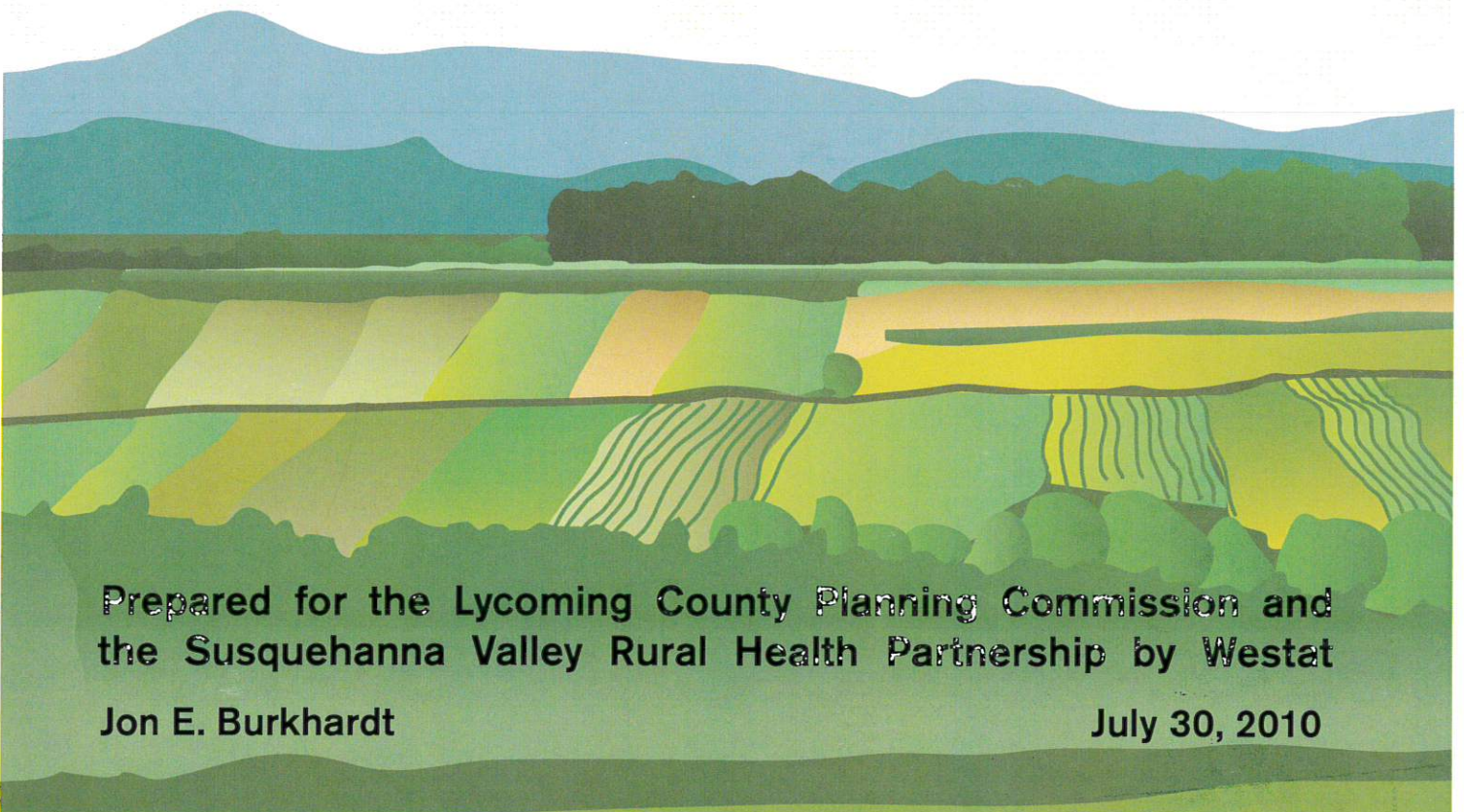


***Medical Transportation  
Services in the  
Susquehanna  
Valley Region***

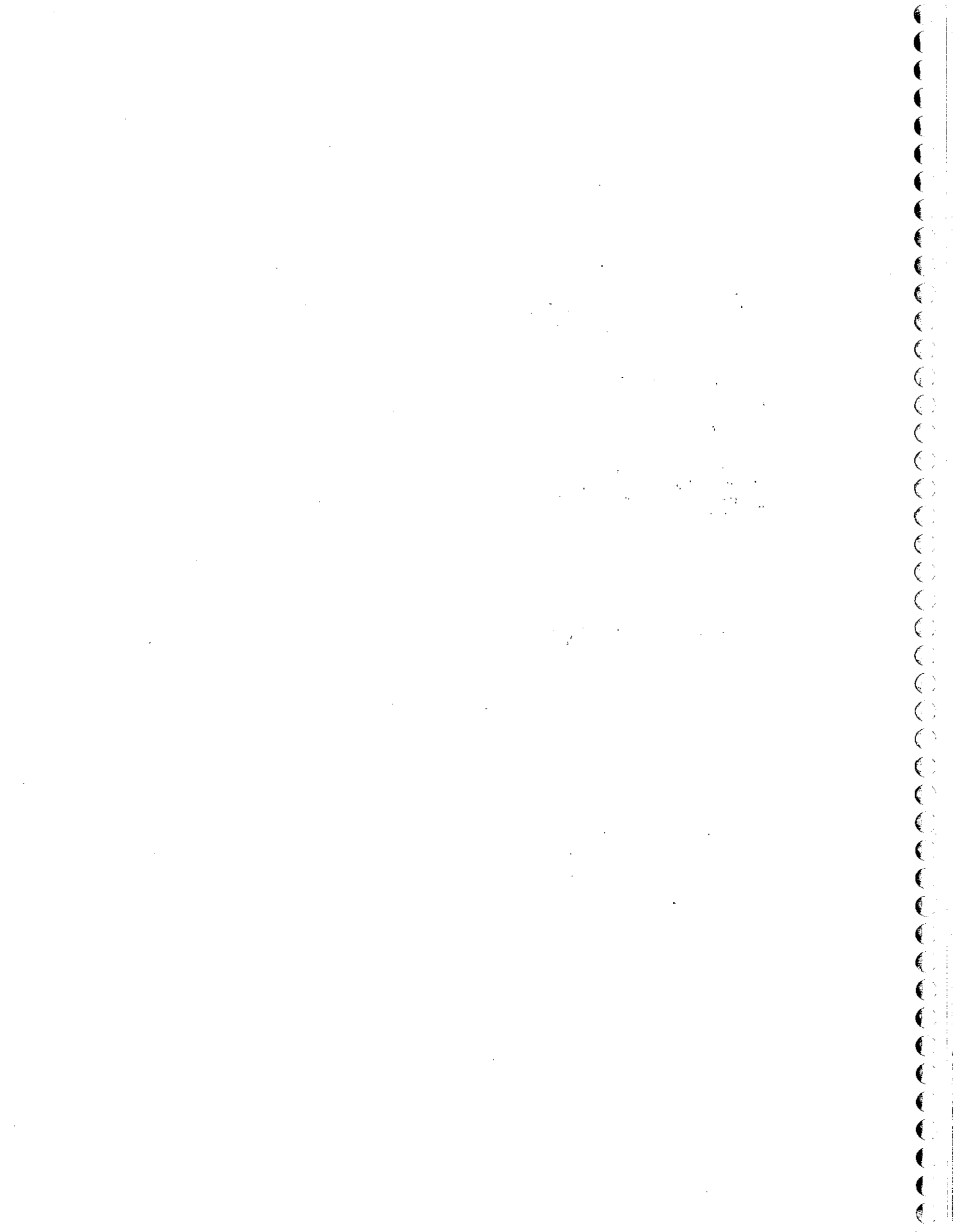
***Final Report***



Prepared for the Lycoming County Planning Commission and  
the Susquehanna Valley Rural Health Partnership by Westat

Jon E. Burkhardt

July 30, 2010





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# ***MEDICAL TRANSPORTATION SERVICES IN THE SUSQUEHANNA VALLEY REGION***

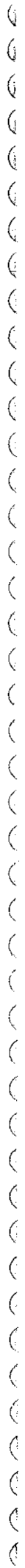
***FINAL REPORT***

**Jon E. Burkhardt**

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Prepared for the  
**Lycoming County Planning Commission**  
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# Acknowledgements

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# Executive Summary

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## OVERVIEW

In many communities, some citizens cannot obtain adequate medical attention because they lack the transportation needed to access medical facilities. Such persons are often older, disabled, poor, rural residents, or members of minority groups. Since such persons often experience other barriers to accessing health care services (such as inadequate health insurance coverage), the additional burden of inadequate transportation compounds an already difficult situation. Problems in accessing appropriate health care services typically result in a tendency to limit medical trips taken to those “immediately and absolutely necessary,” a greater than average or appropriate dependency on emergency transportation services and emergency health care services, worsened health conditions and health outcomes, greater expenditures than would otherwise have been necessary, and diminished health, shorter life spans, loss of worker productivity, and increased health system costs.

Such conditions are present in Clinton, Lycoming, and Sullivan counties in the Susquehanna Valley, especially in the rural portions of these counties. Using information gathered in household surveys, medical provider surveys, transportation provider surveys, U.S. Census data, and other information sources, this study demonstrated that

- Between 5,000 and 11,500 persons in Clinton, Lycoming, and Sullivan counties have medical transportation problems.
- More than half of all Emergency Department visits are for non-emergency reasons.
- Excess Emergency Department and ambulance expenses are nearly \$2.6 million per year.
- Persons lacking medical transportation tend to be low income, in poor health, disabled, older, and living alone.

- Improvements to the ways in which currently available transportation services meet (or fail to meet) medical transportation needs must involve the joint efforts of transportation providers, medical providers, and consumers of medical services.
- The “at risk” population in the 3 counties is growing.

National and regional studies have shown that medical appointment cancellations or serious delays in obtaining health care services negatively affect patients’ health, employability, and quality of life. The outcomes of these consequences include reduced life satisfaction and greatly increased medical costs for individuals, families, localities, and the Commonwealth of Pennsylvania. Phase 1 of this study recommended that the Susquehanna Valley Rural Health Partnership (SVRHP) find ways to address the issues of inadequate access to local health care services and the unnecessarily large medical expenditures that result from this lack of access to medical care. Additional transportation services for this region could create large economic benefits for local residents, the health care community, and the Commonwealth of Pennsylvania.

Significant improvements to medical transportation services are now under way in this region. Phase 2 of this study has seen a much greater level of communication among all parties and updated educational materials for all parties. Lines of communication have been strengthened with regular meetings and new channels for immediate contacts. These improvements have been, for the most part, accomplished within the framework of existing resources. Actions for the future should include greater investments in transportation information and services and efforts to demonstrate the savings in health care costs created by enhanced transportation services.

## CONCERNS REGARDING MEDICAL TRANSPORTATION

Lack of access to medical facilities is now recognized as creating numerous problems leading to suboptimal health outcomes and substantially increasing health care costs. This is especially true in rural communities. Lack of access to medical facilities typically results in

- Excess use of emergency facilities — emergency departments and ambulances — for non-emergency medical needs.
- Delayed / deferred medical treatments, which can then lead to true medical emergencies, extra hospital days, and excessive medical treatment costs paid by patients, taxpayers, and the entire medical community.
- Increased morbidity and mortality; decreased quality of life.
- A small number of high-cost patients consuming the largest amount of scarce medical resources.

Lack of transportation is a key access issue. Innovative health care providers and insurers now believe that, with appropriate (and relatively small) investments in transportation services, it is possible to obtain relatively large benefits in health care costs and health outcomes.

The Pennsylvania Department of Health published *The Special Report and Plan to Improve Rural Health Status* in August 2002. That report identified the “Lack of Access to

Transportation” in rural areas as a health risk and a focus for strategic recommendations. Additionally, transportation was identified as a contributing health risk factor in “Poor Senior Health.” Recommendations for strategies to be implemented by government and community partnerships included the coordination of health and social service providers to develop an integrated transportation system that can be shared among all clients.

The Susquehanna Valley Rural Health Partnership, with the assistance of the Pennsylvania Office of Rural Health at the Pennsylvania State University, undertook this assessment of medical transportation access issues for underserved populations in the rural service areas of Clinton, Lycoming and Sullivan counties. This assessment was intended develop strategies and implement plans to address the medical transportation needs of the local health and human services community and the rural elderly.

## **THE CONTEXT FOR THESE ISSUES**

### **A National Perspective**

Current estimates put U.S. health care spending at approximately 16 percent of our Gross Domestic Product (GDP). The US Department of Health and Human Services expects that the health share of GDP will continue its historical upward trend, reaching 19.5 percent of GDP by 2017. Growth in health care spending is projected to average 6.7 percent annually over the period 2007 through 2017.

Projected demographic trends indicate greater needs for community transportation services in the future:

- There will be many more seniors in the future.
- More of the future elders will be in the oldest age group (85 +).
- There will be more persons with disabilities and reduced mobility.
- Seniors will be more often living alone (without help).
- There will be greater expectations of high-quality services.
- More seniors and persons with disabilities will be residing in suburban and rural homes beyond the reach of “standard” public transportation services.

These trends will exacerbate the need for additional medical transportation services in the future.

### **Key Regional Characteristics**

The Susquehanna Valley region is multi-county area in central Pennsylvania that is mostly rural in nature but has numerous small towns and cities, many located along or near the Susquehanna River. The 3-county area of Clinton, Lycoming, and Sullivan counties has a 2009 estimated total population of 159,777 persons. Most of the population (73 percent) lives in Lycoming County; Sullivan is the least populated county with 6,124 persons.

In comparison to the rest of Pennsylvania, this 3-county region

- Lost population while Pennsylvania gained population from 2000 to 2008 (a 2.9 % loss versus a 1.4 % gain).
- Has a higher proportion of elderly in its population (16.4 % to 15.3 %).
- Has a higher proportion of persons in poverty (13.9 % to 12.1 %).
- Has a 19.6 % lower median household income (\$40,772 versus \$50,702 overall, or 17 to 27 % lower on a county-by-county basis).
- Has a higher proportion of persons w disabilities (18.5 % to 17.1 %).
- Has a much lower population density (62 persons per square mile versus 274 persons per square mile for the state as a whole).

### **Key Local Stakeholders Involved in Medical Transportation**

The following organizations are the key stakeholders in local medical transportation issues:

- **Susquehanna Health (SH)** is a three-hospital health system serving north central Pennsylvania.
- **The Susquehanna Valley Rural Health Partnership (SVRHP)** was created in 2002 to help preserve rural healthcare; it is administered by Susquehanna Health.
- **STEP, Inc.** is a private, non-profit Community Action Agency that provides an array of services and operates STEP Transportation, which provides door-to-door shared ride transportation for pre-registered riders in Lycoming and Clinton counties.
- **The Endless Mountains Transportation Authority (EMTA)** provides public transportation services in Bradford, Sullivan, and Tioga counties and provides medical trips to Williamsport and other destinations.
- **The Williamsport Area Transportation Study (WATS) Transit Advisory Committee**, oversees transportation improvements in Lycoming County.
- **The Pennsylvania Department of Transportation (PennDOT)** funds transportation programs in the region using a variety of Federal and State programs.
- **The Pennsylvania Department of Health** funds health programs in the region using a variety of Federal and State programs.

### **SPECIFIC ISSUES AND CONCERNS**

This study included surveys of households, medical providers, and transportation providers. In addition, numerous meetings were held with medical and transportation staff members. The results of these investigations are described below.

## **The Household Survey**

Questionnaires were mailed by SVRHP to 4,500 rural households in Clinton, Lycoming, and Sullivan Counties in October and November, 2004. There were 1,822 valid responses from respondents in these 3 counties, approximately 600 from each county. For all three counties combined, the results for the respondents in the 3-county region are subject to a standard error of +/- 1% at the 95% confidence level.

