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**Final Report**

February 18, 2008

**Auto Insurance/Trauma System Study**

State of Colorado

**Prepared for**

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# **Auto Insurance/Trauma System Study Final Report**

BBC Research and Consulting (BBC) was selected by the Colorado Governor's Office to answer specific questions about the effects of Colorado's change from a no-fault auto insurance system to a tort system.

## **Background**

Colorado had a no-fault auto insurance system in place from 1974 to 2003. Under this system, an insured motorist injured in an auto accident was entitled to benefits for medical care without regard to who was at fault for the accident. In July 2003, the no-fault system was replaced by a tort system. Under the tort system, fault for the accident has to be determined before bodily injury liability can be determined.

Since the end of the no-fault system in Colorado, auto insurance carriers indicate that premium rates have decreased in the state. However, emergency medical and trauma care providers report financial and other impacts from this change.

In 2007, the Colorado Governor's Office of Policy and Initiatives worked with representatives of the automobile insurance industry, the Trauma Care Preservation Coalition (TCPC) and the Colorado Hospital Association (CHA) to draft a set of research questions and scope of work for this study. The questions to be addressed focused on the effects of the change from no-fault to a tort-based system related to:

- Auto insurance;
- Health insurance;
- Trauma system (limited to hospitals and first-responders);
- Medicaid and the Colorado Indigent Care Program; and
- Consumers.

A series of specific questions were developed under each topic, as outlined below. The Colorado Governor's Office of Policy and Initiatives solicited proposals to conduct this research with the goal of hiring an unbiased third-party to complete the study within 90 days of contract execution. BBC was selected to perform the study and began work in November 2007. BBC worked with a steering committee of trauma care, auto insurance and Colorado Governor's Office representatives throughout the study.

## Specific Questions to be Addressed

The Colorado Governor's Office of Policy and Initiatives worked with representatives of the automobile insurance industry, the Trauma Care Preservation Coalition and the Colorado Hospital Association to prepare the following research questions. After each set of questions, BBC describes whether or not the study team could address the question. The balance of this report provides information pertaining to each question developed as part of this study. Appendix A provides the proposed scope of work for this study, including additional background and questions that stakeholders considered but did not include in the study. For example, the questions do not include possible increases in consumer bankruptcy that may have been caused by injury in an auto accident without access to resources to cover the resulting costs.

### Auto insurance questions.

- a. Have auto insurance premiums decreased since May 2003? If so, by what percentage and dollar amount? What portion of the 2003 auto insurance premiums represented PIP coverage and what portion of the decrease in premiums is attributable to the elimination of mandatory PIP coverage?

*BBC was able to examine changes in auto insurance premiums from 2002, the last full year under the no-fault system. Appendix B describes the methodology used to answer this set of questions.*

- b. How do Colorado's premium reductions compare to national trends in auto insurance rates? How did Colorado's average auto insurance premiums rank against other states in 2002 and 2005?

*BBC was able to answer this set of questions (Appendix B outlines the approach).*

- c. Compare the average auto insurance premium for May 2003 and 2006 broken down by coverage: bodily injury liability, uninsured motorist, comprehensive, etc.

*BBC was able to answer this question (see Appendix B).*

- d. What percentage of Colorado auto insurers offers medical payments coverage? What levels of medical payments coverage are offered (minimum and maximum)?

- i. What percentage of consumers purchase medical payments coverage?

*BBC answered this question for 2006, the most recent data available (see Appendix B).*

- ii. What is the average cost of the following levels of medical payments coverage: \$5,000, \$10,000 and \$25,000?

*BBC was able to answer this question for July 2007 (see Appendix B).*

- iii. What are the minimum auto insurance coverages required to be purchased under Colorado law in 2007?

*BBC was able to answer this question (see Appendix B).*

**Health insurance question.**

- e. Was there any actuarially significant impact on health insurance rates as a result of the move away from no-fault?

*BBC was able to answer this question, as described in Appendix C.*

**Trauma care provider question.**

- f. To what extent and from what sources is the trauma system being compensated for services in auto injury cases now? What is the percentage of these cases in which services are being paid for and what are the sources of those payments? What percentage of Colorado hospital care was uncompensated in 2002 and what percentage of such care was related to auto injury victims? What percentage of CO hospital care was uncompensated in 2006 and what percentage of such care was related to auto injury victims? To what extent has the rate of uncompensated care for emergency medical services changed from 2002 to 2006?

*BBC was able to develop partial answers to this set of questions, as discussed in Appendix D. The question pertaining to uncompensated care for emergency medical services is answered with other questions for first responders in Appendix D and the report.*

**Question related to Medicaid and the Colorado Indigent Care Program.**

- g. What has been the effect of the no-fault to tort change on Medicaid and the Colorado Indigent Care Program?

*BBC was able to examine this question. Appendix E explains the analysis.*

**Trauma care provider questions.**

- h. What is the average length of time it is taking providers to collect payments under the tort system? How does that compare to the length of collection time under the no-fault system?

*BBC was able to examine this question (see Appendix D).*

- i. What is the average cost per admission for an auto accident victim in Colorado? What is the average cost in other tort states? How do Colorado hospital costs (in general, not specific to auto accidents) compare to the rest of the nation? What percentage of hospital admissions currently involves auto accident related injuries?

*BBC was unable to answer the first part of this set of questions. Hospitals in Colorado and other states generally do not have cost information by specific type of illness or injury. This limitation was discussed with the study steering committee members in an early steering committee meeting.*

*BBC answered the auto injuries as a percentage of hospital admissions question.*

- j. What staffing adjustments (i.e., lay-offs, additional hiring foregone) have providers made since the move to tort? Have emergency response times been impacted as a result? How have costs not directly compensated by injured or at-fault parties been addressed (i.e., for first responders, new fees, taxes, formation of special districts, etc.)?

*BBC was able to develop partial answers to this set of questions, as discussed in Appendix D.*

**Consumer question.**

- k. Would a med pay mandate force some consumers to duplicate and pay twice for medical benefit coverage? If not, where are the gaps in coverage? Which consumers would be impacted?
- i. Are ambulance and rehabilitation services covered benefits in health insurance plans? With regard to rehabilitation services, please describe the range, if any, of limitations in covered benefits, such as caps on number of visits or conditions that must be met for continued coverage.
- BBC was able to address this set of questions.*
- ii. What is the range of co-pays and deductibles in health insurance? Are there expenses that consumers could use med pay to cover?
- BBC was able to examine this set of questions.*
- iii. Which states currently have a med pay mandate? What is the required coverage? How does med pay work in these states?
- BBC was able to answer this set of questions.*
- iv. Depending on level of health care coverage, how would consumers be affected by a med pay mandate?

*BBC was able to address this question.*

**Other BBC comments and caveats.** BBC attempted to answer each listed question as directly as possible. Except for Question k, BBC did not provide advice on the types of questions or specific wording of questions to be examined in the study. There are undoubtedly issues important to any debate about the future of Colorado's auto insurance system that were not on the list of questions above. (At the steering committee's request, BBC worked with the steering committee to develop appropriate scope and wording of Question k in an initial steering committee meeting.)

BBC reviewed the approach planned to address each set of questions with the study steering committee prior to embarking on specific research tasks. Data sources were reviewed with steering committee members. BBC also consulted with experts recommended by steering committee members. Because the assignment was to be completed in three months, opportunities for primary data collection as part of the study were limited.

This report does not include a history of auto insurance systems in Colorado and other states and has not described the context for the questions under examination, consistent with advice from the steering committee.

When data limitations affected whether BBC could provide definitive quantitative answers to a set of questions, BBC used available information to provide some examination of the question. Data limitations are identified in the appendices. No data appear to be collected in Colorado that would address Question i, which relates to hospital costs for motor vehicle accidents.

Finally, BBC has not summarized or provided an opinion on the overall effects of the shift from no-fault auto insurance to a tort-based system. Although steering committee members had considerable input into the approaches used to address study questions, and fully reviewed results prior to completion of this study, each steering committee member, and each reader of the report, may draw differing conclusions from the information provided here.

