



# **Mendocino and Lake Counties Opportunity Model**

**Redwood Health Information  
Collaborative**

**February 22, 2006**

**HealthAlliant**<sup>TM</sup>



# Agenda

- **Data Collection and Model Assumptions**
- **Findings from secondary data collection**
- **Next Steps: Additional data needs**




# Data Collection and Model Assumptions

**The Mendocino Health Information Collaboration has a received a grant to create a community steering committee.**

The collaborative goals include planning for three HIT projects:

Program	Application	Example of Value Drivers
Consumer Empowerment	Medication Management	Reduce adverse drug events Increase generic substitution Increase mail order use Increase medication compliance Reduce pharmacy callbacks
Real time Lab Results	Labs	Reduction in duplicate tests Reduction in hospitalizations Decrease in MD administrative costs
Bio-Surveillance	TBD	TBD



## **Building the model requires creation of an assumption set based on primary and secondary research**

The first assumption set we develop is for the Market Opportunity Model

- area demographics and healthcare statistics
- number of hospitals, clinics, doctors, labs, pharmacies
- number of physician offices and IPAs
- insurance coverage
- physician HIT status

Additionally, we will need to collect data specific to Medication Management and Labs.



# Findings from secondary data collection

## Resources:

US Bureau of Labor Statistics

US Census Bureau

ESRI – consumer expenditure data based on forecasts of US Census data

CA Center for Health Statistics

CA Department of Health Services

Centers for Medicare and Medicaid Services

Cattaneo & Stroud March 2005 Study

Kaiser Family Foundation State Health Facts

County Medical Services Program

Mendocino County Community Health Status Report, April 2004

Lake County Health Needs Assessment, 2002

Alliance for Rural Community Health

Office of Statewide Health Planning and Development

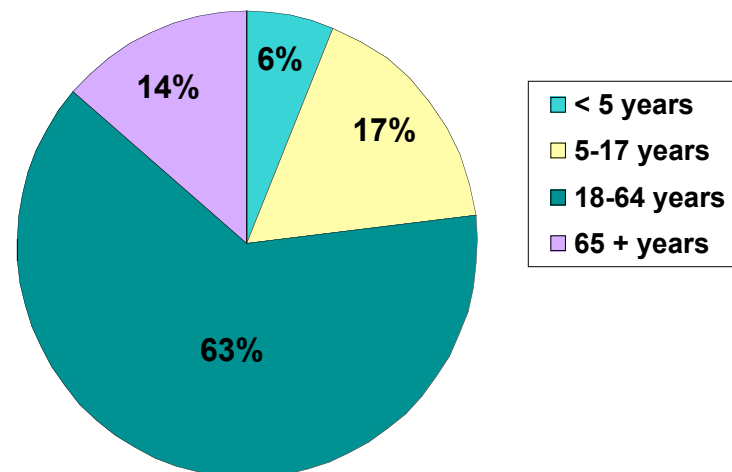
# Demographics of Mendocino and Lake Counties

**Total Population**  
 Mendocino County: 88,916  
 Lake County: 62,026

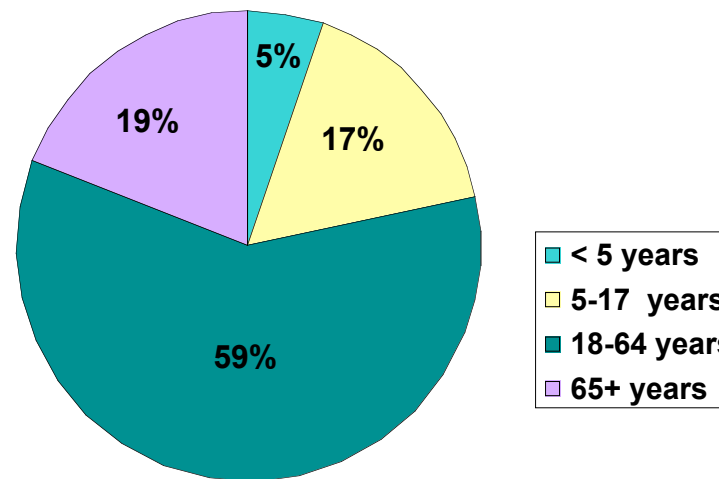
**Households**  
 Mendocino County: 34,371  
 Lake County: 25,421

