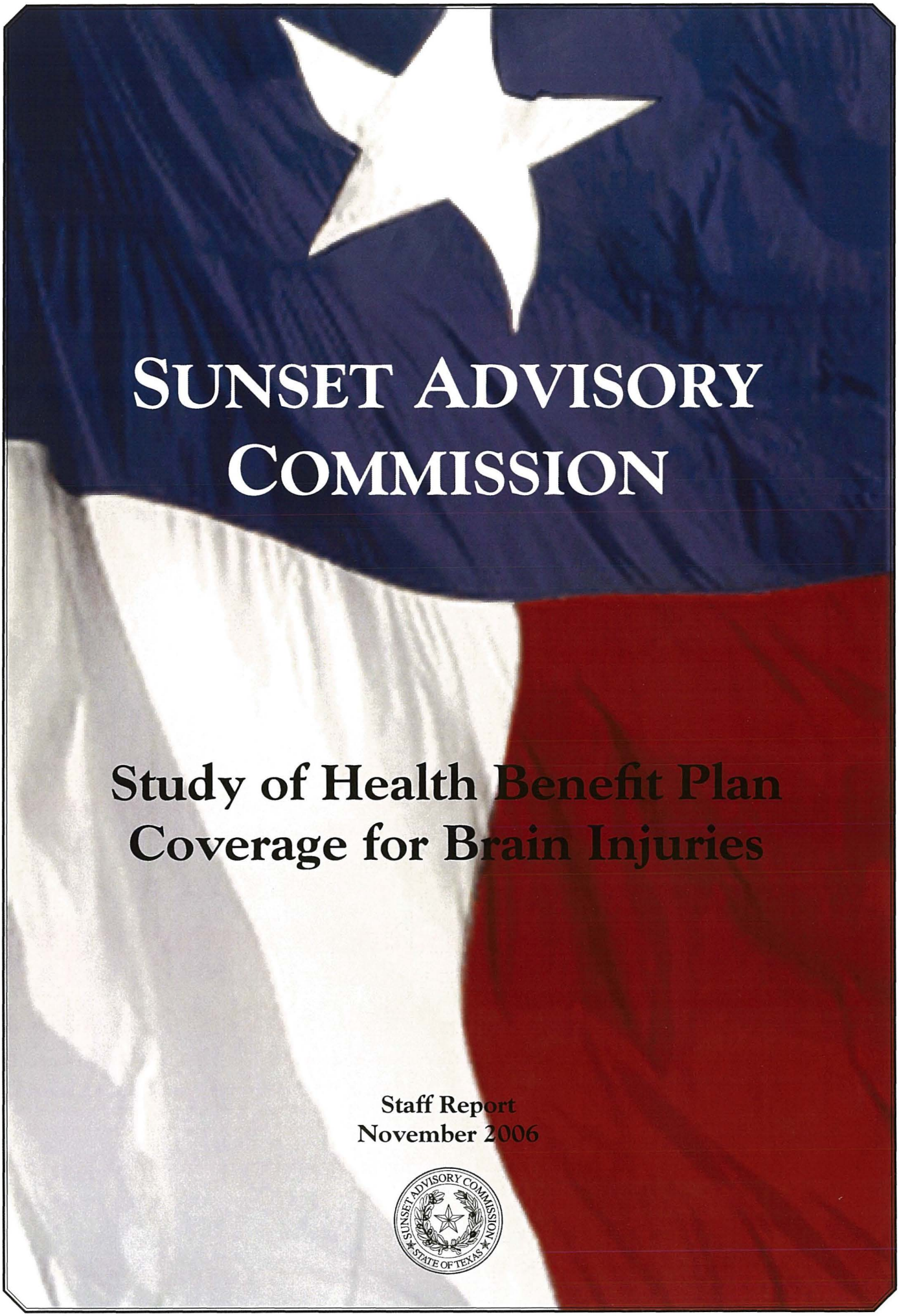

SUNSET ADVISORY COMMISSION

Study of Health Benefit Plan Coverage for Brain Injuries

Staff Report
November 2006

Sunset Advisory Commission

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In 1977, the Texas Legislature created the Sunset Advisory Commission to identify and eliminate waste, duplication, and inefficiency in government agencies. The 12-member Commission is a legislative body that reviews the policies and programs of more than 150 government agencies every 12 years. The Commission questions the need for each agency, looks for potential duplication of other public services or programs, and considers new and innovative changes to improve each agency's operations and activities. The Commission seeks public input through hearings on every agency under Sunset review and recommends actions on each agency to the full Legislature. In most cases, agencies under Sunset review are automatically abolished unless legislation is enacted to continue them.

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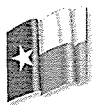
Summary

In 2001, the Legislature enacted House Bill 1676, which mandated certain health insurance benefits for rehabilitative testing and treatment related to acquired brain injury. Acquired brain injuries (ABIs) are acute injuries to the tissues of the brain that happen after birth that may be caused by trauma to the head, lack of oxygen to the brain, stroke, aneurysm, infectious disease, and toxic exposure. ABIs may result in temporary or permanent cognitive, physical and behavioral impairments. People with moderate or severe brain injuries may require weeks, months, or years of rehabilitative therapies to regain previous levels of functioning or learn ways to compensate for impairments. Before passage of H.B. 1676, insurers and HMOs offered varying levels of coverage for rehabilitative therapies related to acquired brain injury.

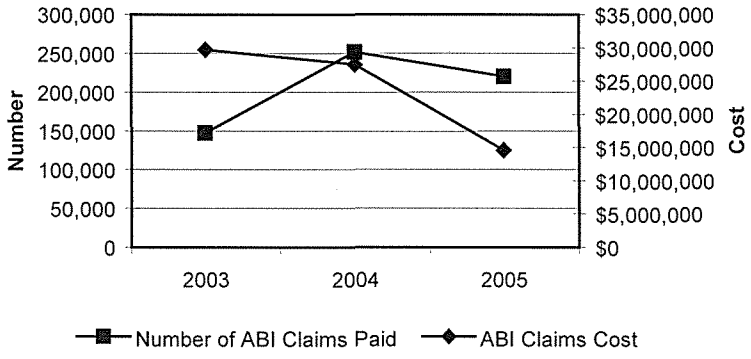


When it passed a bill in 2001 mandating health insurance benefits for brain injuries, the Legislature also directed the Sunset Commission to study the impact.