The balance of this report presents information related to the questions listed above.

### **Impact on Auto Insurance Premiums**

BBC used data provided by the Colorado Division of Insurance (DOI) and the National Association of Insurance Commissioners (NAIC) to examine the impact on auto insurance premiums from the change from a no-fault to a tort system. DOI information consisted of rate filings, survey results and other market analysis that DOI compiles on a regular basis. NAIC data came from its annual Auto Insurance Database Report for 2004/2005, the most current report available at the time of BBC's study. For information on average premiums by coverage type and the cost of medical payments insurance by coverage level, BBC used survey data provided by the Property Casualty Insurers Association of America (PCI). Appendix B provides further information on data sources and methodology.

Note that many factors affect auto insurance premiums. Average premium data do not reflect the variability in premiums due to individual consumer choices and circumstances. Moreover, caution should be used when making comparisons among states and between years, as a range of factors other than insurance systems influence average premiums. As these factors themselves are likely to vary, differences in average premiums cannot necessarily be attributed to a single cause.

**Changes in auto insurance premiums.** BBC used available data to compare premiums before and after the switch to a tort system on July 1, 2003. Since 2003 saw operation of both no-fault and tort systems, some figures for this year were not representative of either system. In these cases, BBC used data from 2002 when examining premiums under the no-fault system. When data were not available for all auto insurers, BBC was still able to examine information for the insurers that comprise most of the Colorado market.

**Percentage changes in rates 2003-2007.** DOI records indicate that average auto insurance premiums in Colorado decreased 35 percent in the period July 2003 to December 2007. BBC calculated this figure based on the rate filings of the eight largest auto insurance groups in Colorado, weighted by market share.

**Absolute change in rates 2003-2007.** Comparing July 1, 2003 and December 31, 2007, the decrease of 35 percent corresponds with an average savings of \$322 in auto insurance premiums per auto. BBC utilized the 2002 average expenditure figure of \$921 from the NAIC report to estimate the average amount paid in July 2003.

**Portion of pre-July 2003 auto insurance rates that represented personal injury protection coverage.** According to the NAIC report, the personal injury protection (PIP) premium represented 26 percent of an average premium in Colorado in 2002.

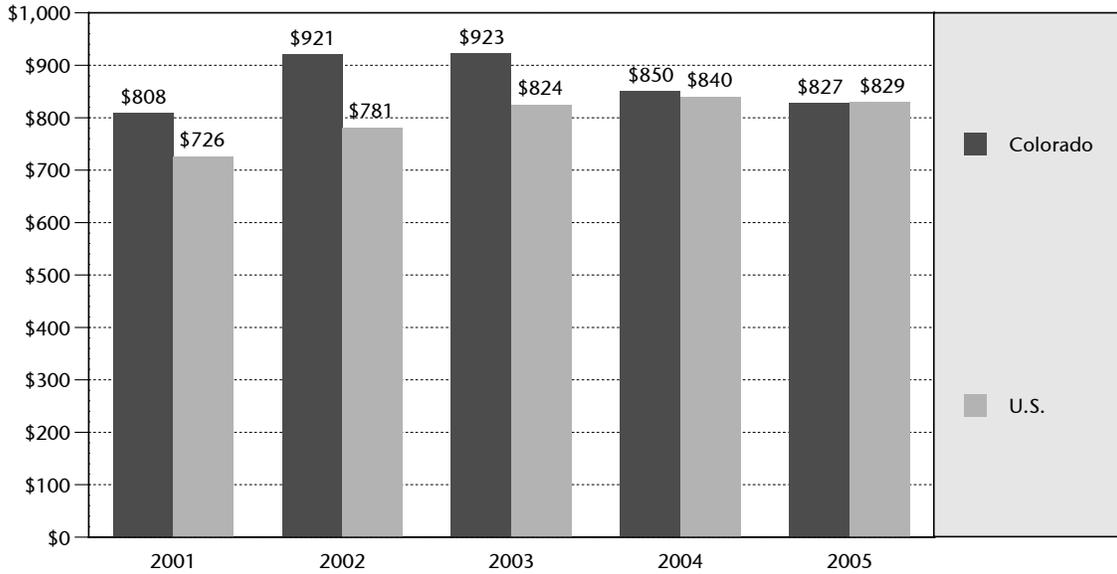
**Portion of the decrease in premiums attributable to the elimination of mandatory PIP coverage.** DOI records show a decrease in average premiums of 22 percent immediately following the change from no-fault. BBC calculated this figure from the July 1, 2003 rate filings of the eight largest auto insurance groups in Colorado, weighted by market share.

**Comparison with other states.** BBC used data from the NAIC Auto Insurance Database Report for 2004/2005 to compare average premiums in Colorado with those of other states. BBC utilized average expenditure data to compare Colorado average premiums with the U.S. average and to calculate Colorado's rank among all states.

**How Colorado's premium reductions compare to national trends.** Figure 1 shows the average annual auto insurance expenditures per vehicle for Colorado and for the U.S. from 2001 to 2005. The average expenditures for the U.S. are based on data for all 50 states and the District of Columbia.

Note that Figure 1 shows expenditures in Colorado decreasing by 10 percent between 2002 and 2005. Since 2005, rates in Colorado further declined (no data are currently available from NAIC for Colorado and the U.S. after 2005). There are other reasons why the decreases in Colorado shown through 2005 in Figure 1 are different than the 2003 – 2007 rate changes referenced above — these are discussed in Appendix B.

**Figure 1.**  
**Average annual auto premiums per vehicle for Colorado and the U.S., 2001-2005**



Note: These figures are the annual average expenditure per vehicle.  
 Source: NAIC Auto Insurance Database Report for 2004/2005.

**How Colorado’s average premiums ranked against other states before and after the change.**  
 Colorado ranked as the 9th most expensive state in average premiums in 2002. In 2005, Colorado ranked as the 21st most expensive state. Colorado’s rank from 2001 to 2005 is shown in Figure 2. These rankings include all 50 states and the District of Columbia.

**Figure 2.**  
**Colorado’s rank among states in average auto premiums per vehicle**

	2001	2002	2003	2004	2005
Colorado rank	13	9	12	16	21

Note: These rankings are based on annual average expenditure per vehicle.  
 Source: BBC Research and Consulting from NAIC Auto Insurance Database Report 2004/2005.

**Comparison of auto insurance premiums by coverage type.** BBC used survey data provided by PCI to examine changes in average premiums for different types of coverage. Figure 3 below shows the average premiums for all coverage options for May 2003 and May 2006 by type of coverage. These figures are annualized and include non-mandatory coverage.

**Figure 3.**  
**Average annual premiums per vehicle by coverage type, May 2003 and May 2006**

Coverage Type	May 2003	May 2006
Bodily injury	\$197	\$260
Property damage	177	202
Uninsured/underinsured motorist	44	68
Personal injury protection	423	N/A
Medical payments	N/A	99
Collision	397	339
Comprehensive	195	180

Source: Property Casualty Insurers Association of America.

**Medical payments coverage in Colorado.** BBC utilized data from the DOI's 2006 survey of auto insurers to assess the extent and levels of medical payments coverage among Colorado policyholders. BBC used data provided by PCI to determine the cost of different levels of medical payments coverage.

**Percentage of auto insurers making available medical payments coverage.** Based on the DOI's most recent survey of Colorado auto insurers, 99 percent of insurers made available some form of medical payments coverage to their customers in 2006.

**Percentage of consumers purchasing medical payments coverage.** According to the DOI's survey of auto insurers, 31 percent of Colorado policyholders purchased some level of medical payments coverage in 2006. The most common level of coverage was \$5,000.

**Average cost of different levels of medical payments coverage.** According to data from the DOI and PCI, the three most common levels of medical payments coverage are \$5,000, \$10,000 and \$25,000. Data from PCI's recent survey of Colorado insurers included the July 2007 medical payments premiums at these levels of coverage. The average premiums (per car-year) calculated from these data are shown in Figure 4.

**Figure 4.**  
**Average annual premiums for medical payments coverage in Colorado, July 2007**

Level of coverage	Average premium
\$5,000	\$64
\$10,000	\$95
\$25,000	\$124

Source: Property Casualty Insurers Association of America.

