

# **Appalachian Rural Health Institute ARHI**

## **COMMUNITY HEALTH ASSESSMENT**

### **Final Executive Summary**

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Additionally, four RN to BSN students from the School of Nursing assisted with project activities by collecting survey data, conducting key informant interviews, and locating print media being used for diabetic education in the four counties. Each of the students took the lead in one of the counties. Rita Hardy worked in Hocking County, Emily Parsons gathered information in Vinton County, Barbara Thomas collected data in Pike County, and Ronald Vance assisted in Athens County. Students completed these activities through guided NRSE 490 Independent Study courses.

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## **INTRODUCTION**

This community assessment was part of the Appalachian Rural Health Institute (AHRI) outreach project funded through a federal appropriation that was sponsored by Congressman Ted Strickland, and a Rural Health Initiative grant from the Appalachian Regional Commission. The assessment was conducted in Athens, Hocking, Pike, and Vinton Counties in Ohio from September 2003 through June 2004. The community assessment addressed access to health care services, access to health care information, perceptions of diabetes care, and health literacy concerns. The primary purpose of the cross-sectional study was to learn more about local persons' perceptions related to health care services and health education needs. A second study purpose was to better understand perceptions and needs related to diabetes care in the four counties. The third study purpose was to learn more about health information and health literacy needs in the four counties.

The four Appalachian project counties are regions of Ohio that have long been affected by excessive unemployment, high poverty rates over many years, and recognized as Health Professional Shortage Areas by the Health Resource Service Administration (HRSA) for primary and mental health care. Many county residents are either under-insured or uninsured for health care. Additionally, many residents lack necessary transportation and phone service which, at times, affects the ability to secure health care services and obtain prescribed medical follow-up.

## **COMMUNITY ASSESSMENT**

The purpose of the cross-sectional study was to learn more about local persons' perceptions related to health care and health education needs in Athens, Hocking, Pike, and Vinton Counties. The community assessment process used several methods to appraise health factors in each of the counties. Several assessment methods including survey, focus groups, key informant interviews, and analysis of diabetic literature occurred. The survey instrument, Community Health Services and Diabetes Assessment survey, was used to collect health information from a convenience sample of participants in health-seeking and non-health-seeking locations within the four counties. Focus groups and interviews with key informants were included to learn more about perceived health care needs and diabetes care. In each county, health education literature currently being used with persons diagnosed with diabetes was collected from various health care settings where survey data was collected. Attempts were made to collect information from diverse community sectors in each county.

## **SURVEY INSTRUMENTS**

A 39-item survey instrument (i.e., Community Health Services and Diabetes Assessment) was developed in the Fall of 2003. The co-investigators worked in consultation with the Institute for Local Government Administration (ILGARD) in Athens, Ohio, the primary investigators of the ARHI project, and other AHRI project participants. Questions were conceptualized based upon the purposes of the assessment (i.e., access to health care services, access to health care information, perceptions of diabetes care, and health literacy concerns). Because many persons in Appalachian Ohio refer to diabetes as "sugar" or "sugar diabetes," the term sugar diabetes was used in the survey instrument. A semi-structured questionnaire with probes was also developed to interview community informants and conduct focus groups. Key informants and focus group participants were clinicians knowledgeable about diabetes care and health care resources available in each of the four counties.

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## **STUDY PROCEDURES**

This study took place between October 2003 and June 2004. A project coordinator supervised by the co-investigators was important in the collection of survey data. During Winter 2004, students trained in data collection techniques by the co-investigators participated in data collection at various health care settings in the four counties. Initial attempts in Athens County data collection at Parks Hall and with HAP during child immunizations in Vinton County were not very successful in recruiting subjects. Large expenditures of students' time resulted in few completed surveys. Several students went on the mobile van to the Kilvert Community Center and this proved to be a successful data collection site. O'Bleness Memorial Hospital in Athens was contacted, and permission was gained to invite persons in hospital waiting areas to participate. One registered nurse, an RN to BSN student, also collected data at Coolville Health Clinic in Athens County. During this time three other registered nurses, also RN to BSN students, collected data in Hocking, Pike, and Vinton Counties. At the end of winter quarter, a total of 173 surveys had been completed.

The approach during Winter quarter mainly targeted those who were either seeking health care services or persons accompanying those seeking health care services. Attention to collection of data in these sites continued during spring quarter 2004, but additional efforts were made to find participants in non-health care sites. Super Saturdays were held to target local residents in community settings. Locations such as Wal-Mart, Kroger, Save-A-Lot, Supervalu, and county libraries were used to gather data. Managers at various locations were contacted by phone to identify whether data collection could be conducted. Most responses were positive, but resistance due to policies of some locations meant that data could not be collected at the same sites in every county. Because there are a small number of businesses in Vinton County, data collection became a special challenge. After agreement was obtained from appropriate persons in county locations for data collection activities, a calendar for spring quarter Super Saturdays were scheduled on April 17<sup>th</sup>, April 24<sup>th</sup>, May 1<sup>st</sup>, and May 8<sup>th</sup>.

## **DATA ANALYSIS**

Survey data were entered into SPSS for analysis. Data were cleaned and descriptive statistics were used for analysis. Content analysis was used to summarize the informant interviews and focus group data by county with themes identified. Health materials pertaining to diabetes were collected and evaluated for reading level for each of the four counties in the ARHI project. Readability tests were completed using the SMOG- the Simple Measure of Gobbledygook test to determine reading levels of health education materials (McLaughlin, 1969).