**Families**  
 Mendocino County: 22,666  
 Lake County: 16,360

**Median Age**  
 Mendocino County: 40.4 Years  
 Lake County: 44.7 Years



Age distribution in Mendocino County



Age Distribution in Lake County

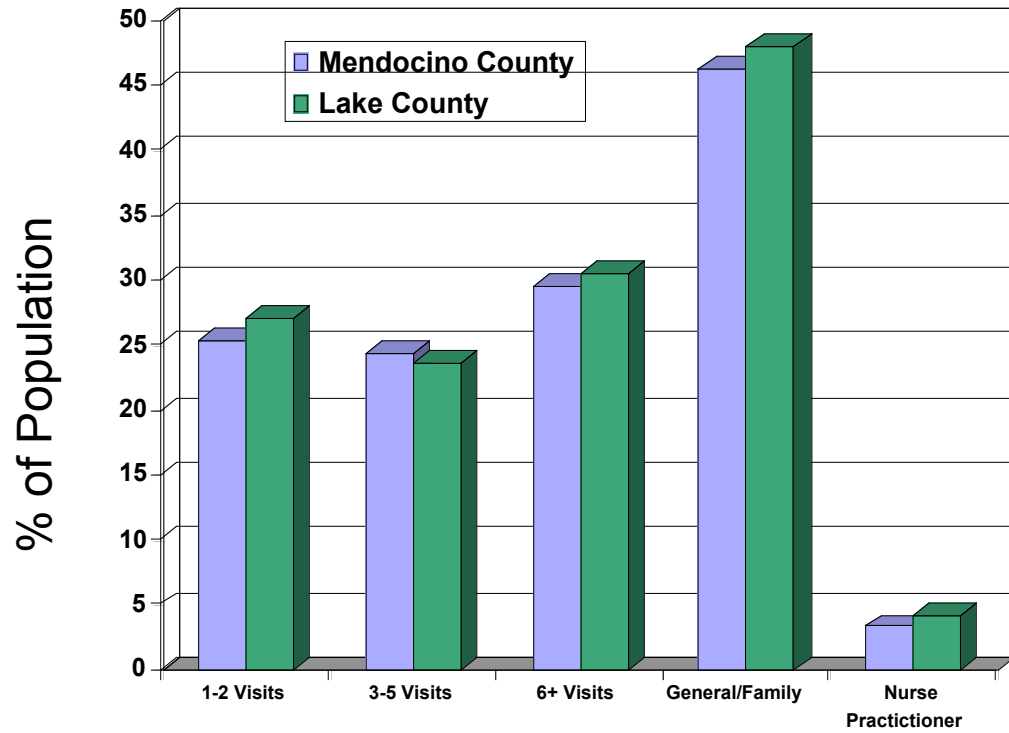
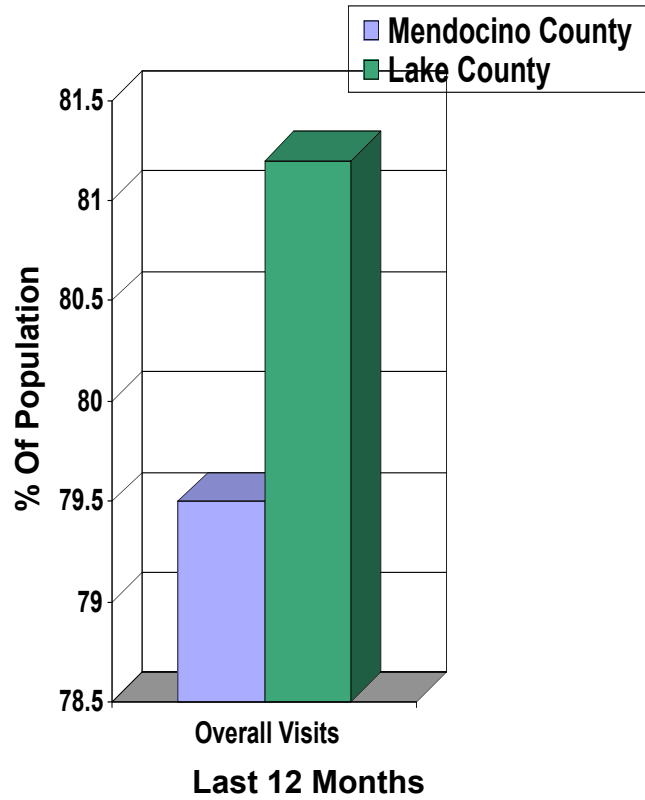
# Exercise and Diet Habits