### **Impact on Health Insurance Premiums**

BBC used data provided by the DOI to assess the impact on health insurance rates of the change from a no-fault system to a tort system. In 2003, the DOI asked health insurers to estimate the impact of the change in systems. Twelve insurers, representing approximately 1.6 million policyholders, provided information.

**Change in health insurance rates attributable to the change from no-fault to tort.** The data obtained by the DOI in 2003 indicate that health insurers expected to increase their health insurance premiums in Colorado by an average of 1.6 percent due to the change from no-fault. This figure is a weighted average based on the number of policyholders.

Appendix C provides further information on data sources and methodology.

### **Impact on the Trauma System — Hospitals**

BBC used information from the Colorado Hospital Association (CHA) and financial data from Colorado hospitals to examine the impact on the Colorado trauma system due to the change from a no-fault to a tort auto insurance system. Appendix D provides additional information on data sources and methodology.

**Auto injuries as a percentage of hospital admissions.** CHA collects discharge data from Colorado hospitals that identify number of admissions by diagnosis code. Auto accident injuries are coded as such in hospitals' patient discharge databases. CHA provided information on auto injury admissions and total admissions for Colorado acute care hospitals for 2002 and for 2006 (the most recent data available at the time of this study).

In 2002, 5,915 people were admitted to Colorado acute care hospitals because of motor vehicle accidents. In 2006, 4,583 people were admitted because of injuries in crashes. This decline in admissions appears to be consistent with overall trends in auto injuries and fatalities in Colorado based on available data from the Colorado Department of Transportation. Auto injuries accounted for 1.3 percent of all hospital admissions in 2002 and 1.0 percent of hospital admissions in 2006.

**Sources of payment to hospitals for motor vehicle injuries.** Colorado hospitals provide emergency room care, inpatient care, and outpatient services related to motor vehicle injuries. Data on number of patients served and compensation are not available for emergency room care. Very limited data are available for outpatient care after discharge from the emergency room or after admission to the hospital. Therefore, the information provided below for hospitals pertains only to inpatient care, which is only a portion of all care provided by hospitals to auto injury patients.

**Sources of payment.** Figure 5 presents information on the payer source that hospitals expected at time of each patient’s discharge. Figure 5 compares payer source for auto injury inpatients and all inpatients in 2002 and 2006.

- The “private insurance” category in Figure 5 combines auto liability insurance (a major payer source for auto injury cases in 2002) and private health insurance. In 2002, hospitals identified some form of private insurance as the payer source for three-quarters of auto injury patients admitted to a hospital. This share dropped to about one-half of auto injury cases in 2006. The proportion of auto injury patients with Medicare, Medicaid, CICIP and other payer sources increased over this time period.
- The proportion of auto injury patients identified as “self-pay” at time of discharge increased from 13.4 percent of patients hospitalized for auto injuries in 2002 to 27.2 percent of patients in 2006. Charity care also increased between these two years (0.2 percent of inpatients in 2002 to 1.5 percent in 2006). Combined, self-pay and charity care accounted for 13.6 percent of total auto injury inpatients in 2002 and 28.7 percent of auto injury inpatients in 2006.

**Figure 5.**  
**Cases, charges, days and payer mix for Colorado acute care hospitals, 2002 and 2006**

	Inpatient Cases: Motor Vehicle Accidents		All Inpatient Cases	
	2002	2006	2002	2006
Inpatient cases	5,915	4,583	461,637	469,004
Charges (millions)	\$224	\$273		
Days	41,890	30,022		
<b>Payer mix (% of cases)</b>				
Private insurance	75.4 %	49.3 %	51.1 %	46.6 %
Medicare	2.9	7.7	26.0	26.9
Medicaid	2.6	5.9	12.7	13.6
CICP	1.6	2.8	2.0	1.9
Self-pay	13.4	27.2	5.7	7.0
Charity care	0.2	1.5	0.3	1.3
Other	<u>4.0</u>	<u>5.7</u>	<u>2.2</u>	<u>2.7</u>
Total	100.0 %	100.0 %	100.0 %	100.0 %

Note: “Payer” refers to the apparent payment source coded at time of discharge. There may be other sources of payment in addition to the identified source. “Private insurance” includes liability insurance, commercial insurance, Blue Cross/Blue Shield, HMO, PPO, managed care, indemnity plans and self insurance.

Source: Colorado Hospital Association.

As a point of comparison, Figure 5 also identifies payer source identified at discharge for all hospital inpatients in 2002 and 2006. There was some decline in private insurance as a payer source between 2002 and 2006 for all patients, but not as large a decrease as found for auto injury cases. The relative number of patients identified as “self-pay” also increased for all inpatients (5.7 percent in 2002 and 7.0 percent in 2006), but not as much as identified for auto injury inpatients.

Who actually pays portions of a hospital bill is more complex than what can be represented based on a single code for payment source at time of discharge. For example, a limited number of patients coded as “self-pay” at time of discharge may ultimately have sources of payment in addition to their own resources. This self-pay group also includes some of the patients who have exhausted their insurance benefits at time of discharge.

**Auto injury self-pay and charity care inpatients as a proportion of all self-pay and charity care inpatients.** BBC also compared auto injury inpatients as a share of all inpatients coded as “self-pay” or “charity care” at time of discharge. The number of self-pay and charity care auto injury inpatients increased from 802 in 2002 to 1,312 in 2006. These inpatients accounted for 2.9 percent of total inpatients coded at discharge as self-pay or charity care in 2002 and 3.4 percent of total self-pay and charity care inpatients in 2006.

**Hospital charges and reimbursement for auto injury cases.** In 2002, hospital charges for patients injured in crashes totaled \$224 million. In 2006, charges were \$273 million. “Charges” data refer to what hospitals charged to care for these patients (“standard charges”), not what hospitals collected.

Actual payments to hospitals are typically below total hospital charges. Patients without insurance or other means to pay hospital charges account for some of the difference between total charges and hospitals’ reimbursement for patient care. In addition, hospitals are typically not reimbursed for the full amount of standard charges for a patient who does have insurance. Hospitals have different levels of negotiated reimbursement with different private insurance companies. Medicare and Medicaid programs do not reimburse billed charges. For any given payer, negotiated reimbursement can also vary by procedure or diagnosis.

Under the no-fault insurance system, auto insurers reimbursed hospitals on a different basis. Some auto insurance companies paid medical costs based on charges, not negotiated reimbursement. Some auto insurance companies used managed care providers that had contracted reimbursement rates with hospitals and other providers, similar to health insurance companies. Therefore, the shift from no-fault to a tort-based auto insurance system changed the overall resources that patients had to pay medical bills and sometimes changed the basis under which bills were paid. Prior to the change, hospitals would sometimes receive payments for auto injuries based on charges; after the change, most payer sources would reimburse hospitals based on negotiated rates. BBC examined the combined effect of these two changes on hospital finances.

BBC surveyed Colorado acute care hospitals to determine overall reimbursement rates for auto injury inpatient cases in 2002 and 2006 (discussed in Appendix D). The hospitals providing information to BBC had \$168 million in charges and \$100 million in payments for inpatient auto injury cases in 2002. The reimbursement rate was 60 percent. In 2006, these same hospitals had \$209 million in charges for inpatient auto injury cases and had received \$76 million in reimbursements for this care. The reimbursement rate was 36 percent.

Applying these rates of reimbursement for auto injury cases to all acute care hospitals in Colorado, an estimated \$134 million of the \$224 million in inpatient charges was reimbursed to hospitals in 2002 and an estimated \$98 million of the \$273 million in charges was reimbursed in 2006. Non-reimbursed charges related to inpatient care for auto injuries totaled about \$90 million in 2002 and \$175 million in 2006. This increase in non-reimbursed charges is due to the two factors discussed above: (a) more patients who do not have insurance or other resources to pay the hospital charges, and (b) more auto injury patients with payers that pay hospitals based on negotiated reimbursement. Data were not available to isolate these two effects.