The household survey offered the following evidence of medical transportation problems among the rural households in these three counties:

- 3% of the respondents reported that they miss medical or dental appointments because they can't get a ride.
- 5% use emergency room services because they can't get to the doctor's office.
- 1% use an ambulance because it is the only way that they can get a ride.
- 9% could visit doctors and other health care providers more often if there were better transportation services in this area.
- 28% of the household survey respondents rated "the transportation in this area for persons like yourself" as fair or poor.

Using Census data and the survey results, this means that are approximately

- 27,000 persons 65 and older in these 3 counties.
- 20,000 persons in poverty.
- 30,000 persons with go outside disabilities.
- 3,800 persons living in no-car households.
- 15,000 persons who have mobility limitations.
- 4,700 persons who report that they can't get a ride so they miss medical appointments.
- 9,800 persons who use Emergency Department facilities because they can't get to a doctor.
- 11,500 persons who report that they could see doctors more often if more transportation were available.

Please see Chapter 4 for more details concerning these estimates.

## **The Medical Providers Survey**

SVRHP sent a mail survey to all medical providers in Clinton, Lycoming, and Sullivan Counties during October and November, 2004 time period. Follow-up reminders were sent to those who had not responded within 3 weeks of the initial mailing. The 365 surveys sent to medical providers in these 3 counties generated 90 responses. Highlights of the medical provider survey included the following findings:

- 78% of the respondents to the survey of medical providers said that patients cancelled appointments or did not show up for appointments because of transportation.
- 63% said that this happened less than once a month; 7% said more than twice a month.
- 44% said cancellations and no shows were “a major problem.”
- 41% rated local transportation services as Fair or Poor; 21% gave Excellent or Very Good ratings.
- Respondents recognized a need to increase and improve transportation services.
- Respondents recognized a need to be able to schedule trips with less than 24 hours notice for urgent or acute conditions.

## **The Transportation Providers Survey**

In-person interviews were conducted with the major transportation providers in Clinton, Lycoming, and Sullivan Counties by the Transportation Survey Research Center of the Pennsylvania State University from April through May, 2005. Interviews were completed with the 4 major providers: public transit, rural transit, specialized services, and one taxi company; one taxi company and the intercity bus carrier declined to be interviewed. Among other findings, Penn State reported that

- They considered this region to be “well served” by the existing carriers.
- Long-distance trips cause problems; crossing county lines may mean transfers to other providers; no nearby dental care for Medical Assistance clients.
- Some trips are not scheduled to the closest medical providers.
- Significant coordination among transportation providers occurs now.
- Medical providers need to take transportation into account when scheduling appointments

## **Other Data**

Interviews with other medical and transportation providers showed that, for 2004,

- 56% of all Emergency Department visits were for non-emergency reasons.
- Excess Emergency Department medical costs probably exceeded \$500,000 per year.
- Excess ambulance costs probably exceeded \$2,044,000 per year.

## **Overall**

Findings in this region indicate that there are medical transportation problems here which are similar to those in other communities:

- As in other areas, in this 3-county region, persons who lacked adequate transportation for medical purposes tended to be 65 and older, living in low-income households, persons with disabilities leading to mobility limitations, living in no-car households, and persons



living alone. Between 4,700 and 11,500 persons in the 3 counties (from 3 to 7 %, depending on the question) reported medical transportation problems.

- Significant medical transportation problems exist. Key issues in this region include
  - A lack of knowledge regarding the transportation services that are available now.
  - A lack of understanding by health care and transportation providers of ways in which they can mutually address the problems encountered by their mutual clients in accessing health care services.
- The results of these problems include excess medical expenses, delays in receiving care, and probable worsened health care outcomes. Excess Emergency Department and ambulance expenses are nearly \$2.6 million per year.

## **KEY MEDICAL TRANSPORTATION ISSUES IN THIS REGION**

Based on the information collected, the key medical transportation issues in this region are as follows:

- Many medical providers seem not to understand transportation services and constraints; there is a need to consider transportation when scheduling appointments.
  - Transportation providers need to preschedule trips to ensure cost-effective use of limited resources (vehicles and drivers).
  - Delays in completing medical appointment can seriously interfere with return trip transportation schedules.
- Trips crossing county boundaries can be complicated due to state rules regarding limits on community transportation service areas.
- Susquehanna Health and its component agencies need to establish explicit pick-up locations for local transportation providers.
- Riders need to be ready for their return pick-ups after medical appointments.

## **STRATEGIES FOR IMPROVEMENTS**

### **Overall**

- Educate consumers and physicians regarding available transportation options, especially services offered by STEP and EMTA.
- Organize enhanced medical provider / transportation provider relationships.
- Reformulate state policies on "County-line barriers."
- Offer more transportation provided by volunteers.
- Establish long-range efforts for more funding for transportation services.

- Create a long-range effort to identify health cost savings and determine how they are to be shared.

### **Strategies for Health Care Providers**

- Educate consumers and physicians regarding available transportation options, especially about the services provided by STEP and EMTA:
  - Don't close offices before patients (riders) are picked up.
  - Instruct medical providers about honoring rider identity cards regarding appointment times in order to ensure that riders have completed their medical appointments in time for their rides home.
- Help organize enhanced medical provider / transportation provider relationships.
- Provide lists of designated drop-off and pick-up locations to transportation providers.
- Ensure safe and comfortable waiting areas and shelters for clients waiting for transportation.

### **Strategies for Transportation Providers**

- Educate consumers and physicians regarding available transportation options, especially about the services provided by STEP and EMTA.
- Help organize enhanced medical provider / transportation provider relationships.
- Ensure that drivers follow procedures in searching for passengers at medical facilities. This should include phone calls and searching for passengers in designated waiting areas.
- Distribute information on rider identity cards to medical providers in order to ensure that patients have completed their medical appointments in time for their rides home.
- Review staffing needs for trip reservations and schedule changes.
- Use volunteer drivers to provide some trips. For example, operating expenses could be reduced if volunteers provided some long distance trips.

### **Strategies for Other Key Stakeholders**

- Pennsylvania Department of Transportation
  - Reformulate state policies on "County-line barriers."
  - Support regional transportation services.
  - More funding for transportation services.
- Pennsylvania Department of Health

- Distribute info on health system benefits resulting from reduced appointment cancellations.
- Lycoming County
  - Provide the venues for continued interaction between transportation and medical providers.

## CONCLUSION

A great benefit of this planning process is that the patients of health care providers and the riders of transportation services are now being seen as *shared customers*. Health care providers and transportation providers have a greater understanding of how the integration of their services leads to the more cost-effective operations of both systems. Savings in expenses for all providers should ultimately be mirrored in better health care outcomes for the residents of the Susquehanna Valley.

The choice between alternative actions seems stark. Taking no action to improve medical transportation services in this 3-county region could perhaps save a few dollars in the short run but would be hugely more expensive in the long run. Consider the following:

- The cost of one hospital day for one patient is equivalent to the cost of 23 months of trips for that person.
- The cost of one Basic Life Support ambulance ride is equivalent to the cost of 41 rides on STEP, the primary local transportation provider. The cost of one Advanced Life Support ambulance ride is equivalent to the cost of 53 rides on STEP.
- The cost of one person's Emergency Room visit is equal to the cost of 4 primary care visits for that person.

Transportation investments have been shown to reduce health care costs in the long run. It's time to ensure that health care providers and transportation providers make a concerted effort to improve medical transportation services in Clinton, Lycoming, and Sullivan counties. The benefits of these improvements accrue to all patients, all medical providers, all taxpayers, and all citizens.



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# Chapter 1

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## INTRODUCTION

### BACKGROUND

*The Special Report and Plan to Improve Rural Health Status* was published by the Pennsylvania Department of Health in August 2002. That report was created to

1. Identify and call attention to the special health improvement issues of rural populations and possible strategies for addressing them,
2. Serve as a resource for communities and community health improvement partnerships, which serve rural populations as they develop local, needs assessments and health improvement plans, as well as provide a data driven approach to health planning for rural communities; and
3. Support other planning efforts underway, including the Medicare Rural Hospital Flexibility Program.

An identified health risk and a focus for strategic recommendations was the “Lack of Access to Transportation” in rural areas. Additionally, transportation was identified as a contributing health risk factor in “Poor Senior Health.”

Recommendations for strategies that might be implemented by government and community partnerships as they assessed local health issues and developed health improvement priorities included:

1. Coordinate health and social service providers to develop an integrated transportation system that can be shared among all clients, especially in response to extraordinary transportation requests;
2. Provide clear direction to consumers about program eligibility and how to access transportation services;
3. Develop agreements among transportation providers to reduce fragmented or duplicative trips to the same health care provider;
4. Eliminate or reduce long distance trips for routine health care delivery through the development of mobile systems of care, telemedicine, or at-home monitoring of chronic conditions;
5. Study models available in other communities to make the best use of available human and financial resources; and
6. Include the vital role of EMS and participation of local EMS organizations in planning efforts.

The Susquehanna Valley Rural Health Partnership (SVRHP) is responsible for assessing transportation access issues for Medicare, Medicaid, and other underserved populations in the rural service areas of Clinton, Lycoming and Sullivan counties. SVRHP also assists in developing strategies and implementing plans to address the identified areas of need.

## **THE HISTORY OF THIS STUDY**

In January 2004, SVRHP received funding from the Community Transportation Association of America (CTAA) to study ways to enhance health care services in their service area. In February, CTAA authorized Westat to assist SVRHP in their efforts to quantify health care related transit needs in Clinton, Lycoming, and Sullivan Counties in Pennsylvania. Initial work focused on developing surveys of rural households, medical providers, and transportation providers in the three-county region in order to assess medical transportation needs. Later in 2004, SVRHP contracted directly with Westat to help use the results of the surveys and other data to assess local medical transportation needs and to create recommendations for resolving the issues discovered. Issues addressed in what was subsequently referred to as Phase 1 of the study included

- A needs analysis of transportation needs of the health and human services community
- A needs analysis of transportation needs of the rural elderly
- Current transportation practices of local health and human service agencies
- Feasible and workable models for providing transportation for health and human service agencies
- A list of potential funding sources for transportation
- Analysis of Census data and transportation information, resources, and models used by the general public in rural areas, and
- Areas for further planning and research concerning this problem.

A Phase 1 final report entitled *Using Transportation to Improve Health Care in the Susquehanna Valley* was delivered by Westat to SVRHP in May 2006.

Phase 2 of the study began shortly thereafter. Funding used by SVRHP for the initiation of Phase 2 included funds from the Pennsylvania Office of Rural Health. In September 2008, funds from the Pennsylvania Department of Transportation, administered by the Lycoming County Planning Commission, were added to Phase 2 in order to expand the study's scope, which then included

- Reviewing Phase 1 results with key stakeholders
- Collecting data on medical transportation needs and resources
- Establishing a consensus on local medical transportation issues
- Designing alternative courses of action
- Assessing those alternatives and choosing a final approach
- Submitting draft materials, and
- Revising those materials based on inputs from our Advisory Committee and submitting this final report in June 2010.

It is important to note that over the 6-year course of this study, substantial improvements have been made to medical transportation services in the three-county region. These improvements have been accomplished because of the dedicated efforts of key local stakeholders who have worked diligently to address medical transportation issues from some widely differing perspectives. While there are still challenges in addressing all the needs of all individuals who have difficulty in accessing health care services in the Susquehanna Valley region, the partnership approach adopted by key stakeholders there has certainly reduced these challenges in recent years.





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# Chapter 2

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## MEDICAL TRANSPORTATION NEEDS AND PROBLEMS

Many communities, especially those in rural areas, are beginning to recognize that **lack of access to medical facilities creates a large number of problems which create suboptimal health outcomes and substantially increase health care costs.** Lack of access to medical facilities typically results in

- Excess use of emergency facilities — emergency departments and ambulances — for non-emergency medical needs.
- Delayed / deferred medical treatments, which can then lead to true medical emergencies, extra hospital days, and excessive medical treatment costs paid by patients, taxpayers, and the entire medical community.
- Increased morbidity and mortality; decreased quality of life.
- A small number of high-cost patients consuming the largest amount of scarce medical resources.

Based on an intuitive understanding of the connection between mobility and positive health care outcomes, innovative health care providers and insurers are funding and sponsoring transportation services for their patients because they believe that, with appropriate (and

relatively small) investments in transportation services, it is possible to obtain relatively large benefits in health care costs and health outcomes.

Non-emergency transportation systems have a key role to play in health services. Non-emergency transportation services also provide access to prompt care to avoid minor situations getting worse, and they provide highly cost-effective services, reserving emergency services for emergency situations. They do this by bringing patients to primary care physicians in order to (1) reduce unnecessary hospitalizations and unnecessary emergency department usage, (2) obtain counseling regarding high risk destructive behaviors, and (3) receive the benefits of preventive practices, treatments, and screenings.

## **HEALTH CARE COSTS AND OUTCOMES ASSOCIATED WITH MISSED HEALTH CARE**

Previous research has conclusively demonstrated that

- **access to care reduces preventable hospitalization rates, and**
- **access to care reduces overall costs.**

Much evidence supports the concept of preventive medicine: **“spending money to prevent disease and injury and promote healthy lifestyles makes good economic sense”** (Centers for Disease Control and Prevention, 1999). Periodic health examinations (PHEs), in which certain health procedures are performed depending on the individual patient's age, health risks, and preferences, have been found to be much more cost-effective than annual medical examinations. The Agency for Healthcare Research and Quality (AHRQ) supported a study which found that persons who receive regular PHEs have "significantly lower rates of preventable hospitalization, emergency room use, and preventable hospital days than those who don't receive PHEs" (Plauth and Pearson, 2000). It has been found that a significant number of those not receiving PHEs do not have adequate access to trained physicians, especially in rural areas. Therefore, providing transportation could be extremely important in encouraging people to see their physicians on a more regular basis.

The top ten diseases or conditions causing deaths cost the United States hundreds of billions of dollars each year. There are many cost-effective preventive practices for reducing the incidence or severity of cancer, pneumonia and influenza, heart diseases, diabetes, and kidney disease. Clearly, if more patients had access to preventive services, more of these conditions or diseases would be discovered and treated earlier, and the severity of cases and the costs of treatment would decrease.

### **Demographic Characteristics of Persons Who Lack Medical Transportation**

#### **Marital and Employment Status**

The literature reveals several demographic characteristics associated with individuals

who may experience medical transportation problems. A study on older adults in North Carolina shows individuals who are not married are more likely to delay medical care due to transportation difficulties than those who are married (Blazer, et al., 1995). Another study indicates that employment status is related to medical transportation problems. Individuals without employment tend to have more barriers than those who are employed (Ahmed, et al., 2001).

### **Gender and Other Factors**

A report from San Bernardino and Riverside Counties in California describes the characteristics of those who miss medical appointments due to transportation as female, residents in rural areas and with household income less than \$20,000. The same report finds that even individuals who have their own transportation and those who have others who can drive for them still have missed medical appointment in the past (Norman and Menninger-Mayeda 2005). In addition, those who are older and less educated are less likely to obtain medical care due to lack of transportation (Wallace, et al., 2005).

## **HOW TRANSPORTATION SERVICES HELP REDUCE HEALTH CARE COSTS**

Burkhardt's 2002 study for CTAA found that "Transportation to medical services could enhance the cost-effectiveness of health care programs in many ways. These would include

- Providing affordable access to primary medical care for preventive services such as
  - periodic health examinations and screening
  - vaccinations
  - medical and life-style counseling.
- Taking patients to primary ambulatory care facilities for services and treatments designed to
  - reduce preventable hospitalizations, and
  - reduce avoidable emergency department usage.
- Using non-emergency vehicles and staff to transport non-emergency patients, saving ambulance expenses and ensuring that emergency services are available when truly needed.
- Providing access to educational programs teaching individuals how to maintain active, high-quality, and independent life-styles over extended periods of time.

