing" it to staff physicians, or by providing physician contact information, including fax numbers, to WellFlorida Council staff. A response of 82 physicians yielded a rate of 12.3, based on the 2007 physician population estimates addressed elsewhere in this report.

Respondent Profile

The largest percentage of respondents (40.2 percent) indicated that they were between the ages of 45 and 54. Only 25.5 percent indicated their age was between 30-44, while 32.9 percent listed their age as 55 or above (Table 5-1).

Out of 82 respondents, only 18, or 22 percent identified themselves as female, compared to the remaining 78.0 percent who identified themselves as male (Table 5-2).

Only 19.5 percent of the physicians indicated that they attended medical school in the state of Florida, whereas 78.0 percent attended elsewhere and 2.4 percent declined to answer the question. Moreover, when asked if they completed their residency in the state of Florida, the majority of physicians (73.1 percent) indicated that they had not. Again, only 19.5 percent answered yes, and 7.3 percent did not answer the question (Table 5-3, Table 5-4).

Since physician work patterns are subject to wide variation, the survey requested that respondent indicate whether or not Lake County was the site of their "primary medical practice" and how many hours out of the week they spend providing patient care services. Seventy-seven physicians or 93.9 percent answered that Lake County was their primary

practice location. Moreover, 79.3 percent indicated that they work 40 hours or more per week providing care. Thus, the majority of survey respondents are indeed, full-time physicians who spend the majority of their professional time providing patient care in Lake County (Table 5-5, Table 5-6).

Additionally, the survey requested that respondents indicate which type of patient care they specialize in. The largest percentage of respondents (26.8 percent) indicated that they were Family Practice physicians, followed by 8.5 percent of respondents who selected Internal Medicine, and 4.9 percent who selected Pediatrics. All other specialties constituted 59.8 percent of the total response (Figure 5-1, Table 5-7).

When asked how long they have been practicing medicine in Lake County, the largest percentage of respondents (31.7 percent) answered that it had been less than five years. A total of 18 physicians, or 22 percent said that they have practiced medicine in Lake County from 15 to 19 years and 18.3 percent answered 5-9 years. Only 13.4 percent said they have practiced medicine in the community for 20 years or more (Table 5-8).

At the same time, 68.4 percent of physicians surveyed said that they intend to continue practicing in Lake County for a period of time between 5 and 19 years. Only 9.8 percent expressed the intention to relocate or retire in less than 5 years and only 14.6 percent expressed intent to continue practicing for more than 20 years. However, the combined percentage of respondents who intend to discontinue their medical practice in Lake County between 2007 and 2020 equals 56.2 percent (Table 5-9).

Response	Number	Percent
30 - 34	7	8.5
35 - 39	7	8.5
40 - 44	7	8.5
45 - 49	16	19.5
50 - 54	17	20.7
55 - 59	12	14.6
60 - 64	10	12.2
65 and over	5	6.1
No Answer	1	1.2
Total	82	100

Table 5-1. Age distribution of respondents.

Source: Lake County Physician Survey 2007. Prepared by: WellFlorida Council, 2007.

Table 5-2. Gender distribution of respondents

Response	Number	Percent
Female	18	22.0
Male	64	78.0
Total	82	100

Response	Number	Percent
No	64	78.0
Yes	16	19.5
No Answer	2	2.4
Total	82	100

Table 5-3. Physicians who attended medical school in the state of Florida.

Source: Lake County Physician Survey 2007. Prepared by: WellFlorida Council, 2007.

Table 5-4. Physicians who completed residency in the state of Florida.

Response	Number	Percent
No	60	73.1
Yes	16	19.5
No Answer	6	7.3
Total	82	100

Source: Lake County Physician Survey 2007.

Prepared by: WellFlorida Council, 2007.

Table 5-5. Lake County as a "primary practice" location for respondents.

Response	Number	Percent
No	5	6.1
Yes	77	93.9
Total	82	100

Source: Lake County Physician Survey 2007.

Prepared by: WellFlorida Council, 2007.

Table 5-6. Work effort by number of hours for respondents.

Response	Number	Percent
Less than 5	2	2.4
5 - 9	2	2.4
10 - 14	1	1.2
15 - 19	1	1.2
20 - 24	2	2.4
25 - 29	1	1.2
30 - 34	2	2.4
35 - 39	6	7.3
40 or more	65	79.3
Total	82	100





Source: Lake County Physician Survey 2007. Prepared by: WellFlorida Council, 2007.

Table #	5-7.	Specialty	distribution	of	respondents.

Response	Number	Percent
Allergy/Immunology	1	1.2
Anesthesiology	1	1.2
Cardiology	2	2.4
Chiropractic	2	2.4
Emergency medicine	1	1.2
Family Practice	22	26.8
General Practice	1	1.2
General Surgery	3	3.7
Gynecology	3	3.7
Hematology/Oncology	1	1.2
Internal Medicine	7	8.5
Nephrology	1	1.2
Neurology	1	1.2
Obstetrics	4	4.9
Ophthalmology	1	1.2
Otolaryngology	2	2.4
Pain Management	1	1.2
Pediatrics	4	4.9
Podiatry	2	2.4
Psychiatry	7	8.5
Pulmonology	1	1.2
Radiology	1	1.2
Rheumatology	1	1.2
Urology	1	1.2
Other	11	13.4
Total	82	100.0

Response	Number	Percent
Less than 5	26	31.7
5 - 9	15	18.3
10 - 14	12	14.6
15 - 19	18	22.0
20 or more	11	13.4
Total	82	100.0

Table 5-8. Number of years spen	practicing medicine in Lake County.
---------------------------------	-------------------------------------

Source: Lake County Physician Survey 2007.

