Benefits of Healthcare to a Community

Access to healthcare is an integral part of any community. Healthcare facilities and services bring a number of benefits to a community. The primary benefit is the availability of quality services to meet the healthcare needs of your citizens. Important economic development benefits include:

- Attraction of new business and industry
- Stop the out-migration of existing businesses and industry
- Increase tax revenues
- Job creation
- Stimulate the local economy through direct, indirect, and induced spending
- Increase the quality of life for a community's residents

One major component of any community's economic development effort is a viable healthcare delivery system. Healthcare services are needed to attract new industry, stop the out-migration of existing industry, and increase tax revenues. Few employers are willing to locate in an area where their employees will not have access to healthcare facilities and qualified medical staff. Additionally, healthcare facilities are often the largest purchasers of labor, goods, and services in a community.

The economic impact of healthcare facilities back to communities can be felt through direct, indirect, and induced spending. Direct spending comes in the form of labor, food, office supplies, utilities and other goods, and services consumed directly by the healthcare facility.

The indirect impact healthcare services have on a community come in the form of additional medical businesses that compliment one another such as: physicians' offices, retail pharmacies, nursing homes, and medical equipment rental and retail outlets. Indirect spending also benefits nonmedical businesses such as restaurants and motels that cater to patients and their families.

Healthcare facilities and services also generate an induced spending effect. Induced spending can be described as the amount spent by employees of the healthcare facility in the community. Induced spending can stimulate additional spending by local businesses, employees of local businesses, and increase local employment.

In addition to the economic benefits healthcare facilities and services bring a local community, perhaps the most important benefit is the positive impact they have to a community's quality of life and social structure.

Executive Summary

Buxton® has studied the healthcare demand and supply levels of Cameron Park in comparison to Medical Group Management Association (MGMA) average physician service levels and relevant benchmark cities to aid Cameron Park in understanding current healthcare demand and supply and identify potential needs that are not met by existing healthcare infrastructure. The objectives were as follows:

Objectives

- To determine benchmarks for comparison against Cameron Park.
  - Macro benchmark (compared to the State of CA)
  - Micro benchmark (compared to 20 similar cities)
- To compare Cameron Park to the benchmarks based on the following:
  - Major Specialty Categories
    - Estimated visits (2008)
    - Projected visits (2013)
    - Projected visits Growth Rate (2008-2013)
    - Physicians
  - Hospitals
- To compare Cameron Park to optimal service levels to identify potential needs

Key Findings

The table below identifies the Surplus / Shortage levels by specialty for Cameron Park as compared to the optimal service levels (based on MGMA median annual visits per physician) and the Surplus / Shortage levels of hospital beds as outlined within the report.

Category	2008	2013
Cardiovascular Disease	Shortage	Shortage
Dermatology	Optimal	Optimal
General Surgery	Shortage	Shortage
General & Family Medicine	Surplus	Surplus
Internal Medicine	Shortage	Shortage
Neurology	Shortage	Shortage
Obstetrics & Gynecology	Shortage	Shortage
Oncology	Surplus	Surplus
Ophthalmology	Shortage	Shortage
Orthopedic Surgery	Shortage	Shortage
Otolaryngology	Shortage	Shortage
Pediatric	Optimal	Optimal
Psychology	Surplus	Surplus
Urology	Surplus	Surplus
Hospital Beds	Shortage	Shortage

