EXECUTIVE SUMMARY

Trauma care and catastrophic care hospital services are essential for the well-being of a state's population, allowing individuals to obtain critical health care services that impact their ability to maintain good health and lead productive lives. The presence of a trauma care system, like the one in Wyoming, allows health care providers to identify risk factors and related interventions to prevent injuries in a community, and maximizes the integrated delivery of optimal resources for patients who ultimately need acute trauma care.[1]

The ability of hospitals to obtain sufficient payment for services rendered affects the availability of trauma care and catastrophic care services to the public, and the financial stability of health care systems. Many trauma centers nationwide face the possibility of having to downgrade their level of care or stop providing trauma care altogether.[2] Reductions in trauma care services have negative effects on individuals in need of this type of care because the farther a trauma patient has to travel to receive necessary medical attention, the greater the medical risk.

In response to concerns regarding the ability of hospitals to continue providing trauma care services and catastrophic care services, the Wyoming legislature authorized a study of unreimbursed catastrophic costs, with a focus on trauma care services. The Wyoming Healthcare Commission engaged Navigant Consulting Inc. in May 2004 to complete this study.

Purposes and Scope of the Study

This study assists the Wyoming Healthcare Commission in:

- Exploring the cost feasibility of a state, county or local hospital district or other innovatively funded catastrophic insurance policy to cover all Wyoming citizens
- Considering both a one-time payment and on-going State General Revenue payments for unreimbursed trauma and catastrophic care services
- Considering state, county, hospital district and other funding sources to address needs identified through the study

[1] National Highway Traffic Safety Administration, "Trauma System Agenda for the Future" (April 2004). Available Online: http://www.nhtsa.dot.gov/people/injury/ems/emstraumsystem03/exesummary.htm.
[2] National Foundation for Trauma Care. "U.S. Trauma Center Crisis: Lost in the Scramble for Terror Resources," (February 2004).

As part of this study, Navigant Consulting, Inc. has:

- Estimated the cost of inpatient and outpatient hospital unreimbursed catastrophic and trauma care
- Identified the differences in existing local financing support across the state for hospitals and other local health care providers (e.g., use of hospital districts to obtain mill levy dollars)
- Assessed the estimated costs for unreimbursed catastrophic and trauma care potentially shifted to private pay and private insurance companies
- Analyzed how the lack of reimbursement for catastrophic and trauma care may affect access to services
- Developed alternatives to reimburse hospitals and other health care providers for unreimbursed catastrophic and trauma care costs with a focus on State, county or local hospital district financial support

Definitions of Trauma and Catastrophic Care

For purposes of this study, trauma care is relatively easily defined. Trauma care is specialized medical care necessary to treat sudden and life-threatening injuries and can be provided at various levels of designated trauma centers depending on the severity of the illness or injury. The Wyoming Trauma Care Program has defined trauma care as care which is provided to patients with multiple system trauma or major injury, and which can be identified by a predetermined set of diagnosis codes.[3]

Catastrophic care, on the other hand, has different meanings for different people. For the purposes of this study, we defined catastrophic care as unusually high-cost care that exceeds each hospital's average cost per discharge plus three standard deviations.[4]

Trauma patients may become catastrophic patients but catastrophic patients are not necessarily trauma patients. For example, a patient undergoing major surgery for a non-trauma illness or injury may face serious complications and incur *catastrophic* costs as a result.

[3] Wyoming Trauma Rules, Chapter 4 states that all patients with multiple system trauma or major injury must be evaluated by the trauma service.

[4] A standard deviation is a statistical measure of distribution from the mean and equals the square root of the average squared deviation from the mean.

This study focuses on hospital care, i.e. inpatient and outpatient services, and related transportation services.

Approach to Evaluating Trauma and Catastrophic Care

This study evaluates trauma and catastrophic care *costs.* That is, we have converted hospital billed charges to costs using an approach that is widely used by policy analysts in this type of study; we used the cost allocation principles established by the Medicare program for hospital services. While this approach allows us to standardize the analysis of costs, we recognize that it does not allow the consideration of hospital-specific nuances in the estimation of costs, or consider all of the costs in a hospital's general ledger (e.g., a Medicare non-allowable cost for advertising).