Prepared by: WellFlorida Council, 2007.

Table 5.9 Number of years respondents intend to conti	nue practice in Lake County
---	-----------------------------

Response	Number	Percent
Less than 5	8	9.8
5 - 9	18	22.0
10 - 14	20	24.4
15 - 19	18	22.0
20 or more	12	14.6
No Answer	5	7.3
Total	82	100

Source: Lake County Physician Survey 2007. Prepared by: WellFlorida Council, 2007.

Analysis

Survey respondents were asked to indicate whether or not they were currently accepting new patients utilizing different forms of payment (Table 5-10). This question is intended to inform our understanding of whether or not physicians are operating at capacity e.g. whether or not they are capable of accepting new patients, and also which types of reimbursement might be preferable from the physician's point of view.

When asked if they were accepting new patients whose method of payment was Medicare, 85.4 percent of respondents answered "yes". Five respondents, or 6.1 percent, answered that they did not accept new patients with Medicare and 7 physicians (8.5 percent) declined to answer the question.

In contrast, only 46.3 percent answered "yes" when asked if they are currently accepting new patients who use Medicaid as their method of payment. A total of 42.7 percent indicated that they were currently accepting new patients on Medicaid, and 11 percent declined to answer the question.

For private insurance, 91.5 percent of physicians indicated that they were accepting new patients. Only three physicians or 3.7 percent answered "no" to private insurance. An additional 4 physicians (4.9 percent) did not answer the question.

For VA/Tricare insurance, 63.4 percent of respondents answered "yes", that they were accepting new patients. A total of 20.7 percent answered that they were not accepting

new patients with this form of payment, and the remaining 15.9 percent did not answer the question.

Self-pay, which can also be interpreted as "uninsured", patients were being accepted as new patients by 87.8 percent of physicians who responded to the survey. A total of 6.1 respondents answered "no" to the question, and 6.1 percent did not answer.

In terms of charity care, 53.7 percent of respondents answered that they were accepting new patients, whereas 26.8 percent answered "no" and the remaining 19.5 percent did not answer the question.

MEDICARE	NULLIDEL	Feiceill
No	5	6.1
Yes	70	85.4
No answer	7	8.5
Total	82	100
MEDICAID	Number	Percent
No	35	42.7
Yes	38	46.3
No answer	9	11.0
Total	82	100
PRIVATE INS.	Number	Percent
No	3	3.7
Yes	75	91.5
No answer	4	4.9
Total	82	100
VA/TRICARE	Number	Percent
No	17	20.7
Yes	52	63.4
No answer	13	15.9
Total	82	100
SELF-PAY	Number	Percent
No	5	6.1
Yes	72	87.8
No answer	5	6.1
Total	82	100
CHARITY	Number	Percent
No	22	26.8
Yes	44	53.7
No Answer	16	19.5
Total	82	100

 Table 5-10. Methods of payment for new patients currently being accepted by physicians.

 MEDICARE
 Number
 Percent

Source: Lake County Physician Survey 2007. Prepared by: WellFlorida Council, 2007.

Physicians were asked about challenges they may face in their daily practice of medicine

(Table 5-11). Obstacles to the provision of quality health care may serve as a disincentive

to physicians and thus, the purpose of the question is to identify which obstacles, or challenges are the most commonly experienced.

Out of the total of 82 respondents, 62.2 percent indicated that formularies or prescription guidelines restrict the quality of care that they provide. Also, almost half (48.5 percent) of all respondents indicated that time pressures are impeding their personal lives, and 45.1 percent said that time pressure prevents them from developing good relationships with their patients. Among other notable responses, 39.0 percent said that patients demand unnecessary treatments, 37.8 indicated that their relationships with their patients are more adversarial than they used to be, and 34.1 percent said that gate keeping requirements conflict with their clinical judgment.

Only 4.9 percent of respondents cited conflicts with non-physician staff, and only 6.1 percent cited non-accommodating physician colleagues. Of the 11 respondents who selected "other", 7 described issues directly relating to the cost of liability insurance versus reimbursement rates.

Response	Number	Percent
Clinical guidelines restrict my freedom to practice	21	25.6
Formularies or prescription limits restrict the quality of care I provide	51	62.2
Gate keeping requirements conflict with my clinical judgment	28	34.1
My relationship with patients is more adversarial than it used to be	31	37.8
I am overwhelmed by needs of my patients	15	18.3
Many patients demand unnecessary treatments	32	39.0
I am unable to refer patients, or receive referrals when necessary	21	25.6
Time pressures prevent me from developing good patient relationships	37	45.1
Time pressures impede my personal life	40	48.8
Non-physician staff in my practice are not accommodating	4	4.9
Physician colleagues are not accommodating	6	7.3
None of these statements are applicable to me	5	6.1
Other	11	13.4

Table 5-11.	Challenges	encountered	by res	pondents.