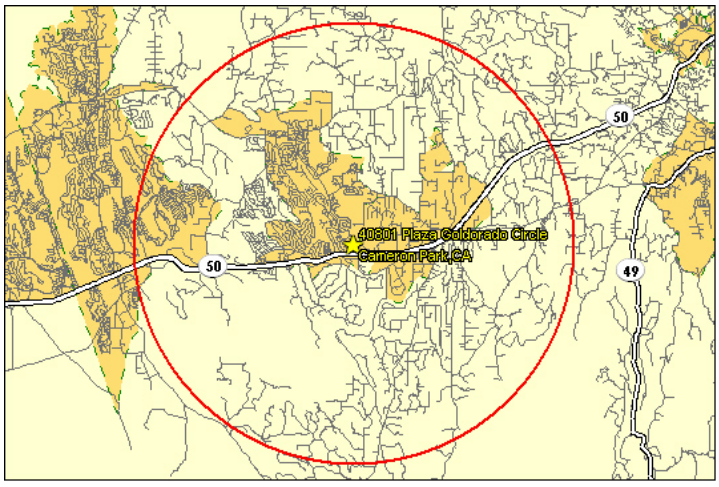
Recommendations

In order to offer healthcare services at average levels, Cameron Park should seek to increase access to more physicians for all Major Specialty Categories except Dermatology, General & Family Medicine, Oncology, Psychology, and Urology. Of particular concern should be Obstetrics & Gynecology, Internal Medicine and Orthopedic Surgery physicians because Cameron Park is short at least two Full-Time Equivalent (FTE) physicians from optimal levels.

Additionally, it has been identified that Cameron Park is currently experiencing a shortage of hospital beds of 67 staffed hospital beds that is expected to increase to 81 over five years.

Cameron Park Primary Health Services Area

Cameron Park's Primary Health Services area is the geographic boundary containing the vast majority of the population and healthcare providers relevant to Cameron Park's healthcare needs. The Primary Health Services area for Cameron Park was determined to be a 5-mile radius from the site.



This area, depicted to the right, covers Cameron Park and the surrounding area to ensure that all factors influencing the demand and supply for health services in Cameron Park are accounted for. Shortage / Surplus estimates are provided for this entire area with a shortage indicating that the population is likely seeking services outside of the area for a particular category.

Cameron Park Current State

This same service area exhibits the following healthcare characteristics:

- Estimated annual visits to a physician by residents: 96,501
- Five-year projected visits growth rate: 15.7%
- Estimated annual days spent in a hospital: 24,382
- Five-year projected days spent in a hospital growth rate: 21.8%
- 0 staffed hospital beds

Methodology

Benchmark Cities

In order to analyze how Cameron Park ranks in health services and demands compared to other cities of the same size, a group of similar cities were selected. These similar cities were determined using the following steps:

- The following demographic characteristics (measured within five miles) of Cameron Park were compared to all other cities within 500 miles of Cameron Park:
  - Residential Population
  - Employee Population
  - Population Growth
  - Median Age
  - Household Income
- The Buxton Urban Density System (BUDS) is a measure of population density that describes the range between highly urban and highly rural areas. Population density is described by the following BUDS classifications:

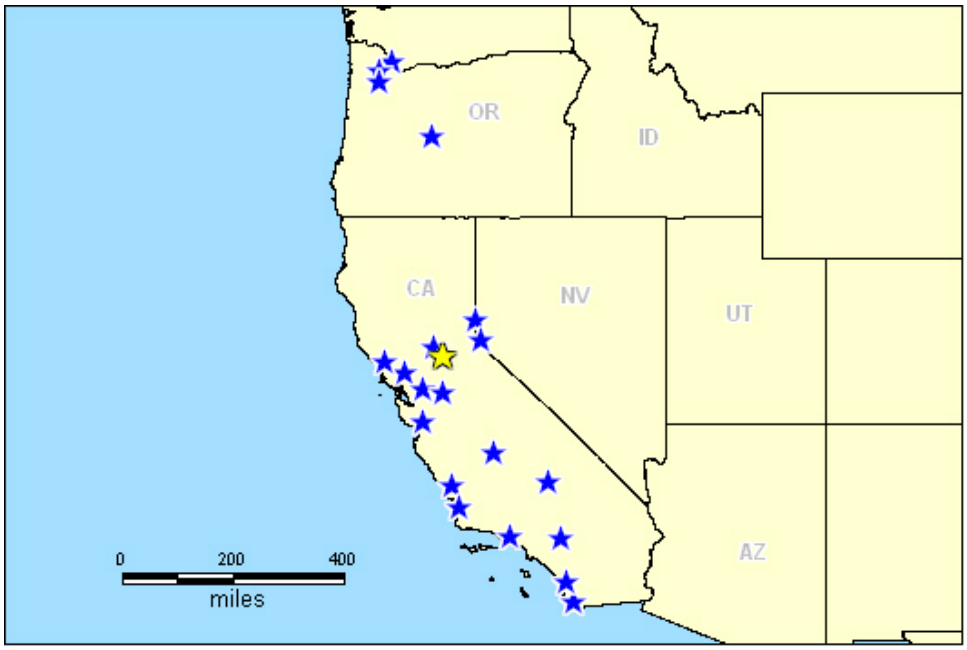
BUDS	Definition
1	Rural
2	In-Town
3	Suburban
4	Metropolitan
5	Urban