- Connecting residents to social opportunities to enhance community integration and reduce the kinds of isolation and depression that lead to a lack of incentive for self care (Burkhardt, 2002).”

Even slight improvements in health care outcomes from additional transportation services could have massive benefits. On a national basis, a one percent reduction in total health care expenses would achieve a savings of \$5.6 billion per year.

## **Cost-effectiveness of Non-emergency Medical Transportation Services**

Wallace and his colleagues identified how improved medical transportation services can result in cost reduction for particular medical conditions. Important findings from this study are as follows:

- For medical conditions such as influenza vaccinations, breast cancer screening, colorectal cancer screening, dental care, chronic obstructive pulmonary disease, hypertension, depression and mental health, and end-stage renal disease, improved non emergency medical transportation cost money. However, with an increase in life expectancy or quality of life, providing such services to individuals with these medical conditions is cost-effective.
- For prenatal care, improved non emergency medical transportation services save \$367 per case.
- For asthma, improved non emergency medical transportation services save \$333 per case.
- For heart disease (congestive heart failure), improved non emergency medical transportation services save \$2,743 per case.
- For diabetes, improved non emergency medical transportation services save \$927 per case (Wallace, et al., 2006; Wallace, et al., 2005).

## **Investments in Medical Transportation Bring Monetary Savings**

A study in the State of Florida calculated how their medical transportation program can save money for the state. Florida’s Transportation Disadvantaged Programs, which includes medical transportation services for individuals who are older, with low-income, with disability, or without access to public transportation, are designed to help riders get to preventive medical services. The study titled *Florida Transportation Disadvantaged Programs: Return on Investment Study* (Cronin, 2008) includes specific calculation on some medical costs.

Important findings from the 2008 Florida study include

- On average, the monthly cost for nursing home care is \$5,000.
- On average, monthly cost for hospitalization is \$7,900.
- Daily cost for adult day care ranges from \$25 to \$100.

- If medical transportation services prevent 1% of dialysis patients from being hospitalized for one day, the total numerical benefit of return on investment is \$1,425,907,024.
- Even using what the authors called conservative calculations, the study reports every \$1 invested in medical transportation services for the disadvantaged brings a return of \$11.08 to the state.

## **Issues with Medical Transportation Services**

### **Lack of Information**

As the issue of non-emergency medical transportation services receives more attention, it is very important to have relevant data to examine the problem. However, the health care industry literature rarely documents information on missed appointments, which is a critical measure for this issue. Lack of information makes it difficult for researchers to examine the volume of needs for non-emergency medical transportation services (Wallace, et al., 2005).

### **Underestimating the Problem**

Transportation and housekeeping are common unmet needs among older adults according to a Canadian study on older residents who are 75 or over. This study also indicates that those persons with unmet needs tend to visit the emergency room compared to those without unmet needs. While older adults cite their specific unmet needs, they also tend to think their issues are trivial, thus they are not likely to seek help on these issues. As studies indicate unmet needs are related to poor health, it is important for health professionals to encourage older adults so that they ask help on these unmet needs (Lévesque, et al., 2004).

### **Transportation Service Can Make a Difference**

A study on asthma patients with emergency department visits indicates that transportation service may encourage patients to make a follow-up visit with their primary care physician once they are discharged from the hospital. The study findings indicate that roundtrip transportation vouchers to the physician's office along with medication supply and telephone reminder increase patients' likelihood of seeing a primary care provider for follow-up (Baren, et al., 2001).

### **Benefits of Providing Non-emergency Medical Transportation Services**

A rural transportation study in the United Kingdom shows how transportation services can benefit multiple sectors directly and indirectly. Benefits to the health care industry include

- freeing up hospital beds
- reducing no shows for medical appointments
- medical cost reductions via early medical interventions, and

- improved efficiency for ambulances (p. 33-34).

Indirect benefits to the health care sector include

- “improved health outcomes from earlier detection and treatment (p. 35)”
- “reduced health inequalities (p. 36)” and
- “reduction in stress associated with difficult journeys (p.36).”

In addition, family caregivers needing to visit their family members who are hospitalized benefit from transportation services and such visits may have impact on patient’s medical recovery and mental well-being (CAG Consultants & TAS Partnership Ltd., 2004).

## CONCLUSIONS

The literature reviewed for this study indicates that various factors have been identified as medical transportation barriers. Studies have found that being female, older, low income, rural resident, single, less educated, and without employment are related to having medical transportation issues. While one can assume access to transportation may decrease medical transportation problems, studies found that persons with their own transportation or those who can get rides from others still have missed medical appointments.

Other major issues regarding medical transportation services are 1) a lack of information documenting missed appointments in the health care industry and 2) transportation services being perceived as minor unmet need among those who really need such a service. Without accurate data reflecting the severity of the problems, it is hard to measure the extent of needs that exist for non-emergency medical transportation services. Additionally, the fact that some seniors tend to underestimate their transportation problems probably hides a portion of the true reality of medical transportation needs. These issues clearly indicate that further research on this topic is needed and medical transportation problems may be currently underreported.

Finally, a few studies have identified benefits of having non-emergency medical transportation services and how these services can save money for all parties involved. Several direct and indirect benefits have been discussed ranging from freeing up hospital beds to increased health equality. There are now a few studies with specific numeric figures on medical transportation costs.

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# **Chapter 3**

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## **KEY NATIONAL AND REGIONAL CONSIDERATIONS**

### **A NATIONAL PERSPECTIVE**

#### **Health Care Expenses**

Health care is a large issue in the United States. Health care expenses accounted for 14 percent of the US gross domestic product in 2001 (Levit, et al., 2003). Current estimates put U.S. health care spending at approximately 16 percent of our Gross Domestic Product (GDP). Health care costs are increasing much more rapidly than the overall cost of living index. The US Department of Health and Human Services expects that the health share of GDP will continue its historical upward trend, reaching 19.5 percent of GDP by 2017. Growth in health care spending is projected to average 6.7 percent annually over the period 2007 through 2017 (“National Health Expenditures . . .” 2008). In 2001, total personal health care expenses in the U. S. were said to be nearly \$1.236 trillion (Institute of Medicine, 2003). Expenditures in the United States on health care surpassed \$2.3 trillion in 2008, more than three times the \$714 billion spent in 1990, and over eight times the \$253 billion spent in 1980 (Centers for Medicare and Medicaid Services, 2010).

Health services consumption patterns are not equal across the United States. Persons in urban areas, higher-income individuals, and workers generally consume more health care services than persons living in rural areas, lower-income individuals, persons who are not employed, and members of minority groups. Part of this consumption disparity is due to the fact that health services themselves are not distributed equally across the United States.

## Demographic Trends

The trends which are likely to have the greatest impact on the numbers of persons who might require medical transportation or other kinds of specialized transportation services are described below. Some of these trends (Burkhardt, 2007) could reduce the potential rate of growth in the number of persons with disability, but they do not keep the overall number from growing, which indicates that the overall level of demand for ADA paratransit services will continue to rise.

- **There are rising rates of disability in the United States** due to the aging of the population, poverty, and medical advances. In addition, recently recognized “emerging conditions” have added to overall rates of disability, although much of the growth in disability due to emerging conditions may be attributable to increased awareness and access to treatment (Fujiura, 2001).
- **Current trends show a declining rate of disability** (the percentage of the population that has disabilities) among older population groups. According to the National Institute on Aging (NIA), “. . . disability levels for people age 65 and older have been falling at an accelerating rate since 1982 . . .” (NIA, 2005). The most recent figures (Manton, Gu, and Lamb 2006) show an accelerating rate of decline in chronic disability among older Americans, leading to more optimistic assessments of seniors’ future health and functioning than were previously available. The Director of the National Institutes on Aging calls this finding “one of the most encouraging and important trends in the aging of the American population” (NIA, 2006).
- **Our society is rapidly aging:** the number of persons age 65 and over is projected to nearly double from 2000 to 2030, to a total of 71.5 million seniors in 2030. During that period, the proportion of the population 65 and over is projected to rise from 12.5 percent to nearly 20 percent (AoA, 2006). This trend to increased aging will most likely increase the number of persons with disabilities, even if the rate of disabilities declines, because an increase in disability is a common component of advanced age. Using 2004 US Census projections, the percentage of persons with disabilities in the population would have to fall from the 2000 level of 19 percent among persons 5 years of age and older to 15.8 percent in 2030 to register no increase in the number of persons with disabilities, based on a 2000 population of 262,907,000 persons 5 years of age and older and a projected 339,312,000 2030 5 and older population (US Census, 2006).



- In localities where the average age increases significantly in the future, the growth in the number of persons with disabilities may be dramatic. Furthermore, while the elderly of the future are likely to exhibit patterns of higher education, higher incomes, and better health status than the elderly of today (National Academy on Aging, 1994), some analysts project that many elderly will outlive their ability to drive by 7 to 10 years (Foley, et al., 2002), thus increasing the demand for additional transportation services.
- The percent of the U.S. population in 2000 who could be considered as “transportation disadvantaged” was 5.3 percent, according to projections based on the Bureau of Transportation Statistics’ 2002 National Transportation Availability and Use Survey (Wallace, et al., 2006).
- General trends towards higher education, higher incomes, and better health status could reinforce the trend toward declining rates of disabilities among the older population, although **population increases among seniors will still lead to higher numbers of seniors with disabilities despite the decline in disability rates among seniors** (NIA, 2005).

Thus, these are the projected demographic trends indicate greater needs for community transportation services in the future:

- There will be many more seniors in the future.
- More of the future elders will be in the oldest age group (85 +).
- There will be more persons with disabilities and reduced mobility.
- Seniors will be more often living alone (without help).
- There will be greater expectations of high-quality services.
- More seniors and persons with disabilities will be residing in suburban and rural homes beyond the reach of “standard” public transportation services.

These trends will exacerbate the need for additional medical transportation services in the future.

## KEY REGIONAL CHARACTERISTICS

The Susquehanna Valley region is multi-county area in central Pennsylvania that is mostly rural in nature but has numerous small towns and cities, many located along or near the Susquehanna River. The 3-county area of Clinton, Lycoming, and Sullivan counties has a 2009 estimated total population of 159,777 persons in an area of 2,576 square miles. Most of the population (116,840) lives in Lycoming County; Sullivan is the least populated county with 6,124 persons.

Part of the 3-county region includes the Williamsport-Lock Haven Combined Statistical Area (CSA) that had a combined population of 157,958 at the time of the 2000 census. This CSA includes the Williamsport metropolitan area of Lycoming County and the Lock Haven

micropolitan area in Clinton County. Williamsport, the largest city in the area, was known as "The Lumber Capital of the World" in the late 1800s because of its thriving lumber industry. Key components of the area's current economic base include health services, government, education, and manufacturing.

In comparison to the rest of Pennsylvania, this 3-county region

- Lost population while Pennsylvania gained population from 2000 to 2008 (a 2.9 % loss versus a 1.4 % gain)
- Has a higher proportion of elderly in its population (16.4 % to 15.3 %)
- Has a higher proportion of persons in poverty (13.9 % to 12.1 %)
- Has a 19.6 % lower median household income (\$40,772 versus \$50,702 overall, or 17 to 27 % lower on a county-by-county basis)
- Has a higher proportion of persons w disabilities (18.5 % to 17.1 %)
- Has a much lower population density (62 persons per square mile versus 274 persons per square mile for the state as a whole).

## **KEY LOCAL STAKEHOLDERS INVOLVED IN MEDICAL TRANSPORTATION**

The following organizations are the key stakeholders in local medical transportation issues:

- **Susquehanna Health (SH)** is a three-hospital health system serving north central Pennsylvania that includes The Williamsport Hospital & Medical Center. Susquehanna Health serves patients from an 11-county region. It employs 100 physicians in its Susquehanna Medical Group (SMG).
- **The Susquehanna Valley Rural Health Partnership (SVRHP)** was created in 2002 to help preserve rural healthcare. The Partnership includes The Williamsport Hospital along with three "critical access hospitals." It is the first rural health network in Pennsylvania that involves three critical access hospitals. SVRHP is administered by Susquehanna Health.
- The Lycoming-Clinton Counties Commission for Community Action, otherwise known as **STEP, Inc.**, provides an array of services to persons with special needs. This agency operates STEP Transportation, which provides door-to-door shared ride transportation for pre-registered riders in Lycoming and Clinton counties.
- **The Endless Mountains Transportation Authority (EMTA)** provides public transportation services in Bradford, Sullivan, and Tioga counties and provides medical trips to Williamsport and other destinations.
- **The Williamsport Area Transportation Study (WATS) Transit Advisory Committee**, administered by the Lycoming County Planning Commission, oversees transportation improvements in Lycoming County.
- **The Pennsylvania Department of Transportation (PennDOT)** funds transportation programs in the region using a variety of Federal and State programs.

- **The Pennsylvania Department of Health** funds health programs in the region using a variety of Federal and State programs.

## **Transportation Providers in the Region**

In-person interviews with the major transportation providers in Clinton, Lycoming, and Sullivan Counties were conducted by the Transportation Survey Research Center of the Pennsylvania State University from April through May, 2005 (Patten, 2005). The interview guide is shown in Appendix B.

The questionnaire for the survey of transportation providers included questions about

- The services that they provide, including days, times, and destinations served.
- The kinds of specialized transit or paratransit services they provide.
- The kinds of medical trips that they serve.
- How they coordinate their operations with other transportation providers.
- Their views on unmet transportation needs in the region.

Interviews were completed with the 4 major providers: public transit, rural transit, specialized services, and one taxi company; two other providers declined to be interviewed (one taxi company and the intercity bus carrier). Respondents were

- **River Valley Transit**, the public transit agency serving Williamsport and adjacent areas with 17 large transit buses;
- **Endless Mountain Transportation Authority**, a rural public transit system serving Bradford, Sullivan, and Tioga counties with 45 buses and other vehicles;
- **Billtown Cab**, a traditional taxi company serving Lycoming County with 12 sedans; and
- **STEP, Inc.**, a human services agency serving Clinton and Lycoming counties outside of the City Bus service area with 20 vans and other vehicles.

The four responding agencies together provide paratransit service to the entire SVRHP service area (Clinton, Lycoming and Sullivan counties). Additionally, they provide services to medical centers outside of these counties.

River Valley Transit and EMTA provide services Monday through Saturday. STEP and Billtown Cab cooperate to provide paratransit services provided twenty-four hours a day, seven days a week (including all holidays). STEP requires clients to schedule their trips by noon on the preceding day.

Together, the 4 agencies participate in all of the major paratransit programs available in the region, as shown in Table 1. Penn State reported that these 4 agencies also provide transportation for several other agencies and programs:

**Table 1:  
SPECIALIZED TRANSPORTATION PROGRAMS SERVED**

<i>Program</i>	<i>Organization</i>			
	<i>City Bus</i>	<i>STEP</i>	<i>EMTA</i>	<i>Billtown Cab</i>
Americans with Disabilities Act	Yes	Yes	Yes	Yes
Welfare to Work		Yes	Yes	Yes
Free Transit Program for Senior Citizens	Yes		Yes	Yes
Shared-Ride Program for Senior Citizens	Yes	Yes	Yes	
Medical Assistance Transportation Program		Yes	Yes	

Source: Patten, Susquehanna Valley Rural Health Partnership Transportation Study, Penn State, 2005.

