

**Economic Impact of CAH
on Retail Sales**

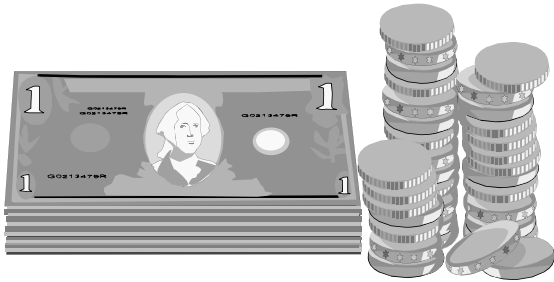
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National Center for Rural Health Works

Presentation at
Region D Annual Meeting
June 23-24, 2010

Waikoloa, HI



**What's the Economic Potential for
Health Care in Your Community?**



Health Services Promote Job Growth



To attract business and industry, research indicates the area needs quality:

- Health services and
- Education services



To attract retirees, research indicates the area needs quality:

- Health services and
- Safety services

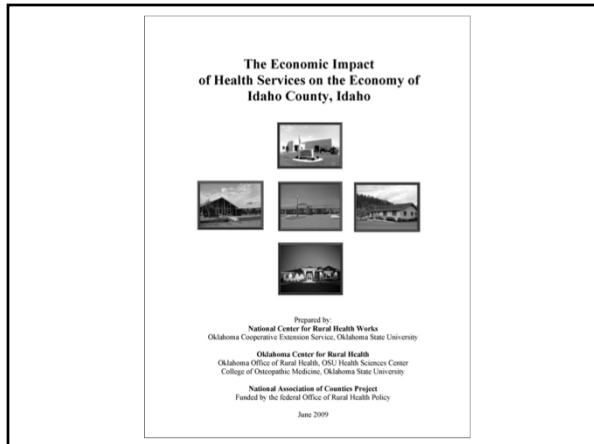


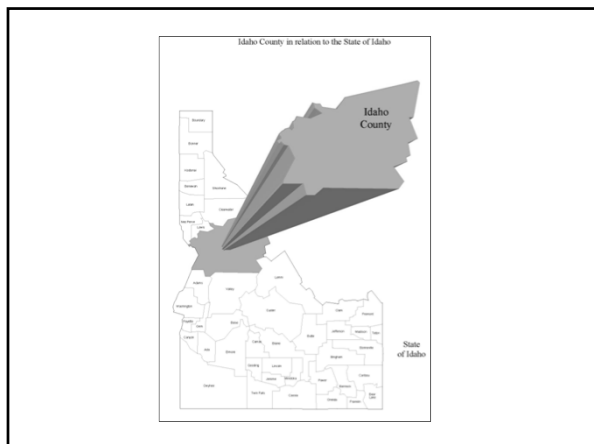
Outline of Presentation

- I. Measuring Retail Sales Due to a CAH
- II. Impact of CAHs on Retail Sales
- III. RHWs Update
 - A. Impact of Rural Surgeon
 - B. Other Studies in Progress

I. Measuring Retail Sales Due to a CAH





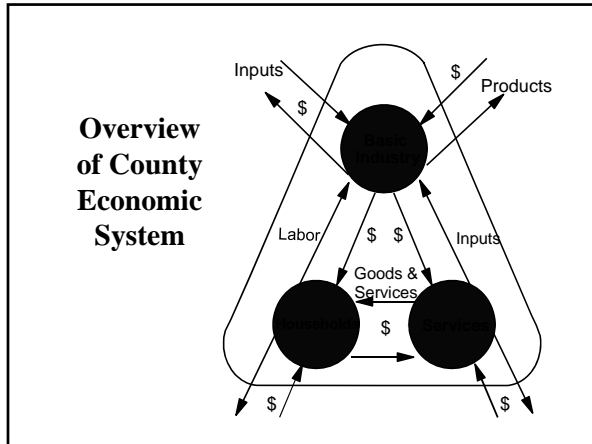


**Census Population, Population Estimates, and Percent Changes
for Idaho County Cities and Towns, Idaho County, and the State of Idaho**