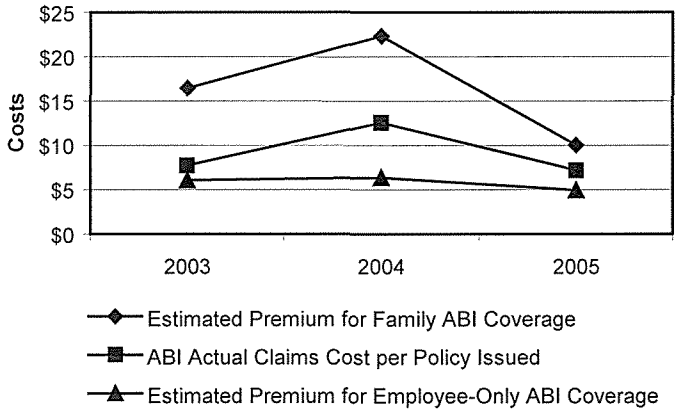
H.B. 1676 also required the Texas Sunset Advisory Commission to study the ABI mandated benefit and report to the Legislature the extent to which covered health insurance enrollees use the mandated benefit and its impact on the cost of health insurance. The bill provided for the Texas Department of Insurance (TDI) to cooperate with the Sunset Commission in conducting this study. TDI's data shows that the mandated benefit for ABI testing and treatment has resulted in additional claims costs and premium costs for group and individual insurance plans in Texas; however, claims costs associated with the ABI mandated benefit are very small – less than one-fifth of one percent of total claims paid by insurers in 2005.

From 2003 to 2005 the number of ABI mandated benefit claims increased significantly while ABI claims costs decreased by half. These trends largely reflect carriers' improved ability to identify and more accurately report on claim costs from ABI mandated benefits. Actual claims cost per policy and estimated premium cost per policy have also declined. An overview of utilization and costs data for this mandated benefit provided under group health insurance plans is shown in the charts, *Number of ABI Claims Paid and Claims Costs* and *ABI Claims and Premium Costs per Policy*. The following material provides a more complete discussion of brain injuries and the impact of the mandated benefit on health insurance costs.

Number of ABI Claims Paid and Claims Costs



ABI Claims and Premium Costs Per Policy



Brain Injury

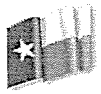
Brain injuries are acute injuries to the tissues of the brain that temporarily or permanently impair brain function. Acquired brain injury (ABI) is a brain injury that occurs after birth which is not hereditary or degenerative. ABI may result in mild to severe impairments of cognition, communication, memory, concentration, reasoning, abstract thinking, physical functions, psychosocial behavior, and information processing. A list of symptoms caused by ABI is shown in the table, *Symptoms of Acquired Brain Injury.* Major causes of ABI are trauma to the head or neck (traumatic brain injury), lack of oxygen or

Symptoms of Acquired Brain Injury

Physical	Cognitive	Emotional/Behavioral
♦ Hemiplegia or hemiparesis (paralysis or weakness of one side of the body) ♦ Spasticity ♦ Tremors ♦ Hearing Loss ♦ Seizures ♦ Double vision ♦ Visual field cuts ♦ Changes in sensory perception ♦ Fatigue ♦ Ataxia (problems with balance or coordination) ♦ Dysphagia (problems swallowing) ♦ Dysarthria (problems with articulation) ♦ Autonomic dsyfunction (disregulation of the stress reaction) ♦ Apraxia (inability to carry out purposeful movement)	♦ Level of consciousness ♦ Attention/concentration ♦ Memory ♦ Expressive language (spoken or written) ♦ Receptive language (understanding what is said or written) ♦ Constructional ability (copying 2 or 3 dimensional designs) ♦ Orientation (knowing who, what, when, where & why) ♦ Abstract thought ♦ Planning ♦ Organizing ♦ Insight ♦ Generalization ♦ Flexibility ♦ Problems solving ♦ Mental processing speed ♦ Academic skills ♦ Right-left orientation	♦ Agitation (excessive restlessness) ♦ Lack of cooperation ♦ Low frustration tolerance ♦ Aggression, anger, or hostility ♦ Emotional lability (inappropriate fluctuations in mood) ♦ Distortions of reality ♦ Obsessions/compulsions ♦ Loose associations ♦ Tangentiality (answers to quetions are obliquely related or unrelated) ♦ Egocentrism ♦ Decreased social skills ♦ Lack initiation/motivation ♦ Perseveration (repeating an idea or action over and over) ♦ Disinhibition ♦ Impulsivity

blood flow to the brain, stroke, aneurysm, brain tumors, infectious disease, metabolic disorders, toxic exposure, and intracranial surgery.[1]

The Centers for Disease Control and Prevention (CDC) does not track data on the overall incidence of ABI, but does collect information on traumatic brain injury (TBI), which is the type of acquired brain injury most likely to cause death or permanent disability,[2] and which can thus serve as a suitable surrogate to provide background information regarding the incidence, causes and treatment of brain injury. The CDC defines TBI as, "a blow or jolt to the head or a penetrating head injury that disrupts the normal function of the brain."[3] Concussions are a mild form of TBI. Mild TBIs generally result in brief, if any, loss of consciousness and can result in symptoms including headache, fatigue, balance problems, irritability, decreased concentration, memory problems, and nausea. Moderate TBIs result in a loss of consciousness that lasts up to a few hours and temporary or permanent cognitive, physical, and/or behavioral impairments. Severe TBIs are characterized by a coma that can last days, weeks, or months and generally permanent cognitive, physical, and/or behavioral impairments.[4]

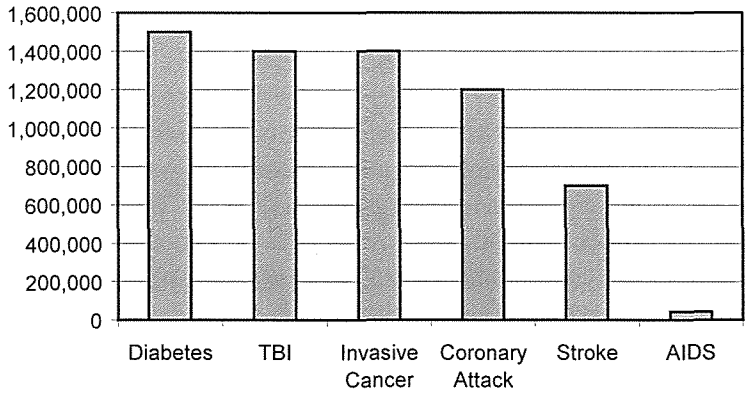


Data is available on traumatic brain injury, making it suitable to provide background information regarding the incidence, causes, and treatment of brain injury.