Exercise	Mendocino County	Lake County
Exercise @ Home 2+/Week	28.9%	28.3%
Exercise @ Club 2+/Week	8.6%	7.1%
Exercise Other 2+/Week	7.0%	6.5%
Own Stair Stepper	3.1%	3.1%
Own Stationary Bike	8.0%	8.1%
Own Treadmill	9.7%	8.9%
Own Weight Lifting Equipment	12.9	12.8%

Diet	Mendocino County	Lake County
Presently Controlling Diet	33.4%	32.4%
Diet Control for Blood Sugar level	6.0%	7.5%
Diet control for cholesterol Level	9.0%	10.7%

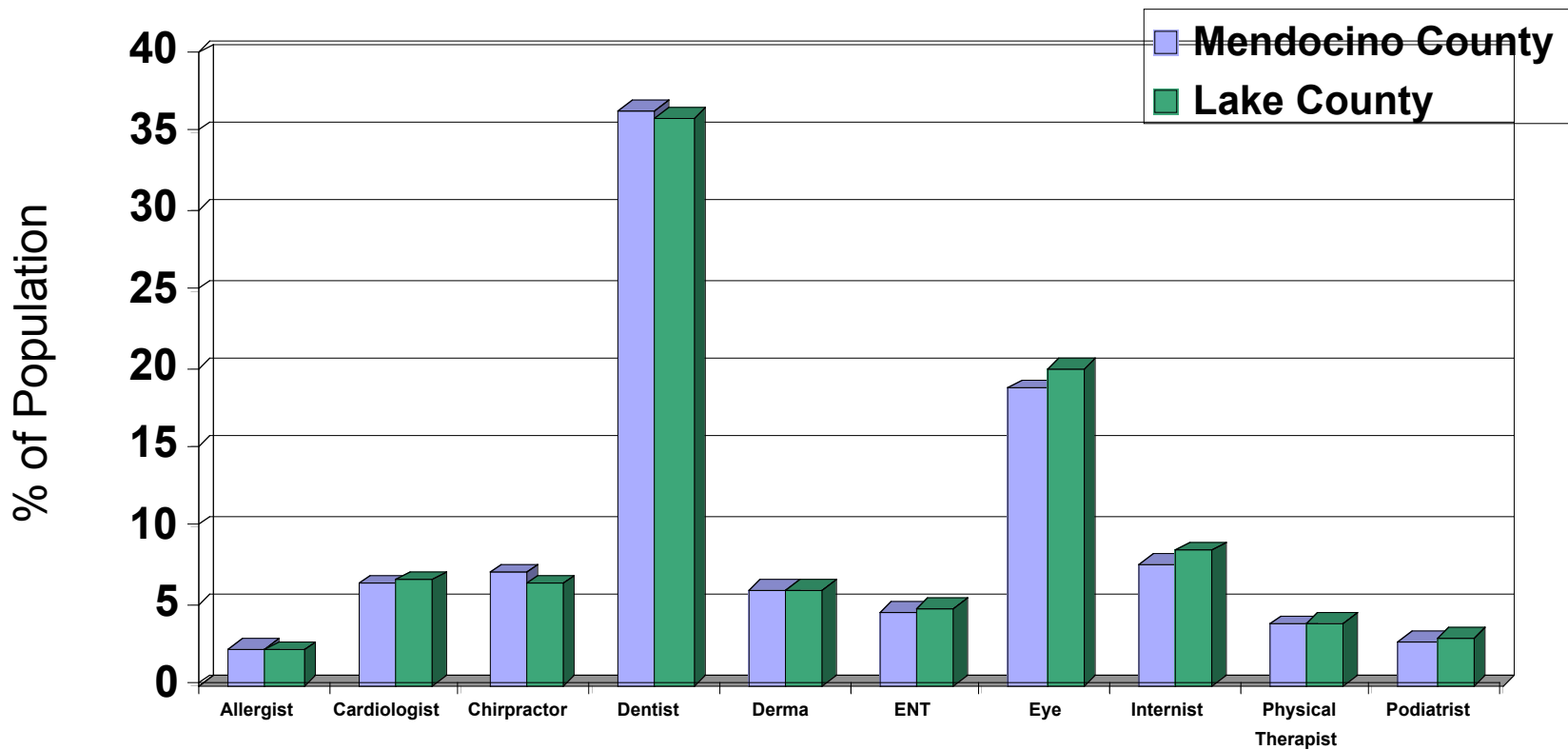


# Doctor Visits



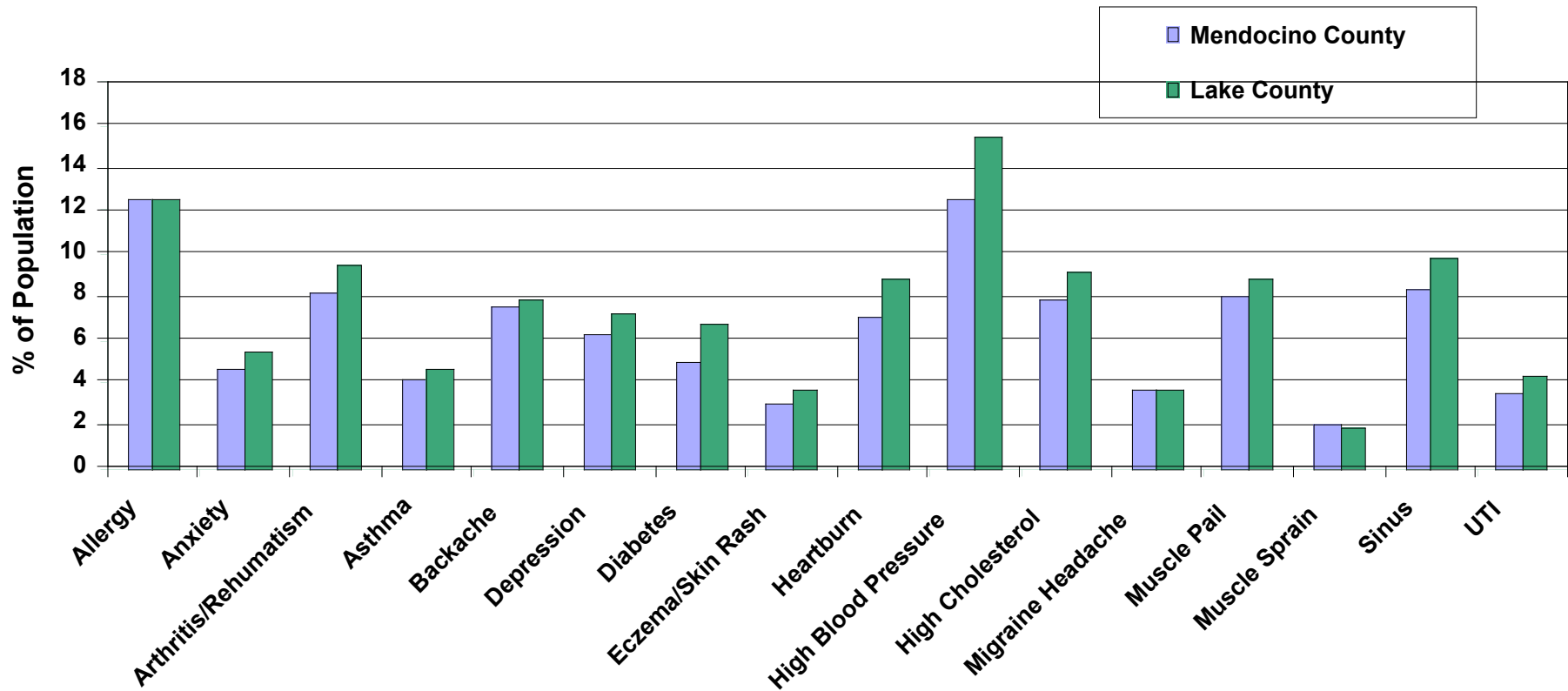
Visits in Last 12 Months