	Census		Estimates		10 Years	7 Years	1 Year
	1990	2000	2007	2008	'90-'00	'00-'07	'07-'08
Cottonwood city	875	944	1,023	NA	7.9%	8.4%	NA
Ferdinand city	135	145	143	NA	7.4%	-1.4%	NA
Grangeville city	3,230	3,228	3,091	NA	-0.1%	-4.2%	NA
Kamiah city (pt.)	3	0	1	NA	--	--	NA
Kooskia city	719	675	652	NA	-6.1%	-3.4%	NA
Riggins city	424	410	395	NA	-3.3%	-3.7%	NA
Stites city	202	226	224	NA	11.9%	-0.9%	NA
White Bird city	108	106	105	NA	-1.9%	-0.9%	NA
Balance of County	<u>8,072</u>	<u>9,777</u>	<u>9,711</u>	<u>NA</u>	<u>21.1%</u>	<u>-0.7%</u>	<u>NA</u>
Idaho County	<u>13,768</u>	<u>15,511</u>	<u>15,345</u>	<u>15,448</u>	<u>12.7%</u>	<u>-1.1%</u>	<u>0.7%</u>
State of Idaho	<u>1,006,734</u>	<u>1,293,955</u>	<u>1,496,145</u>	<u>1,523,816</u>	<u>28.5%</u>	<u>15.6%</u>	<u>1.8%</u>

**Direct Economic Activities of Health Services
on the Economy of Idaho County, Idaho**

Health Service	Total Employment ¹	Total Income ²
Hospital		
Syringa Hospital and Clinics	149	\$6,819,853
St. Mary's Hospital and Clinics	220	\$11,010,276
Combined Hospitals	369	\$17,830,129
Physicians, Dentists, & Other Health Professionals	46	\$2,576,185
Home Health Services	84	\$1,451,661
Pharmacies	34	\$1,297,603
Other Health & Medical Services	<u>154</u>	<u>\$5,055,349</u>
Total Health Services	687	\$28,210,926



**Employment Impact of Health Services
on the Economy of Idaho County, Idaho**

Health Sector Component	Number of Employees	Employment Multiplier	Secondary Impact	Total Impact
Hospital				
Syringa Hospital & Clinics	149	1.50	75	224
St. Mary's Hospital & Clinics	220	1.50	110	330
Combined Hospitals	369	1.50	185	554
Physicians, Dentists, & Other Health Professionals	46	1.35	16	62
Home Health Services	84	1.17	14	98
Pharmacies	34	1.40	14	48
Other Health & Medical Services	154	1.13	20	174
TOTALS	687		249	936

**Income Impact of Health Services
on the Economy of Idaho County, Idaho**

Health Service	Direct Impact	Income Multiplier	Secondary Impact	Total Impact
Hospital				
Syringa Hospital & Clinics	\$6,819,853	1.24	\$1,636,765	\$8,456,618
St. Mary's Hospital & Clinics	\$11,010,276	1.24	\$2,642,466	\$13,652,742
Combined Hospitals	\$17,830,129	1.24	\$4,279,231	\$22,109,360
Physicians, Dentists, & Other Health Professionals	\$2,576,185	1.22	\$566,761	\$3,142,946
Home Health Services	\$1,451,661	1.19	\$275,816	\$1,727,477
Pharmacies	\$1,297,603	1.23	\$298,449	\$1,596,051
Other Health & Medical Services	\$5,055,349	1.29	\$1,466,051	\$6,521,400
TOTALS	\$28,210,926		\$6,886,308	\$35,097,234

Income Impact of Health Services on the Economy of Idaho County, Idaho		
Health Service	Retail Sales	6% State/County Sales Tax
Hospital		
Syringa Hospital & Clinics	\$2,508,141	\$150,488
St. Mary's Hospital & Clinics	\$4,049,255	\$242,955
Combined Hospitals	\$6,557,396	\$393,444
Physicians, Dentists, & Other Health Professionals	\$932,164	\$55,930
Home Health Services	\$512,351	\$30,741
Pharmacies	\$473,371	\$28,402
Other Health & Medical Services	\$1,934,176	\$116,051
TOTALS	\$10,409,458	\$624,568

II. Impact of CAHs on Retail Sales

Study
by
Brian Whitacre
And
Lara Brooks

Study of 105 Oklahoma Towns

- Towns between 1,000 to 5,000 that collected sales taxes from 2000-2005
- 25 Towns with CAHs
- 80 Towns without CAHs