As a point of comparison, Colorado hospitals were reimbursed 52 percent of charges for all inpatients and outpatients in 2002 and 44 percent of inpatient and outpatient charges in 2006 (based on CHA data for all patients, not just motor vehicle accident patients).

### **Impact on the Trauma System – Emergency Medical Service Providers**

BBC surveyed a sample of Colorado's first responders to examine the impact on pre-hospital providers of the change from no-fault to tort auto insurance. BBC completed telephone interviews with 67 of the 191 agencies registered with Colorado Regional Emergency Medical and Trauma Advisory Councils (RETACs). Only some of these first responders collected and retained financial information in their accounting systems that would answer BBC's financial questions. BBC obtained detailed financial information from 19 of these 67 sampled agencies (17 from BBC's survey and an additional two from a similar survey conducted by TCPC in 2005).

**Changes in rate of non-reimbursed charges for emergency medical services.** In 2002, non-reimbursed charges represented 18 percent of respondents' total motor vehicle accident-related transport care charges. In 2006, the rate of non-reimbursed charges had risen to 37 percent of total MVA-related charges.

**Change in average length of time to collect payments for care.** Respondents able to provide accounts receivable information reported an average (across all payers) of 74 days to collect payment for MVA-related transports in 2002. By 2006, the average days had increased to 144. Because of the small sample of respondents, this information is only used to indicate that length of time to collect payments likely increased for first responders (and not to quantify the exact increase).

**Staffing adjustments.** Few respondents reported staff cuts as a result of the change in auto insurance law. Several respondents mentioned increased staffing time and requirements to handle the additional billing complexities experienced under the tort system.

**Impact on emergency response times.** No respondents reported an increase in emergency response times due to the change in auto insurance law.

**New non-user fee funding mechanisms.** When asked about new funding mechanisms necessary to offset losses caused by the transition from no-fault to tort system, several respondents said they had implemented at least one new non-user fee funding mechanism. Funding mechanisms mentioned included property taxes, general fund transfers and formation of special taxing districts to replace defunct not-for-profit emergency medical service providers.

### **Impact on Medicaid and the Colorado Indigent Care Program**

BBC worked with the Colorado Department of Health Care Policy & Financing (HCPF) and reviewed the fiscal notes on auto insurance-related legislation since 2003 to understand the impact of changing from a no-fault system on Medicaid and the Colorado Indigent Care Program (CICP).

Appendix E provides additional information about the data and methodology used for this analysis.

**Impact on Medicaid.** As a result of the move from the no-fault system of auto insurance to a tort-based system, the Medicaid program has increased exposure to motor vehicle accident-related medical expenses. For example, under the no-fault system, if a Medicaid recipient was involved in an at-fault accident, the PIP benefits available through the recipient's auto insurance policy paid first (or "primary"), and Medicaid benefits were only available after the PIP benefits were exhausted. Unless medical payments coverage is purchased, an at-fault driver has no medical benefits available through his or her auto insurance under the tort-based system. This exposes the Medicaid program to increased medical expenses.

HCPF does seek third-party reimbursement for payments where HCPF can determine that the Medicaid client was not at fault in the accident. BBC's assessment of the information provided by HCPF was that it was not sufficient to accurately quantify the financial impacts on the Medicaid program.

**Impact on the Colorado Indigent Care Program.** CICP is a State of Colorado program that uses state and federal funds to partially reimburse healthcare providers for services provided to Colorado's non-Medicaid medically indigent residents. HCPF administers the program by allocating available funding to qualified medical providers, or "safety net" providers.

Under no-fault, if the CICP-eligible person carried auto insurance and was at fault in an accident, the PIP benefits would have "shielded" CICP safety net providers from the first \$50,000 in medical expenses. This is no longer true unless the driver has purchased the same level of medical payments insurance coverage. Therefore, the change to tort auto insurance has exposed CICP safety net providers to additional non-reimbursed charges.

A complex algorithm of budgetary calculations, caps, and medical provider utilizations determines overall annual funding for the CICP program. The federal portion of CICP program funding represents about 90 percent of overall CICP payments to providers and is divided into three distinct, annually-capped categories. Because the State of Colorado has drawn the maximum available federal funds in two of the three categories since 2002 (or has drawn close to the maximum), it is unlikely that federal funding for the CICP program has increased significantly due to the change in auto insurance law. Similarly, state funding for the CICP program is also capped; therefore, it is unlikely that the change in auto insurance law resulted in a significant increase in state funded CICP expenditures.

In sum, it appears that there was no significant increase in state or federal funding has been devoted to the CICP program due to the transition to tort auto insurance. This is only due to the capping of available funds — it is clear that the impact of the change in auto insurance law would be to place greater financial demands on this financial resource if funding were not capped. The result is greater uncompensated care provided by Colorado’s safety net providers.

**How Would a Medical Payments Mandate Affect Colorado Consumers?**

BBC examined specific questions about how a medical payment mandate would affect Colorado consumers. Currently in Colorado, consumers purchasing auto insurance must have bodily injury liability coverage (minimum of \$25,000 per person and \$50,000 per accident) and property damage liability coverage (minimum of \$15,000 per accident). (Bodily injury liability coverage pertains to injuries suffered by another person through negligent operation of the insured’s vehicle.) Colorado consumers are not required to purchase medical payments coverage.

The concept of a medical payments mandate is very similar to the Personal Injury Protection (PIP) coverage required by no-fault states, including Colorado before 2003. The key legal difference between a no-fault system and a tort system with a medical payments mandate is that the no-fault system has a threshold (either monetary or verbal, such as a “disabling injury”) that must be met before a tort action is allowed.

**States with a medical payments mandate.** Three examples of states with a medical payments mandate or statutory language closely resembling a mandate are Delaware, New Hampshire and Oregon.

**Covered individuals.** Coverage for all occupants of the insured vehicle is included under each state’s mandate. Delaware and Oregon also include pedestrians as covered individuals. There are many exceptions to covered individuals, however, that are specific to each state.

**Minimum levels of coverage.** The minimum coverage limits required by law range from \$1,000 per person in New Hampshire to \$15,000 per person and \$30,000 per accident in Delaware. Minimum coverage limits in these states are shown in Figure 6.

**Figure 6.**  
**Minimum limits for medical payments coverage**

State	Minimum medical coverage
Delaware	\$15,000 per person, and \$30,000 per accident
New Hampshire	\$1,000 per person
Oregon	\$15,000 per person

Source: Property and Casualty Insurers Association of America and state statutes.

**Included benefits.** Each of these states defines covered care differently. For example, Delaware and Oregon require compensation for lost income and expenses for personal services that would have been performed by the injured person. Oregon requirements also include some compensation for

childcare. Figure 7 provides a summary of covered expenses. State statutes provide additional detail and limits for these benefits.

**Figure 7.**  
**Medical and funeral expenses required to be covered**

State	Covered medical and funeral expenses
Delaware	Medical, hospital, dental, surgical, medicine, x-ray, ambulance, prosthetic services, professional nursing and funeral services. Compensation may include expenses for any nonmedical remedial care and treatment rendered in accordance with a recognized religious method of healing.
New Hampshire	Medical costs.
Oregon	Medical, hospital, dental, surgical, ambulance and prosthetic services, in addition to separately defined disability, childcare and funeral expense benefits.

Sources: Online Delaware Code, Title 21 Motor Vehicles ([http://delcode.delaware.gov/title21/c021/sc01/index.shtml#p424\\_81717](http://delcode.delaware.gov/title21/c021/sc01/index.shtml#p424_81717)). Oregon Revised Statutes, Chapter 742 – Insurance Policies Generally, Sections 742.518 – 742.544; Property and Casualty Policies, 2005 (<http://www.leg.state.or.us/ors/742.html>). State of New Hampshire Revised Statutes Online. Title XXI, Motor Vehicles, Chapter 264 Section 264:16 (<http://www.gencourt.state.nh.us/rsa/html/xxi/264/264-mrg.htm>).