Incidence of TBI

TBI is a leading cause of death and permanent disability.[5] A comparison of the incidence of TBI to other medical conditions is shown in the graph, *Comparison of Annual Incidence in the United States.*

Comparison of Annual Incidence in the United States



Annually, at least 1.4 million TBIs occur in the United States and are treated in hospitals or result in death. These injuries result in 1.1 million emergency room visits, 235,000 hospitalizations, and 50,000 deaths.[6] In addition, physicians' offices and other outpatient settings treat an estimated 528,000 TBIs each year. Many more mild or moderate TBIs may occur for which no medical care is sought.[7] The CDC estimates that 5.3 million Americans, or 2 percent of the population, are living with a disability due to a TBI, and each year, 80,000 to 90,000 people become disabled from a TBI.[8] As noted above, these statistics do not take into account the incidence of other types of acquired brain injury.

The risk of sustaining a TBI varies by age and gender. Children aged 4 and under have the highest rate of TBI-related emergency room visits, followed by teens ages 15 to 19. Adults aged 75 and older have the highest rates of TBI-related hospitalization. At almost all ages, rates of TBI are higher for males than females. Males sustain 1.5 times as many TBIs as females.[9]

In Texas, an estimated 144,000 people sustain a TBI each year. TBIs kill 4,200 Texans and permanently disable 5,700 Texans each year. An estimated 410,000 Texans are living with a disability due to a TBI.[10] Additional statistics on the incidence of TBI in Texas are shown in the textbox, *TBIs in Texas*.

TBIs in Texas

Each Day in Texas

- 395 people will sustain a TBI;
- 48 people will be hospitalized with a TBI;
- 18 people will be permanently disabled by a TBI and;
- 12 people will die due to a TBI.

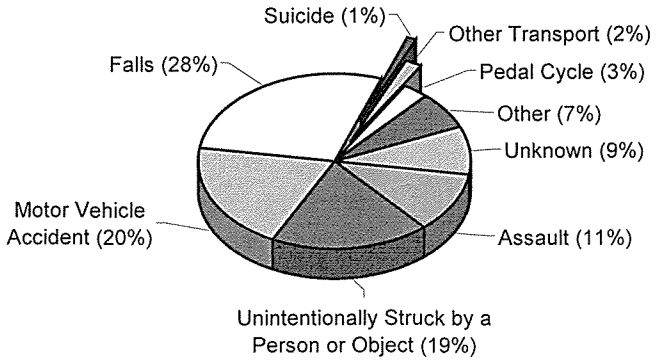
Source: Texas Traumatic Brain Injury Advisory Council, *Traumatic Brain Injury in Texas.*

Falls are the leading cause of traumatic brain injuries, and are most likely to occur among the very young and the elderly.

Causes of TBI

Falls are the leading cause of TBIs that result in emergency room visits, hospitalization, or death. Rates of fall-related TBIs are greatest among children ages 0 to 4 years and adults over age 75. Motor vehicle accidents are the second overall cause of TBI, but motor vehicle accidents result in the highest number of TBI-related hospitalizations. The rate of motor vehicle accident-related TBIs is greatest among adolescents ages 15 to 19 years. The third leading cause of TBI is events in which a person is unintentionally struck by or against another person or an object. Many of these injuries are sports and recreation-related, but also include injuries from falling debris, among other things. Assault is the fourth leading cause of TBI.[11] Firearm use, which is one type of assault, is the leading cause of TBI related-death.[12] The leading causes of TBIs that result in emergency room visits, hospitalization, or death are shown in the chart, *Leading Causes of TBI*.

Leading Causes of TBI

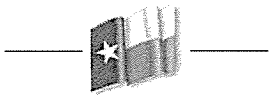


Source: Centers for Disease Control and Prevention, *Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations, and Deaths.*

Treatment

Level of recovery from brain injuries depends on the severity of the brain injury and treatment received. Generally, people with mild brain injuries can expect to recover completely within a short amount of time. People who sustain moderate or severe brain injuries that cause mental or physical impairments may need emergency treatment and long-term rehabilitative care. In such cases, recovery can take weeks, months, or years. The objective of rehabilitation is to help people with brain injuries regain the most independent level of functioning possible. This includes both achieving functional recovery and learning to cope with remaining disabilities.[13]

People with moderate or severe brain injuries may be admitted to a hospital's intensive care unit following emergency medical treatment. In the intensive care unit, patients with brain injuries receive life-sustaining care until they become medically stable. Rehabilitation begins when patients are medically stable and able to participate in therapy. The process of rehabilitation varies with each person and is designed to address an individual's unique impairments resulting from a brain injury. People who need intensive therapy to re-learn daily skills like speaking and walking may receive evaluations and care from a range of specialists and therapists in inpatient rehabilitation facilities. People who need less intensive therapy may receive outpatient therapy to evaluate and address functional impairments.[14]



All states have adopted multiple mandated benefits, typically to address an absence of necessary health insurance benefits.

Mandated Benefits

State mandated health benefits are benefits required by law to be included in certain types of fully-insured health insurance policies offered in the state.[15] All 50 states have adopted multiple mandated benefits.[16] State legislatures use mandated benefits to address a perceived absence of necessary health insurance benefits.[17] State mandated benefit laws apply to certain commercial health insurance companies and health maintenance organizations.[18] Consumer choice health benefit plans, created by Senate Bill 541 in 2003, do not have to provide all state mandated health benefits, but may exclude or reduce coverage for specific benefits designated by the Legislature.[19] In addition, state mandated benefits do not generally apply to public health benefit programs, self-insured companies, or other plans not regulated by the Texas Department of Insurance, with some exceptions for governmental programs over which the Legislature has authority. Texas' 31 mandated benefits are listed in Appendix A.

Mandated Benefit for Acquired Brain Injury

In 2001, the Legislature enacted House Bill 1676, which mandated benefits for rehabilitative testing and treatment related to acquired brain injury. Fully-insured group and individual insurance policies in Texas cannot exclude specific services, listed in the table, *Treatment Included in the Acquired Brain Injury Mandated Benefit*, that are necessary as a result of and related to an ABI.[20] The ABI mandated benefit does not include services for emergency care following a brain injury or other services related to an ABI that is not listed in the table, though many of those services are covered under most health insurance plans.