- STEP also provides services for the Blind Association and the Area Office of Aging,
- River Valley Transit provides services for Hope Enterprises, a mental retardation work program, and
- EMTA provides services through the Human Service Development Fund, a County-sponsored program for critical trips that don't fit in other categories.

On an average day, EMTA, STEP, and Billtown Cab together carry approximately from 500 to 700 riders more than 8,500 miles.

There some restrictions placed on who can ride these services:

- STEP: To receive reduced fares, riders must meet the eligibility requirements of a program that will share the cost of their rides. STEP will also carry members of the general public if they pay the full fare (currently \$15.60).
- River Valley Transit: Paratransit riders must meet ADA requirements.
- EMTA: Riders must meet ADA requirements. To travel outside of the county, the client must have a scheduled appointment. There are no limitations on out-of-county medical trips.
- Billtown Cab: Taxi operations are limited to Lycoming County. Can provide out-of-county MA trips for medical care.

Among other findings, Penn State reported that

- They considered this region to be “well served” by the existing carriers.
- Long-distance trips cause problems; crossing county lines may mean transfers to other providers; no nearby dental care for Medical Assistance clients.
- Some trips are not scheduled to the closest medical providers.
- Significant coordination among transportation providers occurs now.
- Medical providers need to take transportation into account when scheduling appointments

Further information on the results of the survey of transportation providers is provided in the *Susquehanna Valley Rural Health Partnership Transportation Study*, prepared by the Pennsylvania Transportation Institute, the Pennsylvania State University (Patten, 2005).

## **STEP Transportation**

The Lycoming-Clinton Counties Commission for Community Action, otherwise known as **STEP, Inc.**, is a private, non-profit Community Action Agency that provides an array of services to persons with special needs. Among its services, STEP operates the local Area Agency on Aging. This organization also operates STEP Transportation, which provides trips for pre-registered riders in Lycoming and Clinton counties. In doing so, STEP is providing specialized transportation to almost 93 percent of the population of this 3-county region. Specialized transportation services in Sullivan County are provided by the Endless Mountains Transportation Authority (EMTA).

STEP Transportation provides advance reservation demand responsive transportation service in Clinton and Lycoming Counties to members of the general public and human service agency clients. STEP currently owns 27 vehicles, 23 of which are usually in service at any one time. Plans to increase their fleet to 30 vehicles have been approved. STEP is

- A pre-scheduled, on-demand transportation service.
- The only transportation provider in the state that is available 24 hours a day, 7 days a week, and 365 days a year.
- For pre-registered users only.
- A shared ride service.
- A door-to-door service.
- A shared cost service for some riders.

In areas in and around Williamsport served by River City Transit, STEP provides paratransit services for persons with disabilities who have qualified for services under the Americans with Disabilities Act.

Most of the trips that STEP provides are to seniors and to persons eligible for Medicaid (in Pennsylvania, the Medicaid program is referred to as Medical Assistance or MA). About

two-thirds of the trips that STEP serves are for medical purposes. This means that out of the more than 146,504 trips done in Fiscal Year 2010, approximately 97,000 (66.2 percent) were for medical purposes. (These counts do not include out-of-county MA trips.) STEP also serves general public riders who have pre-registered with STEP. STEP will provide about 1 million miles of service this year, a slight decrease from 1,012,000 last year. STEP's funding sources include

- The Pennsylvania Department of Public Welfare (DPW) and Department of Aging
- Federal Transportation Administration (FTA) funds programs administered by the Pennsylvania Department of Transportation (PennDOT)
- PennDOT state programs, including the Pennsylvania Lottery
- STEP's riders.

STEP typically provides trips from 4:30 a.m. until 10 p.m. using mini-vans, full-sized vans, and small buses; all these vehicles wheelchair-accessible. Subcontractors also provide some trips during the day. After those hours, most trips are scheduled and provided through sub-contracts with the local taxi companies. Possible trip destinations can include:

- All locations within the 2,135 square mile area of Lycoming and Clinton Counties.
- The Geisinger Medical Center, located in Danville (where STEP makes trips twice per day) and the Eye Center in Allenwood.
- For Medical Assistance clients, STEP can provide trips to medical facilities throughout Pennsylvania if those trips are pre-authorized by MA.

STEP reports an average trip cost of \$17.45 for FY 2010. This figure includes capital expenses but does not include out-of-county Medical Assistance trips, mileage reimbursement given to MA customers who use their own transportation or that of friends or family, or fixed route reimbursement given to MA customers who use the city bus. Using these figures, we estimate that STEP's transportation operating, capital, and administrative expenses approximate \$2,556,500 for FY 2010 for their transportation services in Clinton and Lycoming Counties.

### **What It Costs to Ride STEP**

Medicaid (Medical Assistance) eligible persons receive eligible medical trips at no cost to the rider. Seniors [persons 60 years of age and older] pay \$0.80 each way for medical trips, grocery shopping twice per month, senior center dining and center activities, social service agency appointments, and to visit immediate family in a hospital, nursing, home, or personal care home. At age 65, customers can ride to any other appointment not listed above for \$2.35. General public riders pay \$15.60 per trip. Persons who are prequalified under the Americans with Disabilities Act for paratransit services offered through River Valley Transit pay \$4.00 each way for their trips.

### **Steps Required for Reserving a Ride**

Persons interested in riding STEP must register with STEP before being eligible to ride. A major purpose of the pre-registration process is to determine if the rider is eligible for the co-payments offered by various human service agencies. Individuals desiring a ride must call between 7:30 am and 5:00 pm and request a ride. Reservations for rides on STEP must be made prior to noon at least one business day in advance of your trip. STEP observed holidays and weekend days are not considered business days for reservation purposes even though trips are provided on those days.

Specific times for pick-ups on the originating trip and the return trip should be requested. The STEP vehicle may arrive between 15 minutes earlier and 15 minutes later than the time requested; passengers need to be ready at any time during this period. If a passenger is not available to board the vehicle when it arrives, the driver is required to wait 5 minutes for the passenger to show up and also attempt to contact the passenger (by phone, knocking on the door, etc.). If the passenger does not present themselves by that time, the driver can then leave and proceed to the next scheduled pick up. It is permissible for a missed trip to be considered a No-Show. If a passenger won't be making a trip that they have reserved, they must call at least 1 hour in advance to cancel that trip. If a passenger doesn't show up for 3 trips they have scheduled in a 31-day period, they must wait another month before STEP will accept another reservation from them.





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# **Chapter 4**

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## **INDICATORS OF MEDICAL TRANSPORTATION PROBLEMS**

To determine the nature and extent of medical transportation issues in the Susquehanna Valley, the following activities were conducted:

- A review of background information, including previous studies and Census data for the region,
- A household survey of the travel needs of rural residents in the three-county region,
- A survey of healthcare providers in the region,
- A survey of patients who had missed appointments,
- A review of Emergency Department utilization and costs, and
- A review of ambulance utilization and costs.

In addition, there was a survey of transportation providers in the region (previously discussed in Chapter 3) and a review of how other communities have addressed similar issues (to be discussed in Chapter 5).

# THE HOUSEHOLD SURVEY

## Methodology

A mail survey of 4,500 randomly-selected rural households in Clinton, Lycoming, and Sullivan Counties was conducted October through November, 2004. The interview guide is shown in Appendix C. The survey, administered by the Susquehanna Valley Rural Health Partnership (SVRHP), contacted 1,500 households located in rural zip codes in each county. The survey was advertised in local media and a dollar bill was included with each survey as an incentive for the respondent to complete the questionnaire. (254 respondents sent the dollars back, saying that the funds should be used to improve regional health care and transportation services.) Follow-up reminders were sent to those who had not responded within 3 weeks of the initial mailing in order to ensure a sufficient response rate.

The questionnaire for the household survey included questions about

- Current travel patterns and travel modes
- The availability of public and specialized transportation services
- Usual transportation modes used for medical transportation
- The sufficiency of transportation for medical purposes, and
- Personal health and demographic information.

## Overall Results of the Household Survey

The household survey achieved an excellent rate of returns when compared to other mail surveys. A total of 1,822 individuals responded in the 3 counties, distributed as follows:

- Clinton County: 628 respondents
- Lycoming County 626 respondents
- Sullivan County 568 respondents.

A key question for the results of any survey is whether or not the respondents to that survey constitute an accurate representation of the entire population. This question can be difficult to answer in the case of mail surveys: while mail surveys have the great advantage of being relatively inexpensive, they typically do not have response rates as high as in-person surveys and reasons why a selected respondent chooses to answer or not answer specific questions or even the entire survey are difficult to ascertain. One test of representativeness is that of comparing demographic characteristics or other statistics from reliable sources (such as the US Census or other studies) with the survey's results. The demographic and other results of the 3-county survey are certainly close to statistics reported from other sources, which provides a good level of confidence that true values of the statistics reported are at least close to the results reported if not necessarily exactly as reported.

Respondents to the household survey (weighted by population) had these characteristics:

- 2.3% lived in households where there is no car.
- 34.6% were 65 and older; 16.2% are 75 and older.
- 14% used a walker, cane, wheelchair, escort, special vehicle, or other assistance when they traveled.
- 12% had annual household incomes under \$15,000; 41% had annual household incomes under \$30,000.
- 17% lived alone.
- 18% rated their health as fair or poor.

In terms of their transportation characteristics,

- There was a heavy dependence on auto travel: 88% drive; another 10% rode with a spouse or other family members.
- 3% were not satisfied with their usual mode of transportation to medical services.
- 29% rated local transportation services for persons like themselves as Fair or Poor.
- 41% of those using specialized transportation services for medical trips were dissatisfied with this arrangement.
- 9% had a condition or medical problem that makes it difficult for them to travel.

### **Medical Transportation Problems Noted**

The household survey provided strong evidence of medical transportation problems:

- 3% of the respondents said that they missed medical or dental appointments because they couldn't get a ride.
- 6% used emergency room services because they couldn't get to the doctor's office.
- 1% used an ambulance because it was the only way that they could get a ride.
- 7% could visit doctors and other health care providers more often if there were better transportation services in this area.

### **Who Has Medical Transportation Problems?**

In the 3-county region, persons who lacked adequate transportation for medical purposes tended to be

- 65 and older,
- living in low-income households,
- persons with disabilities leading to mobility limitations,
- living in no-car households, and
- living alone.

**Persons with medical transportation problems tended to be older:** 35.3 % of the respondents were 65 or older, and persons who were 65 or older were

- 64.3 % of those who used an ambulance because it's the only way they could get a ride.
- 46.5 % of those who didn't see a doctor as often as they should because they couldn't get a ride.
- 42.9 % of those who missed medical appointments because they couldn't get a ride.

**Persons with medical transportation problems tended to live alone:** 16.7 % of the respondents live alone, and persons who live alone were

- 50.0 % of those who use ambulances because it's the only way they can get a ride.
- 30.2 % of those who didn't see a doctor as often as they should because they couldn't get a ride.

**Persons with medical transportation problems tended to be less healthy:** 18.2 % of the respondents report fair or poor health, and persons in fair or poor health are

- 60.4 % of those who didn't see a doctor as often as they should because they couldn't get a ride.
- 57.1 % of those who missed medical appointments because they couldn't get a ride.
- 50.0 % of those who used an ambulance because it's the only way they could get a ride.
- 24.5 % of those who used the emergency department because they couldn't get to a doctor.

**Persons with medical transportation problems tended to have mobility problems:** 9.3 % of the respondents had problems traveling, and

- 58.1 % of those who didn't see a doctor as often as they should because they couldn't get a ride had mobility problems.
- 51.0 % of those who missed medical appointments because they couldn't get a ride had mobility problems.
- 50.0 % of those who used an ambulance because it's the only way they could get a ride had mobility problems.
- 22.8 % of those who would see doctors more often if they could get a ride had mobility problems.

**Persons with medical transportation problems tended to have low incomes:** 25.3 % of the respondents had annual household incomes of \$20,000 or less, and low income persons were

- 69.4 % of those who missed medical appointments because they couldn't get a ride.
- 55.8 % of those who didn't see a doctor as often as they should because they couldn't get a ride.

- 50.0 % of those who used an ambulance because it's the only way they could get a ride.
- 41.9 % of those who would see a doctor more often if they could get a ride.

### **Estimates of the Number of Persons with Medical Transportation Problems**

As noted, the household survey is of rural households only, but US Census figures show higher percentages in Williamsport than in the rest of Lycoming County of persons typically having medical transportation needs, including persons 65 and older, persons in poverty, persons with disabilities, persons living in no-car households, persons living alone, and minority populations.

Because statistics indicate that transportation needs are even greater in Williamsport than they are in the rural portions of the 3 counties, we feel that it is appropriate to use total population figures for all 3 counties to estimate the numbers of persons who have medical transportation needs. But because the percentages of persons typically needing transportation services are greater in Williamsport than in the rest of the region, applying percentages from rural households probably underestimates the total problem level. Table 2 uses US Census figures and household survey results to estimate the total numbers of persons with medical transportation needs in the rural and urban areas in the 3-county region. For the reasons listed above, these estimates of numbers of persons with medical transportation needs are conservative: the true figures may be higher.

**Table 2:  
ESTIMATED INDICATORS OF MEDICAL TRANSPORTATION NEEDS IN  
CLINTON, LYCOMING, AND SULLIVAN COUNTIES**

<i>Numbers of persons</i>	<i>Indicator of transportation needs</i>	<i>Source</i>
27,000	Persons 65 and older in these 3 counties	Census
20,000	Persons in poverty	Census
30,000	Persons with disabilities	Census
16,000	Persons living in no-car households	Census
9,100	Have mobility ["go outside"] limitations	Census
4,700	Can't get a ride so they miss medical appointments	Survey
9,800	Use the Emergency Room because they can't get to a doctor	Survey
1,100	Use an ambulance because they can't get a ride	Survey
11,500	Could see doctors more often with more transportation	Survey
48,000	Believe that transportation here is fair or poor	Survey

# THE HEALTHCARE PROVIDERS SURVEY

## Methodology

SVRHP sent a mail survey to all healthcare providers in Clinton, Lycoming, and Sullivan Counties during the October through November, 2004 time period. The interview guide is shown in Appendix D. Follow-up reminders were sent to those who had not responded within 3 weeks of the initial mailing.

The questionnaire for the survey of healthcare providers included questions about

- Type of provider
- Location served
- Cancellations due to lack of transportation
- Effects of cancellations on patients' health status
- The extent to which transportation might be a major problem in the region
- Recommendations for improving transportation services in the region.

## Results of the Healthcare Providers Survey

The 365 surveys sent to medical providers in these 3 counties generated 90 responses, distributed as follows:

- Clinton County: 17 respondents
- Lycoming County: 70 respondents
- Sullivan County 3 respondents.

Highlights of the medical provider survey included the following findings:

- 78% of the respondents said that patients cancelled appointments or did not show up for appointments because of transportation.
- 63% said that this happened less than once a month; 7% said more than twice a month.
- 44% said cancellations and no shows were "a major problem."
- 41% rated local transportation services as Fair or Poor; 21% gave Excellent or Very Good ratings.
- Respondents recognized a need to increase and improve transportation services.
- Respondents recognized a need to be able to schedule trips with less than 24 hours notice for urgent or acute conditions.

Comments from the medical providers regarding medical transportation problems in the 3-county area included the following:

- Cancellations of appointments negatively impact patients' health.

- Delays in obtaining medical treatment compromise care for chronic medical problems.
- Cancellations could be serious if a patient has a life-threatening condition.
- Specialized transportation services are overloaded from being so busy.
- Care for other patients is compromised because time slots are wasted when patients cancel appointments at the last minute due to transportation problems.
- The lack of adequate medical transportation services in this region impacts our ability to manage complex medical issues.
- Patients often have to wait too long in doctors' offices for their return trips after the appointments.