# Doctor Visits (Specialists)



Specialist Visits in Last 12 Months

# Prescription Drug Use



Prescription Drug Usage by Condition

# Total Healthcare Expenditures

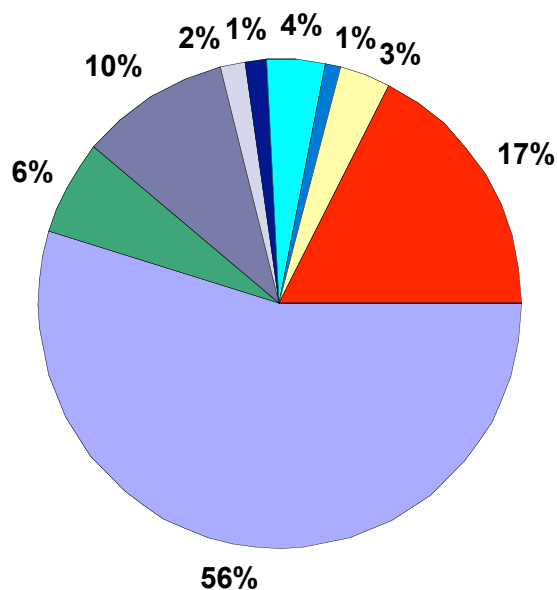
(Note: does not include Medicare and MediCal)

## Total Healthcare Expenditures

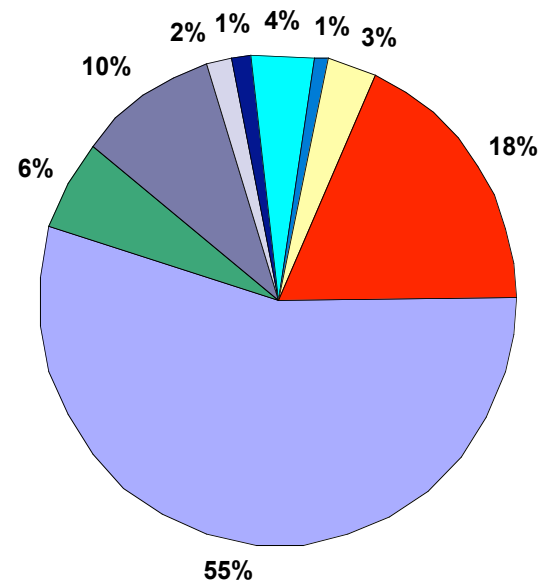
<i>Mendocino</i>	<i>Lake</i>
\$114,310,518	\$74,607,176

- Medical Care
- Physician Services
- Dental Services
- Eye Care Services
- Lab Tests, X-Rays
- Hospital Room, Hospital Services
- Convalescent or Nursing Home Care