**Assignment and position of benefits.** New Hampshire prohibits the assignment of medical payments coverage to health care providers and prohibits a health carrier from coordinating benefits against medical payments coverage. New Hampshire statutes also provide the insured with the right to submit a claim for medical expenses under medical payments coverage or a health insurance policy, or both. However, consumers are not entitled to duplicate payment for the same medical expense. Delaware and Oregon allow assignment of medical payments coverage to health care providers.

The Oregon statute makes medical payments benefits primary under most circumstances. While the Delaware statute does not state whether benefits are primary or excess for accidents occurring in Delaware, it does state that required coverage is considered excess over any similar insurance for passengers, other than Delaware residents, when the accident occurs outside of Delaware.

**Effects on Colorado consumers from a medical payments mandate.** BBC worked with the DOI and examined mandatory medical payment statutes in other states to determine how a mandate is likely to affect Colorado consumers. A precise answer to the questions posed in this study would require knowing the specifics of how any mandate would be implemented in Colorado, including:

- Who is covered and under what circumstances (e.g., are all occupants in a vehicle covered?)
- Under what circumstances, if any, is medical payments coverage not required?
- What expenses (e.g., medical, rehabilitation, child care and funeral) are covered?
- Can medical payments benefits be applied to coinsurance or deductible amounts required by the consumer’s health insurance plan?
- How much coverage is required (e.g., \$5,000? \$10,000? \$25,000?)
- Is lost income covered?
- Can benefits be assigned to health care providers?
- Are benefits primary or excess to other insurance covering permitted expenses?

As discussed previously in this report, these aspects of a medical payments mandate vary among states with such a mandate. An individual's health insurance coverage may also influence how a medical payments mandate would affect a consumer.

**Duplicate coverage and gaps in coverage.** Whether a medical payments mandate forces a consumer to duplicate and pay twice for medical benefit coverage would depend upon the specifics of the mandate and the health insurance coverage of the individual.

There would be no duplication in coverage for Coloradans who have no health insurance or have insurance that does not reimburse for auto injuries.

Full duplication of coverage would occur for a consumer who has a health insurance plan that covers all reasonable medical expenses arising from an auto accident, with no co-pay, co-insurance, deductibles or coverage limits. Few Coloradans have this level of health care coverage. For example, certain active duty military personnel and their families might be fully covered for injuries in auto accidents if they are treated at a military hospital. However, medical payments coverage might be used by the military and their families if they are treated in other hospitals.

Most Coloradans have private health insurance, Medicare or other health care coverage that pays some portion of auto injury medical costs. Typically, these plans have out-of-pocket expenses related to medical treatment. Depending on the health insurance plan, out-of-pocket expenses can include co-pays, co-insurance, deductibles, costs above health insurance coverage limits, and rehabilitation costs for those whose health insurance limits these treatments. The possible amount of these out-of-pocket expenses varies considerably by plan. For example, deductibles in typical small group plans range from \$0 to \$8,000 annually for an individual and up to \$24,000 annually for a family. Payments for ambulance services range from a \$100 co-pay to 50 percent coinsurance (based on information from the DOI). Even seniors who purchase a Medicare supplement policy may still have some out-of-pocket costs related to an auto accident.

The effect of mandating medical payments coverage on consumers with health insurance would depend upon their level of health care coverage — consumers with a high level of health care coverage would be more likely to find that medical payments coverage duplicates much of their existing health insurance benefits, while consumers with minimal health plans might find relatively little duplication of coverage. Most Coloradans would have some out-of-pocket expenses related to auto injuries that could be covered by a medical payments policy.

There are insufficient data on health plans to be able to quantify the number of individuals who would have substantial versus minimal duplication of coverage if Colorado had a medical payments mandate.

## **Supporting Appendices**

Appendices A through E provide additional information on methods used to prepare the information presented in this report.

# **APPENDIX A.**

## **Auto Insurance/Trauma System Study: Scope of Work**

### **Background**

From 1974 to 2003 Colorado had a no-fault auto insurance system in place. Under this system, insured motorists injured in an auto accident were entitled to benefits for medical care without regard to who was at fault for the accident. In 2003, the no-fault system was replaced by a tort system. Under the tort system, fault for the accident must be determined before liability for paying medical benefits can be determined and those payments accessed.

Since the end of the no-fault system in Colorado, auto insurance carriers indicate that premium rates have decreased significantly. However, some emergency medical and trauma care providers report that the change in the auto insurance system has been disruptive and financially challenging to a trauma system that was built around a no-fault construct.

Currently in Colorado, basic automobile coverage is mandatory but there is no mandate for medical payments coverage. Consumers may elect to purchase medical payments coverage at levels ranging from \$500 to \$100,000 depending on their individual needs. In the years since the repeal of the no-fault system, legislation has repeatedly been introduced to mandate medical payments coverage, at various coverage levels. To date, each legislative effort has failed.

### **Purpose Statement**

The mission of this study is to understand the impact that Colorado's change from a no-fault system to a tort system has had on auto insurance premiums and coverage and on the trauma system, as well as on the cost and accessibility of health care services for those injured in auto accidents. The goal is to have this study completed by an unbiased third-party, in consultation with select contributing stakeholders in those interdependent systems.

Certain stakeholders asked that the study include more questions than were feasible to ask. The following are some areas that were not included in the study:

- Quantifying the number of people who have fallen out of the medical and rehabilitation systems for lack of resources to cover costs and assessing the seriousness of the personal and health consequences that ensue, and
- Determining the amount of unpayable consumer debt and consumer bankruptcy that may have been caused by injury in an auto accident without access to resources to cover the resulting costs.

## **Guidelines for Study: Questions to Be Addressed**

- a. Have auto insurance premiums decreased since May 2003? If so, by what percentage and dollar amount? What portion of the 2003 auto insurance premiums represented PIP coverage and what portion of the decrease in premiums is attributable to the elimination of mandatory PIP coverage?
- b. How do Colorado's premium reductions compare to national trends in auto insurance rates? How did Colorado's average auto insurance premiums rank against other states in 2002 and 2005?
- c. Compare the average auto insurance premium for May 2003 and 2006 broken down by coverage: bodily injury liability, uninsured motorist, comprehensive, etc.
- d. What percentage of Colorado auto insurers offers medical payments coverage? What levels of medical payments coverage are offered (minimum and maximum)?
  - i. What percentage of consumers purchase medical payments coverage?
  - ii. What is the average cost of the following levels of medical payments coverage: \$5000, \$10,000 and \$25,000?
  - iii. What is the minimum auto insurance coverage required to be purchased under Colorado law in 2007?
- e. Was there any actuarially significant impact on health insurance rates as a result of the move away from no-fault?
- f. To what extent and from what sources is the trauma system being compensated for services in auto injury cases now? What is the percentage of these cases in which services are being paid for and what are the sources of those payments? What percentage of CO hospital care was uncompensated in 2002 and what percentage of such care was related to auto injury victims? What percentage of CO hospital care was uncompensated in 2006 and what percentage of such care was related to auto injury victims? To what extent has the rate of uncompensated care for emergency medical services changed from 2002 to 2006?
- g. What has been the effect of the no-fault to tort change on Medicaid and the Colorado Indigent Care Program?
- h. What is the average length of time it is taking providers to collect payments under the tort system? How does that compare to the length of collection time under the no-fault system?
- i. What is the average cost per admission for an auto accident victim in Colorado? What is the average cost in other tort states? How do Colorado hospital costs (in general, not specific to auto accidents) compare to the rest of the nation? What percentage of hospital admissions currently involves auto accident related injuries?

- j. What staffing adjustments (i.e., lay-offs, additional hiring foregone) have providers made since the move to tort? Have emergency response times been impacted as a result? How have costs not directly compensated by injured or at-fault parties been addressed (i.e., for first responders, new fees, taxes, formation of special districts, etc.)?
- k. Consumer question. Would a med pay mandate force some consumers to duplicate and pay twice for medical benefit coverage? If not, where are the gaps in coverage? Which consumers would be impacted?
  - i. Are ambulance and rehabilitation services covered benefits in health insurance plans? With regard to rehabilitation services, please describe the range, if any, of limitations in covered benefits, such as caps on number of visits or conditions that must be met for continued coverage.
  - ii. What is the range of co-pays and deductibles in health insurance? Are there expenses that consumers could use med pay to cover?
  - iii. Which states currently have a med pay mandate? What is the required coverage? How does med pay work in these states?
  - iv. Depending on level of health care coverage, how would consumers be affected by a med pay mandate?