- Cameron Park is classified as an In-Town community. Cities must fall within one BUDS classification of Cameron Park to be included as benchmark cities so only cities classified as Rural, In-Town, or Suburban were considered in the analysis.

The chart below shows the 20 cities near Cameron Park chosen based on the criteria above. The selection demographics within 5 miles of each similar city's center point are shown as well as the average demographics for the twenty similar cities. Going forward the similar city average will be used for all "benchmark city" comparisons.

City	Population	Employment	Population Growth	Median Income	Median Age
Green Valley, CA	24,726	10,542	15.9%	$90,996	41.3
Dollar Corner, WA	48,281	13,002	16.9%	$70,103	37.7
Byron, CA	22,836	4,257	20.0%	$99,256	38.1
Goshen, CA	24,856	14,760	15.6%	$69,607	36.4
Verdi-Mogul, NV	24,717	3,993	21.3%	$79,432	37.2
Escalon, CA	30,392	7,782	13.4%	$67,363	36.9
Crestline, CA	23,137	1,242	11.5%	$69,821	35.9
North Plains, OR	25,726	7,645	7.5%	$72,763	37.5
Jamul, CA	30,549	6,747	4.9%	$92,188	40.1
Newberg, OR	34,219	11,246	10.0%	$64,352	35.7
Hidden Meadows, CA	29,811	4,824	5.8%	$79,541	44.6
Moorpark, CA	60,863	28,259	6.5%	$97,669	36.0
Windsor, CA	42,076	18,719	3.7%	$75,307	38.8
Indian Hills, NV	24,725	11,123	6.5%	$64,383	44.1
San Martin, CA	61,232	21,881	4.2%	$101,599	38.3
Lincoln, CA	61,714	11,809	28.1%	$94,999	36.2
Templeton, CA	29,023	9,628	5.4%	$58,776	39.3
Nipomo, CA	31,674	5,174	6.2%	$57,824	34.4
Deschutes River Woods, OR	38,890	16,324	20.3%	$49,751	37.2
Ridgecrest, CA	30,242	9,915	5.0%	$55,935	37.0
Benchmark Average	**34,984**	**10,944**	**11.4%**	**$75,583**	**38.1**
Cameron Park, CA	**43,633**	**11,102**	**14.9%**	**$87,681**	**39.0**

The map below shows Cameron Park in yellow and the selected benchmark cities in blue.



Data

The following sets of information were utilized in the analysis:

- **Healthcare Demand Data**: Buxton utilizes the following data sets to measure demand for specific health services by the population of a given geography.
    - Major Specialty Categories (estimated visits) – This database consists of estimated Physician Office visits by the 14 major specialty categories offering estimated (current) and projected (five-year) ambulatory visits (office visits) to a physician for a medical need. The dataset is based on the National Ambulatory Medical Care Survey compiled by the National Center for Health Statistics and adjusted for 15 age and sex groupings by major US Census Regions.
    - Hospital Discharges and Length of Stay – This database consists of the number of estimated (current) and projected (five-year) hospital discharges and days spent in a hospital. The dataset is based on the National Hospital Discharge Survey compiled by the National Center for Health Statistics and adjusted for 15 age and sex groupings by major US Census Regions.
- **Healthcare Supply Data**: Buxton utilizes the following data sets to measure the available supply of hospitals and physicians to meet the demand for health services of a given geography.
    - Physicians Data – This database consists of physicians by the 14 Major Specialty Categories. Full-Time Equivalent (FTE) physician metrics are based on the total number of practice locations for each physician. A physician's primary practice location is given the highest weighting with all other locations receiving equal parts of the remainder.
    - Hospital Data – This database consists of hospitals registered in the American Hospital Association (AHA).