This analysis is the first of its kind in Wyoming and relies on two main datasets that are either relatively new or have not been used for this particular type of analysis in the past – the Trauma Program Registry and the Wyoming Hospital Discharge database. As such, it will be important to conduct these analyses of costs over time to better understand variances in the data and trends over time.

Major Findings

Wyoming's hospital system is unique in that each hospital is a sole community hospital and is critical to supporting access to care for Wyoming residents. Although there are only two Regional Trauma Centers in Wyoming (the highest level of trauma care available in the State, but not the highest level of trauma care according to the American College of Surgeons' classification), all hospitals are critical to maintaining a coordinated trauma system that quickly organizes resources around individuals experiencing a traumatic event. Many of these rural hospitals are very small, and high-cost catastrophic discharges – regardless of trauma care diagnosis – may place these hospitals at financial risk if they do not receive adequate reimbursement. As such, Wyoming must balance the need to support specific hospitals that provide high levels of trauma care, and the need to maintain the financial stability of hospitals statewide so that access to care is maintained and critically injured individuals receive immediate help.

Wyoming hospitals face economic pressures that may restrict their ability to effectively provide trauma and catastrophic care. Most hospitals in Wyoming are small (almost one-half are critical access hospitals) with a relatively low census. These low volumes may not give small hospitals opportunities to spread uncompensated costs to other patients. In addition, Wyoming hospitals

provide substantial and increasing amounts of unreimbursed care:

- Wyoming hospitals provided $66 million in uncompensated care (bad debt and charity care charges) in 2003, a 26 percent increase from 2001.[5]

- Unreimbursed estimated inpatient hospital costs for the uninsured totaled $15.8 million in SFY 2003.[6]

The data analyses we performed for this report indicate that Wyoming hospitals provide, at a minimum, approximately $9.4 million in unreimbursed trauma and catastrophic care costs annually. While data limitations make quantifying the total amount of unreimbursed trauma and catastrophic care difficult, our analyses indicated that:

- Inpatient and outpatient trauma care SFY 2004 costs as reported by Wyoming hospitals to the Wyoming Trauma Program Registry totaled approximately $10.6 million,[7] $5.4 million of which was unreimbursed. Our study indicated, however, that hospitals have not consistently reported trauma care cases in the State's Trauma Registry, therefore, the number of trauma care cases may be significantly understated. Assuming that we have only one-fourth of the total trauma care discharges, we project that unreimbursed SFY 2004 trauma care costs could be $21.6 million.

- Inpatient SFY 2003 catastrophic care costs totaled approximately $32 million;[8] the results of a hospital survey of these costs indicate that an estimated $4 million of this care was unreimbursed.[9]

- The average per discharge estimated cost for trauma care discharges (facility services only) are 35 percent higher than the average estimated cost for all discharges.[10]

- Some payors throughout the state reimburse trauma and catastrophic care at levels that are lower than costs and some pay more than costs.

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[5] Bad debt and charity care data for provided by the Wyoming Hospital Association for State Fiscal Years 2001 to 2003.

[6] Analysis based on estimated costs for discharges with a primary payor of "self-pay" or "medically indigent" from the Wyoming Hospital Discharge Database as maintained by Solucient, State Fiscal Year 2003.

[7] Section I of this report describes the Trauma Registry used to calculate these estimates; Section V of this report provides a detailed description of these estimated trauma costs.

[8] Analysis based on estimated costs provided by Solucient, Inc. in the Wyoming Hospital Discharge Database, SFY 2003.

[9] The hospital survey collected information on $31.7 million of the total $32 million in costs identified by the Wyoming Hospital Discharge database.

[10] Analysis based on estimated costs provided by Solucient, Inc. in the Wyoming Hospital Discharge Database, SFY 2003.

- Hospitals, physicians and transportation services providers incur additional uncompensated trauma and catastrophic care costs. These costs include, for example, physician stipends, air ambulance standby capacity[11], administrative resources used for participation in the Trauma Program and trauma team activation charges.

- Ambulance services in Wyoming are often provided on a volunteer basis or free of charge; at least 25 percent of all ambulance agencies do not charge for services and have no budget or have a token budget from a local government entity.[12] While small communities do not have enough volume to support an ambulance agency that bills for its services, a community effort is made to provide this service.

These findings identify specific financial considerations that could potentially restrict the ability of hospitals to maintain or expand their current level of services.