- Nonprescription Drugs
- Prescription Drugs

Mendocino County



Lake County



Total Average Healthcare Expenditures: Mendocino \$3,325.78 Lake \$2,934.86

Sources: Expenditure data are derived from the 2001, 2002, and 2003 consumer expenditure surveys; Bureau of Labor Statistics; ESRI Forecasts for 2005

© HealthAlliant, Inc. 2005 All rights reserved.  
Reproduction or use without permission is prohibited.

# Total Health Insurance Expenditures

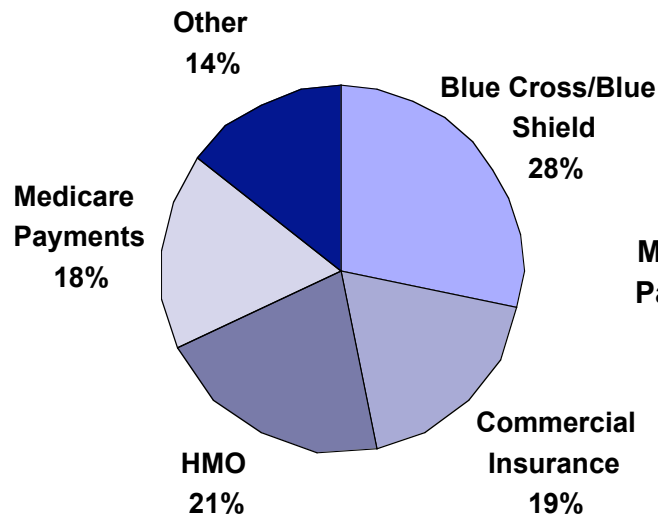
(Note: this data needs verification)