Treatment Included in the Acquired Brain Injury Mandated Benefit

Benefit	*Definition*
Cognitive Rehabilitation Therapy	Services designed to address therapeutic cognitive activities, based on an assessment and understanding of the individual's brain-behavioral deficits.
Cognitive Rehabilitation Therapy	Services designed to address modalities of comprehension and expression, including understanding, reading, writing, and verbal expression of information.
Neurocognitive Therapy and Rehabilitation	Services designed to address neurological deficits in informational processing and to facilitate the development of higher level cognitive abilities; and services designed to assist cognitively impaired individuals to compensate for deficits in cognitive functioning by rebuilding cognitive skills and/or developing compensatory strategies and techniques.
Neurobehavioral Testing and Treatment	An evaluation of the history of neurological and psychiatric difficulty, current symptoms, current mental status, and premorbid history, including the identification of problematic behavior and the relationship between behavior and the variables that control behavior; and interventions that focus on behavior and the variables that control behavior.
Neurophysiological Testing and Treatment	An evaluation of the functions of the nervous system; and interventions that focus on the functions of the nervous system.
Neurophysiological Testing and Treatment	The administering of a comprehensive battery of tests to evaluate neurocognitive, behavioral, and emotional strengths and weaknesses and their relationship to normal and abnormal central nervous system functioning; and interventions designed to improve or minimize deficits in behavioral and cognitive processes.
Psychophysiological Testing and Treatment	An evaluation of the interrelationships between the nervous system and other bodily organs and behavior; and interventions designed to alleviate or decrease abnormal physiological responses of the nervous system due to behavioral or emotional factors.
Neurofeedback Therapy	Services that utilize operant conditioning learning procedure based on electroencephalography (EEG) parameters, and which are designed to result in improved mental performance and behavior, and stabilized mood.
Remediation	The process of restoring or improving a specific function.
Post-acute Transition Services	Services that facilitate the continuum of care beyond the initial neurological insult through rehabilitation and community reintegration.
Community Reintegration Services	Services that facilitate the continuum of care as an affected individual transitions into the community.

Source: Texas Insurance Code, sec. 1352.003 (a), and Texas Administrative Code, title 28, sec. 21.3102.

The mandated benefits related to ABI may be subject to deductibles, copayments, coinsurance, and annual maximum payment limits that apply to similar coverages in a health insurance policy.[21] In addition, insurers may limit mandated brain injury benefits as they do coverage for other illnesses and injuries. For example, insurers may require preauthorization for ABI benefits and may deny benefits that are not medically necessary, experimental or investigational, or not preauthorized.[22]

Before passage of the mandated benefit for acquired brain injury coverage, coverage for testing and treatment following an ABI varied by insurance

carrier. Many carriers covered treatment for ABI, but which therapies were covered and in what amount varied widely.[23] Some carriers specifically excluded rehabilitation related to brain injury as treatment for a mental illness rather than a physical illness.[24] If not covered by private insurance, the burden for treatment of ABI often fell on publicly funded programs, including the Department of Assistive and Rehabilitative Services and Medicaid.[25]

Impact of the Brain Injury Mandated Benefit

H.B. 1676 included a requirement that the Sunset Advisory Commission report the impact of the mandated benefit for acquired brain injury coverage to the Legislature. Specifically, the Sunset Advisory Commission must study:

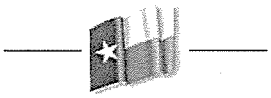
(1) to what extent covered health insurance enrollees use acquired brain injury coverage mandated by H.B. 1676; and

(2) the impact of the mandated benefit on the cost of health insurance.[26]

To accomplish this task, Sunset staff requested assistance from the Texas Department of Insurance (TDI). TDI's full report is attached as Appendix B. Staff wishes to acknowledge the valuable assistance provided by TDI for this study. The highlights from TDI's report are summarized below.

Use and Cost of the Mandated Benefit for Acquired Brain Injury

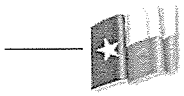
TDI collects utilization and claims cost data from health insurers and HMOs on many mandated benefits, including coverage for ABI, and annually reports findings to the Legislature.[27] TDI provides specific direction to carriers to encourage uniform reporting, but due to limitations in how carriers receive and process claims data, the actual utilization and claims cost of services covered by ABI mandated benefits may either be under-reported or over-reported.[28] TDI also asks insurers to estimate the average premium cost associated with each mandated benefit for employee-only coverage and family coverage (employee, spouse, and children). Finally, TDI asks carriers to estimate the administrative costs associated with providing coverage under each mandated benefit.[29] TDI's cost analysis does not take into account any cost savings or benefits that may result from the ABI mandated benefit, such as improvements in the health and functioning of Texans with an ABI and reductions of reliance on publicly funded programs through the Department of Assistive and Rehabilitative Services and Medicaid.



The cost analysis does not account for any cost savings to publicly funded programs resulting from the mandated benefit for brain injuries.

Group Benefit Plans

Insurers and HMOs providing data on group benefit plans, which include employer-sponsored insurance, reported a total of 221,145 claims for mandated ABI benefits in 2005, at a cost of $14.7 million, or $7.18 per policy issued.[30] Claims costs for ABI mandated benefits accounted for 0.19 percent of all claims paid. Average insurer estimates of the annual premium cost for ABI mandated benefits were $4.94 for employee-only coverage and $10.02 for family coverage. In addition, insurers estimate that they spent $3 million in administrative expenses in 2005 to provide coverage under the ABI mandated benefit.



TDI believes that claims cost decreases reflect more accurate reporting on claims costs from brain injury mandated benefits.

Three years of claims data for the ABI mandated benefit are shown in the table, *Acquired Brain Injury Mandated Benefit Utilization and Cost*. From 2003 to 2005 the number of ABI mandated benefit claims to group benefit plans increased significantly while costs associated with claims decreased significantly. TDI reports that these changes largely reflect an improved ability on the part of carriers to isolate and more accurately report on claims costs from ABI mandated benefits.