## THE SURVEY OF PATIENTS WHO MISSED APPOINTMENTS

As part of this study, Susquehanna Health conducted a survey of patients who had missed medical appointments and had indicated that the reason that they had missed those appointments was due to a transportation problem. The Susquehanna Health Medical Group maintains an electronic records program called the Signature Report that tracks outcomes of appointments. To facilitate a greater understanding of the extent to which transportation problems were interfering with keeping medical appointments, the code "transportation problem" was added in early 2009 as a reason for cancelling an appointment, rescheduling an appointment, or not showing up for an appointment in the Treatment Outcome Code of the Signature Report.

Scripts were developed for telephone interviewers, and persons who were classified as having transportation problems were divided into three groups:

- Group 1: Persons receiving treatment from the Susquehanna Medical Group whose Treatment Outcome Code in the Signature Report indicates that, *because of a transportation problem*, they
  - Cancelled an appointment
  - Rescheduled an appointment
  - Did not show up for an appointment.
- Group 2: Persons receiving treatment from the Susquehanna Medical Group whose Treatment Outcome Code in the Signature Report indicated that they
  - Did not show up for an appointment
  - Was unable to come in for the appointment
  - Left before being seen.
- Group 3: Persons receiving treatment from the Emergency Department or UrgiCenter whose Emergency Department or UrgiCenter Discharge Follow-up Record indicated that they had post-discharge treatment problems
  - Did not show up for an appointment

- Was unable to come in for the appointment
- Left before being seen.

The scripts included the following kinds of information:

- In order to improve our patient care services, we are calling patients who have received care from [ name of facility ].
- We understand that you had an appointment that you [ cancelled / rescheduled / did not keep ] because of a transportation problem. Is that correct?
- [If YES] What kind of transportation problem was that?

Interviewers were instructed to record the interviewees' responses verbatim and not to prompt respondent. Interviewers were instructed that responses might or might not include the following kinds of issues, which were not to be read to the respondent:

*No car in the household*  
*Household car not in working condition*  
*Household car in use by someone else*  
*Could not afford gas or repairs*  
*Could not afford to pay someone else to take me*  
*Could not afford a taxi*  
*Could not get a ride on STEP*  
*Regular driver was [ sick / away / otherwise occupied ]*  
*Could not get anyone to take me [ at that time / on that day / at any time or day ]*  
*Conflict with driver's schedule [essentially the same response as above]*

Initially, interviews were conducted with patients who reported transportation issues for an appointment at any time in the last 3 months. The vast majority of respondents reported that they didn't even remember the doctor's appointment. After several weeks of interviews, the survey protocol was shifted to focus on appointments in the previous month, and then on the previous week, but once again, the vast majority of respondents reported that they didn't even remember the doctor's appointment. Eventually, more than 165 interviews had been completed but not more than a handful of respondents provided any substantive information about the details of cancelling, rescheduling, or missing a medical appointment because of a transportation problem.

This survey indicated the difficulty of obtaining reliable recall information from patients who had cancelled, rescheduled, or missed appointments. Clearly, if such information is to be obtained, it needs to be obtained almost immediately when such events occur. Knowing the details of why such events occurred would be useful information for developing strategies to reduce the effects of transportation problems on medical care.



## **EMERGENCY DEPARTMENT UTILIZATION**

Susquehanna Health System reported that approximately 56% of their Emergency Department admissions are for non-emergency care. Patients who present with non-emergent conditions are treated by the hospital's Urgi Center, which takes care of less acute conditions. Individuals who come to the Emergency Department for non-emergency care are typically lower-income individuals on Medical Assistance or persons without health insurance. Such persons are often unable to receive treatment from local physicians or from local clinics, which typically schedule appointments weeks in advance, and therefore cannot treat urgent situations. The cost of treating non-emergency patients through Emergency Department services is estimated at more than \$500,000 per year. Additional medical transportation services would be most welcome as they could change treatment from episodic care to a more holistic patient perspective.

In addition to these health care costs, the Emergency department is often required to determine how to provide return trips from the emergency department to the patient's home, as the individual or agency that transported the patient to the ER is no longer available for the ride home. The Emergency Department is now spending about \$9,000 annually to provide taxicab rides for patients who have no other means of returning home after their ER visit.

## **AMBULANCE UTILIZATION**

Regional ambulance providers reported substantial non-emergency usage. The Seven Mountains EMS Council reported that 466 out of 5,124 ambulance calls by Clinton County ambulances in 2004 (9.1%) were for non-emergency purposes. Williamsport Area Ambulance Service data for Lycoming County for 2004 show that 15,019 units were dispatched on an emergency basis and 3,622 were dispatched for non-emergency incidents. The number of units then proceeding to the hospital under emergency conditions was 6,999; the number traveling to the hospital under non-emergency conditions was 11,642. The main reason that many units do not go to the hospital under emergency conditions is that, once the paramedics and the emergency medical technicians arrive, the emergency is over because the appropriate care is there to handle the situation. Still, looking only at the dispatching figures, 3,622 out of 18,641 units (19.4 %) were dispatched for non-emergency purposes. Figures for Sullivan County were not available, but are presumed to be smaller than the figures for Clinton County.

Local ambulance trips cost \$423 for Basic Life Support (BLS) services and \$762 for Advanced Life Support (ALS) services. If two-thirds of the ambulance trips are BLS services and one-third are ALS services, this would make the average ambulance trip cost \$536. A more conservative estimate would be \$500 per trip. Applying this average trip cost to the 466 trips in Clinton County and the 3,622 trips in Lycoming County, we arrive at an excess annual ambulance cost for medical trips not needing ambulance services of \$2,044,000. Adding in a small number of non-emergency ambulance trips for Sullivan County would raise the total annual excess expenditure for ambulance trips to more than \$2.1 million.

## LOCAL DEMOGRAPHIC TRENDS

It is distinctly possible that, left untreated, these problems with medical transportation noted in this Chapter will get worse. Major areas of concern for the future include the growth of the elderly population and increased gas prices: the former will probably increase the numbers of persons at risk and the latter will make transportation more difficult for at risk individuals. Key demographic trends for the nation as a whole were discussed in Chapter 3. Among the most important trends to be considered are the following:

- Many more seniors in the future; many more of the oldest old individuals (85+).
- Many seniors may outlive their driving capabilities by 7 to 10 years.
- Greater numbers of persons with disabilities and reduced mobility.
- More seniors living alone without help from immediate family members.
- Greater needs for cost-effective long-term care services.
- Greater expectations of high-quality services, particularly transportation services.
- Persons needing medical and other specialized transportation are likely to reside in suburban and rural homes that are now typically beyond the reach of "standard" public transportation services.

These national demographic trends need to be understood within the context of the demography of this 3-county region. Table 3 compares this 3-county region to the rest of the Commonwealth of Pennsylvania. The figures in this table show that the 3-county region could face special challenges than other parts of Pennsylvania in dealing with future medical transportation needs, especially if this region continues to lose its younger population and those remaining continue to age in place.

**Table 3:  
DEMOGRAPHICS OF THIS REGION VS. PENNSYLVANIA**

<i>Demographic factor</i>	<i>This region</i>	<i>Pennsylvania</i>	<i>Overall differences</i>
Population change, April 2000 to June 2008	2.9% loss	1.4% gain	Population loss here vs. gain elsewhere
Percent elderly: Persons 65 and older	16.4%	15.3%	Higher percentage here
Percent of persons below poverty threshold	13.9%	12.1%	Slightly lower percentage here
Median household income	\$37,113 to \$42,005	\$50,702	17 – 27 % lower here
Percent of persons with disabilities	18.5%	17.1%	Higher percentage here
Population density	62 persons per square mile	274 persons per square mile	Much lower (more rural) here

## **TRANSPORTATION CHALLENGES IN THE REGION**

These demographic challenges will need to be addressed in the context of current transportation provider problems documented by this study in this 3-county region. They include

- Meeting demands for trips to dialysis centers.
- Funding medical trips for persons whose incomes are too high to qualify for Medical Assistance.
- Providing trips for those persons who do not qualify for ADA, Medical Assistance, Job Access, agency services, or other special transportation programs.
- Accommodating long-distance medical trips: they are difficult to schedule and they are expensive to provide.
- An apparent shortage of dentists participating in the Medical Assistance Program, which can result in very long trips for dental care.

- Pennsylvania DOT's Shared Ride Program regulations do not allow same-day service to be provided by specialized transportation providers to their riders; riders must schedule their rides at least one day in advance.
- Medical providers not taking transportation scheduling procedures into account when scheduling appointments for patients, making it difficult for the patients and transportation providers to meet the established schedules.
- Crossing county lines: it is currently necessary to coordinate with other transportation providers to cost-effectively provide long-distance trips that cross county lines.

## **SUMMARY OF LOCAL MEDICAL TRANSPORTATION ISSUES**

Currently, there are real and serious medical transportation problems in the 3-county area comprised of Clinton, Lycoming, and Sullivan counties. These problems include difficulties accessing appropriate medical care, reports of low ratings of existing transportation services, and excess expenditures for emergency facilities used for non-emergency purposes. Medical providers and transportation providers now seldom coordinate their schedules, leading to strains on both systems. Demographic indicators suggest that the numbers of persons with medical transportation problems in the 3-county area could grow in the future.

Based on the surveys of households, transportation providers, and medical providers, it appears that the Susquehanna Valley region evidences the typical kinds of medical transportation problems found in similar communities:

- An excess use of emergency facilities (emergency departments and ambulances) for non-emergency medical needs.
- Delayed / deferred medical treatments which can lead to true medical emergencies, extra hospital days, and excessive medical treatment costs paid by patients, taxpayers, and the entire medical community.
- Increased morbidity, mortality; decreased quality of life.
- A small number of high-cost patients consuming the largest amount of scarce medical resources.

Specific problems in the Susquehanna Valley region include the following:

- Between 5,000 and 15,000 persons in Clinton, Lycoming, and Sullivan counties have some kind of medical transportation problems.
- Approximately 56% of all Emergency Department visits are for non-emergency reasons.
- Excess Emergency Department and ambulance expenses are nearly \$2.6 million per year.
- Persons lacking medical transportation are low income, in poor health, disabled, older, and alone (as they often are in other communities).
- Currently available transportation services do not meet all medical transportation needs.
- The "at risk" population in the 3 counties is growing.

Improvements to medical transportation services are needed in the 3-county area. Coordinated efforts to improve the utilization of current medical and transportation resources should be a priority for all stakeholders. After that, greater financial investments in current, and perhaps additional, transportation operations might also be warranted. It seems clear that these medical transportation improvements will be rewarded by financial benefits to local residents, the health care community, and the Commonwealth of Pennsylvania. All of these factors suggest a need for prompt action to address and resolve the issues identified.



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# Chapter 5

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## LESSONS FROM OTHER COMMUNITIES

Other communities are experiencing nearly identical medical transportation problems, and many other communities have found cost-effective ways to address at least some of their medical transportation problems.

### SOME POTENTIALLY APPLICABLE INNOVATIONS

#### Rochester, New York

**Medical Motor Service** started in 1919 as Volunteer Motor Service, a volunteer organization that brought doctors and nurses to patients in the midst of the 1919 influenza epidemic. The program operated with volunteer drivers until World War II when fuel was rationed and difficult to obtain. MMS is now one member of an eight-partner alliance of agencies that serve persons with disabilities.

Medical Motor Service provides direct transportation services, brokered trips, and vehicle maintenance services. The direct transportation (more than 400,000 trips per year) involves wheelchair transportation; door-to-door escort to medical appointments; trips to senior centers,

nutrition sites, day treatment centers, mental health services, and adult day care; trips to counseling services or home visitations for children in foster care; and transportation for children attending special programs. MMS brokers more than 300,000 trips per year, arranging and administering non-emergency transportation services using other community providers. Altogether, MMS serves more than 17,000 passengers. MMS also provides a full-service maintenance and fuel purchasing facility for other not-for-profit agencies, servicing more than 200 vehicles for these agencies. MMS also staffs a regional training center for defensive driving that includes driver training and evaluation and safety training, performs eligibility certifications for a number of programs, and assists other agencies with vehicle replacement plans. MMS has been certified as a common carrier by the New York State Department of Transportation.

## **The Virginia Health Care Foundation**

The **Virginia Health Care Foundation** has provided start-up support for five innovative medical transportation programs in Virginia. The Foundation's Director reported that the Foundation's support of these programs is based on their understanding that "all the innovative health services in the world will not succeed unless supporting services, like transportation, are effective." The Foundation's work represents one of the first times that a major medical organization has funded multiple transportation services as a means of optimizing health care services. Common threads among the Virginia demonstration programs are the transportation they provide to doctors and medical facilities and the emphasis on volunteers. VHCF provided grants to systems in the following Virginia communities and agencies:

- Bedford: Central Virginia Area Agency on Aging (Bedford Ride)
- Harrisonburg: Community Association for Rural Transportation (CART) [no longer operating]
- Kilmarnock: Chesapeake Bay Area Agency on Aging (MedCarry)
- Newport News: Peninsula Agency on Aging (Med-Tran)
- Pulaski: NRV Senior Services (Med-Ride).

## **Portland, Maine**

The **Independent Transportation Network** offers a broad range of demand-responsive services to older riders and persons with visual impairments. ITN offers a high level of consumer choice regarding service levels, trip costs, and payment options, and has been consciously configured as a service to meet the travel needs and desires of older persons that are not being met by other means. The ITN is a non-profit membership organization that uses automobiles driven by both paid staff and volunteer drivers. Services are available 24 hours a day, 7 days a week, and 365 days a year with no restrictions on trip purpose. Services are available within a 15-mile radius of Portland and within a 15-mile radius of the cities of Saco/Biddeford; trips are occasionally provided outside these boundaries depending on the availability of cars, drivers, and volunteers. Services are demand-responsive, from any origin to any destination, for any purpose, within the service area. Door-to-door service is standard; door-through-door service and hands-on assistance are provided as needed. The system intends to



achieve financial viability through a combination of user fares and donations, and does not depend on public subsidies. ITN's Director feels that older persons dislike receiving charity and that it is a matter of pride that they pay for the services that they receive. At the same time, it must be recognized that some older persons cannot afford expensive rides. Therefore, corporate sponsorship and community donations cover the 40 percent of the system's operating costs that are not covered by fares.

## **Portland, Oregon**

**Ride Connection** is an example of volunteers assisting public transit. Ride Connection is a nonprofit community organization that coordinates community agencies that provide rides for persons with disabilities and senior citizens without alternative transportation. Their service area includes 1.5 million persons in 3,000 square miles in three counties in Oregon and part of one county in Washington. They describe their mission as "linking accessible, responsive transportation with community need." Operating in close collaboration with Tri-Met, the local public transit authority, Ride Connection has helped Tri-Met trim its ADA paratransit costs. Some Ride Connection partners mobilize volunteers to act specifically as escorts for frail riders being transported on a vehicle driven by someone else, so that if a vehicle is bringing more than one person to a destination, the escort may help one person into the building while the driver is operating the lift for another rider. Ride Connection currently has 401 volunteers and 268 paid drivers. Ride Connection and Tri-Met also cooperatively provide a travel training program to enhance the mobility of persons with special travel needs.

## **Hoover, Alabama**

**Kid One** connects children to health care in rural Alabama. Supported by communities, health care providers, and private businesses (including Mercedes-Benz, which contributes vehicles for the program), Kid One made nearly 20,000 non-emergency medical trips in 2004. The program serves a multi-county area of extreme poverty and low literacy. For more information, see *Community Transportation*, Winter 2004-2005.

