

# An Analysis of the Demand for Primary Care Physicians in the Marietta, Oklahoma, Medical Service Area



Rural Development  
Oklahoma Cooperative Extension Service  
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in the Marietta, Oklahoma, Medical Service Area**

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## Introduction

This report will examine the need for primary care physicians in the Marietta, Oklahoma, Medical Service Area. Primary care physicians include internal medicine physicians, family practitioners, obstetrics-gynecologists, and pediatricians. Specifically, the study will:

1. Determine the medical service area and population;
2. Estimate primary care physician office visits; and
3. Estimate the total demand for primary care physicians in the medical service area.

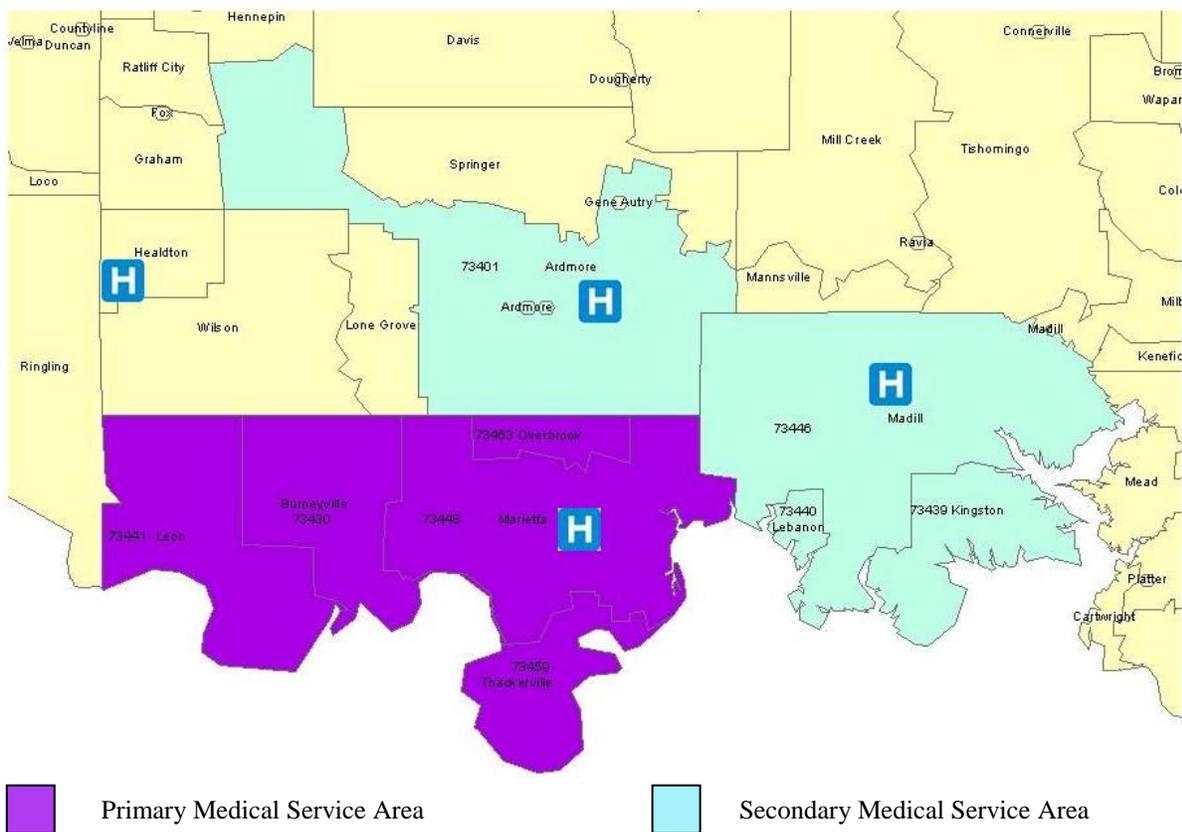
No recommendations will be made. The information included in this report is designed to assist local decision-makers in assessing the need and potential for primary care physician services.

## Determining Need for Primary Care Physicians in the Marietta, Oklahoma, Medical Service Area

In order to estimate the number of visits to primary care physicians in Marietta, the medical service area was delineated as shown in **Figure 1**. To determine the medical service area, a number of factors were taken into consideration, including the proximity of physician practices in nearby cities and the travel distances faced by residents of nearby communities. In particular, existing physician practices in the surrounding communities, (Ardmore, Healdton, Madill) likely draw residents of those nearby communities. Therefore, the primary medical service area for Marietta includes the areas of Marietta, Thackerville, Leon, and the remainder of Love County. The secondary medical service area is comprised of Ardmore, Madill and Kingston since there is the possibility that some individuals in these towns will choose to go to Marietta for their physician needs. The 2010 Census population of the primary medical service

area was 9,423 as shown in **Table 1**. The 2010 Census secondary medical area population totals to 29,654. This yields a total population of 39,077 for both the primary and secondary service areas.