Individual Benefit Plans

Insurers and HMOs providing data on individual benefit plans reported a total of 1,249 claims for mandated ABI benefits in 2005, at a cost of $320,291, or $1.37 per policy issued. As shown in the table, Acquired Brain Injury Mandated Benefit Utilization and Cost, claims costs associated with ABI claims under individual benefit plans show even more drastic declines from 2003 to 2005 than under group benefit plans.

Acquired Brain Injury Mandated Benefit Utilization and Cost

	2003	2004	2005
Group Benefit Plans			
Number of ABI Claims Paid	147,316	251,984	221,145
ABI Claims Cost	$29,670,771	$27,530,060	$14,675,648
ABI Claims Cost per Policy Issued	$7.73	$12.57	$7.18
ABI Claims Cost as a Percentage of All Claims Cost	0.40%	0.37%	0.19%
Estimated Premium for Employee-Only ABI Coverage	$6.07	$6.34	$4.94
Estimated Premium for Family ABI Coverage	$16.43	$22.30	$10.02
Annual Administrative Cost for ABI	$4,723,998	$5,435,539	$3,020,362
Annual Administrative Cost as a Percent of All Claims Costs	0.06%	0.07%	0.04%
Individual Benefit Plans			
Number of ABI Claims Paid	1,384	8,658[31]	1,249
ABI Claims Cost	$1,031,402	$1,033,044	$320,291
ABI Claims Cost per Policy Issued	$10.56	$5.19	$1.37
ABI Claims Cost as a Percentage of All Claims Cost	0.14%	0.16%	0.04%
Estimated Premium for Single ABI Coverage	$3.20	$2.69	$2.79
Estimated Premium for Family ABI Coverage	$8.01	$4.88	$6.14
Annual Administrative Cost for ABI	$66,020	$225,388	$35,791
Annual Administrative Cost as a Percent of All Claims Cost	0.01%	0.03%	0.00%

Source: Texas Department of Insurance, *Acquired Brain Injury Mandated Benefit Cost and Utilization Report to the Texas Sunset Commission*.

Claims costs for ABI mandated benefits under individual plans accounted for 0.04 percent of all claims paid. Average premium cost estimates for ABI mandated benefits in individual benefit plans were $2.79 for a single insured and $6.14 for family coverage. In addition, insurers estimate that they spent $36,000 in administrative expenses in 2005 to provide coverage under the ABI mandated benefit.

[1] Brain Injury Association of America, Types of Brain Injury, www.biausa.org/Pages/types_of_brain_injury.html. Accessed: September 15, 2006.

[2] Brain Injury Association of Texas, Resources, www.biatx.org/resources/index.html. Accessed: September 15, 2006.

[3] Centers for Disease Control and Prevention, TBI-Traumatic Brain Injury, www.cdc.gov/ncipc/tbi/TBI.htm. Accessed: September 15, 2006.

[4] Brain Injury Association of America, Types of Brain Injury, www.biausa.org/Pages/types_of_brain_injury.html. Accessed: September 15, 2006.

[5] David J. Thurman, Clinton Alverson, Kathleen A. Dunn, Janet Guerrero, and Joseph E. Sniezek, "*Traumatic Brain Injury in the United States: A Public Health Perspective*," *Journal of Head Trauma Rehabilitation*, 1999; 14(6):602-615.

[6] Centers for Disease Control and Prevention, *Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations, and Deaths*, by J.A. Langlois, W. Rutland-Brown, and K.E. Thomas (Atlanta, Georgia, January 2006), p.7. Online. Available: http://www.cdc.gov/ncipc/pub-res/TBI_in_US_04/TBI%20in%20the%20US_Jan_2006.pdf. Accessed: September 15, 2006.

[7] Centers for Disease Control and Prevention, *Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations, and Deaths*, by J.A. Langlois, W. Rutland-Brown, and K.E. Thomas (Atlanta, Georgia, January 2006), p.49. Online. Available: http://www.cdc.gov/ncipc/pub-res/TBI_in_US_04/TBI%20in%20the%20US_Jan_2006.pdf. Accessed: September 15, 2006.

[8] Centers for Disease Control and Prevention and National Center for Injury Prevention and Control, *Traumatic Brain Injury in the United State: A Report to Congress* (Atlanta, Georgia, December, 1999), pp. 15-16. Online. Available: http://www.cdc.gov/ncipc/tbi/tbi_congress/TBI_in_the_US.PDF. Accessed: September 15, 2006.

[9] Centers for Disease Control and Prevention, *Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations, and Deaths*, by J.A. Langlois, W. Rutland-Brown, and K.E. Thomas (Atlanta, Georgia, January 2006), pp. 8-9. Online. Available: http://www.cdc.gov/ncipc/pub-res/TBI_in_US_04/TBI%20in%20the%20US_Jan_2006.pdf. Accessed: September 15, 2006.

[10] Texas Traumatic Brain Injury Advisory Council, *Traumatic Brain Injury In Texas* (Austin, Texas, April 2006), pp. 9-10. Online. Available: www.dshs.state.tx.us/braininjury/docs/govreport070306.pdf. Accessed: September 18, 2006.

[11] Centers for Disease Control and Prevention, *Traumatic Brain Injury in the United States: Emergency Department Visits, Hospitalizations, and Deaths*, by J.A. Langlois, W. Rutland-Brown, and K.E. Thomas (Atlanta, Georgia, January 2006), pp. 10-12, 44. Online. Available: http://www.cdc.gov/ncipc/pub-res/TBI_in_US_04/TBI%20in%20the%20US_Jan_2006.pdf. Accessed: September 15, 2006.

[12] Centers for Disease Control and Prevention and National Center for Injury Prevention and Control, *Traumatic Brain Injury in the United State: A Report to Congress* (Atlanta, Georgia, December, 1999), p. 7. Online. Available: http://www.cdc.gov/ncipc/tbi/tbi_congress/TBI_in_the_US.PDF. Accessed: September 15, 2006.

[13] Brain Injury Association of America, What is the Rehabilitation Process, www.biausa.org/Pages/what_is_the_rehab_process.html. Accessed: September 19, 2006.

[14] Brain Injury Association of America, What is the Rehabilitation Process, www.biausa.org/Pages/what_is_the_rehab_process.html. Accessed: September 19, 2006.

[15] Texas Administrative Code, title 28, sec. 21.3420(6).

[16] Council for Affordable Health Insurance, *Health Insurance Mandates in the States 2006* (March 2006). Online. Available: www.cahi.org/cahi_contents/resources/pdf/MandatePub2006.pdf. Accessed: September 20, 2006.