### **Timeline**

The timeline for this study is 90 days. The goal is to have the study completed in time for the 2008 Legislative Session.

### **End Product**

The final product should include both a report and a data summary. The report will encompass the answers to the questions listed above and will not provide any policy recommendations or suggestions. The report should be brief and contain an executive summary. The data summary will include all data obtained for this report for future reference.

## **APPENDIX B.**

# **Methodology for Answering Auto Insurance-Related Questions**

Appendix B provides details on the data sources and methodology that BBC used to answer the questions relating to auto insurance premiums in the scope of work. To answer these questions, BBC used data provided by the Colorado Division of Insurance (DOI), the National Association of Insurance Commissioners (NAIC) and the Property Casualty Insurers Association of America (PCI).

### **Changes in Auto Insurance Premiums**

The DOI regulates rates for companies selling auto insurance in Colorado. At the initiative of BBC, the Governor's Office asked the DOI to examine changes in auto insurance rates since 2003. The DOI supplied BBC with information on the July 1, 2003 rate filings for auto insurers operating in Colorado. These changes in rates reflect auto insurers' best estimates of the changes that would occur with the elimination of personal injury protection (PIP) coverage.

The DOI also tracked rate filings from July 1, 2003 through December 2007 for companies in eight auto insurance groups operating in Colorado. The DOI selected these groups because they were the largest auto insurance groups at the time, comprising 23 individual companies and representing 74.5 percent of the Colorado auto insurance market in 2002, based on direct written premiums. Figure B-1 on the following page shows these firms. Since insurers adjust rates based on past experience, BBC used these data to assess whether there was any further adjustment in rates after July 2003, as auto insurers gained experience with the new system.

**Percentage change in rates 2003-2007.** To estimate an overall percentage change in rates, BBC used the percentage change in rates for each of the 23 companies from the eight largest insurance groups. BBC weighted each company's percentage change by its relative share of the auto insurance market for the year ending December 2002, as measured by direct written premiums. This market share information came from the DOI's Insurance Industry Statistical Report for 2002. The DOI rate change information began with rate changes filed on July 1, 2003 and ended with rate changes filed in December 2007.

**Absolute change in rates 2003-2007.** Because the DOI information describes percentage changes in rates and not dollar changes, BBC used information on average expenditure in Colorado in 2002 to estimate the dollar value of the auto insurance rate savings received by Colorado policyholders after conversion to tort-based insurance. BBC took the average expenditure figure from the NAIC Auto Insurance Database Report for 2004/2005.

**Figure B-1.**  
**Auto insurance companies used to**  
**calculate changes in auto insurance premiums**

Auto insurance group/company
<b>Allstate</b>
Allstate Indemnity Co.
Allstate Insurance Co.
Allstate Property and Casualty Co.
<b>American Family</b>
American Family Mutual Insurance Co.
American Standard Insurance Co.
<b>Farmers</b>
Farmers Insurance Exchange
Mid-Century Insurance Co.
<b>GEICO</b>
GEICO Casualty Co.
GEICO General Insurance Co.
GEICO Indemnity Co.
Government Employees Insurance Co.
<b>Hartford</b>
Hartford Underwriters Insurance Co.
Omni Insurance Co.
Property & Casualty Insurance Co. of Hartford
<b>Progressive</b>
Progressive Casualty Insurance Co.
Progressive Halcyon Insurance Co.
Progressive Mountain Insurance Co.
Progressive Specialty Insurance Co.
<b>State Farm</b>
State Farm Fire and Casualty
State Farm Mutual Automobile Insurance Co.
<b>USAA</b>
United Services Auto Association
USAA Casualty Insurance Co.
USAA General Indemnity Co.

Source: Colorado Division of Insurance.

**Portion of pre-July 2003 auto insurance that represented PIP coverage.** Since 2003 saw operation of both the no-fault and tort systems, BBC chose to examine the portion of auto insurance that represented PIP coverage in 2002. To calculate the portion of premiums that represented PIP coverage, BBC used earned premiums data from the NAIC Auto Insurance Database Report for 2004/2005. According to the report, total earned premiums in Colorado for 2002 were \$2,569 million and total PIP earned premiums for 2002 were \$666 million, making PIP premiums 26 percent of all earned premiums. This figure is slightly different from that based on Figure 3 in the report as it uses earned premiums and covers an entire year.

**Portion of the decrease in premiums attributable to the elimination of mandatory PIP coverage.** The July 1, 2003 rate filings for the 23 companies within the eight largest Colorado auto insurance groups give an indication of the decrease in premiums due to the elimination of mandatory PIP coverage. The rate filings express the change in rates for each company in percentage terms. Market share data available from the DOI's Insurance Industry Statistical Report for 2002 allowed for the calculation of an overall percentage decrease in premiums by weighting for each company's market share in 2002, as measured by direct written premiums.

### **Comparison with Other States**

The Colorado Division of Insurance does not collect data on auto insurance premiums in other states. The DOI and auto insurers rely on the NAIC Auto Insurance Database Report for the information needed to compare rates across states. The report for 2004/2005 lists average expenditures for each state for each year from 2001 to 2005.

**How Colorado's premium reductions compare to national trends.** BBC used data from the NAIC Auto Insurance Database Report for 2004/2005 to compare Colorado's average expenditure with the U.S. average expenditure for 2001 through 2005. These data are based on written premiums and exposures. Average expenditure figures for the U.S. include data from all 50 states and the District of Columbia.

**How Colorado's average auto insurance premiums ranked against other states in 2002 and 2005.** BBC used average expenditure data from the NAIC Auto Insurance Database Report for 2004/2005 to rank Colorado against other states. These rankings include all 50 states and the District of Columbia.

### **Comparisons of the Average Auto Insurance Premium by Coverage Type**

BBC used survey data provided by PCI to assess the changes in average premiums for different types of coverage. PCI has been conducting periodic surveys of Colorado auto insurers in order to monitor the impact of the switch from no-fault to tort. In one survey, PCI collected written premium data for May 2003 and May 2006 from 18 companies representing 61 percent of the market in 2006, based on direct written premiums. (This sample of firms is slightly different than those shown in Figure B-1.)

PIP premiums are not shown for May 2006 as no new legitimate PIP premiums were written after the end of no-fault. Medical payments premiums are not shown for May 2003 as these were atypical at the time and represented a small minority of policies.

## **Medical Payments in Colorado**

In 2007, the DOI completed a survey of Colorado auto insurers for the calendar year 2006. The survey asked auto insurers to give the number of policies written that included some medical payments coverage, the total number of policies written and the numbers of policies written for each available level of medical payments coverage. A total of 140 auto insurers completed the survey, representing 99 percent of the Colorado auto insurance market, as measured by direct written premiums.

In July 2007, PCI conducted a survey of Colorado auto insurers. This survey asked insurers to give the total premiums and exposures for medical payments insurance by coverage level. The survey was completed by 18 companies representing 51 percent of the Colorado auto insurance market.

## **APPENDIX C.**

# **Methodology for Answering Health Insurance-Related Questions**

Appendix C provides details on the data sources and methodology used to answer the question relating to changes in health insurance premiums in the scope of work.

The Colorado Division of Insurance (DOI) regulates rates for companies offering health insurance within the state. At the time of the change from no-fault to tort, the DOI contacted health insurers requesting them to estimate the percentage change in health insurance rates expected as a result of the elimination of personal injury protection (PIP) coverage in auto insurance.

Twelve health insurers, representing 1.57 million policyholders, responded to the DOI's information request. Eight companies gave a single percentage figure representing the expected increase in premiums. Two companies gave two figures, representing their low and high estimates for the rate change. For these companies, BBC used the midpoint of the two figures in the calculation of an average. One company said it was unable to quantify any rate increase attributable to the elimination of no-fault. For this company, BBC used a figure of zero in its calculations. BBC calculated the average percentage rate increase by weighting each company by its number of policyholders at that time. BBC was unable to determine the dollar amount of health insurance premiums to which this percentage corresponded.