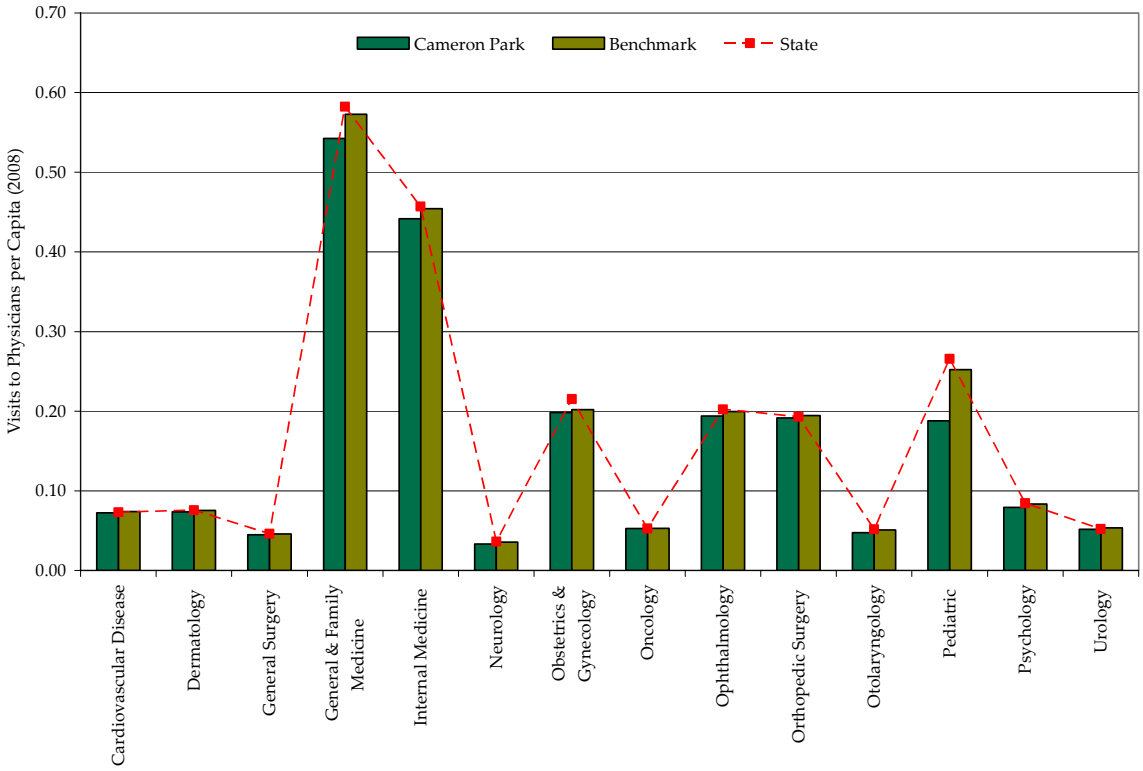
The following sets of information are calculated values utilized in the analysis:

- **Physicians per 100,000 visits**: This is a calculated value derived from the Major Specialty Categories in the Demand (estimated visits) and Supply data (physicians) sets. The value is calculated by dividing the total number of physicians for a given major specialty whose practice falls within a given geography by the total number of visits within the same category and geography and multiplying by 100,000. Buxton utilizes the resulting value as a measure of the saturation level for each specialty within a given geography.
- **Optimal FTE physicians per 100,000 visits**: This is a calculated value derived from the Medical Group Management Association (MGMA) median physician service levels listed in the table below. The value is calculated by inverting the MGMA median annual visits per FTE physician and multiplying by 100,000. Buxton utilizes both values when measuring physician shortage / surplus for each specialty within a given geography.