[17] Texas Department of Insurance, *The Impact of Mandated Health Benefits* (Austin, Texas, December 1998), p. 14. Online. Available: www.tdi.state.tx.us/reports/pdf/benefit.pdf. Accessed: September 15, 2006. Online. Available: http://www.tdi.state.tx.us/reports/pdf/benefit.pdf. Accessed: September 15, 2006.

[18] Milliman & Robertson, Inc., *Cost Impact Study of Mandated Benefits in Texas, Report #2* (Austin, Texas, September 28, 2000), p. i. Online. Available: www.tdi.state.tx.us/reports/pdf/benefits2_00.pdf. Accessed: September 15, 2006.

[19] Texas Insurance Code, ch. 1507.

[20] Texas Insurance Code, sec. 1352.003 (a).

[21] Texas Insurance Code, sec. 1352.003 (b).

[22] Texas Administrative Code, title 28, sec. 21.3103(e).

[23] Texas Traumatic Brain Injury Advisory Council, *Traumatic Brain Injury In Texas* (Austin, Texas, April 2006), p.18. Online. Available: www.dshs.state.tx.us/braininjury/docs/govreport070306.pdf. Accessed: September 18, 2006.

[24] House Research Organization, *HB 1676 Bill Analysis* (Austin, Texas, April 26, 2001), p. 3. Online. Available: www.hro.house.state.tx.us. Accessed: September 14, 2006.

[25] Texas Traumatic Brain Injury Advisory Council, *Traumatic Brain Injury In Texas* (Austin, Texas, April 2006), p.18. Online. Available: www.dshs.state.tx.us/braininjury/docs/govreport070306.pdf. Accessed: September 18, 2006.

[26] Acts 2001, ch. 859, sec. 2.

[27] TDI collects and reports mandated benefit information as required by the Texas Insurance Code, sec. 38.252. Insurers with $10 million or more in annual group premiums and/or $2 million or more in individual premiums, and HMOs with $10 million or more in premiums for basic service plans are required to report mandated benefit data to TDI. This data reflects submissions by more than 90 percent of the group and individual health insurance market based on premium volume. TDI does not audit data submitted by insurance companies. Companies are responsible for assuring that the information they report is accurate and complete.

[28] Reporting data for the ABI mandated benefit poses unique challenges to carriers. Carriers have difficulty identifying the claims costs associated with the specific mandated ABI coverages as opposed to other treatment and evaluation services which may be provided to people with an ABI. Carriers' ability to correctly identify only the costs related to services named in the mandated benefit is limited by the software used to process claims and the level of detail and accuracy submitted on claim forms by doctors and hospitals.

[29] TDI does not provide a standard methodology used by insurers to calculate premium and administrative cost estimates. Carriers use their own internal guidelines to determine these estimates.

[30] Data from 2005 reflects the reporting period from October 2004 through September 2005. Data from 2004 reflects the reporting period from October 2003 through September 2004. Data from 2003 reflects the calendar year January 2003 through December 2003.

[31] Increased claims rates reported in 2004 were due primarily to data reported by two companies, both of which revised their methodology for 2005, and submitted data consistent with that of other carriers.

APPENDICES

Appendix A

Texas Mandated Benefits
Accident and Health Insurance

Benefit	Explanation	Applicability
Alzheimer's Disease, Biological Brain Disease and serious mental illness	No long-term care policy may exclude or limit coverage for covered services on the basis of a diagnosis of Alzheimer's disease or biologically-based brain disease/ serious mental illness.	Applicable to any individual or group long-term care, home health or nursing home policy.
Brain injury	A policy may not exclude coverage for cognitive rehabilitation therapy, cognitive communication therapy, neurocognitive therapy and rehabilitation, neurobehavioral, neurophysiological, neuropsychological, and psychophysiological testing or treatment, neurofeedback therapy, remediation, post-acute transition services, or community reintegration services necessary as a result of and related to an acquired brain injury. Coverage may be subject to deductibles, copayments, coinsurance, or annual or maximum payment limits that are consistent with other similar coverage under the policy.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses, including an accident policy.
Chemical dependency	Benefits for the necessary care and treatment of chemical dependency must be provided on the same basis as other physical illnesses generally. Benefits for treatment of chemical dependency may be limited to three separate series of treatments for each covered individual. The series of treatments must be in accordance with the standards adopted under 28 TAC §§3.8001 – 3.8030.	Applicable to any group policy providing basic hospital, surgical or major medical expense benefits.
Complications of pregnancy	Benefits for complications of pregnancy must be provided on the same basis as for other illnesses.	Applicable to any individual or group policy including major medical, hospital/ medical/surgical, hospital indemnity, and disability coverages.
Colorectal cancer testing	A policy that provide benefits for screening medical procedures must provide coverage for each person enrolled in the plan who is 50 years of age or older and at normal risk for developing colon cancer for expenses incurred in conducting a medically recognized screening examination for the detection of colorectal cancer. An insured must have the choice of at least one of the following: (1) a fecal occult blood test performed annually and a flexible sigmoidoscopy performed every five years or (2) a colonoscopy performed every 10 years.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.

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Benefit	Explanation	Applicability
Diabetes	Medical or surgical expense polices which provide benefits for treatment of diabetes and associated conditions must provide coverage to each qualified insured for diabetes equipment, diabetes supplies and diabetes self-management training programs. The coverage must be provided in accordance with the standards adopted under 28 TAC §§ 21.2601 - 21.2607.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.
Emergency care Emergency care provisions for preferred provider plans	Reimbursement for the following emergency care services must be at the preferred provider level of benefits, if an insured cannot reasonably reach a preferred provider: (a) any medical screening examination or other evaluation required by state or federal law to be provided in the emergency facility of a hospital which is necessary to determine whether a medical emergency condition exists; (b) necessary emergency care services including treatment and stabilization of an emergency medical condition; and (c) services originating in a hospital emergency facility following treatment or stabilization of an emergency medical condition.	Applicable to any insurance policy that contains preferred provider benefits.
Emergency care Reimbursement for emergency care under utilization review	Carriers that apply utilization review must provide reimbursement for "emergency care" as that term is defined in Insurance Code, Article 21.58A.	Applicable to carriers that apply utilization review.
Emergency care Definition of emergency care	Policies that provide an emergency care benefit must define emergency care to mean bona fide emergency services provided after the sudden onset of a medical condition manifesting itself by acute symptoms of sufficient severity, including severe pain, such that the absence of immediate medical attention could reasonably be expected to result in: (1) placing the patient's health in serious jeopardy; (2) serious impairment to bodily functions; or (3) serious dysfunction of any bodily organ or part.	Applicable to any insurance policy that does not contain preferred provider benefits and does not apply utilization review.
Government hospital coverage	Policies providing hospital confinement indemnity coverage may not contain provisions excluding coverage because of confinement in a hospital operated by the federal government.	Applicable to any individual policy providing hospital indemnity coverage.