## **LIMITATIONS of the STUDY**

This cross-sectional study was a community assessment that used a variety of methods to understand more about perceptions of health care and health education in the four counties being studied in the AHRI project. A number of limitations should be noted as the findings are interpreted. First, the use of a convenience sample means that the findings can not be viewed with any certainty that they are representative of the general population in the four counties. Although attempts were made to stratify the sample using a variety of locations for data collection, the findings are not intended to be generalized to all residents. Second, the small sample sizes from each of the counties, though acceptable, may influence the findings. The smaller sample sizes should be considered when in relationship to the diabetes findings and when Community Needs Assessment, ARHI Project, 2003-2004  
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comparing counties on various parameters. Third, the Community Health Services and Diabetes Assessment survey was constructed for use with this study, validity and reliability measures have not been completed on the instrument. If the instrument were used again it might be important to collect data about income. Fourth, comparing health-seeking versus non-health-seeking participants was not meaningful for considering county differences. Encountering participants in health care versus community settings may not be a true indication of health-seeking behaviors. In order to more fully understand these differences different methods of investigation should be considered. Finally, some participants failed to complete all survey questions and analysis was completed taking into consideration this missing data.

## **CONCLUSIONS**

Residents living in the ARHI project counties have health access problems related to availability of medical resources, especially health care providers and medical specialists. However, problems of transportation, phone access, distance from medical care centers, costs of care, and availability of health care insurance are other important barriers to consider. Constraints to obtaining medical care related to access also include personal perceptions related to family traditions, cultural traits, and individual motivation. Although minor differences were observed among those who were health-seeking versus non-health-seeking, these groups were very similar. Local informants have meaningful insight about the health care needs of local residents and have a keen awareness of community problems, but often lack resources, time or knowledge about how to make necessary changes. Rural residents could benefit from the formation of collaborative partnerships with local agencies, institutions, and health care providers, faculty and researchers from academia, and consider possibilities of multi-county coalitions.

Access to useful health information is of concern to many county residents. The reporting of low literacy levels is common by health care providers, but little is known about what is actually being done by providers within health care settings to address additional concerns associated with health literacy. The collection and analysis of diabetic health education materials from multiple health care provider settings throughout the four counties demonstrated that the average reading level of these materials was at the 10.9 reading level, certainly higher than the national reading level average of 8<sup>th</sup> grade. Perceptions of communication problems with medical care providers exist in all counties and consumers often lack the skills and resources needed for obtaining needed health care information. Residents have unique needs and interests related to access of health care information that do not appear to be adequately addressed.

Findings indicate that some perceived problems related to diabetes need attention within the four counties. A total of 15.5% of the participants in this study self-reported that they were diabetic and 53.1% of all study participants indicated (n = 413) that they had family members who were diabetic. Many of those that reported having diabetes also had concerns about seeking medical care, obtaining prescribed medicines, paying for food for their needed diets, and buying medical supplies. Of those reporting that they were diabetic, many indicated that they had problems with depression. Care for persons with diabetes seems to be improving in Athens County and Hocking County has made some important strides. However, Pike and Vinton lack many essential resources necessary for providing even basic diabetic care for county residents.

One of the newest movements afoot in higher education is student engagement. Richard Paul, a national leader in learner-centered education, visited the Ohio University campus last academic year to talk with faculty about how to increase student engagement. Through this project, conducted during the 2003-2004 academic year, students were provided with opportunities to focus on active learning and critical thinking. One of the points of pride in this community assessment for the ARHI project has been that it gave undergraduate and graduate students in a variety of majors a chance to get out of the classroom and become fully engaged in the community. In a sense, the community was utilized as a classroom for the duration of this project. In addition to data collection, students were engaged in analysis of health education materials, data coding, entry and manipulation, communication with healthcare professionals, problem solving, and decision making regarding research and synthesis of information. Many of the skills students used during the ARHI project came from the curriculum that they had been exposed through the College of Health and Human Services. Additional projects such as this could strengthen student educational outcomes while benefiting the community.

Although an epidemiological approach can certainly provide more generalizeable findings, the assessment approach provided an excellent way to discover more about the diverse perceptions of health care from various county populations. In this study, data from county residents as well as key informants who were knowledgeable about health care provided a holistic perspective, generated an opportunity for disparate community voices to be heard, and provided a way to compare health care recipients and providers. The findings from this report provide preliminary findings that may be helpful to a variety of researchers, policy makers, educators, and clinicians working with health care concerns in these four Appalachian counties. Furthermore, findings point to the need for investigation, and interventions that improve access to current health care services, overcome individual and system barriers, meet diabetes care needs, and address health literacy disparities.

The accompanying reports contain more detail regarding a variety of information gleaned from the study.

The other reports include:

*Access to Health Services and Health Information* – This report gives further aspects of the study such as study description and study subjects. Access to health care services, access to health information, concerns associated with health information, and specific areas of health information needs are also examined in this report.

*County Profiles-Athens, Hocking, Pike and Vinton (Ohio)*

This stand alone report includes details about each county in the study. Information is included regarding healthcare, economics and education.

*Appalachia: An Overview of Health Concerns and Health Literacy.* This report includes sections on characteristics of Appalachia, and healthcare shortages and their implications for the four counties involved in the study. Some foundational information on health literacy completes this report.

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*Health Literacy*-this report outlines the specific findings of this study related to health literacy. Perceptions about health information, readability of some printed materials, and health education needs of this population are discussed.

*Diabetes: Focus Group & Key Informant Findings*

Through focus groups and key informant interviews, those conducting the study were able to discover more about the population and the issues surrounding services for diabetic persons. Features include: service providers' thoughts regarding deficits in care, family care, medical management and diabetes self management.