## **Fort Morgan, Colorado**

**County Express** serves long-distance medical trips in northeastern Colorado. Non-emergency transportation needs in the region are growing, and County Express has made trips for dialysis treatment and other medical appointments a priority. Some trips to the regions only dialysis center are more than 150 miles one way for some residents. Supported by communities and 6 county governments, County Express offers reduced-fare rides for anyone who needs a trip. For more information, see *Community Transportation*, Winter 2004-2005.

## **Redlands, California**

**HealthLink Medi-Van (HLMV)** serves riders too frail to use traditional public transportation but not needing ambulance services. The system operates a large fleet of both wheelchair- and gurney-accessible vehicles throughout southern California. The system provides dedicated hospital and adult daycare shuttles, organized outings for skilled nursing facilities, demand-responsive service for HMO clients, and private patient transportation. Three-quarters of HLMV's 1,000 passengers per day are destined for dialysis centers. Most of the reimbursement for HLMV's services comes from California's Medicaid program, which is currently operating under extreme financial pressures. The cost per trip since 2000 was \$17.26; adjusted for inflation, this cost would be \$21.85 in May of 2010. For more information, see *Community Transportation*, Winter 2004-2005.

## **Riverside, California**

**TRIP (Transportation Reimbursement and Information Program)** targets frail seniors and people with disabilities who have no other form of transportation available and who would be homebound and unable to access health services or otherwise provide for their daily needs if they did not have TRIP. The service area is Riverside County, which has a population of 1.7 million persons in 7,200 square miles. In this program, most of the riders find their own drivers and schedules for transportation are made directly between the rider and driver. TRIP provides reimbursement for the drivers on a mileage basis. While the program is described as providing door-to-door transportation, many drivers act as escorts and even assist riders with activities of daily living.

## **SUMMARY OF INNOVATIONS**

These examples clearly demonstrate that medical transportation services can be closely tailored to specific local needs and resources. Health care and transportation providers in Clinton, Lycoming, and Sullivan counties should look closely at these and other examples to determine which features would best fit their region.

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# **Chapter 6**

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## **ACTION PLAN**

### **ALTERNATIVES DISCUSSED**

A number of possible approaches to addressing the issues discovered were discussed, both in Phase 1 and Phase 2 of this project. These approaches were discussed in face-to-face meetings and in other communications. These approaches included

- An educational campaign to increase understanding of current medical transportation resources and constraints.
- Expansion of current transportation services through accelerated growth and implementation of a volunteer driver program.
- Application of expanded or new financial resources to support the expansion of transportation services, including payments from health care providers to transportation providers.

After detailed discussions, stakeholders determined that the first option was the best at this point in time. One distinct advantage is that it is possible to implement within existing resources. If it proves successful, it should lead to the more cost-effective use of existing resources. Whether or not current transportation services should be expanded appears to be a question best addressed after improvements are made to the utilization of current resources. Therefore, the current Action Plan for improvements to medical transportation services in the Susquehanna Valley

region focuses heavily on educational efforts paid for by existing funds. The remainder of this Chapter provides details of this approach.

## **ACTION PLAN PRODUCTS**

Three specific products were produced to increase understanding and cooperation. It should be noted that, while these products refer to STEP Transportation, nearly every element of these products also refers to EMTA. These materials have been designed for STEP because, in serving Clinton and Lycoming Counties, STEP serves 96.2 per cent of the population of the 3-county area; Sullivan County, served by EMTA, represents only 3.8 per cent of the population. These products could be easily modified to focus on EMTA.

### **The Rider Brochure**

The first of these products is a brochure for STEP's riders. The brochure, intended as a 3-panel brochure that easily fits into a pocket, is designed to describe STEP's services, costs, and operating procedures. Important information includes the definition of STEP as a shared ride, not exclusive ride, service: it is not a taxi operation in which a vehicle responds almost immediately and serves only one rider (or very few riders). Other key factors include the need to register with STEP before requesting a first ride, the need to work with a "pick-up window" of 15 minutes before and 15 minutes after the time requested, and the possibility that the costs of the ride may be shared with human service agency programs, such as Medical Assistance or services for elderly persons or persons with disabilities. If a rider qualifies for assistance under such programs, the amount that the rider has to pay is less than if they are a general public rider. The brochure also provides contact information for STEP.

### **The Transportation Poster for Medical Offices**

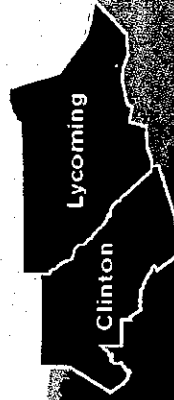
The second product is a poster to be displayed in medical offices so that medical office staff can easily refer to the poster for information regarding transportation services. The poster should be particularly useful for medical staff who are in charge of scheduling patient appointments. The poster provides basic information about STEP's services and notes that serious delays in medical appointments may create problems for the patient, STEP, and the medical office if the patient is required to wait in the office for an extended period of time because they missed their initially scheduled trip after medical treatment. The poster urges medical staff to contact STEP in the event that delays in appointments can be foreseen; the poster includes contact information for STEP.

### STEP's Funding Sources

STEP's transportation funding partners include:

- The Pennsylvania Department of Public Welfare (DPW)
- The Pennsylvania Department of Aging
- Federal Transportation Administration (FTA) funds programs administered by the Pennsylvania Department of Transportation (PennDOT)
- PennDOT state programs, including the Pennsylvania Lottery
- River Valley Transit
- STEP's riders.

### STEP's Primary Service Area



### How to Contact STEP

In Lycoming County:

(570) 323-7575 or  
1-800-222-2468  
7:30 a.m. to 5:00 p.m.  
(7 days a week)

In Clinton County:

1-800-206-3006  
7:30 a.m. to 5:00 p.m.  
(7 days a week)  
FAX: (570) 327-5455

STEP Transportation provides advance reservation demand responsive transportation service for residents of Clinton and Lycoming Counties.

STEP Transportation serves the general public and human service agency clients.



## What is STEP Transportation?

- A pre-scheduled, on-demand transportation service
- Available 24/7/365
- For registered users
- A shared ride service
- A door to door service
- A shared cost service for some riders

## What Does it Cost to Ride?

- Medicaid (Medical Assistance) eligible persons receive medical trips at no cost to the rider.
- Persons 60 years of age and older, who are registered with the Area Agency on Aging, pay:
  - ▶ \$0.80 each way for medical and certain other trips
  - ▶ \$2.35 for any other trips by persons 65 and older.
- General public riders pay \$15.60 per trip.
- ADA paratransit riders pay \$4.00 each way for their trips

Don't be a **NO-SHOW!** If you won't be making a trip that you have reserved, you must call at least 1 hour in advance to cancel that trip. No-shows hurt STEP's budget and on-time performance. If you don't show up for 3 trips you have scheduled in 31 days, you must wait another 31 days before STEP will accept another reservation from you.

## More Details on Services

- STEP's services are for persons who have already registered with STEP.
- Most of the trips that STEP provides are:
  - ▶ to seniors, and
  - ▶ to persons eligible for Medicaid (Medical Assistance).
- About two-thirds of the trips that STEP serves are for medical purposes.
- STEP also serves general public riders.
- Service is provided using full-sized wheelchair-accessible vans and small buses.
- In areas served by River Valley Transit, STEP provides paratransit services for persons with disabilities who have qualified for services under the Americans with Disabilities Act.
- Possible trip destinations can include:
  - ▶ Many locations in Lycoming and Clinton Counties
  - ▶ The Geisinger Medical Center
  - ▶ The Eye Center in Allenwood
  - ▶ For Medical Assistance clients, medical facilities throughout Pennsylvania.

## STEP Riders Should Know That...

- You must register with STEP to be eligible to ride. Call one of the numbers on the back of this brochure to register as a STEP rider.
- Call between 7:30 am and 5:00 pm and request a ride.
- ▶ You must call before noon at least one business day in advance of your trip.
- ▶ Request specific times for pick-ups on the originating trip and the return trip.
- The STEP vehicle may arrive between 15 minutes earlier and 15 minutes later than the time you requested; please be ready at any time during this period.
- If a passenger is not immediately available to board, the driver will wait 5 minutes for the passenger to show up and will also attempt to contact the passenger by phone, knocking on the door, etc. The driver will leave and proceed to the next scheduled pick up if the passenger does not show up within 5 minutes.
- STEP's service is "shared ride service" with more than one passengers on the same vehicle. Some trips will not take the most direct route from their origin to their destination in order to accommodate the travel demands of other customers. This means that STEP's trips could also take longer than trips by other modes.
- "Rush hours" for STEP's services are 7:00-8:30 and 2:30-4:00 pm; it may be easier to reserve trips outside of those time.
- At certain time and for certain destinations, STEP's passengers may be transported in taxis.





STEP Transportation provides advance reservation, demand responsive transportation service for residents of Clinton and Lycoming Counties. STEP Transportation serves members of the general public and human service agency clients. Some of the patients you serve may arrive using STEP Transportation. STEP typically serves individuals who need special assistance or do not have other means of transportation available to them.

### How To Best Utilize STEP's Services

STEP's services are for persons who have already registered with STEP. If your patient has not already registered with STEP, they will need to find another ride.

Reservations for rides on STEP must be made prior to noon at least one business day in advance of a trip. Holidays observed at STEP and weekend days are not considered business days for reservation purposes, even though transportation may be provided. Call STEP for a list of holidays.

When ride requests are made, STEP and the rider will agree on specific times for pick-ups for the originating trip and the return trip. Please make note of the time your patient scheduled with STEP for their pick-up after the medical appointment.

The STEP vehicle may arrive between 15 minutes earlier and 15 minutes later than the time that your patient requested; please help your patients to be ready at any time during this period.

Serious delays in medical appointments will create problems for your patient and for STEP, and could delay or actually cancel the patient's pick-up from your office. Please notify STEP Transportation as soon as possible of any delays in appointments.

If a passenger is not available to board the vehicle when it arrives, the driver is required to wait 5 minutes for the passenger to show up and also attempt to contact the passenger (by phone, knocking on the door, etc.). If the passenger does not present themselves within these 5 minutes, the driver can then leave and proceed to the next scheduled pick up.

There will be times when medical providers and STEP will find it difficult to meet established schedules. At these times, it is important to work out special arrangements that will address the needs of the patients in a comfortable and convenient fashion.



For more details, see the STEP Transportation Rider's Brochure or call:

**Lycoming County:**  
**(570) 323-7575 or 1-800-222-2468**  
**Clinton County:**  
**(570) 323-7575 or 1-800-206-3006**

## The Rider Card

All demand-responsive transportation services, like STEP and EMTA, struggle from time to time with what is called "the return trip." The originating trip typically picks up a rider at their home at a specific time; many of these rides originate early in the day when traffic may not have yet become a challenge. Later in the day, keeping to a previously established schedule may be difficult for a transportation provider; it is also often difficult for a health care provider.

Thus, medical transportation services in this region face some scheduling problems, particularly when a doctor may be running late in seeing his or her patients. In such instances, the patient/rider will not be ready for their return trip pick-up at the previously established time. Since schedules for return trips are established the day before, and the transportation services are shared-ride services, the driver is not able to wait more than 5 minutes for the rider to present themselves for the ride. Added to this issue is the fact that, if the return trip is scheduled for 2:30 p.m. for example, the driver is considered to have provided on-time service if he or she arrives at any time between 2:15 and 2:45 p.m. If the rider is not available within that pick-up window, the transportation service may not be able to pick them up at all and they may need to find another way home. In addition, the rider may be listed by the transportation service as a "no-show," and they may be denied future trips if they have a number of no-shows within a short period of time.

One way to eliminate some of these problems is advance notification to the transportation provider if the medical provider is not operating on their original schedule at the moment. To facilitate communications between all parties, a Rider Card has been designed that identifies the holder as a rider of special transportation services and identifies the intended time of their pick-up. This information allows medical office staff to track the progress of that patient and to notify the transportation provider as soon as possible if it appears that the intended schedule cannot be met. This card has been designed in the size of a regular business card and is shown below.

I'm riding  **STEP** INC.

My pick-up time is scheduled for: \_\_\_\_\_  
Thanks for your Help.

Lycoming County: 1-800-222-2468  
Clinton County: 1-800-206-3006

## The Communications Process

In addition to these more tangible products, this study has helped establish an interactive process between health care providers and transportation providers. All parties should commit to



the continuation of this process. The process should include formal meetings, such as those sponsored by the WATS Transit Advisory Committee, and informal meetings, such as those now underway involving both health care providers and transportation providers. Continuation of these efforts will result in greater understanding of the needs and challenges faced by each party and the culture and operating procedures of the other. This greater understanding should ultimately result in better care for the patients who ride the transportation services.

## **TASKS FOR KEY STAKEHOLDERS**

Specific tasks have been suggested for the key stakeholders in the region. (Once again, suggestions identified for STEP Transportation are equally applicable to EMTA.) Table 4 presents an action plan for the Susquehanna Medical Group, Table 5 presents an action plan for STEP Transportation, and Table 6 presents an action plan for other key stakeholders. All Action Plans present specific strategies. The time frame and current priority is noted for each strategy, along with comments. These strategies have been reviewed by all stakeholders.

Common elements among these strategies include the following:

- Distributing additional information about transportation services to riders and to health care providers.
- Holding regular meetings to discuss issues related to patient access to health care facilities.
- Providing greater information to drivers about accessing medical care facilities.
- Finding ways to improve the travel experience of shared customers.
- Providing technological and other improvements to medical transportation services.
- Monitoring patient/rider experiences with medical transportation services.

When all of these strategies are applied, conditions should improve for all parties: consumers, drivers, health care providers, and transportation providers. Long-run results should include greater cost-effectiveness in the delivery of both medical and transportation services plus increases in health and quality of life.