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Benefit	Explanation	Applicability
Hearing screening for children	Policies that provide benefits for a family member of the insured shall provide coverage for each covered child for: (1) a screening test (as provided by Chapter 47, Health and Safety Code) for hearing loss from birth through the date the child is 30 days old; and (2) necessary follow-up care related to the screening test from birth through the date the child is 24 months old. Benefits may be subject to copayment and coinsurance requirements, but may not be subject to a deductible requirement or dollar limits and this must be stated in the policy. (See also "Speech and Hearing" under the section for Mandated Offers.)	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.
Human papillomavirus and cervical cancer testing	A health benefit plan that provides coverage for diagnostic medical procedures must provide, for each woman enrolled in the plan who is 18 years of age or older, coverage for an annual medically recognized diagnostic examination for the early detection of cervical cancer. Minimum benefits include a conventional Pap smear screening or a screening using liquid-based cytology methods alone or in combination with a test for the detection of the human papillomavirus approved by the United States Food and Drug Administration.	Applicable to any individual, group, blanket, franchise insurance policy, insurance agreement, group hospital service contract, an individual or group evidence of coverage, or a similar coverage document that provides coverage for medical or surgical expenses.
Immunizations	Policies that provide benefits for a family member of the insured shall provide coverage for each covered child from birth through the date the child is six years old for: (1) immunization against diphtheria; haemophilus influenzae type b; hepatitis B; measles; mumps; pertussis; polio; rubella; tetanus; and varicella; and (2) any other immunization that is required by law for the child. Immunizations may not be subject to a deductible, copayment or coinsurance requirement.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.
Mammography	Annual screening by low-dose mammography for females 35 years old or older must be provided on the same basis as other radiological examinations.	Applicable to any individual or group policy.
Mastectomy Minimum length of stay following mastectomy or lymph node dissection	Policies that provide benefits for the treatment of breast cancer must include coverage for inpatient care for a covered individual for a minimum of: (a) 48 hours following a mastectomy; and (b) 24 hours following a lymph node dissection for the treatment of breast cancer. A policy is not required to provide the minimum hours of coverage of inpatient care required if the covered individual and the covered individual's attending physician determine that a shorter period of inpatient care is appropriate.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.

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Texas Mandated Benefits
Accident and Health Insurance

Benefit	Explanation	Applicability
Mastectomy Reconstructive surgery incident to a mastectomy	Policies that provide coverage for mastectomy must provide coverage for: (1) reconstruction of the breast on which the mastectomy has been performed; (2) surgery and reconstruction of the other breast to achieve a symmetrical appearance; and (3) prostheses and treatment of physical complications, including lymphedemas, at all stages of mastectomy. The coverage may be subject to annual deductibles, copayments, and coinsurance that are consistent with other benefits under the policy, but may not be subject to dollar limitations other than the policy lifetime maximum.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses, including cancer policies.
Maternity Minimum stay following birth of a child	Policies providing maternity benefits, including benefits for childbirth, must include coverage for inpatient care for a mother and her newborn child in a health care facility for a minimum of: (a) 48 hours following uncomplicated vaginal delivery; and (b) 96 hours following uncomplicated caesarean section. Policies that provides in-home postdelivery care are not required to provide the minimum number of hours unless the inpatient care is determined to be medically necessary by the attending physician or is requested by the mother.	Applicable to any individual, group, blanket or franchise insurance policy that provide benefits for medical or surgical expenses.
Mental/nervous disorders with demonstrable organic disease	No individual policy may exclude mental, emotional or functional nervous disorders with demonstrable organic disease.	Applicable to any individual policy (primarily major medical, hospital indemnity and hospital/medical/ surgical coverages).
Osteoporosis, detection and prevention	Policies that provide benefits for medical or surgical expenses incurred as a result of an accident or sickness must provide coverage to qualified individuals for medically accepted bone mass measurement to determine a person's risk of osteoporosis and fractures associated with osteoporosis.	Applicable to any group policy that provides benefits for medical or surgical expenses.

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Benefit	Explanation	Applicability
Prescription drugs Off-label drugs	A policy that provides coverage for drugs must provide coverage for any drug prescribed to treat a covered individual for a covered chronic, disabling, or life-threatening illness if the drug: (1) has been approved by the Food and Drug Administration for at least one indication; and (2) is recognized for treatment of the indication for which the drug is prescribed in: (a) a prescription drug compendium approved by the commissioner; or (b) substantially accepted peer-reviewed medical literature. Coverage shall include any medically necessary services associated with the administration of the drug.	Applicable to any individual, group, blanket or franchise insurance policy that provides coverage for prescription drugs. Not applicable to a policy issued to a small employer.
Prescription drugs Oral contraceptives	Benefits for oral contraceptives must be provided when all other prescription drugs are provided.	Applicable to any individual or group policy providing coverage for prescription drugs.
Prescription drugs Prescription contraceptive drugs and devices and related services	A policy that provides benefits for prescription drugs or devices may not exclude or limit benefits to insureds for (1) a prescription contraceptive drug or device approved by the United States Food and Drug Administration; or (2) an outpatient contraceptive service. Coverage for abortifacients or any other drug or device that terminates a pregnancy is not required to be covered. A policy limitation that applies to all prescription drugs or devices or, all services for which benefits are provided may be imposed. Any deductible, copayment, coinsurance or other cost sharing provision applicable to prescription contraceptive drugs or devices or outpatient contraceptive services may not exceed that required for other prescription drugs or devices or outpatient services covered under the policy. Any waiting period imposed on benefits for prescription contraceptive drugs or devices or outpatient contraceptive services may not be longer than any waiting period applicable for other prescription drugs or devices or other outpatient services under the policy.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses.
Prescription drugs Phenylketonuria (pku)	Policies that provide benefits for prescription drugs must include formulas for treatment of PKU or other heritable diseases.	Applicable to any group policy which provides coverage for prescription drugs.