Estimated visits

The chart and graph below provide the estimated number of visits to physicians by category for Cameron Park and the number of visits per capita for Cameron Park, the average benchmark city, and the state.

		Estimated Visits per Capita (2008)		
Major Specialty Category	Cameron Park Visits 2008	Cameron Park	Benchmark	State
Cardiovascular Disease	3,160	0.07	0.07	0.07
Dermatology	3,210	0.07	0.08	0.08
General Surgery	1,965	0.05	0.05	0.05
General & Family Medicine	23,677	0.54	0.57	0.58
Internal Medicine	19,278	0.44	0.45	0.46
Neurology	1,446	0.03	0.04	0.04
Obstetrics & Gynecology	8,653	0.20	0.20	0.22
Oncology	2,295	0.05	0.05	0.05
Ophthalmology	8,467	0.19	0.20	0.20
Orthopedic Surgery	8,354	0.19	0.19	0.19
Otolaryngology	2,071	0.05	0.05	0.05
Pediatric	8,207	0.19	0.25	0.27
Psychology	3,456	0.08	0.08	0.08
Urology	2,261	0.05	0.05	0.05



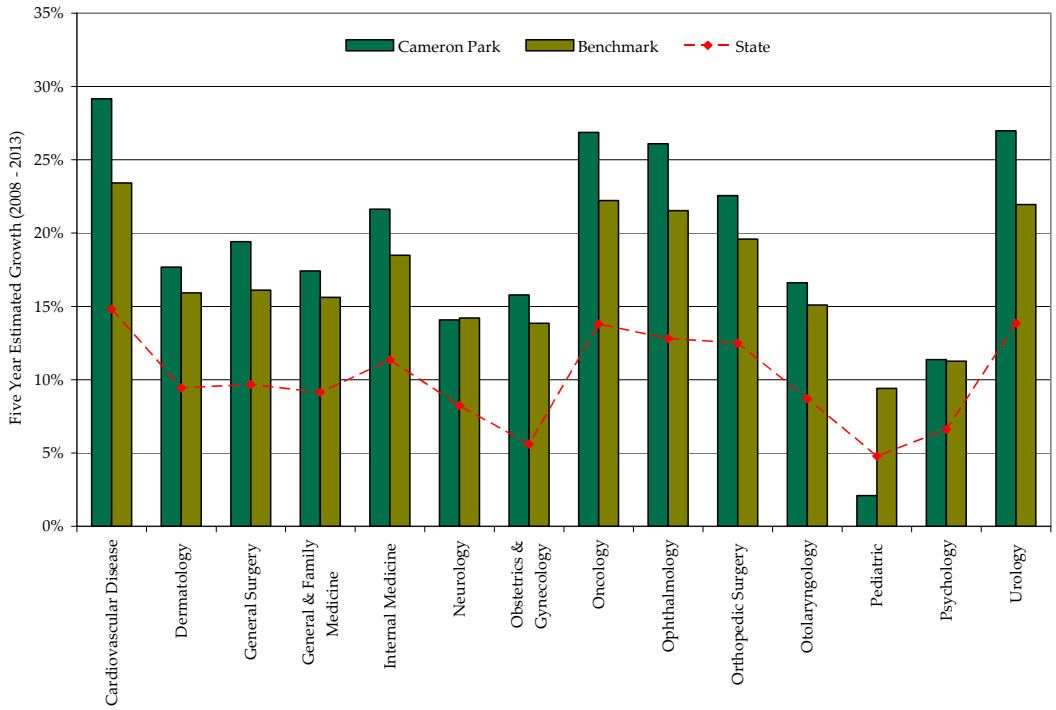
For example, under the General & Family Medicine category, Cameron Park is estimated to have 23,677 yearly visits to physicians or 0.54 visits per capita. The average benchmark city is estimated to have 0.57 visits per capita and the state is estimated to have 0.58 visits per capita. Notice that Cameron Park is expected to experience fewer visits to General & Family Medicine physicians per capita than both the average benchmark city and the state.