**Figure 1. Mercy Health/Love County Hospital and Clinic Primary and Secondary Medical Service Area**



City	County	Hospital	No. of Beds
Marietta	Love	Mercy Health/Love County	25
Ardmore	Carter	Mercy Memorial Health Center	166
Healdton	Carter	Healdton Municipal Hospital	25
Madill	Marshall	INTEGRIS Marshall County Medical Center	25

Table 1  
Marietta Oklahoma Medical Service Area Population

	2010 Census Population
<b>Primary Medical Service Area</b>	
Marietta	2,626
Thackerville	445
Leon	91
Remainder of Love County	<u>6,261</u>
Total Primary Medical Service Area	9,423
<b>Secondary Medical Service Area</b>	
Ardmore	24,283
Madill	3,770
Kingston	<u>1,601</u>
Total Secondary Medical Service Area	29,654
Total Medical Service Area	39,077

The number of physician office visits generated in the Marietta, Oklahoma service area was estimated using the service area population data and research on the number of annual physician office visits for specified age groups [1, 2, 3]. Age group breakouts (by gender) and their corresponding number of annual physician office visits are presented in **Table 2**. For instance, for males under age 15, the average number of physician office visits is 2.5 visits per year [3]. Males between 15 and 24, however; make only 1.1 visits per year. Similar estimates are applied to other age groups to derive the total number of physician office visits occurring in the Marietta medical service area. Residents in the primary medical service area were estimated to make 32,315 total physician office visits per year, while residents of the secondary medical service area were estimated to visit physicians 99,549 times annually (**Table 2**). Of these total physician office visits, recent data indicates that 60.5 percent will be made to physicians active in primary patient care while the remainder will be made to specialists [3]. Using the data presented in **Table 2**, the primary medical service area will generate 19,551 primary care physician visits (60.5% x 32,315), and the secondary medical service area will generate 60,227

visits (60.5% x 99,549) yielding a total of 79,778 local primary care physician visits per year for the total medical service area.

**Table 2**  
**Annual Primary Care Physician Office Visits Generated in the**  
**Marietta, Oklahoma, Medical Service Areas**

<b>PRIMARY MEDICAL SERVICE AREA</b>							
	Male			Female			
Age	2010 Population	Visit Rate <sup>[1]</sup>	Visits	2010 Population	Visit Rate <sup>[1]</sup>	Visits	Total Visits
Under 15	920	2.5	2,300	994	2.3	2,268	4,586
15-24	533	1.1	586	532	2.5	1,330	1,916
25-44	1,117	1.5	1,676	1,102	3.3	3,637	5,312
45-64	1,310	3.1	4,061	1,297	4.2	5,447	9,508
65-74	488	6.0	2,928	483	6.7	3,236	6,164
75+	<u>262</u>	7.7	<u>2,017</u>	<u>385</u>	7.3	<u>2,811</u>	<u>4,828</u>
<b>Total</b>	4,630		13,568	4,793		18,747	<b>32,315</b>

Primary Medical Service Area - Local Primary Care Physician office visits per year: 19,551

<b>SECONDARY MEDICAL SERVICE AREA</b>							
	Male			Female			
Age	2010 Population	Visit Rate <sup>[1]</sup>	Visits	2010 Population	Visit Rate <sup>[1]</sup>	Visits	Total Visits
Under 15	3,253	2.5	8,133	3,193	2.3	7,344	15,476
15-24	1,850	1.1	2,035	1,837	2.5	4,593	6,628
25-44	3,733	1.5	5,600	3,709	3.3	12,240	17,839
45-64	3,560	3.1	11,036	3,825	4.2	16,065	27,101
65-74	1,005	6.0	6,030	1,300	6.7	8,710	14,740
75+	<u>813</u>	7.7	<u>6,260</u>	<u>1,576</u>	7.3	<u>11,505</u>	<u>17,765</u>
<b>Total</b>	14,214		39,093	15,440		60,456	<b>99,549</b>

Secondary Medical Service Area - Local Primary Care Physician office visits per year: 60,227

