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Feasibility of a Walk-in Clinic for Metcalfe County: Prepared for Cumberland County Hospital

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Introduction

Cumberland County Hospital, located in Burkesville, Kentucky, has undertaken a feasibility analysis to determine the market potential for a new “walk-in” clinic that would be located in Summer Shade, Kentucky. The walk-in clinic would be operated as an outpatient clinic through Cumberland County Hospital. Cumberland County Hospital would like to estimate the demand for outpatient services in the Summer Shade vicinity and determine the feasibility of integrating a walk-in clinic within its current line of medical services. The objective of this study is to estimate the demand for primary care services in an outpatient clinic.

The analysis can be broken into two sections. The first section determined the market area of an outpatient clinic located in Summer Shade, Kentucky in Metcalfe County. This facility would be an off-site clinic serving a different market area than the hospital serves today. The second section details the computation of use rates and expected patient volume for this facility. The use rate is a calculation based on state and national data that projects the level of usage by different population groups in a particular geographic region.

Study Methodology

The study methodology can be broken into three parts: 1) estimate market or trade area for outpatient facility 2) Compute population in market or trade area 3) determine utilization of facility based on market area and use rates. Use rates can be multiplied by expected market area to determine the expected number of visits or patients in the hospital’s market area.

The market or trade area is the geographic region from which a health care facility draws patients. It was defined using techniques from regional science and Geographic Information systems. The analysis is based on the ability of a household or individual to travel along major transportation routes to gain access to a health care facility. It should be noted that there are many factors that determine where a person or household will seek medical care. These may include physician or hospital reputation, distance and ease of travel, previous experiences, level of education and income and insurance coverage among others. It is difficult to quantify or objectively assesses some of these factors. This analysis was primarily conducted using distance factors and hospital in-patient geographic origin data.

The population of a market or trade area is based on data from the US Census Bureau. This data was obtained from 2000 Census. Census tracts were used to estimate the population located in the market area. In cases where the entire census tract was not located in the market area, a percentage estimate of the market area in the census tract was applied to the total census tract population to determine the market area census tract population.

Use rates are a ratio that describes the number of patients or visits per x number (100, 1000 or 10,000) people per year. It can be interpreted as y number of visits or patients can be expected per x number of people. This number allows a hospital or health care facility to project the expected number of visits in a new population base. Use rates are typically available for national, regional (South) and state (KY) data. These estimates are calculated by surveys done through the Centers for Disease Control (CDC) and Kentucky Department of Public Health (KDPH).

Results

Based on the location of a new outpatient facility in Summer Shade, Kentucky, the market or trade area was estimated to include all or parts of six census tracts. These census tracts fell into Cumberland, Adair, Monroe, Barren and Metcalfe counties. Table 1 details what percentage of each census tract was expected to fall into the market area of an outpatient facility located in Summer Shade. The fourth column in this table indicates the total population that would be served by this facility in each county as well as a market area total.

Table 1

Census Tract (CT)	CT Population	% CT Population	Market Area Population
Barren 9508	3156	50%	1578
Barren 9509	3640	10%	364
Monroe 9901	1964	20%	393
Metcalfe 9602	2926	50%	1463
Metcalfe 9603	4590	5%	230
Cumberland 9501	4418	2%	88
		Total	4116

Use rates were then applied to these market area population figures to determine annual facility utilization. The use rates 31.1 per 100 people (national average) and 26.5 per 100 people (South regional average) for walk-in type outpatient facilities based on CDC data. These estimates provide a low and high range of annual utilization based on national and regional data obtained from the Centers for Disease Control. Table 2 provides the expected annual utilization in terms of number of visits per person per year.

Table 2

Census Tract (CT)	Market Area Population	Visits High range	Visits Low range
Barren 9508	1578	491	418
Barren 9509	364	113	96
Monroe 9901	393	122	104
Metcalfe 9602	1463	455	388
Metcalfe 9603	230	71	61
Cumberland 9501	88	28	23
	4116	1280	1090

This information represents the expected annual utilization of a walk-in outpatient facility located in Summer Shade, Metcalfe County, Kentucky.

Conclusion

This analysis has identified the market or trade area for a proposed outpatient walk-in clinic located in Summer Shade, Metcalfe County, Kentucky. This analysis does not account for the fixed and operating costs necessary to open and operate a new outpatient facility in Metcalfe County. Therefore, further information will be required to determine the financial costs and benefits of operating such a facility. The University of Kentucky Center for Rural Health and Department of Agricultural Economics conducted this analysis under the Kentucky Rural Health Works program.