Five Year Projected visits Growth

The chart and graph below provide the estimated 2013 visits for Cameron Park and the five-year projected growth rate for Cameron Park, the average growth rate for the benchmark cities, and the state growth rate by category.

		Estimated Visits Growth Percentage (2008 2013)		
Major Specialty Category	Cameron Park Visits (2013)	Cameron Park	Benchmark	State
Cardiovascular Disease	4,082	29%	23%	15%
Dermatology	3,778	18%	16%	9%
General Surgery	2,347	19%	16%	10%
General & Family Medicine	27,801	17%	16%	9%
Internal Medicine	23,450	22%	18%	11%
Neurology	1,650	14%	14%	8%
Obstetrics & Gynecology	10,019	16%	14%	6%
Oncology	2,911	27%	22%	14%
Ophthalmology	10,677	26%	22%	13%
Orthopedic Surgery	10,239	23%	20%	12%
Otolaryngology	2,415	17%	15%	9%
Pediatric	8,378	2%	9%	5%
Psychology	3,849	11%	11%	7%
Urology	2,871	27%	22%	14%

For example, from 2008 to 2013, Internal Medicine visits in Cameron Park are expected to grow 22% to 23,450 out pacing the average benchmark city (18%) and the state (11%).

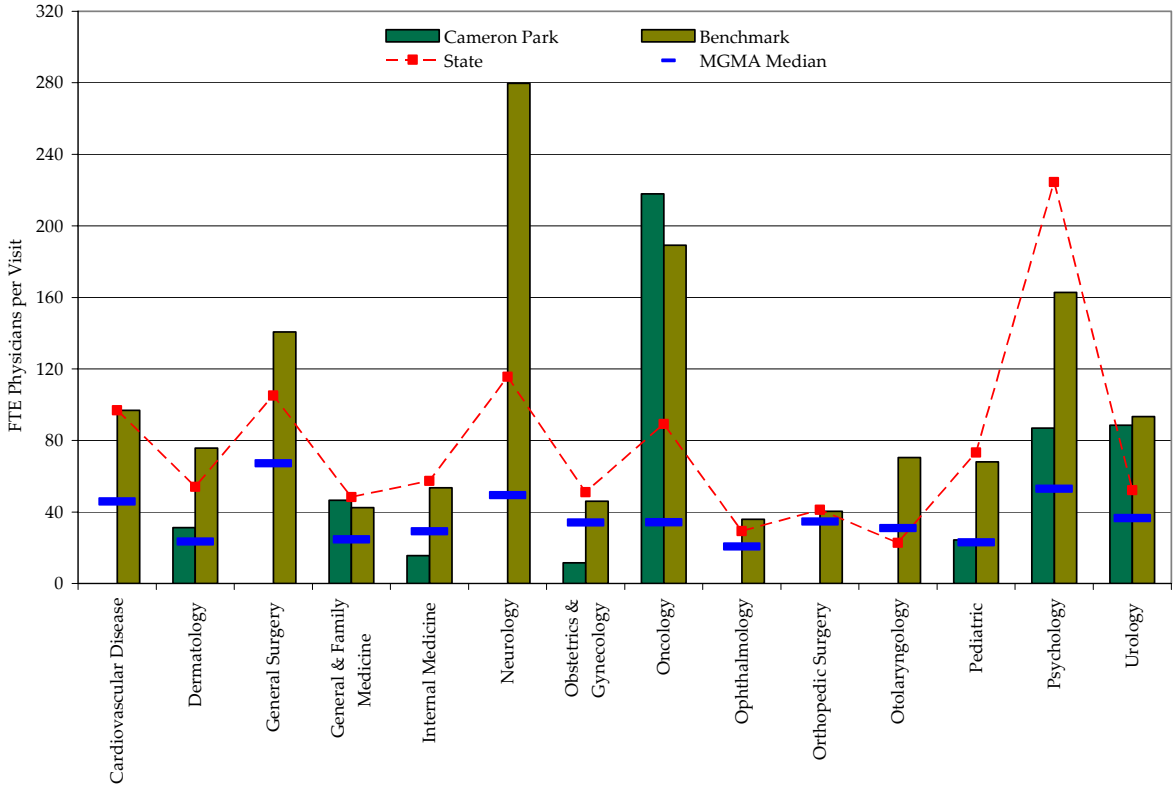


Full-Time Equivalent Physician Service Levels

The chart and graph below provide the Full-Time Equivalent (FTE) Physicians per 100,000 visits for Cameron Park, the average benchmark city, and the state by category and the optimal level derived from the MGMA median annual visits per physician for each category.