Total Health Insurance Expenditures	
Mendocino	Lake
\$56,261,414	\$36,663,412

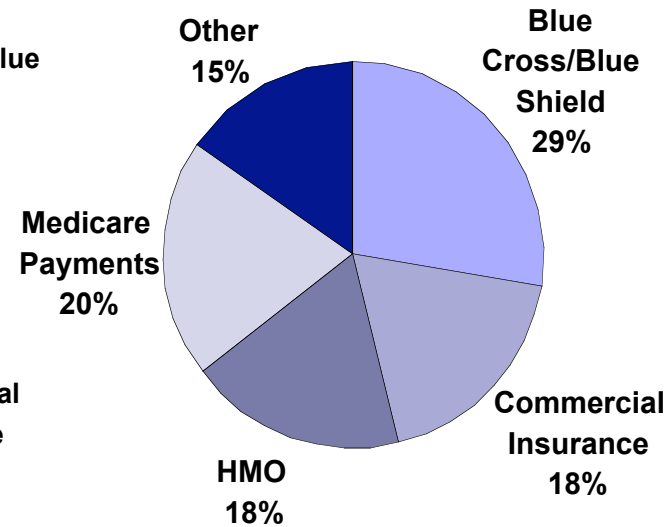
Total Average Health Insurance Expenditures  
 Mendocino \$1,636.89 Lake \$1,442.25

- Blue Cross/Blue Shield, \$15,896,277
- Commercial Insurance, \$10,592,773
- HMO, \$11,660,470
- Medicare Payments, \$10,031,546
- Other Health Insurance, \$8,080,348

## Mendocino County



## Lake County



- Blue Cross/Blue Shield, \$10,210,001
- Commercial Insurance, \$6,709,214
- HMO, \$6,742,676
- Medicare Payments, \$7,359,985
- Other Health Insurance, \$5,641,536

Sources: Expenditure data are derived from the 2001, 2002, and 2003 consumer expenditure surveys; Bureau of Labor Statistics; ESRI Forecasts for 2005

© HealthAlliant, Inc. 2005 All rights reserved.  
 Reproduction or use without permission is prohibited.

