Understanding the Health Care Needs of the Medically Indigent of Grayson County\textsuperscript{1,2}

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Bio:

Rumana Rahman is a senior with a major in economics at the University of North Texas. She participates actively in the Honors College. In 2005, she presented her research at the UNT Scholars Day, at the Great Plains Honors Council in Lawrence KS, and at the American Public Health Association Annual meeting in Philadelphia, PA. As a member of the American Humanics organization, she has also conducted applied research using technology to solve problems of not-for-profit organizations with funding from the Cohen Foundation. She presented the results of her project at the American Humanics Conference in Atlanta in January 2005. In Summer 2005 she participated in the National Science Foundation’s Research Experiences for Undergraduates in the Department of Anthropology at the University of North Texas.
Abstract:

Problems faced by uninsured residents of a north Texas county in obtaining medical care were investigated. The Behavior Model for Vulnerable Populations (Gelberg, Anderson, & Leake, 2000) uses predisposing, enabling, and need variables, to predict use of health care services. A random sample of 50 residents of Grayson County who had problems getting health care in the past year was interviewed by phone in August 2004. Twenty percent reported not being able to get needed medical or surgical care in the past year. Those most likely to report problems were respondents aged 18 to 44, unmarried, in poor health, and with competing needs of food, clothing, and housing. Results support the need for an indigent health care clinic in Grayson County.
Introduction

The main objective of this research is to understand the major problems faced by the uninsured residents of Grayson in getting medical care. The results from the research will have significant policy implications on understanding the barriers to health care for the medically indigent population of Grayson County. According to a report by the Kaiser Commission (Kaiser Family Foundation, 2004), nearly 49 million people in the United States lack health insurance. Texas was identified as having the highest number of uninsured people in the United States. Nearly 20% of the population in Texas lacks coverage. More than half of the uninsured population lack coverage for a year or longer. The report also found that adults aged 19 to 34 are most likely to be uninsured and to be uninsured over longer periods. Race and ethnicity are also important factors in who is uninsured. Hispanics are three times more likely to be uninsured for periods of 12 months or more. The report states that the longer people remain uninsured, the harder it becomes for them to get access to care. People who lack coverage for a long time might not have a usual source of care, making it more difficult for them to get needed health care. Over the years, the rural health policy in the United States has changed. During the 1940s through the 1960s, policy initiatives were based on getting more health care resources to the people—public and private insurance, hospitals, health clinics, doctors, and nurses. As a result, this period saw an expansion of the health care infrastructure increasing access to the rural areas. From the 1970s throughout the 1980s, policies were aimed at bringing people to the resources and creating large centralized health care facilities. From the early 1990s to the present, health care policies were aimed at creating integrated managed health care systems and controlling the costs of health care (Mueller, 2001).
Several methodologies and instruments are used in conducting rural health care research. States have used several criteria in deciding what constitutes rural. Total number of residents, distance from a major metropolitan area, population density, and land use are some of the criteria used. (Loue & Morgenstern, 2001). Seasonal migration and lack of access to remote areas makes it difficult to collect data. Several techniques are used to assess health care need and availability. Physician-to-population ratio compares the number of physicians to the size of the population. One critique of this method is that it does not take into account that people get care outside the county. The needs-based approach estimates the occurrence of relevant diseases and compares it to physician hours needed to prevent or detect the disease. The demand-based approach relies on past service utilization for the particular disease to understand the demand for care (Loue & Morgenstern, 2001).

Theoretical Framework

The model used as a framework for this research is the Behavior Model for Vulnerable Populations (Gelberg, Anderson, & Leake, 2000). The Behavior Model for Vulnerable Populations includes variables that are relevant when studying a vulnerable population. Vulnerable populations are populations that, because of their characteristics, have difficulty accessing the health care system, such as the uninsured. My model is presented in Figure 1. The model uses three main variables: predisposing, enabling, and need. In the Behavior Model for Vulnerable Populations, the variables are further divided into traditional and vulnerable domains. Predisposing variables in the traditional domain include demographic data like race, ethnicity, age, and martial status, while predisposing variables in the vulnerable domain include information like immigration status. Enabling variables are those resources that enable the use of health care services. Enabling variables in the traditional domain include insurance status,
income, and usual source of care. Enabling variables in the vulnerable domain include public benefits, information sources, barriers to care like transportation, paperwork, and competing needs for food, housing, and clothing. The need variables in the traditional domain include self-perceived and evaluated need. The need variable in the vulnerable domain includes self- and evaluated need in conditions that are common among the vulnerable population. The last variable in health behavior is the variable that measures the utilization of health care services (Gelberg, Andersen, & Leake, 2000)