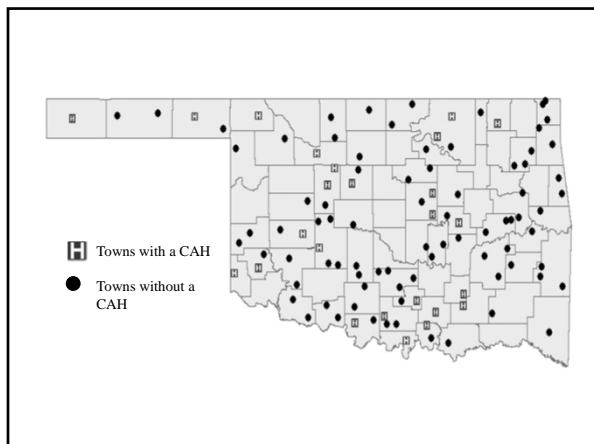


Table 1. Independent and Dependent Variables

Variable	Type	Description	Data Source
<i>Independent Variables</i>			
POPULATION	Continuous	Community-Level Population (2000-2005)	Census
CAH	0/1	Critical Access Hospital	Oklahoma Department of Health
WM	0/1	Wal-Mart present in town/city	Walmart.com
CS	0/1	County Seat	OK County Data
I35	0/1	Location Variable for East of I-35	Oklahoma Dept. of Transportation
FARM	0/1	Farming Dependent County	USDA ERS
MANUF	0/1	Manufacturing Dependent County	USDA ERS
GOVT	0/1	Government Dependent County	USDA ERS
HOUSHDINC	Continuous	Household Income (2000)	Census
HOUSHDSZ	Continuous	Household Size (2000)	Census
UNDER19	Continuous	Percentage of population under 19 (2000)	Census
TO44	Continuous	Percentage of population under 20-44 (2000)	Census
TO64	Continuous	Percentage of population 44-64 (2000)	Census
UNEMP	Continuous	Average Unemployment Rate (2000-2005)	BLS
DST	Continuous	Distance (miles) from Interstate	GIS
RTEST	Continuous	Average Number of Retail Establishments (2000-2005)	Census
<i>Dependent Variables</i>			
RS	Continuous	Average Total Retail Sales (2000-2005)	Oklahoma Tax Commission
RTEST	Continuous	Average Number of Retail Establishments (2000-2005)	Census
MICROBUS	Continuous	Average Number of Micro Retail Est. (1-4 Employees) (2000-2005)	Census
SMBUS	Continuous	Average Number of Small Retail Est. (5-19 Employees) (2000-2005)	Census

Main Result

- Retail Sales were higher in communities with CAHs
 - 27.6% higher in communities with CAH
 - 26.5% higher in communities with Walmart

Complete article is being published in
Journal of Rural Health

III. RHWs Update
A. Impact of Rural Surgeon

Economic Opportunity

How do you assess your
community's ability to
support a general
surgeon?

Economic Impacts

Direct Impact

Secondary Impact

**2008 Estimated Employment, Wage and Salaries and Revenues
at General Surgeon Practice**

Employment	4
Wages Salaries and Benefits	\$483,082
Revenues	\$653,544

**General Surgery Procedures, Revenues, Employment and Wage and Salaries
at the Hospital Generated by a General Surgeon**

No. of Inpatient Procedures	97
No. of Outpatient Procedures	574
Inpatient Revenue	\$350,267
Outpatient Revenue	\$927,584
Laboratory Revenue	\$60,842
TOTAL Revenue	\$1,338,693
Employment	15.0
Wage, Salary and Benefits	\$697,459

**Total Impact of a General Surgeon on Revenues
at Physician Office and Hospital**

	Revenue	Output Multiplier	Total Impact
Office	\$653,544	1.33	\$869,214
Hospital	<u>\$1,338,693</u>	1.33	<u>\$1,780,462</u>
Total	\$1,992,237		\$2,649,676

**Total Impact of a General Surgeon on Income
at Physician Office and Hospital**

	Income	Income Multiplier	Total Impact
Office	\$483,082	1.18	\$570,036
Hospital	<u>\$697,459</u>	1.21	<u>\$843,925</u>
Total	\$1,180,541		\$1,413,961

**Total Impact of a General Surgeon on Employment
at Physician Office and Hospital**

	Employment	Employment Multiplier	Total Impact
Office	4.0	1.30	5.2
Hospital	<u>15.0</u>	1.37	<u>20.6</u>
Total	19.0		25.8

Approach to Estimating the Number of General Surgeons for an Example Medical Service Area

National Averages Approach

Procedure Rate/1000 Population	62.0
Average Annual Procedures per General Surgeon	809
Population/General Surgeon Ratio	13,048

III. RHWs Update

B. Other Studies in Progress

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