

## **Appalachian Transportation Institute (ATI) Research Project Description**

**Project Number:** ATI TRP 99-03

**Project Title:** Lincoln County Transportation Study

### **Primary Investigator Contact Information:**

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**Project Objective:** This project will assess, develop, and evaluate an efficient intermodal transportation system for access to health care using currently available public vehicles for rural and economically depressed Lincoln County in Southern, WV.

### **Abstract:**

One of the most important and consistent barriers to health care for the people of rural Appalachia is physical access. Roads are inadequate and often in poor repair. Bad weather or high water often makes them impassable. Public or private transport is limited or unavailable. These barriers are especially severe for the elderly, disabled, chronically ill, and poor, all of whom are over represented in rural Appalachia.

A result of these physical barriers is that rural Appalachian people come late to prevention, care, and diagnosis. As a consequence, health care outcomes are poorer for rural people than their urban and suburban counterparts. Deficits in health care affect work force efficiency, education and the effective allocation of scarce resources. Many elders spend a significant percentage of their weekly income to pay private individuals for transport to care. Effects on local and regional economy are inevitable, continuing the downward spiral, which has plagued this disadvantaged region.

This proposal seeks to form a partnership between countywide and regional health care systems and local providers of transportation to ensure safe,

consistent, and cost effective physical access to health care. It requires the creation of a network of local vehicles, drivers and unique cooperative arrangements between county health care providers and regional hospitals and sources of specialty care.

**Task Descriptions:**

The following operational steps will be completed in order to satisfy the Project objectives:

1. A review of current resources and unmet needs regarding transportation to medical care in Lincoln County.
2. Completion of a survey of patients currently seen at the County's two community health centers, assessing availability, cost, dependability, and perceived safety and adequacy of transportation to medical care.
3. Establishment of a system to identify of patients needing transportation to care within and outside the county.
4. Establishment of a common scheduling system for patients within both the local and regional health care and existing transportation systems.
5. Identification of gaps in the current systems of transportation to health care and development of a realistic plan to eliminate those gaps.
6. Identification of other significant barriers to effective transportation to health care systems for citizens of Lincoln County and realistic plans to reduce or eliminate those barriers.
7. Development of a realistic plan for full implementation and viability of the Project following completion of the grant.
8. Development of a system to evaluate the effectiveness of all proposed systems.
9. Development of a clear and accurate description of the system suitable for adaptation and implementation in other rural underserved areas in Appalachia (a Project Manual).
10. Development of a paper outlining the process and system and submission of that paper to an appropriate academic journal.

**Milestones, Dates, Schedule:**

Phase 1: Gather Data and Information November, 2000 - March, 2001

Phase 2: Data Analysis March - June, 2001

Phase 3: Develop Implementation Plan June - August, 2001

Phase 4: Submit Final Report August - November, 2001

**Budget:** \$281,044.00

**Student Involvement:** The project will provide employment support for at least 1 undergraduate and 1 graduate student. The student workers will support the Principal Investigator as project assistants. This project is not anticipated to lead to a student thesis directly.

**Relationship to Other Research Projects:**

While the evaluation methodology employs a sophisticated set of empirical techniques the focus of these efforts is to provide the region a useful guideline for evaluating and modifying patient scheduling processes. The techniques described above, while complex, provide a strong empirical basis for extending the applicability of these methods to other areas. Throughout the process ease of use and generality will be sought in evaluating and extrapolating these results. A similar study is being conducted concurrently in McDowell County. (ATI-TRP99-16)

**Technology Transfer Activities:** Final reports will be available on the ATI website. All, ATI Principal Investigators will present findings through the ATI Transportation Seminar Series to invited guests from WVDOT, USDOT, other ATI Principal Investigators, students and other invited guests. Other opportunities to present the project results will be explored including conferences and peer reviewed journals, etc.

**Potential Benefits of this Project:**

The goal of the project is to improve the health of citizens of a rural and disadvantaged county through improved access to health care, which will inevitably lead to job creation, improved worker productivity and, in terms of health care expenditures, efficient resource allocation. The project will also assist in making the area more attractive for future economic development and define the transportation gaps that exist currently in this region.

**TRB Keywords:** Transportation, Rural health, access barriers, McDowell Appalachia Lincoln