Source: Lake County Physician Survey 2007.

Prepared by: WellFlorida Council, 2007.

Following up on the issue of challenges to providing quality health care to their patients, physicians were asked whether or not in the past two years they had to reduce services or decrease the scope of their practice due to a *decrease* in reimbursement rates or due to an *increase* in personal liability insurance rates.

In response to the first question, 42.7 percent of respondents indicated that they had indeed reduced their services in the past two years due to a decrease in reimbursement rates. Fifty-three (53.7 percent) indicated that they had not reduced the scope of their practice or specific services and the remaining 3.7 percent declined to answer the question (Table 5-12).

In response to the second question, 32.9 percent answered that they had limited their services in the past two years in response to increasing personal liability insurance rates, whereas 61.0 percent answered that they had not. The remaining 6.1 percent did not answer the question (Table 5-13).

Table 5-12. Limiting services in response to a decrease in reimbursement rate	es.
---	-----

Response	Number	Percent
No	44	53.7
Yes	35	42.7
No answer	3	3.7
Total	82	100

Source: Lake County Physician Survey 2007.

Prepared by: WellFlorida Council, 2007.

Table 5-13. Limiting	services in respor	nse to an increase	in personal liability
Insurance Rates.			

Response	Number	Percent		
No	50	61.0		
Yes	27	32.9		
No answer	5	6.1		
Total	82	100		

Source: Lake County Physician Survey 2007. Prepared by: WellFlorida Council, 2007.

For the most significant healthcare issues facing physicians in Lake County, respondents were provided with a list of 10 options and asked to select a maximum of 3 were meaningful to them.

Out of the 10 possible responses, the largest percentage of respondents (68.3 percent) selected malpractice insurance and tort claims. The second most frequently selected response (54.9 percent) was public insurance reimbursement rates. Below that, 45.1 percent selected private insurance reimbursement rates, 25.6 percent selected managed care patient guidelines, and 22.0 selected patient compliance. The least often cited issues facing physicians were lack of preventive care facilities and lack of tertiary care facilities at 6.1 percent and 4.9 percent, respectively (Table 5-14).

For the most significant healthcare issues facing patients in Lake County, respondents were provided with a similar list of 10 options and asked to select no more than 3 that they believed to be the most serious.

Out of the 10 possible answers, the largest percentage of respondents (72.0 percent) selected the cost of health insurance. The second most frequently selected response (61.0 percent) was lack of health insurance. Below that, 45.1 percent selected the cost of prescription drugs, followed by lifestyle/behavior choices at 31.7 percent, and under-insurance at 23.2 percent. The least often cited issues were lack of education, transportation, and cultural barriers, at 9.8, 7.3, and 2.4 percent, respectively (Table 5-15).

	Malpractice insurance and tort claims	Number	Percent
No		26	31.7
Yes		56	68.3
Total		82	100.0
	Public insurance reimbursement rates	Number	Percent
No		37	45.1
Yes		45	54.9
Total		82	100.0
	Private insurance reimbursement rates	Number	Percent
No		45	54.9
Yes		37	45.1
Total		82	100.0
	Managed care patient care guidelines	Number	Percent
No		61	74.4
Yes		21	25.6
Total		82	100.0
	Overall physician shortage	Number	Percent
No		69	84.1
Yes		13	15.9
Total		82	100.0
	Lack of preventative care facilities	Number	Percent
No		77	93.9
Yes		5	6.1
Total		82	100.0
	Lack of tertiary care facilities	Number	Percent
No		78	95.1
Yes		4	4.9
Total		82	100
	Nursing and ancillary staff shortage	Number	Percent
No		68	82.9
Yes		14	17.1
Total		82	100.0
	Patient compliance	Number	Percent
No		64	78.0
Yes		18	22.0
Total		82	100
	Other	Number	Percent
No		76	92.7
Yes		6	7.3
Total		82	100

Table 5-14. Three most significant healthcare issues facing physicians in Lake County.

Cost of health insurance	Number	Percent
No	23	28.0
Yes	59	72.0
Total	82	100.0
Lack of insurance	Number	Percent
No	32	39.0
Yes	50	61.0
Total	82	100.0
Cost of prescription drugs	Number	Percent
No	45	54.9
Yes	37	45.1
Total	82	100.0
Lifestyle/behavior choices	Number	Percent
No	56	68.3
Yes	26	31.7
Total	82	100.0
Under-insurance	Number	Percent
No	63	76.8
Yes	19	23.2
Total	82	100.0
Treatment non-compliance	Number	Percent
No	71	86.6
Yes	11	13.4
Total	82	100.0
Lack of education	Number	Percent
No	74	90.2
Yes	8	9.8
Total	82	100.0
Transportation	Number	Percent
No	76	92.7
Yes	6	7.3
Total	82	100.0
Cultural barriers	Number	Percent
No	80	97.6
Yes	2	2.4
Total	82	100.0
Other	Number	Percent
No	70	06.3
Yes	79	30.3
Total	20 20	100.0
TOTAL	02	100.0

Table 5-15. Significant healthcare issues facing residents in Lake County.