**Table 4: ACTION PLAN FOR THE SUSQUEHANNA MEDICAL GROUP**

<i>Strategy</i>	<i>Time frame</i>	<i>Comments</i>	<i>Current priority</i>
Facilitate meetings between medical providers and STEP	Immediate	On going	High
Generate and distribute information on STEP's services to medical offices	Immediate	Initial steps under way	High
Conduct an inventory of SH/SMG building entrances for STEP riders	Immediate	Currently in process	High
Establish a SH/SMG transportation office to deal with client access issues	Immediate	Has not begun	High
Ensure comfortable waiting areas / shelters for STEP riders	Immediate	Initial steps under way	High
Ensure that doctors' office do not close before STEP riders are picked up	Immediate	Has not begun	High
Make sure that doctors' offices do not leave riders waiting outside	Immediate	Has not begun	High
Help prioritize attention to the "I'm riding STEP" cards	Immediate	Has not begun	High
Provide campus by campus maps for STEP drivers with key entrance locations	Immediate	Has not begun	High
Ensure that facilities planning includes transportation considerations	Immediate	Initial steps under way	High
Provide orientation for STEP and EMTA drivers	Immediate	Has not begun	High
Monitor list of chronically late medical providers	Near term	Has not begun	Moderate
Initiate same-day callbacks for patient no-shows; ask about transportation issues	Near term	Has not begun	Moderate
Work with transportation providers on volunteer driver program	Near term	Has not begun	Moderate
Publicize the availability of STEP medical transportation thru newsletters, etc	Near term	Has not begun	Moderate
Institute regular monthly medical office manager meetings	Near term	Has not begun	Moderate
Work with disability advocates to ensure access to medical facilities	Immediate	Has not begun	Moderate

**Table 5: ACTION PLAN FOR STEP TRANSPORTATION**

<i>Strategy</i>	<i>Time frame</i>	<i>Comments</i>	<i>Current priority</i>
Hold meetings with medical providers and staff	Immediate	On going	High
Revise and update Rider's Guide	Immediate	Initial steps are under way	High
Ensure that drivers search for passengers	Immediate	May need more emphasis	High
Create and distribute "I'm riding STEP" cards for passengers	Immediate	Has not begun	High
Provide rider hand-out cards with key instructions	Immediate	Useful to cut down on no-shows, esp for return trips	High
Add a separate phone line for schedule changes	Immediate	Complete	High
Ensure prompt attention in dispatching procedures	Near term	Additional staff is now in place	High
Assist in developing list of chronically late medical providers	Near term	May reduce the problem and/or help STEP schedule pickups	Moderate
Update the STEP Transportation web page with more details	Near term	Include information from revised Rider's Guide	Moderate
Consider amending the no-show service withdrawal policy	Near term	Make policies more in line with industry standards	Moderate
Establish volunteer driver program for certain trips	Near term	Program could be run by another agency	Moderate
Use AVL technology to monitor vehicle on-time arrival status	Near term	Have received approval for AVL/GIS implementation	Moderate
Purchase and install computerized dispatching software	Mid range	Affordable and robust systems are available	Moderate
Acquire additional vehicles and drivers	Mid range	Significant costs; 2 expansion vehicles now planned	Moderate
Find advanced technology to notify passengers of vehicle arrival	Long range	Moderate capital and operating cost increases	Lower

**Table 6: ACTION PLAN FOR OTHER KEY STAKEHOLDERS**

**PENNSYLVANIA DEPARTMENT OF TRANSPORTATION**

<i>Strategy</i>	<i>Time frame</i>	<i>Comments</i>	<i>Current priority</i>
Demonstrate the results of coordinated transportation services	Immediate	July 2009 study has been published	High
Revise regulations to allow transit service to cross county boundaries	Immediate	Potential benefits to all parties	High
Provide necessary support for regional transportation operations	Immediate	Pilot studies have commenced	High
Circulate the results of this study to other communities	Immediate	Has not begun	High
Publish information regarding allowability of volunteer services	Immediate	Has not begun	High
Increase funding for local transportation services	Near term	Has not begun	High

**PENNSYLVANIA DEPARTMENT OF HEALTH**

<i>Strategy</i>	<i>Time frame</i>	<i>Comments</i>	<i>Current priority</i>
Provide computerized lists of medical services and specialties by location	Near term	Has not begun	Moderate
Calculate health care benefits resulting from reduced appointment cancellations	Near term	Has not begun	High
Consider funding health care trips for certain individuals	Near term	Has not begun	Moderate

**Table 6: ACTION PLAN FOR OTHER KEY STAKEHOLDERS (continued)**

**LYCOMING COUNTY**

<b>Strategy</b>	<b>Time frame</b>	<b>Comments</b>	<b>Current priority</b>
Provide a venue for continuing meetings using WATS Committee and others	Immediate	Should build on current efforts	High
Establish problem resolution center for medical transportation service issues	Near term	Should not be run by STEP or SMG	High

## **SUMMARY**

Although the implementation of the educational efforts began only a short time ago, it seems that real benefits have occurred already. A greater commitment to working together is evident from both the health care providers and the transportation providers. Communication channels have been significantly strengthened; frequent meetings have occurred and contacts between key staff occur easily as needed. This planning process has resulted in a much greater acceptance of concepts of shared responsibilities for shared customers among the health care providers and transportation providers, who now have a much greater appreciation for the roles of and challenges faced by each other.

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# Chapter 7

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## **STEPS NEEDED FOR ENSURING CONTINUED PROGRESS**

Some significant improvements have been achieved during this 6-year effort. The greater commitment from health care providers and transportation providers to working together has significantly strengthened communication channels.

To ensure its effectiveness, this implementation process must be monitored and assessed. Key questions would include the following: Do we see positive changes? Are we confident that these changes have resulted from our actions? What areas still need improvement? Specific performance indicators should include the following:

- Do residents of the 3 counties have a better understanding of how to use the transportation services to access medical care? Have their ratings of these transportation services improved?
- Are health care providers experiencing fewer instances of patients postponing or cancelling medical appointments because of lack of transportation? Are patients being seen early in disease processes? Is there less use of Emergency Department resources for non-emergency medical issues?
- Do transportation providers find less confusion among their riders about service possibilities and constraints? Are these providers experiencing fewer delays or no-shows?

when picking up patients after medical appointments? Do their riders express greater satisfaction with the services being offered to them?

All stakeholders should endeavor to collect reliable data on all these measures.

National and international studies have demonstrated transportation’s ability to make health care services more cost-effective. For some chronic conditions, actual health cost savings are even greater than dollars invested in transportation services. As shown in Table 7,

- The cost of 1 hospital day is equivalent to about 93 trips on transportation providers in other areas.
- One could receive about 41 rides on STEP for every Basic Life Support ambulance ride or 53 rides on STEP for every Advanced Life Support ambulance ride.
- One could pay for about 14 primary care physician visits for every one Emergency Department visit.

**Table 7:  
MAJOR COST TRADE-OFFS**

<i>Health care costs</i>	<i>Equivalent transportation costs</i>
1 in-patient hospital day Susquehanna Health 2010: \$2,026 @	23 months of trips [at 4 trips per month, 93 trips total] on California’s HealthLink Medi-Van (as described in Chapter 5)
1 ambulance ride 2010: \$420 @ average cost for Basic Life Support services; \$620 for Advanced Life Support; both plus \$10 per mile when a patient is present; many rural destinations in the 3 counties are about 30 miles or more from Williamsport. Total cost would be about \$720 for BLS or \$920 for ALS services.	1 BLS ambulance ride would cost about the same as 41 STEP rides at \$17.45 @; 1 ALS ride would cost about the same as 53 STEP rides
1 Emergency Department visit Susquehanna Health 2010: \$386 @	4 primary care physician visits at \$90 @

Table 7 conclusively demonstrates that, in this 3-county region of the Susquehanna Valley, investments in transportation services to encourage early access to primary medical care are a much more cost-effective alternative than delayed health care expenditures involving ambulances and emergency rooms. As suggested in this Table, small investments in



transportation could lead to very significant reductions in health care costs. Steps should be taken to ensure that such investments occur in this 3-county region.

A great benefit of this planning process is that health care providers and transportation providers are now talking to each other about *shared responsibilities*. The patients of health care providers and the riders of transportation services are now being seen as *shared customers*. Health care providers and transportation providers have a greater understanding of how the integration of their services leads to the more cost-effective operations of both systems. Savings in expenses for all providers should ultimately be mirrored in better health care outcomes for the residents of the Susquehanna Valley.



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# RESOURCES FOR MORE INFORMATION

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## ***Useful Web Sites***

### **For information on aging:**

Administration on Aging, U. S. Department of Health and Human Services, <http://www.aoa.gov>

Federal Interagency Council on Aging Statistics, <http://www.agingstats.gov/about.html>

AARP Policy and Research, <http://www.aarp.org/research/>

The National Center for Health Statistics, Data Warehouse on Trends in Health and Aging, <http://www.cdc.gov/nchs/agingact.htm>

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### **For information regarding current Federal coordinated transportation activities:**

Visit the web site of the Federal Interagency Coordinating Council on Access and Mobility, <http://www.unitedweride.gov/>

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### **For information on transportation systems and related research:**

American Public Transportation Association: Provides a great deal of information about public transportation systems around the US. <http://www.apta.com>

The Beverly Foundation's website contains snapshots, white papers, research papers, and technical assistance materials on transportation services for seniors. <http://www.beverlyfoundation.org>

Community Transportation Association: Provides a host of resources on senior transportation. [http://www.ctaa.org/ntrc/senior\\_publications.asp](http://www.ctaa.org/ntrc/senior_publications.asp)

Coordinating Council on Access and Mobility, <http://www.unitedweride.gov/>

Easter Seals Project ACTION: Provides information on transportation services for persons with special needs. <http://projectaction.easter-seals.org>

Federal Transit Administration, U. S. Department of Transportation, <http://www.fta.dot.gov>

The Transportation Research Board, especially their Transportation Research Information Service (TRIS), their Transit Cooperative Research Program (TCRP), and their National Cooperative Highway Research Program (NCHRP).

<http://trb.org> and <http://www4.trb.org/trb/tris.nsf> and <http://www4.trb.org/trb/crp.nsf>

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# **Appendix A**

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## **WILLIAMSPORT AREA TRANSPORTATION STUDY (WATS) TRANSIT ADVISORY COMMITTEE**

**WILLIAMSPORT AREA TRANSPORTATION STUDY  
(WATS) TRANSIT ADVISORY COMMITTEE**

<i>Individual</i>	<i>Title</i>	<i>Affiliation</i>
MARK R. MURAWSKI, CHAIR	Transportation Planner	Lycoming County Planning Commission
JANET ALLING	President and CEO	STEP, Inc
LARRY BARONNER	Critical Access Hospital Coordinator	Pennsylvania Office of Rural Health
EDWARD BARTHALOMEW, JR.	Owner	Billtown Cab Company
DAVID BATEMAN	Executive Director	Easter Seal Society
RICK BIERY	Regional Planning Program Manager	Northern Tier Regional Planning Commission
EDWARD BOARDMAN	Customer Service / Marketing Representative	Endless Mountain Transportation Authority
MICHELLE BRAGUE	Administrator	Sycamore Manor
SUSAN BROWNING	Director, Community Benefit/Outreach & Patient Experience Management	Susquehanna Health
CAROLYN W. BULLOCK		Citizens' representative
JAMES CAMPBELL	President	Hope Enterprises Inc
DONNA CAREY	Director	Hope Enterprises Inc
CINDY CASALE	Civil Rights Specialist	Center for Independent Living of North Central Pennsylvania
FREDERICK C. CHUBB	Rehabilitation Operations Manager	Williamsport Hospital
HANK COLLING	President	Center for Independent Living of North Central Pennsylvania
DEBORAH DUFFY	Administrator	Mental Health & Mental Retardation
LOUISE EAKEN	Administrator	Valley View Nursing Center
BILL FARLEY	Executive Director	Area Agency on Aging for Sullivan County
DONNA FERRELL	Lycoming County Assistance Office	State Public Assistance
ROBERT B. GARRETT	President - CEO	North Central Sight Services, Inc.

<i>Individual</i>	<i>Title</i>	<i>Affiliation</i>
KAREN GRABER	General Manager	Endless Mountain Transportation Authority
JOHN GRADO	City Engineer	City of Williamsport
SUSAN GUNTER	Information and Communications Specialist	National Multiple Sclerosis Society
STEVE HERMAN	Senior Program Analyst	SEDA-COG
TIM HOLLADAY	Planning Director	Clinton County Planning Commission
MICHAEL HUFFNAGEL	Director	Sullivan County Planning Commission
HOLLY HURLBETT		Center for Independent Living of North Central Pennsylvania
JOHN KIEHL	Assistant General Manager	River Valley Transit
KEVIN W. KILPATRICK	Planning Manager	River Valley Transit
CHRIS KING		Pennsylvania Department of Transportation
JOHN KONIECZNY	Assistant Director	STEP, Inc
PETER LUPKOWSKI	Deputy Director	AAA for Bradford, Sullivan, Susquehanna & Tioga Counties
PATRICIA MCGEE	Executive Director	Susquehanna Regional Home Health
DANIEL MERK	Director, Economic and Business Development	STEP, Inc
WILLIAM NEIDIG	Social Worker	Williamsport Dialysis Clinic
WILLIAM E. NICHOLS, JR.	General Manager	River Valley Transit
JERRY NOVIELLO	Administrator	Manor Care Health Services
NANCY PEPPERMAN	Rehabilitation Specialist	Living Unlimited Program
TONY PEROTTA	Executive Director	Children's Development Center
JAMES PLANKENHORN	Transportation Program Director	STEP, Inc
DAWNETT SHOBERT	Activities Director	Rose View Manor
FRED SHRIMP	Director	Bi-County Office for the Aging
RENEE SLUZALIS	Executive Director	Center for Independent Living of North Central Pennsylvania
TERA SMITH		United Cerebral Palsy

<i>Individual</i>	<i>Title</i>	<i>Affiliation</i>
CATHY STOPPER	Program Manager	STEP, Inc
DANIEL WALSTON	Transportation Planner	Federal Highway Administration, US DOT
J. MARLYNE WHALEY	President	Williamsport City Council

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# **Appendix B**

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## **TRANSPORTATION PROVIDER INTERVIEW GUIDE**

d) What geographic area (e.g., counties, communities, etc.) do you serve?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

e) Vehicles

- (1) How many vehicles does your company have? \_\_\_\_\_
- (2) How many of these vehicles do you operate (have in-service) on a typical day? \_\_\_\_\_
- (3) How many of your vehicles have the following passenger capacities and how many of each size are wheelchair lift-equipped?

Number of Vehicles	Capacity	# Wheelchair Lift-Equipped or Ramp Accessible
_____	9 or fewer passengers	_____
_____	10 to 14 passengers	_____
_____	15 to 24 passengers	_____
_____	25 or more passengers	_____

f) On an average service day,

- (1) How many miles, in total, do your vehicles operate? \_\_\_\_\_
- (2) Many hours, in total, are your in vehicles in service? \_\_\_\_\_
- (3) How many passengers, in total, do you transport? \_\_\_\_\_

g) For your most recent operating year (or 12-month period): Dates: \_\_\_\_\_

- (1) How many miles, in total, did your vehicles operate? \_\_\_\_\_ Estimate or actual?
- (2) How many passengers, in total, do you transport? \_\_\_\_\_ Estimate or actual?

2) Paratransit Services

a) Does your system provide paratransit or other similar specialized transportation services?

- (1) \_\_\_ YES
- (2) \_\_\_ NO

(a) What types of services?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(3) Any other types of services? If so, what?

\_\_\_\_\_

\_\_\_\_\_

b) In what month and year did your company begin providing paratransit/specialized services?

Month \_\_\_\_\_ Year \_\_\_\_\_

c) In which of the following transportation-related programs does your organization participate?

- (1) \_\_\_ Americans with Disabilities Act (ADA)?
- (2) \_\_\_ Welfare to Work?
- (3) \_\_\_ Free Transit Program for Senior Citizens?
- (4) \_\_\_ Shared-Ride Program for Senior Citizens?
- (5) \_\_\_ Other? \_\_\_\_\_
- (6) \_\_\_ Other? \_\_\_\_\_

d) Which of the following groups are eligible to ride your paratransit service (indicate all that apply)?

- (1) \_\_\_ Certified people with disabilities
  - (2) \_\_\_ Other people with disabilities
  - (3) \_\_\_ Older adults
  - (4) \_\_\_ General public
  - (5) \_\_\_ Other? What other groups? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_



e) Do you place any limits on the kinds of trips for which people can use your paratransit or any other services?

(1)  YES (Please explain)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2)  NO

f) Do you directly operate your paratransit service, provide it through purchased transportation contracts, or both?

(1)  Directly operate

(2)  Purchase

(a) From whom?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(3)  Both

g) Do other agencies purchase paratransit services from your agency?

(1)  YES

(a) What agencies?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(2)  NO

h) Following is a list of possible trip purposes. Approximately what percentage your agency's paratransit trips fall under each:

(1) Shopping? \_\_\_\_\_ percent

(2) Work? \_\_\_\_\_ percent

(3) School? \_\_\_\_\_ percent

(4) Medical? \_\_\_\_\_ percent

(5) Social Service Agency? \_\_\_\_\_ percent

(6) Social/Recreation? \_\_\_\_\_ percent

(7) Other? \_\_\_\_\_ percent

(8) Other? \_\_\_\_\_ percent

i) What are the five (5) most common destinations for your agency's paratransit trips?