# Healthcare Facilities

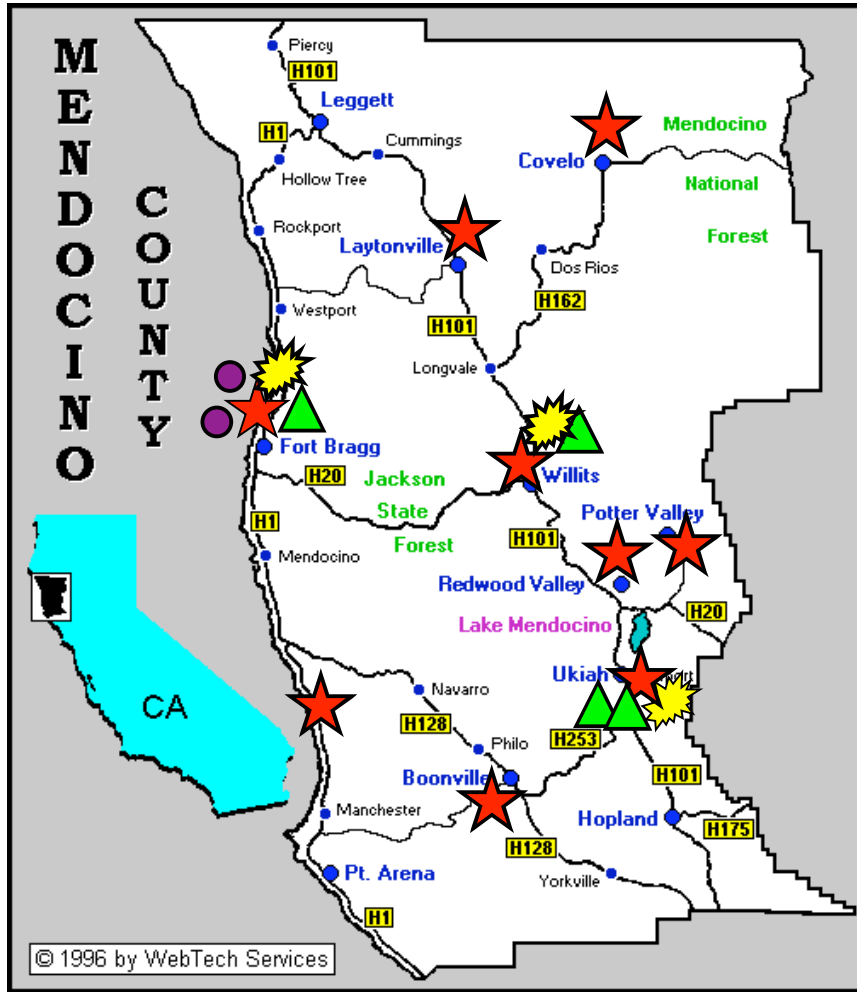






Facility	Mendocino	Lake
<b>Hospital (2002)</b>		
General Acute Care (GAC)	3	2
Licensed GAC Beds	171	109
Licensed GAC Beds/1000	2	1.9
Long Term Care (LTC)	5	3
Licensed LTC Beds	388	288
Licensed LTC Beds/1000	4.5	4.9
<b>Physicians (2001)</b>		
Active Non-Federal Physicians	208	80
Persons/Physician	415	729
<b>Dentists (2002)</b>		
Licensed Non-Federal Dentists	63	23
Persons/Physician	1369	2,535
<b>Clinics (2000)</b>		
Licensed and Free Clinics	8	2
Specialty Clinic	3	1
Home Health Agencies (2000)	4	4
Hospice Care Free-Standing Facilities	0	1

Sources: Health Data Summaries for California Counties 2002, Center for Health Statistics, Department of Health Services; Map: Google Images

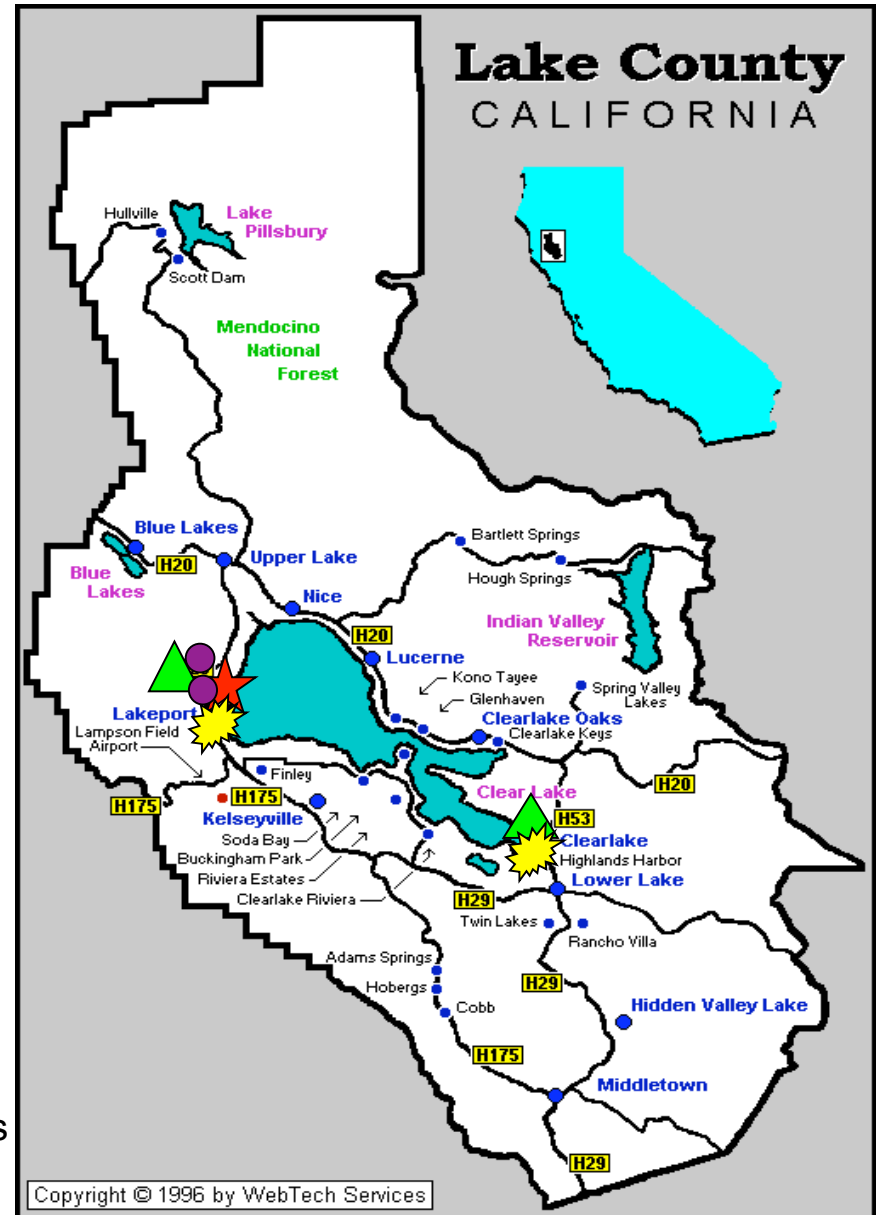
© HealthAlliant, Inc. 2005 All rights reserved.  
 Reproduction or use without permission is prohibited.