In addition to counting the number of physicians in the community by specialty area and comparing them to national benchmarks, the perspectives of physicians on current or potential future shortages are also relevant. Indeed, a perceived shortage or surplus may impact the way in which physicians in a community practice medicine.

Respondents to the survey were asked to indicate whether or not they believed there was a current or potential future shortage of physicians in various specialty categories, and also several non-physician healthcare provider categories. The responses are tabulated below.

The largest percentages of respondents identified shortages in: Endocrinology (65.7 percent), Neurology (65.7 percent), Dermatology (64.8 percent), Psychiatry (62.3 percent), Rheumatology (60.6 percent), and Obstetrics (50.0 percent).

Specialties for which the majority of respondents were not sure whether or not a current shortage exists included: Anesthesiology (58.2 percent), Pain Management (56.9 percent), and Physician Assistant (50.7 percent).

Only 2 specialty categories were selected by a majority of respondents as definitely not experiencing a current shortage: Cardiology (62.7 percent) and Chiropractic (52.2) percent.

In terms of a potential future shortage of physicians, the largest percentage of respondents identified: Psychiatry (60.7 percent), Endocrinology (55.7 percent), Dermatology (55.6 percent), Nephrology (52.5 percent) and Obstetrics (52.5 percent).

Specialties that the majority of respondents were not sure about in terms of a future shortage included: Osteopathy (66.7 percent), Anesthesiology (63.3), Chiropractic (57.6), Dental (57.6), Advanced Registered Nurse Practitioner (54.1), Gastroenterology (51.8), Nephrology (51.7 percent), and Hospitalist (50.0 percent).

None of the specialty categories were selected by a majority of respondents as definitely not experiencing a shortage within the next 5 years. However, the largest percentage (45.8 percent) indicated that Cardiology would not experience a shortage within the next 5 years, followed by Chiropractic at 40.7 percent.

	Is there currently a shortage?						
Specialty	Did Not	No		Not Sure		Yes	
	Question	Number	Percent	Number	Percent	Number	Percent
Advanced Registered Nurse Practitioner	13	20	29.0	34	49.3	15	21.7
Anesthesiology	15	12	17.9	39	58.2	16	23.9
Cardiology	15	42	62.7	21	31.3	4	6.0
Chiropractic	15	35	52.2	30	44.8	2	3.0
Dental	16	26	39.4	30	45.5	10	15.2
Dermatology	11	10	14.1	15	21.1	46	64.8
Endocrinology	12	3	4.3	21	30.0	46	65.7
Family Practice	15	22	32.8	20	29.9	25	37.3
Gastroenterology	16	27	40.9	23	34.8	16	24.2
General Practice	19	24	38.1	22	34.9	17	27.0
General Surgery	16	25	37.9	21	31.8	20	30.3
Gerontology	17	10	15.4	28	43.1	27	41.5
Hospitalist	17	23	35.4	24	36.9	18	27.7
Internal Medicine	16	24	36.4	23	34.8	19	28.8
Nephrology	16	19	28.8	26	39.4	21	31.8
Neurology	15	6	9.0	17	25.4	44	65.7
Obstetrics	14	9	13.2	25	36.8	34	50.0
Orthopedics	15	29	43.3	22	32.8	16	23.9
Osteopathy	17	22	33.8	37	56.9	6	9.2
Pain Management	16	20	30.3	20	30.3	26	39.4
Pediatrics	14	13	19.1	27	39.7	28	41.2
Physician's Assistant	15	20	29.9	34	50.7	13	19.4
Psychiatry	13	6	8.7	20	29.0	43	62.3
Pulmonology	18	17	26.6	24	37.5	23	35.9
Registered/Licensed Practical Nurse	16	8	12.1	27	40.9	31	47.0
Rheumatology	16	3	4.5	23	34.8	40	60.6
Other	-	-	-	-	-	-	-
Child psychiatry	0	0	-	0	-	6	7.3
Gynecology	0	0	-	0	-	6	7.3
Hand surgery	0	0	-	0	-	6	7.3
Neurosurgery	0	0	-	0	-	6	7.3
Otolaryngology	0	0	-	0	-	6	7.3

Table 5-16. Current shortage of physicians by specialty.

Note: percentages are calculated based on the number of respondents that answered the question, rather than the total sample size. Source: Lake County Physician Survey 2007. Prepared by WellFlorida Council, 2007.