Source: U. S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center of Health Statistics, "National Ambulatory Medical Care Survey: 2008 Summary," No. 3

The total number of primary care physician office visits given various usage rates is presented in **Table 3** for the Marietta medical service area. If there is a 90 percent usage of Marietta primary care physicians by residents of the primary medical service area and a 10 to 15 percent usage rate from residents in the secondary service area, an estimated 23,619 to 26,630 primary care physician office visits will be made annually in the Marietta medical service area. The national average for the number of annual office visits to each primary care physician is 4,185 [4]. Therefore, Marietta needs an estimated 5.6 primary care physicians at a 90 percent primary medical service area usage rate coupled with a 10 percent usage rate from the secondary

**Table 3**  
**Primary Care Physician Office Visits Given Usage**  
**by Local Residents in the Marietta, Oklahoma Medical Service Areas**

		Usage by Residents of Primary Service Area						
		70%	75%	80%	85%	90%	95%	100%
Usage by Residents of Secondary Service Area	5%	16,697	17,675	18,652	19,630	20,607	21,585	22,562
	10%	19,708	20,686	21,664	22,641	<b>23,619</b>	24,596	25,574
	15%	22,720	23,697	24,675	25,652	<b>26,630</b>	27,608	28,585
	20%	25,731	26,709	27,686	28,664	29,641	30,619	31,596
	25%	28,742	29,720	30,698	31,675	32,653	33,630	34,608
	30%	31,754	32,731	33,709	34,686	35,664	36,642	37,619
	35%	34,765	35,743	36,720	37,698	38,675	39,653	40,630
	40%	37,777	38,754	39,732	40,709	41,687	42,664	43,642
	45%	40,788	41,765	42,743	43,721	44,698	45,676	46,653
	50%	43,799	44,777	45,754	46,732	47,709	48,687	49,665

If 90% primary medical service area and 10 to 15% secondary medical service area, then the usage would be: **23,619 to 26,630** total primary care physician office visits for an estimated **5.6 to 6.4** Total Primary Care Physicians.  
 (Based on 83.7 average weekly primary care physician visits with a 50 week year) [4]

medical service area ( $23,619/4,185 = 5.6$ ). By expanding the secondary usage rate to 15 percent, the need becomes 6.4 total primary care physicians ( $26,630/4,185 = 6.4$ ). Higher usage levels would indicate that more physicians could be supported, while lower usage levels would indicate fewer physicians could be supported.

All assumptions and local conditions, including the actual usage levels in the primary and secondary medical service areas must be taken into consideration by decision-makers before determining if additional physicians could successfully locate in Marietta, Oklahoma. Some Marietta residents may be hesitant to leave their current physician, even if they are in another town. Further, the current number of existing primary care physicians is not included in this analysis. Any evaluation of the relative shortage or surplus of primary care physicians must include details about the current levels of practicing physicians. Again, primary care physicians include the physician practices of internal medicine, pediatrics, family medicine, and OB-GYN. All of these types of physicians should be considered when analyzing the usage levels in the medical service area.

Recently, some rural communities have explored using physician assistants instead of primary care physicians to handle traditional office visits. Data suggests that these physician assistants will typically handle 75% of the outpatient visits that primary care physicians do, or 3,138 visits per year. [5] These differences should be taken into account when considering whether adding a physician assistant is the right move for a community.

### Summary

The analysis above presented the methodology and results of estimating the demand for primary care physicians in Marietta, Oklahoma. The results suggest that, given a 90% primary service area usage rate and a 10% secondary service area usage rate, an estimated 5.6 primary care

physicians can be supported in the Marietta area. The actual number of physicians that the Marietta medical service area can support will vary based on the usage rates depicted in **Table 3**. Estimates of these usage rates should be used in conjunction with the current status of the primary care industry in Marietta to determine the next steps for the community.

Many assumptions have been made in this analysis. These include items that may change, such as the population of the service area or service area delineation. For example, the service area depicted here may change due to the exit or entry of physicians from nearby communities. If this does occur, revised estimates of physician office visits should be made. The number of existing primary care physicians is *not* addressed in this study. A close examination of current practicing primary care physicians will be imperative to accurately assess whether or not the current population base can in fact support additional primary care physicians.

All assumptions should be closely examined by local decision-makers to verify that they reflect local conditions. If additional local data are available, they should be included to derive the most realistic conclusion possible for the current situation. If further analysis is needed, contact your county extension office listed on the title page of this document.

## References

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