Literature Review

Changes in the health care industry have had serious implications in the delivery of health care. Health care delivery rose from 5.9% in 1965 to 11.1% of the nation's gross national product (Headen, 1990). The increased cost of health care has resulted in fewer employers being able to cover their staff, which adds to the growing number of uninsured in the United States. A study done on the health care experiences and preferences of the uninsured found that uninsured workers believe that having insurance would give them a wide range of options and will help them get better services. When deciding on health care, they use an improvised cost analysis so that they sometimes have to choose between food and medicine and often choose the one for which the need is most urgent. Few uninsured workers have used Medicaid. They often neglect their condition until it becomes worse and they can no longer ignore it. They tend to perceive their health as good if they do not have serious illnesses (Loon, 2002). In another study done on the health care problems of homeless adults, it showed that due to poverty and their environment, homeless adults are vulnerable to a number of medical conditions. In a national survey, 13% of the homeless have reported that they are in poor physical condition. Some senior homeless adults
fall through the cracks of the Medicaid system. They have a very huge rate of both acute and chronic health problems.

Homeless adults also experience a large increase in mental disorders, particularly a high case of depression and dementia. Living in the streets, they experience trauma due to mugging, robbing, and rape. Many of the homeless adults resort to alcohol and drugs, adding to their health problems. Because of exposure on the streets, some get hypothermia and frostbite. Bad nutrition and exposure to unhygienic and poor conditions leads to a weak immune system and an inability to cope with diseases. Because of the unhygienic conditions in which they live, they are also at a higher risk for communicable diseases. Poverty along with the lack of any kind of public or private health insurance coverage makes it very hard for them to get health care access (Bottomley, 2001). This study shows the need to have a vulnerable domain in addition to a traditional domain as subjects in the vulnerable domain, like the homeless, face problems due to the conditions of their environment. Unless we study the variables in the vulnerable domain, we cannot predict solutions to their problems.

In a report presented by the Institute of Medicine to the Congress proposing universal health care by 2010, 18,000 Americans die due to the lack of coverage. This raises the question: How long can we ignore 43 million uninsured in the United States, which if not dealt with, will result in huge economic costs (Perkins, 2004)?

Research Design

Fifty completed interviews were collected by conducting a random telephone survey of the residents of Grayson County. In the telephone survey, people who answered their phone were screened to determine if they had had any problems accessing health care in the past year. Those who responded in the affirmative were interviewed. The interviewer asked a wide range of
questions ranging from demographic characteristics, financial and community resources, barriers to care, competing needs, perception of health, and use of health care services. Each interview took about 15 to 20 minutes depending on the responses of the participants. The participants were randomly selected using a phone directory of Grayson. Participants had to be 18 years old or older to qualify for the interview. The questionnaire used was reviewed and approved by the UNT Institutional Review Board. A phone number was provided to the participants for any questions or inquiries. The sample consisted mainly of females (68%); 32 were males. The majority of the sample (88%) was of white, non-Hispanic ethnicity.

Two focus groups were conducted to collect qualitative data to complement the quantitative data. The focus groups met at Grayson Volunteer Health Clinic. The first group was constituted of five females and three males, including four doctors, and one county commissioner. The second group consisted of eight patients who had used the Grayson Volunteer Health Clinic. They included six females and two males. Topics covered during the focus group discussion included: identifying the major health care issues of the respondents, identifying unmet health care needs in the county, personal experiences with the health care providers, availability of prescription drugs, need for dental care, and cooperative and cost-efficient solutions to health care needs in the county.

Respondents in the telephone survey and in the focus groups were informed of their rights, including the purpose of the study, and the risks and benefits of participating. They were also informed that participation was voluntary. The participants of the telephone surveys and the focus groups were informed that their participation was voluntary, and that the results of their interviews or focus group comments would be kept confidential. Consent forms were signed by the participants of the focus group and verbal consent was given by the participants of the
telephone surveys. A voice recorder was used with the permission of the participants in the focus group.

Quantitative data collected were analyzed using the statistical software SPSS. The chi-square test determined statistical significance and gamma was used to determine the strength of the relationship.