	Will there be a shortage within the next five years?						
Specialty	Did Not	No		Not Sure		Yes	
	Question	Number	Percent	Number	Percent	Number	Percent
Advanced Registered Nurse Practitioner	21	14	23.0	33	54.1	14	23.0
Anesthesiology	22	6	10.0	38	63.3	16	26.7
Cardiology	23	27	45.8	27	45.8	5	8.5
Chiropractic	23	24	40.7	34	57.6	1	1.7
Dental	23	16	27.1	34	57.6	9	15.3
Dermatology	19	6	9.5	22	34.9	35	55.6
Endocrinology	21	1	1.6	26	42.6	34	55.7
Family Practice	22	12	20.0	23	38.3	25	41.7
Gastroenterology	26	15	26.8	29	51.8	12	21.4
General Practice	26	15	26.8	26	46.4	15	26.8
General Surgery	24	11	19.0	26	44.8	21	36.2
Gerontology	24	7	12.1	28	48.3	23	39.7
Hospitalist	24	13	22.4	29	50.0	16	27.6
Internal Medicine	23	15	25.4	26	44.1	18	30.5
Nephrology	24	12	20.7	30	51.7	16	27.6
Neurology	21	6	9.8	23	37.7	32	52.5
Obstetrics	21	3	4.9	26	42.6	32	52.5
Orthopedics	24	15	25.9	29	50.0	14	24.1
Osteopathy	25	13	22.8	38	66.7	6	10.5
Pain Management	22	14	23.3	24	40.0	22	36.7
Pediatrics	21	9	14.8	27	44.3	25	41.0
Physician's Assistant	22	13	21.7	38	63.3	9	15.0
Psychiatry	21	3	4.9	21	34.4	37	60.7
Pulmonology	24	11	19.0	28	48.3	19	32.8
Registered/Licensed Practical Nurse	24	5	8.6	26	44.8	27	46.6
Rheumatology	23	3	5.1	28	47.5	28	47.5
Other	-	-	-	-	-	-	-
Child psychiatry	0	0	-	0	-	5	6.1
Gynecology	0	0	-	0	-	5	6.1
Hand surgery	0	0	-	0	-	5	6.1
Neurosurgery	0	0	-	0	-	5	6.1
Otolaryngology	0	0	-	0	-	5	6.1

Table 5-17. Future shortage of physicians by specialty.

Note: percentages are calculated based on the number of respondents that answered the question, rather than the total sample size.

Source: Lake County Physician Survey 2007.

Prepared by WellFlorida Council, 2007.

Following up on this line of questioning with regard to current and future physician shortages, respondents were asked to identify reasons that would drive physicians out of the community or prevent them from coming in.

The largest percentage of respondents (67.1 percent) indicated that physicians are leaving Lake County and the state of Florida due to the burden of medical malpractice insurance. Secondly, 62.2 percent of respondents indicated that population growth is outpacing physician growth in Lake County; followed by 53.7 percent who indicated that physicians are leaving the community because there are better opportunities to practice elsewhere; 52.4 percent who cited that better public schools for their children are elsewhere; and 45.1 percent who cited poor procedural reimbursement rates in Lake County and the state of Florida.

The final question asked respondents whether or not they currently participate in the Lake County "We Care" program, which provides safety net healthcare services for the local uninsured.

Only 26.8 percent of physicians who responded indicated that they are currently participating in the program. Over half (53.7 percent) answered "no" to the question, 7.3 percent were not sure if they were involved with the program and 12.2 percent did not answer the question.

Response	Number	Percent
Insufficient graduation rates	15	18.3
Population is growing	51	62.2
Physicians/providers leaving due to malpractice	55	67.1
Physicians/providers leaving due to poor procedural	37	45.1
Better opportunities are elsewhere	44	53.7
Better public schools for children are elsewhere	43	52.4
Other communities are doing a better job recruiting	15	18.3
Physicians/providers are leaving due to frustrations	4	4.9
Insufficient ancillary support	16	19.5
Difficulty working with other community physicians	6	7.3
There are no shortages	2	2.4
Other	10	12.2

Table 5-18. Reasons for physician shortages in Lake County and Florida.

Source: Lake County Physician Survey 2007.

Prepared by: WellFlorida Council, 2007.

Table 5 15.1 hysiolan participation in Eake Obunty We bare program.						
Response	Number	Percent				
No	44	53.7				
Yes	22	26.8				
Not Sure	6	7.3				
No Answer	10	12.2				
Total	82	100				

Table 5-19. Physician participation in Lake County "We Care" program.
Summary of Key Findings

- Of the 82 respondents, the largest percentage of physicians were between the ages of 45 and 59.
- The gender distribution of physician respondents was 78.0 percent male and 22.0 percent female.
- Seventy-eight percent of respondents did not attend medical school in the state of Florida.
- Seventy-three percent did not complete their residency in the state of Florida.
- Of the total sample, 93.9 percent indicated that Lake County was the location of their primary medical practice.
- Of the total sample, 79.3 percent work 40 hours per week or more.
- Twenty-seven percent of physician respondents serve in Family Practice, followed by 8.5 percent in Internal Medicine, and 4.9 percent in Pediatrics. The remaining 59.8 percent selected other specialty categories to describe their patient care services.
- Thirty-two percent of respondents have been practicing medicine in Lake County for less than 5 years.
- The largest percentage of respondents (56.2 percent) intends to discontinue their practice of medicine in Lake County on or before 2020.
- The method of reimbursement physician respondents were least amenable to accepting was Medicaid. Out of the total sample, 42.7 percent indicated that they would not accept new patients whose primary method of payment is Medicaid.
- Sixty-two percent of respondents cited formulary, or prescription limits as a major barrier to providing quality healthcare.
- When asked to identify the most significant healthcare issue facing physicians, 68.3 percent cited the cost of malpractice insurance and tort claims.
- When asked to identify the most significant healthcare issue facing residents in Lake County, 72.0 percent of physician respondents cited the cost of health insurance.
- The majority of respondents identified current physician shortages in: Dermatology, Endocrinology, Neurology, Obstetrics and Gynecology, and Rheumatology.
- The majority of respondents anticipate physician shortages in: Dermatology, Endocrinology, Nephrology, Neurology, and Psychiatry in the next 5 years.
- When asked to identify the leading causes of physician shortages in Lake County and Florida, more than 50 percent of respondents cited:
 - Malpractice insurance
 - Population growth
 - Better professional opportunities elsewhere
 - Better public schools for children are elsewhere
- Only 26.8 percent of physicians who responded indicated that they participate in the Lake County "We Care" program.