# Hospital Utilization Placeholder



-  Primary Care Clinic
-  Home Health Agency
-  Long Term Care Facilities
-  Licensed Hospital and Hospice

© HealthAlliant, Inc. 2005 All rights reserved.  
 Reproduction or use without permission is prohibited.



Copyright © 1996 by WebTech Services

# Providers in Mendocino and Lake Counties – who did we miss?

## Primary Care Clinics

- Anderson Valley Health Center
- Consolidated Tribal Health Project: Redwood Valley
- Long Valley Health Center and Dental Clinic: Laytonville
- Mendocino Coast Clinics: Fort Bragg
- Mendocino Community Health Clinic-Little Lake
- Mendocino Community Health Clinic: Willits
- Mendocino Community Health Clinic: Ukiah
- Potter Valley Community Health Center: Potter Valley
- Redwood Coast Medical Service: Gualala
- Round Valley Indian Health Center: Covelo
- Mendocino Community Health Clinic: Lakeport

## Long Term Care Facilities

- Northbrook Nursing and Rehab: Willits
- Pleasant Care Convalescent of Ukiah: Ukiah
- Sherwood Oaks Health Center: Fort Bragg
- Valley View Skilled Nursing Center: Ukiah
- Lakeport Skilled Nursing Center: Lakeport
- Meadowood Nursing Center: Clearlake

## Licensed Hospitals

- Frank R. Howard Memorial Hospital: Willits
- Mendocino Coast District Hospital: Fort Bragg
- Ukiah Valley Medical Center: Ukiah
- Redbud Community Hospital: Clearlake
- Sutter Lakeside Hospital: Lakeport

## Home Health Agencies

- Mendocino Coast District Hospital Home Health Services: Fort Bragg
- Pacific Medical Resources: Fort Bragg
- Hospice Services of Lake County: Lakeport
- Sutter Lakeside Home Medical Services: Lakeport

Source:



## Providers in Mendocino and Lake Counties – who did we miss?

### Pharmacy

- Longs Drugs
- Rite Aid Pharmacy
- Safeway Pharmacy
- Raley's Pharmacy
- United Drugs
- Wal-Mart Pharmacy
- Walgreen's
- K-Mart Pharmacy
- Lake Pharmacy
- Moran's Pharmacy
- Kelseyville Pharmacy
- North Lake Pharmacy
- North Lake Medical Pharmacy
- Larssen's Pharmacy
- Fort Bragg Pharmacy
- Gualala Pharmacy
- Laytonville Pharmacy
- Arena Pharmacy
- Angell's Pharmacy
- Bill's Drugs
- Blue Drugs
- Myers Apothecary Shop
- Willts Rexall Pharmacy

### Clinical Labs

- Quest Laboratories
- Adventist Health Research Outpatient Lab Services
- Sutter Lakeside Hospital
- Unilab Corp
- Min-Unilab
- Ukiah Valley Medical Center

# Next Steps: Additional Data Needs

<b>Physician HIT</b>	Data from 2006 survey
<b>Physicians</b>	Number of IPA Number of physician Revenue per MD per year Revenue per MD per year
<b>Insurers data</b>	What companies and their percentage of population
<b>Medication Management</b>	Average visits per outpatient Total annual outpatients Average cost of hospitalization Average cost of follow-up visits ADE per visit ADE per physician year % of ADE requiring at least 1 follow-up visits % of ADEs requiring hospitalization Call backs per month per physician Total time spent on call backs per month Renewal calls per month per physician Total time spent on renewals per month
<b>Pharmacies</b>	Total number of pharmacies Total number of chain/ independent prescription volume Average prescription cost Current percent of script that are generic Value per 1% increase in generic usage
<b>Hospital and Independent Labs</b>	Average lab charges Estimated annual lab costs
<b>G&amp;A Costs for Collaborative</b>	headcount, payroll, operating expenses

© HealthAlliant, Inc. 2005. All rights reserved.

Reproduction or use without permission is prohibited.



# **Mendocino and Lake Counties Opportunity Model**

**Redwood Health Information  
Collaborative**

**February 22, 2006**

**HealthAlliant**<sup>TM</sup>