Options for Consideration

The characteristics of Wyoming hospitals are different from those of many other states, but we investigated trauma and catastrophic care programs that are operated by 11 other states to identify features of those systems that may be considered as Wyoming develops options to address the issues of trauma and catastrophic care. While we found only one state that has a funding program that covers both trauma and catastrophic care, these study states provide examples of administration, provider eligibility and funding mechanisms that could be applied in Wyoming.

After reviewing Wyoming-specific considerations and other states' approaches, we developed three main options that the Commission may want to consider as it addresses issues related to catastrophic and trauma care funding. We have developed options that target different facets of the issues facing Wyoming hospitals today (e.g., directing funds to pay for care for the uninsured versus targeting funds to hospitals with the largest proportion of trauma care patients). The Commission may choose to adjust one of these options, or blend features of multiple options. Any of these options would allow the State to make payments on a periodic basis (e.g., annually or quarterly), and would require additional resources for program administration.

All of these options assume a fixed pool of funding, which could be based on a combination of State budget priorities and the identification of specific levels of uncompensated care.

[11] This standby capacity allows rapid access to care for trauma patients.

[12] Cleveland, Maggie, State of Wyoming Trauma Care Program, Telephone interview (October 12, 2004).

These options are:

Option 1: Pay for unreimbursed costs of discharges exceeding a predetermined cost threshold.

This option allows all hospitals that provide uncompensated trauma and catastrophic care the opportunity to receive funding, but does not specifically target the uncompensated care costs from the uninsured.

Option 2: Pay hospitals an amount equal to a percentage of a hospital's uncompensated care costs (bad debt and charity care), with adjustments to recognize those hospitals with a high proportion of trauma care.

This option recognizes the interrelationship between uncompensated care and financial well-being, as well as the important role of hospitals that provided a significant portion of the State's trauma care.

Option 3: Provide a catastrophic care pool for uninsured Wyoming residents.

This option targets those Wyoming residents that are in need of care, but are least likely able to pay a hospital for the costs of that care. As such, it also targets one of the most problematic payor group for hospitals.

To fund these options, Wyoming could use a variety of public fines, taxes or fees, State general revenue funds or federal Medicaid payments; the State's ability to use local county funding appears limited. These options must be considered in light of Wyoming's Constitutional requirement that state or local governments may not "loan or give its credit or make donations to or in aid of any individual, association or corporation, except for necessary support of the poor…"[13] This statute has different implications for each of these options.

Contents of Report

We have divided our report regarding this Study into six main parts, as detailed below:

Section 1: Key Data Sources and Terms – This section presents key terms and concepts that we use in this report: trauma care, catastrophic care, bad debt, charity care, hospital costs, and cost-shifting. We also present a discussion of the sources of data on which we relied to complete our analyses and the limitations of their use.

Section 2: Overview of Trauma Care – In this section, we define trauma care, provide a brief history of trauma care centers and describe the background of Wyoming trauma care, which includes a profile of trauma care patients.

[13]State of Wyoming Constitution, *Title 97, Section 16-006*

Section 3: Overview of Catastrophic Care – In this section, we profile Wyoming catastrophic care patients and provide a description of the characteristics of catastrophic care, including diagnosis type, length of stay and geographic distribution of patients.

Section 4: Other States' Funding of Trauma and Catastrophic Care – In this section, we describe other states' approaches to the funding of trauma and catastrophic care, the criteria for eligibility for funding and the methodology for distributing those funds.

Section 5: Analysis of Wyoming Data -- We provide some general background and financial information about Wyoming hospitals, including a discussion of charity care and bad debt. We then use this information as the backdrop to a detailed discussion of the costs of the uninsured and unreimbursed trauma care and catastrophic care.

Section 6: Alternatives to Reimburse Hospitals and Other Health Care Providers for Unreimbursed Catastrophic and Trauma Costs – This section describes three main options that the Commission may want to consider to fund trauma and catastrophic care. We review potential benefits and challenges of these approaches and describe possible funding sources.

Section 7: Topics for Future Consideration – This section describes topics that members of the Subcommittee on Uncompensated Catastrophic and Trauma Care, upon a review of a preliminary draft of this report, have indicated as potential topics for future analyses of unreimbursed trauma and catastrophic care.

We have also provided a series of tables and graphs in the Appendices to this report.