This page intentionally left blank.

Physician Focus Groups

Introduction

In order to augment and inform the data provided by the physician survey, four focus groups were conducted with physicians in Lake County. The purpose of the focus groups was to acquire additional information regarding salient themes that emerged in the survey response. The focus group method is a valuable tool for gaining insight into the needs and challenges facing the physician workforce because restrictions on the types of answers that a respondent can provide are removed and the group dynamic can engage participants more fully in the discussion topics.

Methodology

Focus groups were conducted over a 3-week period and consisted of 11 discussion topics. Administrative staff from local healthcare facilities were engaged to identify local physicians who were likely to participate in the groups and those physicians were contacted by letter and formally invited. Of the 4 focus groups, 3 took place in conference space made available by local hospitals. The final focus group was conducted in the conference room of a government building. The groups lasted 90 minutes and participants were encouraged to share as much pertinent information as they felt comfortable with. Each group consisted of the participants, a discussion facilitator, and a note-taker. Additionally, audio recordings of the discussions were made to assist the note-taker in ensuring that no relevant information was inadvertently omitted. The analysis that follows is presented without any judgments about the veracity of the participant's reponses.

Analysis

Those individuals who participated in the focus groups were predominantly primary care physicians. While no Pediatricians attended the groups, Internal Medicine and Family Medicine were strongly represented. At the same time, a number of other specialists such as psychiatrists, OBGYN's and Anesthesiologists were also present. As a means of warming members up to the discussion topics and establishing a rapport between participants and the facilitator, physicians were asked to share something about what led them to practice medicine in the state of Florida. Several members cited a warm climate and a relaxed lifestyle as motivating factors for locating themselves in the state, while others indicated that they had family in the community or in surrounding areas.

Given that a large percent of survey respondents indicated that they neither attended medical school nor completed their residency in the state of Florida, focus group participants were invited to expand upon the reasons they had made the decision to practice in Florida and in Lake County as opposed to another area. Again, many cited family ties as a strong force in their lives impacting their decision to live in the state in general and in Lake County in particular. Additionally, several participants commented on the allure of the somewhat less urban environment. They associated the more urban areas of the state and of the nation with complex and often undesirable professional and personal dynamics that they wished to avoid. Some of the participants discussed Lake County's proximity to the Orlando and Tampa metro regions in a positive way, noting that those aspects of urban life that they do find desirable are certainly not off limits. A smaller number of participants commented on the pleasant climate in Florida (Hurricane season notwithstanding), and explained that the same kinds of factors that tend to drive population growth overall tend to drive growth in the physician population. Finally, several focus group participants cited the positive economic landscape in central Florida as a reason to remain in the community for the long term.

Disincentives to Practice Medicine in Lake County

In accordance with the finding in the survey results that a large percentage of physician respondents intend to discontinue their medical practice at or before the year 2020, focus group participants were asked about the main reasons, apart from retirement, for ending their practice in Lake County. Among the various responses, the reason that was cited with the most frequency was stress, and/or frustration with the healthcare system overall. Specifically, several participants described their disdain for a system that favors the rights of health insurance providers and pharmaceutical companies over the rights of patients and physicians. In relation to stress/frustration, several participants discussed low rates of reimbursement from public forms of insurance, and working with low income/indigent patients as causative factors. In addition to this, a number of physicians described their difficulties in referring patients with specific health issues to specialists due to either a lack of manpower in that particular specialty, or a lack of specialists willing to accept a patient's form of insurance. Several physicians framed these issues as being ubiquitous in Lake County.

Other reasons to discontinue the practice of medicine in Lake County included: a poor school system for their children, the cost of liability insurance, rapid population growth, the burden of dealing with managed care, and evolving physician work patterns. Of note: one physician described younger doctors entering the field as "very different" from the older generation in that lifestyle issues and "bene's" or benefits, are of paramount importance. Another physician buttressed this comment by observing that in general, younger physicians prefer to work fewer hours over the course of fewer years than their older colleagues. Finally, proximity to urban areas like Orlando and Tampa were cited as a reason for physicians to leave the practice of medicine in Lake County. While participants had previously referred to Lake County's location within Florida in a positive way, they added that while everything they needed was relatively close by, it was distant enough to be inconvenient. That is, while Orlando is within driving distance, it is a burden to actually drive there. As will be seen throughout the course of the groups, "proximity" was continuously referred to in positive and negative terms.