Results

Frequencies for Dependent and Independent Variables

Refused care or surgery. The dependent variable in this analysis is difficulty getting medical care in the past year. This variable was measured by the response to the following question:

Sometimes people have difficulties in getting medical care when they need it. During the past 12 months, was there a time when you wanted medical care or surgery but could not get it? (1) Yes (2) No
Ten people, or 20% of the sample, reported they could not get medical care or surgery that they needed in the past 12 months. When asked why they could not get the care they needed, the most common reasons given were: could not afford it (9 people), had no insurance (6), doctor did not accept Medicaid or insurance (4), no doctor was available (3), had to wait too long in office or clinic (3), had difficulty getting an appointment (1), did not know where to go (1), had no way to get to care (1), the hours were not convenient (1), health of another family member prevented getting care (1), and the doctor said patient did not need care (1). When the patient could not get medical care, seven respondents said their health problem was very serious and five respondents said it was somewhat serious. More than half (7) of the people who had not been able to get the care they needed were eventually able to get care.

*Predisposing variables.* Among the predisposing variables, data were collected on the respondent’s sex, age, marital status, and language spoken in the home. Thirty-four participants out of 50 were females and 16 were male. The participants ranged in age from 18 to 86. Eight people were between the ages of 18 and 35. Ten participants were in the age range of 36 to 56. Ten were between the ages of 57 and 64. Nine people were 65 or older. Only 37 participants reported their age. Over half (59.6%) of the participants reported being married and currently living with a spouse while 40.4% reported they were not currently married and living with a spouse. The interviews were all conducted in English and all the households spoke English. Two of the households also spoke Spanish. Paperwork was a big problem in getting care for 33.3% of the respondents; 12.2% reported they had problems with transportation.

*Enabling variables.* Among the enabling variables, we measured employment status, insurance coverage, barriers to care, and competing needs for income. One-third (34.5%) had a
job or were employed in the past 12 months. Of the respondents who reported being employed, 57.1% worked for more than 35 hours a week and 33.3% worked less than 20 hours a week. More than one-third (38.1%) reported that they worked for a private company or organization. Twenty-eight percent of the respondents said they had insurance through their work while 20.4% were insured through their spouse’s work. Thirty percent (30.6%) said that they had private insurance while 34% had Medicare and 14% had Medicaid. Ten percent (10.2%) reported having military or veteran coverage. Seven people reported that they had no coverage. Interestingly, 27.7% of the respondents reported that they could not get care in the past 12 months because they had to use the money to pay for food, clothing, and housing.

*Need variables.* The interview included nine questions measuring the respondent’s perception of health, including:

1. health status
2. needs help with personal needs like eating, bathing, and dressing
3. needs help with household chores
4. has difficulty with memory or confusion
5. has activity limitation due to physical, mental, or emotional problems
6. how often gets enough sleep
7. how often feels full of energy
8. how often feels sad, blue, or depressed
9. rating of happiness.

Among the respondents, 6% reported that their health was poor; 22% reported fair health; 22% reported good health; 38% reported very good health; and 12% said their health was excellent. Ten percent of the respondents said they require help with personal needs like eating, bathing,
and dressing, and 26% said they needed help with household chores like shopping and getting around. Eighteen percent (18.4%) reported having difficulty walking without special equipment. Thirty percent (30.6%) said they had difficulty remembering or experienced periods of confusion. Almost half (42.9%) were limited because of physical, mental, or emotional problems. When asked how often they felt they did not get enough sleep or rest in the past 30 days, 36% said that they had gotten enough rest some days but not most, and 16% said most days. In response to the question about how often they felt full of energy in the past 30 days, 52.1% reported some days but not most, and 25% reported most days. Close to half (46.8%) reported that they felt sad, blue, or depressed some days but not most, and 14.9% reported they felt sad or depressed every day for the past 30 days. In response to the question about how happy they were, 35.6% said that they were very happy, 31.1% were pretty happy, and 33.3% were somewhat happy.

Significant Predictor Variables for Difficulty Getting Medical or Surgical Care

Age. Age is a significant predictor of difficulty getting medical or surgical care. As shown in Table 1, 40% of the respondents between the ages of 18 and 44 reported they could not get surgery or medical care in the past 12 months. Twenty percent (22.2%) of the respondents between the ages of 45 and 64 reported they could not get surgery or medical care in the past 12 months. Among those age 65 or older, no one reported not being able to get surgery or medical care in the past 12 months. The relationship was significant (chi-square = 4.480, df = 2, p = .05), and very strong (gamma = .684).

Marital status. Marital status was a strong significant predictor of difficulty getting medical or surgical care (chi-square = 4.613, df = 1, p = .038, gamma = -.659). As shown in Table 2, 36.8% of people who were not currently married or living with a spouse reported they
could not get surgery or medical care in the past 12 months versus 10.7% of people who were currently married or living with a spouse.