(1) \_\_\_\_\_

(2) \_\_\_\_\_

(3) \_\_\_\_\_

(4) \_\_\_\_\_

(5) \_\_\_\_\_

### 3) Medical Related Transit Trips

a) Approximately what percentage of the following types of trips your system provides are medical-related? (e.g., to doctors, hospitals, pharmacies, dentists, etc.)

(1) Bus trips: \_\_\_\_\_ percent are medical-related

(2) Paratransit trips: \_\_\_\_\_ percent are medical-related

b) Has your organization experienced any significant problems in providing medical-related trips? If so, what are they?

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c) Would you please outline the methods your organization uses to publicize the availability of its services for medical related trips? We would also like to hear about any problems that were encountered in the promotion efforts and how successful they were.

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### 4) Coordination of Transportation Services

a) Is your agency currently participating in activities to coordinate transportation services in your area?

(1) YES—GO TO QUESTION 4(b)

(2) NO—If NO, have you participated in efforts to coordinate transportation services in the past?

(a) YES—If YES, what were the results of these past efforts?

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(3) NO if NO SKIP TO SECTION 5)

b) With which of the following does your transportation system coordinate (check all that apply)?

(1) Other complementary paratransit service providers

(2) Human services agencies

(3) Local transportation providers

(4) Other (please describe) \_\_\_\_\_

c) For which of the following reasons has your transportation system coordinated (check all that apply)?

(1) Meet ADA paratransit service requirements

(2) Improve transportation services to people with disabilities, and others

(3) Improve cost-effectiveness and/or cost-efficiency of services

(4) Improve use of available resources

(5) Reduce costs for participating agencies

(6) Reduce costs for riders

(7) Increase availability of services

(8) Gain access to additional local, state and federal funding sources

(9) Other (please describe) \_\_\_\_\_

(10) Other (please describe) \_\_\_\_\_

(11) Other (please describe) \_\_\_\_\_

d) Which of the following resources do you share with other local agencies and/or organizations (check all that apply)?

- (1)  Personnel
- (2)  Servicing and fueling of vehicles
- (3)  Scheduling of riders
- (4)  Vehicle storage
- (5)  Scheduling of vehicle
- (6)  Vehicle leasing
- (7)  Vehicle sharing
- (8)  Other (please describe) \_\_\_\_\_

e) Have transportation services in your local area been consolidated, that is, have transportation resources been merged into a single, centrally-operated system?

- (1)  YES—if YES, how would you describe your consolidated system?  
(a)  Single provider system  
(b)  Brokerage system  
(c)  Other (please describe) \_\_\_\_\_

(2)  NO

f) What are the advantages to having a coordinated transportation system?

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g) What are the disadvantages to having a coordinated transportation system?

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h) What are the major barriers to transportation service coordination that your system has encountered?

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(1) How have you been able to overcome the barriers?

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**5) Your Area's Transportation Needs**

a) Are there any transportation needs in the area you service that you feel are not being adequately met?

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b) Do you have any suggestions for meeting these unmet transportation needs?

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c) Is there anything else you'd care to add?

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**THANK YOU VERY MUCH FOR HELPING WITH OUR STUDY**

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# **Appendix C**

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## **HOUSEHOLD SURVEY INSTRUMENT**

**SUSQUEHANNA VALLEY RURAL HEALTH  
PARTNERSHIP TRANSPORTATION SURVEY**

**MAIL SURVEY**

August 12, 2004

*The Susquehanna Valley Rural Health Partnership needs your help to determine the quality of transportation services in our region. This information is very important to improve the service provided to you. Please help us by answering a few questions about transportation that is now available to you. All of your answers will be strictly confidential. Your responses will be useful to us, whether you are happy or unhappy with services in the region.*

*Please write in your response or check the appropriate response where necessary.*

What is today's date?   /   /   (month/day/year)

1. For the majority of your local trips, how do you travel? [PLEASE CHECK ONLY ONE RESPONSE.]

<input type="radio"/> Drive yourself	<input type="radio"/> Ride with a spouse
<input type="radio"/> Ride with other family members	<input type="radio"/> Ride with volunteers
<input type="radio"/> Take a taxi	<input type="radio"/> Use public transportation, like City Bus
<input type="radio"/> Use special or Shared ride transportation, like STEP, Endless Mountain, or CATA	<input type="radio"/> Walk
<input type="radio"/> Use other means [SPECIFY]	

2. How many times do you usually go out during a typical week? Would you say . . .

<input type="radio"/> I usually don't go out at all	<input type="radio"/> I go out about once or twice a week
<input type="radio"/> I go out three to five times a week	<input type="radio"/> I go out more than five times a week

3. In the area right around your own home, what kinds of transportation services are available for you to use? Could you get rides from . . . [PLEASE CHECK ALL THAT APPLY]

<input type="radio"/> Public transportation, like City Bus	<input type="radio"/> A taxi company
<input type="radio"/> Other family members or friends	<input type="radio"/> Volunteers
<input type="radio"/> An agency that helps people with special transportation needs, like STEP, Endless Mountain, or CATA	<input type="radio"/> A religious organization
<input type="radio"/> Other sources [SPECIFY]	

4. For your regular medical visits (not emergency care), how do you usually get to your doctor's office, clinic, hospital, or other health-care provider? [PLEASE CHECK ONLY ONE RESPONSE]

<input type="radio"/> Drive yourself	<input type="radio"/> Ride with a spouse
<input type="radio"/> Ride with other family members	<input type="radio"/> Ride with volunteers
<input type="radio"/> Take a taxi	<input type="radio"/> Use public transportation, like City Bus
<input type="radio"/> Use special or Shared ride transportation, like STEP, Endless Mountain, or CATA	<input type="radio"/> Walk
<input type="radio"/> Use other means [SPECIFY]	

5. How satisfied are you with this arrangement?

<input type="radio"/> Very satisfied	<input type="radio"/> Somewhat satisfied
<input type="radio"/> Somewhat dissatisfied	<input type="radio"/> Very dissatisfied
<input type="radio"/> No opinion	

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6. Is there a car in working condition in your household?  Yes  No [SKIP TO QUESTION 8]

7. Do you ever drive that car?  Yes  No

**For the next several questions, please indicate how frequently these statements apply to your overall experiences:**

Please select from one of these four responses:	(1) Always or Usually	(2) Sometimes	(3) Rarely or Never	(4) Does not Apply
8. I miss medical or dental appointments because I can't get a ride.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
9. I use emergency room services because I can't get to the doctor's office.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
10. I use an ambulance because it is the only way that I can get a ride.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
11. I don't see the doctor as often as I should because it's just so hard to get a ride.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
12. I can get to the places I want or need to go.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
13. I get the number of rides I need.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
14. I get rides at the times and on the days I need them.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
15. I have the information I need to schedule and take my local trips.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4

16. How would you rate the transportation services in this area for persons like yourself?  
 Excellent  Very Good  Good  Fair  Poor

17. Which of the following activities would you be able to get to **more often** if there were better transportation services in this area? [PLEASE CHECK ALL THAT APPLY]

<input type="radio"/> Work	<input type="radio"/> Doctors and health care providers
<input type="radio"/> Shopping	<input type="radio"/> Volunteer activities
<input type="radio"/> Senior center	<input type="radio"/> Lunch program
<input type="radio"/> Friends, neighbors, and relatives	<input type="radio"/> Social events and recreation activities
<input type="radio"/> Clubs and meetings	<input type="radio"/> Religious services
<input type="radio"/> Other [SPECIFY]	<input type="radio"/> None

18. Do you have any recommendations about how to improve transportation services in this area? [PLEASE CHECK ALL THAT APPLY]

<input type="radio"/> Provide services more hours of the day	<input type="radio"/> Provide services more days of the week
<input type="radio"/> Reduce the waiting time for a ride	<input type="radio"/> Need better vehicles
<input type="radio"/> Need to be able to go more places	<input type="radio"/> Drivers should provide more help into and out of vehicles.
<input type="radio"/> No suggestions for improvements.	<input type="radio"/> Other [SPECIFY]

**DEMOGRAPHIC INFORMATION:** Finally, could you please tell us a bit about yourself? Like all of your other answers, all of this information will be kept strictly confidential.

D1. What is your gender?  Male  Female

D2. What is your age?  
 0 - 17 yrs  18 - 34 yrs  35 - 59 yrs  60 - 64 yrs  
 65 - 74 yrs  75 - 84 yrs  85 yrs or older

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**SUSQUEHANNA VALLEY RURAL HEALTH  
PARTNERSHIP TRANSPORTATION SURVEY**

**MAIL SURVEY**

August 12, 2004

*The Susquehanna Valley Rural Health Partnership needs your help to determine the quality of transportation services in our region. This information is very important to improve the service provided to you. Please help us by answering a few questions about transportation that is now available to you. All of your answers will be strictly confidential. Your responses will be useful to us, whether you are happy or unhappy with services in the region.*

*Please write in your response or check the appropriate response where necessary.*

What is today's date?   /   /   (month/day/year)

1. For the majority of your local trips, how do you travel? [PLEASE CHECK ONLY ONE RESPONSE.]

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<input type="radio"/> Take a taxi	<input type="radio"/> Use public transportation, like City Bus
<input type="radio"/> Use special or Shared ride transportation, like STEP, Endless Mountain, or CATA	<input type="radio"/> Walk
<input type="radio"/> Use other means [SPECIFY]	

2. How many times do you usually go out during a typical week? Would you say . . .

<input type="radio"/> I usually don't go out at all	<input type="radio"/> I go out about once or twice a week
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3. In the area right around your own home, what kinds of transportation services are available for you to use? Could you get rides from . . . [PLEASE CHECK ALL THAT APPLY]

<input type="radio"/> Public transportation, like City Bus	<input type="radio"/> A taxi company
<input type="radio"/> Other family members or friends	<input type="radio"/> Volunteers
<input type="radio"/> An agency that helps people with special transportation needs, like STEP, Endless Mountain, or CATA	<input type="radio"/> A religious organization
<input type="radio"/> Other sources [SPECIFY]	

4. For your regular medical visits (not emergency care), how do you usually get to your doctor's office, clinic, hospital, or other health-care provider? [PLEASE CHECK ONLY ONE RESPONSE]

<input type="radio"/> Drive yourself	<input type="radio"/> Ride with a spouse
<input type="radio"/> Ride with other family members	<input type="radio"/> Ride with volunteers
<input type="radio"/> Take a taxi	<input type="radio"/> Use public transportation, like City Bus
<input type="radio"/> Use special or Shared ride transportation, like STEP, Endless Mountain, or CATA	<input type="radio"/> Walk
<input type="radio"/> Use other means [SPECIFY]	

5. How satisfied are you with this arrangement?

<input type="radio"/> Very satisfied	<input type="radio"/> Somewhat satisfied
<input type="radio"/> Somewhat dissatisfied	<input type="radio"/> Very dissatisfied
<input type="radio"/> No opinion	

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# **Appendix D**

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## **HEALTHCARE PROVIDER SURVEY**

# HEALTHCARE PROVIDER TRANSPORTATION SURVEY

1. Please circle your provider type?

MD                      DO                      PAC                      CRNP

2. What county is your practice located in?

Clinton                      Lycoming                      Sullivan

3. In the past 12 months, have any of your patients cancelled or were "no shows" to appointments because they lacked transportation?

Yes                      No

4. If yes, how frequently has this occurred in the past 12 months?  
times in the last 12 months.

5. How did patient appointment cancellations or "no shows" due to lack of transportation affect the health status of these patients?

6. In your opinion, are appointment cancellations or "no shows" due to lack of transportation a major problem? If yes, please explain.

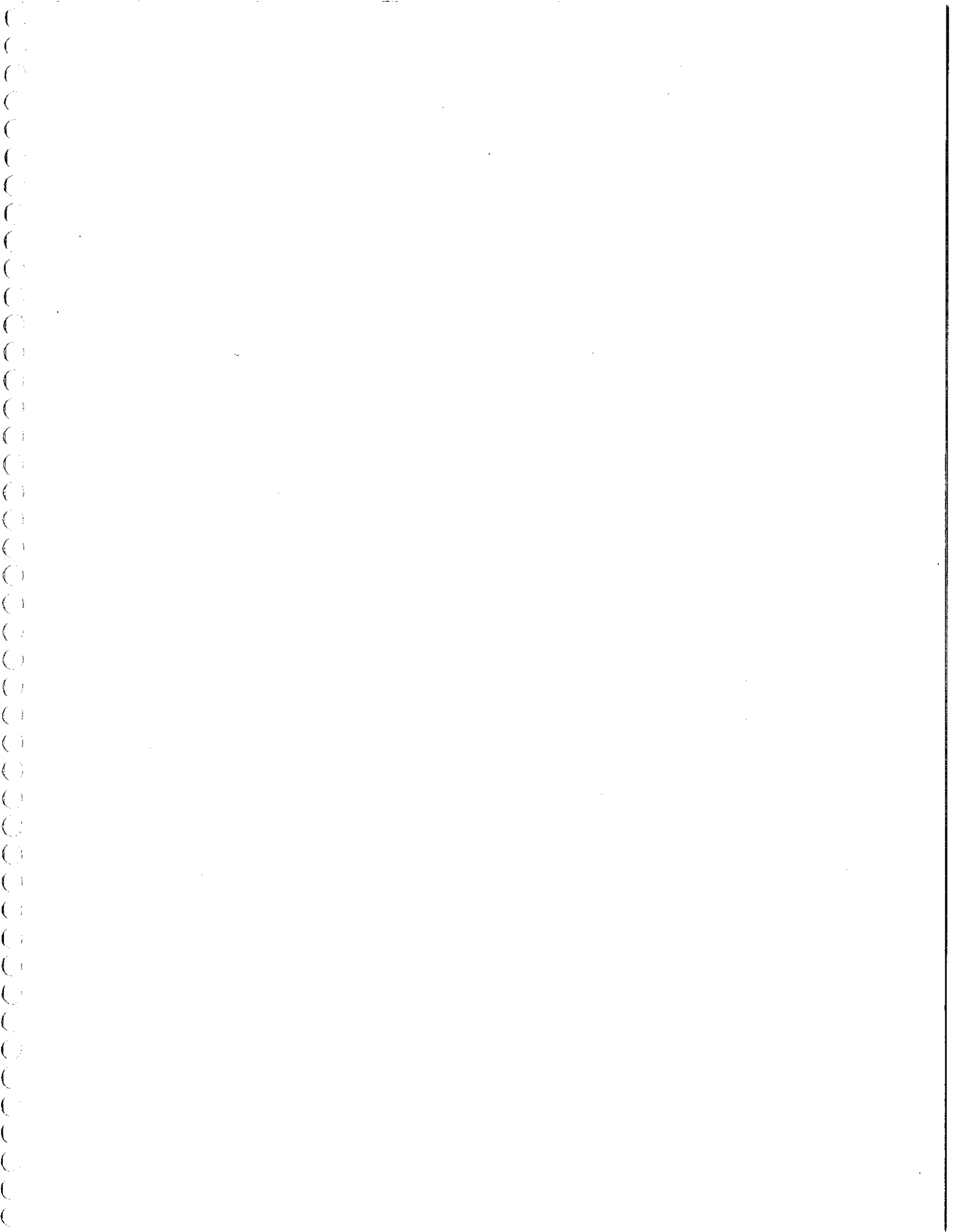
7. How would you rate the transportation services in your area for persons seeking medical care?

Excellent                      Very Good                      Good                      Fair                      Poor

8. Do you have any recommendations about how to improve transportation services in this area for persons seeking medical care?

**You may return your completed** survey by using the enclosed postage-paid envelope or by fax to 570-321-3001\*\*

SVRHP/Transportation Survey/Provider survey





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