FTE Physicians per 100,000 Visits (2008)

Major Specialty Category	Cameron Park Physicians	Cameron Park FTE Physicians	Cameron Park	Benchmark	State	MGMA Median
Cardiovascular Disease	0	0.00	0	97	97	46
Dermatology	1	1.00	31	76	54	23
General Surgery	0	0.00	0	141	105	67
General & Family Medicine	11	11.00	46	42	48	25
Internal Medicine	3	3.00	16	53	57	29
Neurology	0	0.00	0	280	116	49
Obstetrics & Gynecology	1	1.00	12	46	51	34
Oncology	5	5.00	218	189	89	34
Ophthalmology	0	0.00	0	36	29	21
Orthopedic Surgery	0	0.00	0	40	41	35
Otolaryngology	0	0.00	0	70	23	31
Pediatric	2	2.00	24	68	73	23
Psychology	3	3.00	87	163	224	53
Urology	2	2.00	88	93	52	37



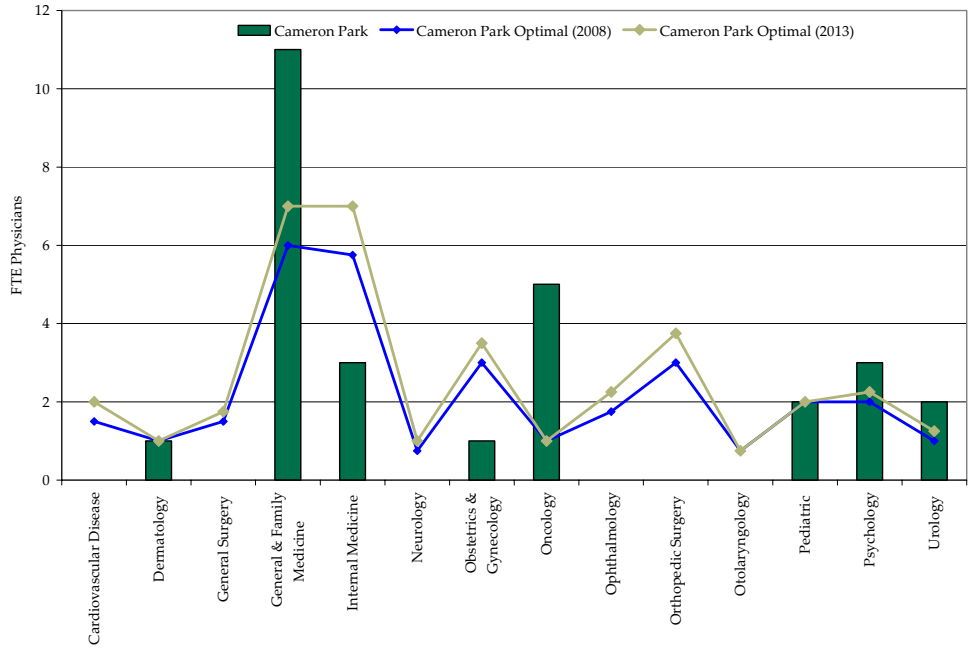
For example, for the Obstetrics & Gynecology Medicine category, Cameron Park currently has 1 physician with an estimated FTE of 1.00. This equates to an estimated 12 FTE physicians per 100,000 visits, the average benchmark city is estimated to have 46 FTE physicians per 100,000 visits, the state is estimated to have 51 FTE physicians per 100,000 visits, and the MGMA average is 34 FTE physicians per 100,000 visits. Notice that Cameron Park falls far short of the average benchmark city, the state, and the MGMA median.