Health status. Feeling healthy and full of energy was a strong significant predictor of difficulty getting medical or surgical care (chi-square = 2.655, df = 1, p = .103, gamma = .680) (see Table 3). Almost one-third (27.3%) of the people said they felt healthy or full of energy some days or never reported not being able to get medical care or surgery in the past 12 months. Of those who reported feeling healthy or full of energy most days or everyday, 93.3% said they did not have difficulty getting surgery or medical care in the past 12 months.

Health status was a moderate significant predictor of difficulty getting medical or surgical care (chi-square = 3.001, df = 1, p = .093, gamma = -.350) (see Table 4). Of the people who reported fair or poor health, 35.7% reported not being able to get surgery or medical care in the past 12 months compared to only 13.9% of people with good to excellent health. Finally, putting off health care because of competing needs for food, clothing, or housing was a very strong, significant predictor of difficulty getting medical or surgical care (chi-square = 17.392, df = 1, p = .000, gamma = .925). Over half (61.5%) of the respondents who reported not receiving care or medicine in order to buy food, clothing, or pay for housing said they could not get surgery or medical care in the past 12 months.

Summary and Conclusions

A little over half (56%) of the population in Texas is covered by private insurance, one-fifth of the population is covered by public insurance, and the remaining one-fourth of the population remains uninsured without any kind of coverage. The rate of the uninsured increased from 3.6 million in 1990 to 4.8 million in 1999. With the cost of health care rising, the number of uninsured is predicted to go up to 6.9 million by 2010. The two main sources of public coverage
in Texas are Medicare and Medicaid. Medicare covers patients who are over age 65 and selected disabled adults. Persons eligible for Medicaid include low-income children, low-income parents who are on welfare, low-income pregnant women, low-income adults and children with severe disabilities, including blindness, and low-income elderly. The low-income, non-disabled adults who are a large portion of the uninsured population are not covered by Medicaid. Private insurance is insurance not provided by government funding, but bought by individuals and employers. With the growing cost of health care, fewer employers are buying coverage for their employees. For every dollar increase in health insurance, groups of employers are opting out from providing coverage to their employees. In Texas, it is the responsibility of the county to provide health care to the medically indigent. This is done in three ways: through a hospital district, a public hospital, or county indigent health care programs. Hospital districts can collect taxes for hospitals and programs for the medically indigent. County funds partially support public hospitals. Services received from non-tax-funded providers are paid by county indigent health care programs. Hospital districts and public hospitals fund hospitals and health care providers directly. Nonprofit clinics that are not government-funded aid in taking care of the medically indigent. These organizations are tax-exempt but are often limited in the services they can provide due to funding constraints.

My research shows that age, married status, current health status, food, clothing, and housing are needs that are directly related to getting health care. People between the ages of 18 and 44 reported having the most difficulty obtaining health care as compared to older elders who reported being covered by Medicare or Medicaid. Married respondents are more likely to be able to get needed health care than are unmarried respondents. Married respondents are often covered by their spouse’s insurance and hence have a better chance of being covered. Competing needs
of food, clothing, and housing often hinder people from getting health care as these needs are often given a higher preference over health care.

With nearly 21% of people in the United States uninsured (Kaiser Family Foundation, 2004), we can no longer afford to ignore the problem. Several initiatives and programs in counties around Texas have set up alternatives to aid the medically indigent. One such initiative is the Grayson Volunteer Health Clinic that was set up in February of 2003 to provide primary care to residents of Grayson who lack insurance coverage or the money to pay for health care out of pocket (Grayson Volunteer Health Clinic, 2005). Services of the clinic include preventive medicine, physical examinations, treatment of minor and non-emergency illnesses, monitoring of chronic health problems, dental treatment and evaluation, and dental referrals to other resources. Since the clinic opened, they have served more than 1,000 patients. Patients pay a nominal fee based on their family income. Grayson County has only a county indigent health care program and so there is a huge need for indigent health care. While conducting the focus group of the patients of the clinic, many of them reported that the clinic is their only source of care and some said they are grateful to the clinic for saving their lives. Because this clinic is not a government agency, it is often limited by financial constraints and is in dire need of funds so that they can continue to provide primary care to the uninsured. The clinic administrators face a problem when one of their patients requires a surgery or another service that the clinic does not provide. An innovative solution to a problem like this has been implemented by the Buncombe County Medical Society (BCMS) called Project Access (Buncombe County Medical Society Foundation, 2005). Project Access is a partnership among government, doctors, agencies, and residents of the county. The program matches patients with adequate medical care. Programs such as the Grayson Volunteer Health Clinic and Project Access provide innovative solutions to the
problems of the medically indigent. Such programs have been effective in improving the access health care to the large number of uninsured and we should actively support such programs so that we can unite to solve a nationwide problem.
References