Incentives to Practice Medicine in Lake County

After discussing the various causes for leaving the practice of medicine in Lake County prematurely, participants were invited to talk about the types of incentives that would encourage them and their colleagues to continue practicing medicine in the area for the duration of their careers. While physicians cited many reasons to remain in the community, they hastened to add that those reasons were disappearing. For example, one physician noted that those characteristics of a small town life that have drawn many doctors to Lake County are starting to disappear, and the reason for this was unchecked population growth. At the same time, several physicians discussed their desire to remain in the community to grow their practice in the coming years. Once again, some physicians noted "proximity" to larger metropolitan areas as a key incentive to remain in Lake County while others framed it as a problem insofar as commuting times to these locations are too lengthy to make them beneficial. Thus, no consensus emerged regarding the driving forces behind the in- and out-migration of the physician population in Lake County.

Reimbursement

Since a substantial percentage of physicians who responded to the survey indicated that they no longer accept patients whose primary form of payment is Medicaid, focus group participants were asked to discuss the various problems that they encounter in dealing with different payor sources. Like survey respondents, many focus group participants zeroed in on Medicaid as a problematic reimbursement system. Most often, they cited Medicaid prescription formularies as an obstacle to treating their patients. Several physicians indicated that the formularies conflicted with their clinical judgment and unnecessarily limited their options for treating their patients. One physician described the experience of prescribing drugs that were initially covered under a formulary and then subsequently changed. The physician went on to explain the dangers inherent to changing a patient's medications, especially medications intended to treat mental illness.

Another issue for focus group participants regarding Medicaid was referrals. Several participants described the difficulties they have faced in referring patients with Medicaid. Often, they explained, various types of specialists are in short supply and those that are accepting patients prefer not to be bothered with the bureaucratic hassles of dealing with Medicaid patients. In this scenario, it was explained, it becomes necessary to refer patients to physicians in other counties, which is only an adequate solution if the patient has the time and access to transportation, which may or may not be the case, depending on the patient.

Apart from difficulties with referrals, several focus group participants discussed Medicaid recipients themselves as being challenging. They noted that Medicaid patients are at a socioeconomic disadvantage, are not empowered to make healthy choices, and as a result, often suffer from co-occurring disorders that the system is not set up to handle. One participant observed: "If you have an alcoholic schizophrenic, do you send them to a psych bed or a substance abuse bed? That is important because it determines the kind of treatment the Medicaid formulary will allow you to administer." Another physician added that Medicaid patients are more likely than other patients to be rude, disrespectful, and non-compliant.

While much attention was focused on Medicaid in the course of the discussion, several physicians noted that similar problems exist with other types of reimbursement. One physician described difficulties with VA/Tricare insurance that tends to emphasize treatment over prevention, tertiary care over primary care. Another physician equated "self-pay" with "no-pay". A common thread to all of the comments and observations was that all forms of reimbursement, public and private, contribute to a loss of autonomy for both patients and physicians. Along these lines, one participant commented that overall, the reimbursement system poses a threat to the personal as well as professional ethics of physicians.

Barriers to Healthcare

When asked to elaborate on the biggest barriers to providing healthcare that physicians in Lake County face, focus group participants generally emphasized: access, education, individual behavior/non-compliance, and lack of service coordination. In terms of "access", several physicians discussed uninsurance and underinsurance and expressed their interest in single payor health insurance at the national level, suggesting that it is a much-needed reform. Other participants framed "access" as a lack of physicians practicing in key specialties in the county. They suggested that without an adequate number of physicians, health insurance coverage for everyone would be ineffective. Several other participants discussed "access" in terms of insufficient infrastructure. They indicated that a robust physician workforce and universally available health insurance also requires a significant investment in the infrastructure to support it.

With regard to "individual behavior/non-compliance", a number of participants commented that this barrier is partially due to a lack of emphasis on prevention in medicine. Some physicians discussed the need to "prevent" through "education". However participants hastened to echo comments made earlier with regard to reimbursement sources, that the system overall is geared towards tertiary, rather than preventive medicine.

Threatened Services

Focus group participants were subsequently asked to share their views on whether or not specific healthcare services were in jeopardy due to a decrease in reimbursement rates or an increase in liability insurance rates. Several participants indicated that all private practice medicine in the county is in danger because the costs associated with doing business are too high. One physician observed that the only way for private practitioners to stay in business is to accept cash only. A number of other physicians discussed OBGYN services as being threatened due to costs and liability associated with it. Pediatrics was further identified as a service under threat for the same reasons as

OBGYN. Finally, several physicians said that they believe virtually all services are in danger due to a shortage of nurses.

Physician Shortages

Since over half of the physicians who responded to the survey indicated that they believe there is either a current or potential future shortage of doctors in: Dermatology, Endocrinology, Neurology, Obstetrics and Gynecology, Psychiatry, and Rheumatology, focus group participants were asked to share their thoughts on various specialty shortages in Lake County and why those shortages exist, or are likely to exist in the future. In addition to the above mentioned specialties, focus group participants further noted possible shortages in: Nephrology, Urology, General Surgery, and all types of primary care. When asked to account for shortages, several physicians noted that it was not the number of specialists per se, but rather the distribution of those specialists throughout the area and throughout the field of medicine. They discussed the idea that specialty care attracts more physicians than primary care, because specialists tend to command higher incomes than generalists. At least one participant went on to observe that the trend in medicine was toward "sub-specialization" whereby physicians further restrict their practice to only the most lucrative procedures that carry a minimal risk of liability. Another focus group participant framed the proliferation of sub-specialties as problematic because fewer primary care physicians translates into less supervision of allied health professionals in general care.