## **APPENDIX D.**

# **Methodology for Answering Trauma Care-Related Questions**

Appendix D provides details on the data sources and methodology used to answer questions relating to the impact on the trauma system of the change from a no-fault to a tort auto insurance system.

### **Impact on the Trauma System**

BBC used information from the Colorado Hospital Association (CHA) and financial data from Colorado hospitals to examine the impact on the Colorado trauma system due to the change from a no-fault to a tort auto insurance system.

**Auto injuries as a percentage of hospital admissions.** CHA collects discharge data from Colorado hospitals that identify number of admissions by ICD9E diagnosis code. Auto accident injuries receive ICD9 codes of E810 through E819. CHA provided information on auto injury admissions and total admissions for Colorado acute care hospitals for 2002 and for 2006 (the most recent data available at the time of this study).

**Sources of payment to hospitals for motor vehicle injuries.** Colorado hospitals provide emergency room care, inpatient care, and outpatient services related to motor vehicle injuries. Data on number of patients served and compensation are not available for emergency room care. Very limited data are available for outpatient care after discharge from the emergency room or after admission to the hospital. Therefore, most information provided for hospitals in this study pertains only to inpatient care. BBC used information from CHA's inpatient claims database on the expected payment source of Motor Vehicle Accident (MVA) inpatients at time of discharge.

**Hospital charges and reimbursement for auto injury cases.** BBC collected financial information from a sample of Colorado hospitals. BBC attempted to obtain information for all Level I and II trauma hospitals that were operating as of January 1, 2002 and a sample of Level III and IV trauma hospitals located in rural areas. The 12 hospitals that were able to provide reimbursement rates for MVAs were responsible for 75 percent of the \$224 million in MVA inpatient charges at Colorado acute care hospitals in 2002 and 77 percent of the \$273 million in charges in 2006. Figure D-1 shows the hospitals in BBC's data collection sample and whether they were able to provide information for this study.

**Figure D-1.**  
**Hospitals in sample**

Hospitals	Location	Received data?
<b>Level I and II</b>		
Denver Health Medical Center	Denver	Yes
Littleton Adventist Hospital	Littleton	No
Memorial Hospital	Colorado Springs	No
North Colorado Medical Center	Greeley	Yes
Parkview Medical Center	Pueblo	Yes
Penrose - St. Francis Health Services	Colorado Springs	Yes
Poudre Valley Hospital	Ft. Collins	No
St. Anthony Central Hospital	Denver	Yes
St. Mary - Corwin Medical Center	Pueblo	Yes
St. Mary's Hospital and Medical Center	Grand Junction	Yes
Swedish Medical Center	Englewood	Yes
The Children's Hospital	Aurora	No
The Medical Center of Aurora	Aurora	Yes
University of Colorado Hospital	Aurora	Yes
<b>Level III and IV</b>		
Delta County Memorial Hospital	Delta	No
Kit Carson County Memorial Hospital	Burlington	No
Lincoln Community Hospital	Hugo	No
Montrose Memorial Hospital	Montrose	No
Platte Valley Medical Center	Brighton	Yes
San Luis Valley Regional Medical Center	Alamosa	No
Sedgwick County Memorial Hospital	Julesburg	Yes
Valley View Hospital Association	Glenwood Springs	No
Yampa Valley Medical Center	Yuma	No

Source: BBC Research and Consulting, 2008.

BBC asked hospitals in the sample to provide the following information:

- For 2002, the reimbursement rate (i.e., “collections divided by charges,” also referred to as “net to gross”) by financial class (e.g., liability insurance, commercial insurance, BC/BS, Medicare, Medicaid, HMO, CICP, self-pay, charity care and other) for auto accident admissions.
- For 2006, the reimbursement rate by financial class for auto accident admissions.
- For 2002, the average length of time to collect payments, such as “days in accounts receivable” for motor vehicle accidents and/or by financial class.
- For 2006, the average length of time to collect payments (again, for motor vehicle accidents and/or by financial class).
- Any other reports or internal analysis that they had created to better understand or communicate the severity of this issue.

Only a few hospitals were able to provide information about days in accounts receivable due to such issues as changes in billing systems since 2002.

BBC chose to weight responses concerning reimbursement rates by the total MVA charges for each hospital. BBC requested CHA to perform these calculations because CHA maintains a database of discharge information for Colorado hospitals that includes 2002 data. Because of the sensitive nature of the discharge data, CHA could not release data on individual hospitals to BBC.

### **Impact on Emergency Medical Service Providers**

BBC collected financial, staffing and emergency response time information from a sample of first responder agencies. Where possible, we supplemented this information with data collected by a 2005 survey of Colorado first responder agencies conducted by TCPC.

**BBC first responder data collection.** BBC surveyed a sample of Colorado’s first responders to examine the impact on pre-hospital providers of the change from no-fault to tort auto insurance. The sample frame for this survey was a list of 191 first responder agencies provided by the Colorado State Emergency Medical and Trauma Advisory Council (SEMTAC) and the Colorado Regional Emergency Medical and Trauma Advisory Councils (RETACs). From this list of agencies, we drew a random sample of 95 first responder agencies. Figure D-2 on the following page shows the agencies that BBC contacted.

**Figure D-2.**  
**Sample of first responder agencies**

Agencies	
Action Care Ambulance Inc.	Mineral County Ambulance Service
American Medical Response - Canon City	Monte Vista Community Ambulance Service
American Medical Response - Pueblo	Montrose Fire Protection District
Bennett Fire Rescue	Nederland Fire Protection District
Big Sandy Fire Protection District	North Central Fire Protection District
Boulder County Paramedics	North Fork Volunteer Fire Department
Byers Rescue Squad	North Metro Fire Rescue District
Carbondale and Rural Fire Protection District	North Park Hospital District
Center Fire Protection District	North Routt Fire Protection District
Central Orchard Mesa Volunteer Fire Department	Northglenn Ambulance, Inc
Chaffee County Emergency Medical Service	Nucla-Naturita Fire Department Ambulance Fund, Inc
Cheyenne County Ambulance Service	Oak Creek Fire Protection District
City of Fountain Fire Department	Olathe Fire Protection District - EMS Division
City of Westminster Fire Department	Ouray County Emergency Medical Service
Clear Creek County Ambulance	Plateau Valley Fire Protection District
Coal Creek Canyon Fire Protection District	Platinum Medical, LLC
Columbine Ambulance Services	Platte Canyon Rescue Service
Costilla County Ambulance	Platte Valley Medical Center - EMS
DeBeque Volunteer Fire Department	Poudre Valley Hospital Emergency Medical Services
Deer Trail Rescue Squad	Rangely Hospital District Ambulance Service
Delta County Ambulance District	Rattlesnake Fire Rescue
Durango Fire and Rescue Authority	Rocky Ford Emergency Services
Eagle County Health Service (Ambulance) District	Rye Fire Protection District
Evans US Army Community Hospital Ambulance	Sable Altura Fire
Event Medical	South Metro Fire Rescue
Flight For Life Colorado	South Park Ambulance District
Franktown Fire Protection District	Southeast Colorado Hospital Ambulance Service
Gilpin Ambulance, Inc.	Southwest Memorial Hospital Ambulance
Grand County EMS	Southwest Teller County EMS
Grand Junction Fire Department	Springfield Police Department
Grand Valley Fire Protection District	St. Mary's CareFlight
Gunnison Valley Hospital - EMS	St. Vincent Hospital Ambulance Service
Hasty/McClave Fire Protection District	Steamboat Springs Fire and Rescue
Huerfano County Ambulance Service	Stratmoor Hills Fire Protection District
Karval Fire Protection District	The Memorial Hospital, Craig
Kiowa County Ambulance Service	Town of Silt Ambulance
Kiowa Fire Protection District	Transportation Technology Center
Kit Carson County Ambulance Service	Tri-Lakes Monument Fire Authority
La Junta Rural Ambulance Service	Trinidad Ambulance District
Lafayette Fire Department	Two Buttes Ambulance
Larkspur Fire Protection District	Upper San Juan Hospital District
Lefthand FPD	Ute Pass Regional Ambulance District
Lincoln Community Hospital Transport Service	Washington County Ambulance Service
Littleton Fire Rescue	Weld County Paramedic Services
Mancos Ambulance Association	West Metro Fire Protection District
Manzanola First Response Unit	Western Eagle County Ambulance District
Memorial Star Transport	Yampa Fire Protection District
Mesa Verde National Park	

TCPC emailed each agency in the survey to explain the purpose of the survey and inform the primary contact that BBC would be contacting the agency. BBC then telephoned each agency to verify the email address of the primary contact and discuss the data collection effort. BBC was able to contact the appropriate person, ask some basic survey questions and email the survey instrument to 49 of the 95 agencies selected in the survey. For an additional 39 agencies in the sample where BBC was unable to contact the appropriate person, BBC emailed the survey to the agency using a contact list provided by SEMTAC. Seven agencies in the sample were no longer in business or declined participation.