Table 1. Effect of Age on Difficulty Getting Medical Care

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Count</th>
<th>% within age groups</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-44</td>
<td>4</td>
<td>40.0%</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>45-64</td>
<td>4</td>
<td>22.2%</td>
<td>14</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>65+</td>
<td>0</td>
<td>.0%</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>21.6%</td>
<td>29</td>
<td>37</td>
<td></td>
</tr>
</tbody>
</table>

Pearson chi-square = 4.480; df = 2; Asymp. Sig. (2-sided) = .106
Gamma = .684, Approx. Sig. = .016

3 cells (50.0%) have expected count less than 5. The minimum expected count is 1.95.
Table 2. Effect of Currently Married or Living with a Spouse on Difficulty Getting Medical Care

<table>
<thead>
<tr>
<th>Are you currently married and living with a spouse?</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>3</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>% within are you currently married and living with a spouse?</td>
<td>10.7%</td>
<td>89.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Count</td>
<td>7</td>
<td>12</td>
<td>19</td>
</tr>
<tr>
<td>% within are you currently married and living with a spouse?</td>
<td>36.8%</td>
<td>63.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Count</td>
<td>10</td>
<td>37</td>
<td>47</td>
</tr>
<tr>
<td>% within are you currently married and living with a spouse?</td>
<td>21.3%</td>
<td>78.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Fisher's Exact Test = 4.613(b), df = 1; Exact Sig. (1-sided) = 0.038
Gamma = -0.659; Approx. Sig. = 0.038
1 cell (25.0%) has expected count less than 5. The minimum expected count is 4.04.
### Table 3. Effect of Being Healthy and Full of Energy on Difficulty Getting Medical Care

<table>
<thead>
<tr>
<th>How often have you felt healthy and full of energy?</th>
<th>Count</th>
<th>% within How often have you felt healthy and full of energy?</th>
<th>In past 12 months could you not get surgery or medical care?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day or most days</td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td></td>
<td>6.7%</td>
<td>93.3%</td>
</tr>
<tr>
<td>Some days or never</td>
<td>9</td>
<td></td>
<td>27.3%</td>
<td>72.7%</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td></td>
<td>20.8%</td>
<td>79.2%</td>
</tr>
</tbody>
</table>

Fisher’s Exact Test = 2.655; df = 1; Exact Sig. (1-sided) = .103
Gamma = -.680; Approx. Sig. = .047
1 cell (25.0%) has expected count less than 5. The minimum expected count is 3.13.
Table 4. Effect of Health Status on Difficulty Getting Medical Care

<table>
<thead>
<tr>
<th>Health status</th>
<th>Count</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good to excellent</td>
<td>5</td>
<td>31</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Fair or poor</td>
<td>5</td>
<td>9</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>40</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

In past 12 months, could you not get surgery or medical care?

Fisher's Exact Test = 3.001(b); $df = 1$; Exact Sig. (1-sided) = .093
Gamma = -.350; Approx. Sig. = .212
1 cell (25.0%) has expected count less than 5. The minimum expected count is 2.80.
Table 5. Not Receiving Care in Order to Buy Food, Clothing, or Housing on Difficulty Getting Medical Care

<table>
<thead>
<tr>
<th>In last 12 months, did you NOT receive care or medicines because you needed to buy food, clothing, or pay housing?</th>
<th>Count</th>
<th>In past 12 months, could you not get surgery or medical care?</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Count</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>% within In last 12 months, did you NOT receive care or medicines because you needed to buy food, clothing or pay housing?</td>
<td>61.5%</td>
<td>38.5%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within In last 12 months, did you NOT receive care or medicines because you needed to buy food, clothing or pay housing?</td>
<td>5.9%</td>
<td>94.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within In last 12 months, did you NOT receive care or medicines because you needed to buy food, clothing or pay housing?</td>
<td>21.3%</td>
<td>78.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Fisher's Exact Test = 17.392 (b); df = 1; Exact Sig. (1-sided) = .000
Gamma = .925; Approx. Sig. = .001
1 cell (25.0%) has expected count less than 5. The minimum expected count is 2.80.
Figure 1: Behavior Model for Vulnerable Populations