Apart from their observations about the movement towards specialty care as opposed to primary care, focus group participants also discussed why some specialties may be more attractive to young physicians than others. For example, a number of participants indicated that Cardiology is a "comfortable" specialty because so much of it is reimbursed by Medicare, and can be "outsourced" to allied health professionals. One physician explained that while there are many Cardiologists in Lake County, the specialty has been subjected to increasing fragmentation, or sub-specialization, and that some Cardiologists decline to perform certain types of procedures because of the risk associated with them. Thus, while the number of Cardiologists may be increasing, the availability of care may simultaneously be decreasing.

Next, focus group participants were asked to identify the main barriers, if any, to pursuing a career in medicine. While a number of physicians emphasized the cost of education and the cost of liability insurance, others discussed their relationships with their patients. Several physicians explained that doctors are no longer respected as professionals, but rather, seen as potential targets. Others remarked that their patients' view of healthcare has evolved, such that they regard it as they do other customer service industries: with disdain, and at times, even contempt. One participant described patients as being "angry", "frustrated", "tense", and "combative". Another participant noted that while the frustration was a result of patients' encounters with the overall healthcare system, physicians often bare the brunt of that frustration.

Policy Recommendations

When asked what specific policy changes or changes to the overall healthcare landscape in Lake County would foster a robust physician workforce and alleviate future shortages, physicians discussed their ideas for public healthcare and private healthcare. With respect to the public sector, several physicians commented that they believe public healthcare funds are not used to advantage and they suggested an overall reevaluation of how those funds are allocated. With regard to private healthcare, several participants noted that the profit motive tends to emphasize treatment rather than prevention, often times to the detriment of patients.

Physicians discussed the pros and cons of having a residency program in the county. While some felt that it would definitely benefit recruitment and retention efforts in the community, others pointed out that it would be logistically complex and possibly unsustainable. Several participants noted that residents often decide to remain close to the site of their residency, while others countered that affordable housing for recent medical graduates was scarce. One physician suggested that no medical resident would want to remain in Lake County after observing what local physicians have to contend with on a daily basis. Another physician commented that a residency program in Lake County would probably not succeed because medical schools do not emphasize primary care, which is what the community is most in need of in the long term.

Other suggestions for improving the healthcare landscape in Lake County included: subsidizing underrepresented specialties, improving public schools, and improving public transportation. One physician suggested that the healthcare system would improve greatly if the benefits afforded through the county's HPSA designations were available throughout Lake County and not limited to specific facilities and population groups.

Having made these suggestions on how to improve healthcare in Lake County, physicians were then asked to identify specific groups, organizations, and institutions that they feel are the most responsible for fostering and maintaining an adequate physician workforce in the area. Again, participants identified a number of private and public organizations and institutions including: county government and local hospitals, the Florida legislature and the governor's office. One physician suggested that local hospitals should reinvest some portion of their revenue in indigent care, thereby relieving some of the burden of uncompensated care on physicians. Another physician suggested that hospitals need to redouble their efforts with respect to recruitment and retention.

With respect to the county, one physician commented that: "Lake County does not do a very good job of marketing itself. When it comes to importing physicians from other areas, there is definitely room for improvement." A number of other focus group participants noted that healthcare policy has not been on the radar of the county commission for some time and that some of the efforts that are currently directed towards fostering overall economic growth could also help to foster growth in healthcare. Moreover, one physician intimated that county and state governments should play a larger role in defining and articulating basic values in healthcare, which is an important

step in fostering an equitable distribution of physicians. One physician observed that: "just the same as any other business regulation, government needs to incentivize the development of infrastructure, and insist on more accountability for public funds."

Summary of Key Findings

- The majority of physicians who participated in the focus groups were Family Medicine and Internal Medicine physicians. The specialties that were represented included: Anesthesiology, Psychiatry, and Obstetrics and Gynecology.
- When discussing disincentives for continuing their medical practice in Lake County, focus group participants cited: stress and frustration, a poor public school system for their children, reimbursement rates, population growth, and proximity to urban centers as driving forces.
- Among the incentives to continue the practice medicine in Lake County, focus group participants discussed: lifestyle, climate, and also proximity to urban centers as driving forces.
- With respect to Medicaid, focus group participants cited: low reimbursement, high overhead, difficulty with referrals, and patient non-compliance as major obstacles to the provision of care.
- Participants identified Pediatrics and Obstetrics and Gynecology as healthcare services that are in peril in Lake County due to decreases in reimbursement and/or increases in liability insurance.
- When discussing potential physician shortages in the community, focus group participants emphasized that the distribution of specialists was as important as the actual number of specialists.
- Among the disincentives for pursuing a career in medicine, focus group participants discussed the cost of medical education and the cost of liability insurance.
- With respect to policy changes that could improve the healthcare landscape in Lake County, focus group participants discussed improving public transportation, improving public schools, subsidizing underrepresented specialties, and placing more emphasis on prevention as opposed to treatment.
- The institutions and organizations that focus group participants identified as being responsible for maintaining an adequate physician workforce in the county included: local hospitals, county government, and state government.