Optimal Full-Time Equivalent Physician Levels

Using the MGMA median annual visits per physician, the estimated (2008) visits and projected (2013) visits for Cameron Park, Buxton has projected the number of FTE physicians needed to reach optimal levels for Cameron Park. The chart below provides the current FTE physicians for Cameron Park, the optimal FTE physicians for Cameron Park based on 2008 and 2013 estimated visits, and the estimated (2008) and projected (2013) surplus/shortage FTE physicians for Cameron Park by category.

Major Specialty Category	Cameron Park Current FTE Physicians	Cameron Park City Optimal (2008)	Surplus / Shortage (2008)	Cameron Park City Optimal (2013)	Surplus / Shortage (2013)
Cardiovascular Disease	0.00	1.50	1.50	2.00	2.00
Dermatology	1.00	1.00	Optimal	1.00	Optimal
General Surgery	0.00	1.50	1.50	1.75	1.75
General & Family Medicine	11.00	6.00	5.00	7.00	4.00
Internal Medicine	3.00	5.75	2.75	7.00	4.00
Neurology	0.00	0.75	0.75	1.00	1.00
Obstetrics & Gynecology	1.00	3.00	2.00	3.50	2.50
Oncology	5.00	1.00	4.00	1.00	4.00
Ophthalmology	0.00	1.75	1.75	2.25	2.25
Orthopedic Surgery	0.00	3.00	3.00	3.75	3.75
Otolaryngology	0.00	0.75	0.75	0.75	0.75
Pediatric	2.00	2.00	Optimal	2.00	Optimal
Psychology	3.00	2.00	1.00	2.25	0.75
Urology	2.00	1.00	1.00	1.25	0.75

For example, for the General & Family Medicine category, Cameron Park's estimated (2008) optimal level is 6.00 FTE physicians and projected (2013) optimal level is 7.0. Currently there are 11.00 FTE physicians for a current surplus of 5.00 FTE physicians that is projected to decrease to a shortage of 4.00 FTE physicians by 2013.



Hospital Capacity

There are currently no hospitals located within the primary health services area for Cameron Park.

The chart below provides the total number of hospital beds, estimated (2008) and projected (2013) number of days spent in a hospital by the population of Cameron Park, and the projected (2008-2013) days spent in a hospital growth percentage.

Variable	Cameron Park	Benchmark	State
Hospital Beds (2008)	0	19	95,120
Estimated Days Spent in Hospital (2008)	24,382	18,877	19,973,943
Estimated Days Spent in Hospital per Capita (2008)	0.56	0.54	0.54
Projected Growth Percentage (2008-2013)	21.8%	16.7%	10.1%
Years spent in Hospital per Hospital Bed (2008)	0.00	2.71	0.58
Years spent in Hospital per Hospital Bed (2013)	0.00	3.16	0.63

Assuming each hospital bed can, at best, treat one patient per day, a hospital's maximum capacity is equal to the number of beds multiplied by the number of days in a year. Based on this assumption, the minimum number of hospital beds required to provide adequate services is the Estimated Days Spent in a Hospital divided by 365 (the number of days in a year) – a relatively conservative assumption considering an area at this capacity would have every hospital bed occupied every day of the year if the population sought treatment only at Cameron Park hospitals.

Based on Cameron Park's 65,497 estimated (2008) days spent in a hospital, the minimum number of beds needed is 67. In 2013, the minimum number is expected to increase to 81. Currently there are 0 hospital beds available – putting Cameron Park far below the minimum number of hospital beds.