Through additional telephone calls, BBC was able to complete telephone interviews with 67 of the agencies.

The survey instrument requested the following information for the years 2002 and 2006:

- Number of vehicles;
- Number of MVAs cases transported;
- Number of total cases transported;
- Gross charges for MVA cases by financial class (e.g., self-pay, charity care, commercial insurance and liability insurance);
- Reimbursements for MVA cases by financial class;
- Days in accounts receivable for MVA cases; and
- Days in accounts receivable by financial class for all cases.

The survey also requested any changes in staffing, response times and new funding mechanisms due to the move from no-fault to tort. Figure D-4 at the end of this appendix provides a copy of the survey instrument.

Only some of these first responders collected and retained data fields in their information systems that would answer BBC's financial questions. Many agencies have limited in-house information systems that allow for the collection and query of basic call volume data but contract billing functions to external vendors. The external billing agencies, in most cases, did not retain data on type of transport to allow for successful querying of data specific to MVA cases. However, from survey and TCPC data (described below), BBC was able to obtain detailed financial information from 19 of the 67 sampled agencies.

These 19 respondents included a variety of different agency types. Figure D-3 on the following page gives information on the type of agency and the numbers for each agency type. The agencies also varied in size. Four of the 19 had gross charges totaling more than \$500,000 in 2006. Eight had gross charges between \$100,000 and \$500,000 and seven had gross charges less than \$100,000 in 2006. The respondents included both small rural first responders and larger metro-area agencies.

**Figure D-3.**  
**Type and number of agencies among first responders providing detailed financial data**

Agency type	Number
Private, non-hospital	7
Government - county	4
Special district	3
Fire-based	2
Government - city	1
Hospital-based	1
Non-profit community provider	1
<b>Total</b>	<b>19</b>

Source: BBC Research and Consulting, 2008.

**TCPC survey of emergency medical service providers.** TCPC conducted a survey of all emergency medical service providers in 2005 that collected financial information similar to the BBC survey. The TCPC survey data included this information for the years 2001 through 2004. Where possible, BBC used the TCPC information to supplement the BBC survey data.

**Figure D-4.  
First responder survey instrument**



**Please Respond by Friday, January 18, 2008**

Name of First Responder Organization: \_\_\_\_\_

Agency Type: \_\_\_\_\_

	2002	2006
# of vehicles		
# of MVAs transported		
# of total cases transported		

**MVA cases only:**

	gross charges	reimbursement	gross charges	reimbursement
	\$	\$	\$	\$
Self Pay				
Medicare				
HMO/Managed Care				
Medicaid				
BC/BS				
Other				
Charity Care				
Medically Indigent/ CICIP				
Commercial Insurance				
Liability Insurance				
Total	\$0	\$0	\$0	\$0

**MVA cases only:**

	# of days	# of days
<b>Days in Accounts Receivable?</b>		

**All cases:**

	# of days	# of days
<b>Days in Accounts Receivable by payer</b>		
Self Pay		
Medicare		
HMO/Managed Care		
Medicaid		
BC/BS		
Other		
Charity Care		
Medically Indigent/ CICIP		
Commercial Insurance		
Liability Insurance		
Total		

Changes in staffing due to tort? \_\_\_\_\_

Change in response times due to staffing? \_\_\_\_\_

Any new funding mechanisms? \_\_\_\_\_

## **APPENDIX E.**

# **Methodology for Answering Medicaid and Colorado Indigent Care-Related Questions**

BBC obtained fiscal notes filed by the Colorado Department of Health Care Policy and Financing (HCPF) on recent auto insurance-related legislation; other HCPF reports and analyses; and a statement from HCPF affirming that:

As a result of the move from the no-fault system of auto insurance to a tort-based system, the Medicaid program and CICIP safety net providers have increased exposure to motor vehicle accident (MVA)-related medical expenses. For example, under the no-fault system, if a Medicaid or CICIP recipient was involved in an at-fault MVA, the PIP benefits available through the recipient's auto insurance policy paid first (or "primary"), and Medicaid and CICIP benefits were only available after the PIP benefits were exhausted. Under the tort-based system, an at-fault driver has no medical benefits available through their auto insurance (in the absence of a medical payments coverage), exposing the Medicaid program and CICIP providers to increased medical expenses.

Data and methodology specific to each program are discussed below.

**Impact on Medicaid.** BBC examined fiscal notes filed by HCPF for bills related to auto insurance. BBC identified several bills since early 2003 where HCPF described potential impacts and the difficulty in quantifying these impacts given limitations on the information that HCPF receives, collects and stores. Figure E-1 on the following page provides additional information about these bills, including excerpted fiscal notes.

HCPF is able to recover a portion of payment made for MVAs in cases where a third-party is liable for the accident. However, HCPF does not track recoveries by diagnosis code, so they are unable to determine what portion of MVA payments were recovered.

BBC was unable to obtain verifiable information about Medicaid payments made for motor vehicle accident (MVA) claims in fiscal years 2001-02 and 2005-06.

**Figure E-1.**  
**Department of Health Care Policy and Financing — fiscal notes**

Legislation	Description	Status	HCPF Fiscal Notes (excerpted)
HB03-1321	Concerning the redefinition of personal injury protection (PIP) benefits and additional coverages for motor vehicle insurance	Postponed indefinitely	The increase in program costs results from the reduction in third-party payments for medical and rehabilitation expenses for Medicaid and CBHP clients. Since precise data are lacking on the number of affected Medicaid clients, the fiscal note assumes that the department will address any increased costs for the Medicaid or CBHP programs through the annual appropriations process.
SB06-019	Concerning a requirement that emergency medical care coverage be included in automobile insurance policies	Postponed indefinitely	The emergency medical care coverage required by this legislation will offset Medicaid expenditures for some recipients eligible for Medicaid. Since the DHCPF does not receive, collect, or store data specifying Medicaid payments by injury type, the exact amount of Medicaid cost savings cannot be determined at this time.
SB07-193	Concerning medical payments coverage in connection with an auto insurance policy issued in Colorado	Postponed indefinitely	The emergency medical care coverage required by this legislation will offset Medicaid expenditures for some recipients eligible for Medicaid. Since the DHCPF does not receive, collect, or store data specifying Medicaid payments by injury type, the exact amount of Medicaid cost savings cannot be determined at this time.
SB07-256	Concerning the payment of uninsured motor vehicle insurance in excess to other insurance	Passed	HCPF administers Medicaid and CHP+. By increasing insurance benefits for some auto accident victims, the bill may result in minimal, but negligible savings for these programs.

Source: Colorado General Assembly website at <http://www.leg.state.co.us/>.

**Impact on CICP.** In order to assess the impact of the change in auto insurance law on the Colorado Indigent Care Program, BBC conducted telephone interviews with select parties at HCPF and administrative personnel at selected CICP medical provider facilities. In addition, BBC extensively reviewed resources, reports, and publications, including the FY 2005-2006 CICP Annual Report, available through the State of Colorado, Department of Health Care Policy and Financing web site.