

Project Design

The state of Missouri ranks above the national average for years of potential life lost before 75 years of age in all leading causes of death. In addition, Missouri ranks low in physical activity and high in many lifestyle health risks (<http://www.cdc.gov/epo/shp/pdf/SHP2003.pdf>). In order to determine if health concerns and lifestyle health risks of northeast Missourians were being adequately addressed by local health care providers, a subjective health assessment was conducted.

Every effort was made to guarantee the accuracy and completeness of the data presented. However, it is important to realize that data accuracy is dependent on reporting and recording practices of county and state agencies, as well as individuals.

Area Assessed

The target area assessed was the following 11 rural medically underserved Missouri counties: Adair, Clark, Knox, Lewis, Linn, Macon, Putnam, Schuyler, Scotland, Shelby, and Sullivan. The landmass is 5,295 square miles, all of which is designated as geographic/low-income health professional shortage areas (HPSAs), low-income dental HPSAs, and mental health shortage areas. The region's total population is 105,158, with Kirksville being the largest community with only 16,988. Over 36,000 of these residents are uninsured/underinsured. As seen elsewhere in the state, these rural residents face real and perceived barriers to accessing medical care, health education, mental health care, case management, and dental care services.

Scope of Assessment

The NMRHN received a grant from the Missouri Foundation for Health to conduct the regional health assessment project (*RHAP-05*), which focused on health-related behaviors and attitudes of residents in these 11 counties. Surveys were mailed to 4,946 households in this region, utilizing the experience of health education professors from Truman State University and their undergraduate students. Efforts of the Truman students included collection and aggregation of existing data, survey instrument design, the mailing of surveys, statistical input and evaluation of results, and assistance in the presentation of the findings.

Methodology

The NMRHN Executive Director and Regional Health Assessment Task Force were responsible for advising the Truman State University faculty and students throughout the project. Senior level undergraduate Health & Exercise Science students enrolled in the HLTH 440 Program Planning & Evaluation course during the fall '04 – fall '05 semesters utilized the Task Force's project outline in order to plan all aspects of the assessment. These students a) identified measurable goals and objectives for the *RHAP-05* project, including a timeline for data collection (see Table 1), data analysis, and the writing and dissemination of survey results; b) researched the population, existing community resources, services and programs of the region; c) developed and distributed an assessment tool; and d) identified gaps in services, need areas, and delivery strategies via this written report.

Table 1. Project Timeline	
Phase I - Fall 2004	<p>State and County Data Collection and Survey Tool Development Contacts made with county health departments to determine current state and county data available. Survey questions related to the following areas:</p> <ul style="list-style-type: none"> - County Health Concerns (lifestyle health risks, diseases, environmental health); - Assessment of the Quality of Life in the County - Access to Affordable Health Care - Perceptions of the County Health Department - Services Received from the County Health Department - Demographic Information
Phase II - Spring 2005	<p>Survey Distribution and Data Compilation</p> <ul style="list-style-type: none"> - Bulk mailing and distribution of 5,000 surveys – random mailing with labels of personal property taxpayers provided by each county; - Mailing included cover letter, survey, business reply envelope and incentive registration postcard; - A regional media campaign was implemented prior to and during established reply period; - Drawings held for 200 incentive prizes (\$10 Wal-Mart gift cards); - Process of data computation
Phase III - Fall 2005	<p>Data Reporting</p> <ul style="list-style-type: none"> - Completion of data tabulation by county, cluster and region; - Distribution of findings through: <ul style="list-style-type: none"> o One-page, public-friendly community health report cards o News releases o Paid advertisements o Bound, full-reports o Website

Survey Instrument Design

Meetings with county health department administrators and other key county health officials helped to determine the exact content of questions. The *RHAP-05* survey was designed, validated by health educators, pilot-tested on a target group of similar respondents, and refined prior to dissemination in the spring of 2005. The *RHAP-05* survey included questions in the following five content areas:

- Demographic Information (age, sex, ethnicity, education, income, type of health coverage)
- County Health Concerns (lifestyle health risks, diseases, environmental health);
- Affordable Health Care Services in the Community;
- Local Health Care Utilization; and
- Assessment of Other Health Needs (health services provided in the county).

Within the survey’s five content areas were 198 questions (answered primarily by circling a number in a chart format).

Survey Dissemination & Collection

Paper surveys were distributed throughout the 11-county region through an existing bulk mailing permit. Each survey included an introduction letter from the NMRHN Executive Director, a postage-paid business reply envelope, and postcard registration for incentive prizes.

Because direct mail typically results in a ≤25% response rate, a regional media campaign was initiated to reinforce participation by survey respondents. With the assistance of area newspaper, radio, TV, and cable television stations – and with input from LHPD staff – public service announcements were constructed and broadcast throughout the area beginning two weeks prior to mailing and concluding the last week of eligible return. All participating LPHDs, and other NMRHN member agencies utilized posted signs to encourage participation.

Using a Table of Recommended Sample Sizes for Populations, determinations were made regarding the number of surveys to be mailed. A stratified random sample of county residents was obtained from registered voter lists. (See Table 2.) The number of mailed surveys and subsequent respondents for all counties is listed in Table 2.

Table 2. County Population, Respondents and Response Rate to RHAP-05 Survey				
County	Population	# Surveys Mailed	# Respondents	Response Rate
<i>All Counties</i>	<i>104,500</i>	<i>4,946</i>	<i>1,033</i>	<i>20.89%</i>
Adair	25,000	1,196	266	22.24%
Clark	8,000	337	56	16.62%
Knox	4,300	206	54	26.21%
Lewis	10,200	488	92	18.85%
Linn	13,000	622	115	18.49%
Macon	15,500	742	136	18.33%
Putnam	5,200	249	87	34.94%
Schuyler	4,400	210	49	23.33%
Scotland	5,000	225	55	22.44%
Shelby	6,700	321	63	19.63%
Sullivan	7,200	345	60	17.39%

Participant Incentive

Due to the planned scope of this assessment, it was unrealistic to provide a completion incentive for every participant. All incentive cards returned by respondents were eligible for participation in a drawing for one of 200 \$10 Wal-Mart gift cards.

Data Analysis

During the fall 2005 semester, data analysis was completed by county and region. Descriptive statistics were used to present the findings of survey data. Overall, 20.89% of distributed surveys were returned (1,033 of 4,969) and calculated into the overall report.

This report includes subjective responses from the *RHAP-05* survey, in addition to comparative data from published sources. Charts in the final section of this report contain data retrieved through interactive online databases of the U.S. Census Bureau, Missouri Office of Social and Economic Data Analysis (OSED), and the Missouri Department of Health and Senior Services (DHSS) Missouri for Community Assessment (MICA). Items compared include: demographic information (population, total households, high school graduation rate, income); and categories of health information (children's health and wellness, health care, prevalent health problems, and mortality rates).

Reporting Assessment Findings

The following pages contain the *RHAP-05* assessment results. A regional summary of findings is followed by individual county survey reports in alphabetical order. Bound reports will be provided to the Missouri Foundation for Health, Missouri DHSS, project partners, and area libraries/ government institutions. Additionally, findings will be reported on existing websites of the NMRHN and other Network member agencies.

In addition to this report, the authors are distributing condensed versions of the pertinent information to the public via appropriate local outlets (public health departments, hospitals, health care providers, banks, area libraries, churches) and the media.