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Benefit	Explanation	Applicability
Prostate testing Coverage of certain tests	Policies that provides benefits for diagnostic medical procedures must provide coverage for each male enrolled in the plan for expenses incurred in conducting an annual medically recognized diagnostic examination for the detection of prostate cancer. Minimum benefits must include: (1) a physical examination for the detection of prostate cancer; and (2) a prostate specific antigen test used for the detection of prostate cancer for each male enrolled in the plan who is: (a) at least 50 years of age and asymptomatic; or (b) at least 40 years of age with a family history of prostate cancer or another prostate cancer risk factor.	Applicable to any individual, group, blanket, or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.
Prostate testing Prostate-specific antigen test	A policy offered under the Texas Public School Retired Employees Group Insurance Act must provide coverage for a medically accepted prostate specific antigen test for each male who is enrolled in the plan and at least 50 years of age or at least 40 years of age with a family history of prostate cancer or another cancer risk factor.	Applicable to any policy offered under the Texas Public School Retired Employees Group Insurance Act.
Reconstructive surgery for craniofacial abnormalities in a child	Policies that provide benefits to a child who is younger than 18 years of age must cover "reconstructive surgery for craniofacial abnormalities" and define it as surgery to improve the function of, or to attempt to create a normal appearance of, an abnormal structure caused by congenital defects, developmental deformities, trauma, tumors, infections, or disease.	Applicable to any individual, group, blanket, or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.
Serious mental illness	A group policy (a) must provide coverage for 45 days of inpatient treatment, and 60 visits for outpatient treatment, including group and individual outpatient treatment coverage, for serious mental illness in each calendar year; (b) may NOT include a lifetime limit on the number of days of inpatient treatment or the number of outpatient visits covered under the plan; and (c) must include the same amount limits, deductibles, and coinsurance factors for serious mental illness as for physical illness – Insurance Code, Section 1355.004. The Texas State Employees Uniform Group Insurance Plan may not provide benefits for serious mental illness that are less extensive than the minimum coverage required by Insurance Code, Section 1355.004. Benefits for serious mental illness must be provided as extensive as any other physical illness. ♦ Texas State College and University Employees Uniform Insurance Benefits Act – Insurance Code, Section 1601.109. ♦ Local Governments – Insurance Code, Section 1355.151.	Applicable to any group policy that provides benefits for medical or surgical expenses. (Note: Mandated Offer for a policy issued to a small employer.) Applicable to any policy offered under the Texas State Employees Uniform Group Insurance Benefits Act – Section 1551.205. Applicable to the specific governmental employee policy referenced.

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Benefit	Explanation	Applicability
Telemedicine/ telehealth	A policy may not exclude a telemedicine medical service or a telehealth service from coverage solely because the service is not provided through a face-to-face consultation. Telemedicine medical services and telehealth services may be made subject to a deductible, copayment, or coinsurance requirement; however, the deductible, copayment, or coinsurance may not exceed that required for a comparable medical service provided through a face-to-face consultation.	Applicable to any individual, group, blanket or franchise insurance policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.
Temporomandibular joint (tmj)	A group policy that provides benefits for the medically necessary diagnostic or surgical treatment of skeletal joints must provide comparable coverage for the diagnosis or surgical treatment of conditions affecting the temporomandibular joint that is necessary as a result of: (1) an accident; (2) a trauma; (a) a congenital defect; (4) a developmental defect; or (5) a pathology.	Applicable to any group policy that provides benefits for medical or surgical expenses. Not applicable to a policy issued to a small employer.
Transplant donor coverage	A policy providing a specific benefit for the recipient in a transplant operation shall also provide reimbursement of any medical expense of a live donor to the extent that the benefits remain and are available under the recipient's policy, after benefits for the recipient's own expenses have been paid.	Applicable to any individual policy providing for transplant coverage.

Source: Texas Department of Insurance, Texas Mandated Benefits/Offers/Coverages, www.tdi.state.tx.us/company/documents/lhmanben_v2.doc. Accessed: September 20, 2006

Appendix B

Acquired Brain Injury Mandated Benefit Cost and Utilization Report to the Texas Sunset Commission – September 2006 Texas Department of Insurance

To calculate the cost of mandated health insurance benefits and their impact on health benefit coverage and pursuant to Sections 38.251-38.254, Texas Insurance Code, the Texas Department of Insurance (TDI) collects cost and utilization data for a select group of mandated health insurance benefits required under group and individual fully-insured benefit plans. This report summarizes information collected on the cost and utilization experience for benefits provided for the treatment of acquired brain injury (ABI) as required under Chapter 1352, Texas Insurance Code. Data are provided for three reporting periods covering 2003, 2004, and 2005. This information is provided to the Texas Sunset Commission as requested under HB 1676, 77th Legislature.

Survey Methodology

Under rules adopted by TDI, insurers with $10 million or more in annual group premiums and/or at least $2 million in individual premiums, and HMOs with at least $10 million in premiums for basic service plans, are required to annually submit data on the costs and utilization of certain mandated benefits. Reporting companies represent more than 90 percent of the group and individual health insurance market based on premium volume.

For each mandated benefit, including acquired brain injury, insurers/HMOs provide the following information for both group and individual benefit plans:

- number of claims paid;
- total dollar value of claims paid;
- the average annual premium cost; and
- the estimated annual administrative cost attributed to each benefit.

In addition, companies report enrollment data, total premium and total claims data for both group and individual plans that allows additional analysis by TDI on a company-level basis as well as on an aggregated, industry-wide basis.

To the greatest extent possible, TDI provides specific directions to ensure uniform reporting across companies. Due to standardized industry practices for claims payment forms and the use of standard codes for medical diagnoses and services, the data collected for the total number of claims paid and the total dollar value of claims paid are generally consistent across carriers for most of the required mandated benefits. However, benefits related to the services for ABI pose unique challenges for carriers/HMOs that may affect the quality of the reported data for this particular benefit. The statutory mandated benefit provision applies only to specific types of services related to cognitive therapy provided for the treatment of acquired brain injury. The law requires plans to include coverage for cognitive rehabilitation therapy; cognitive communication therapy; neurocognitive therapy and rehabilitation; neurobehavioural, neurophysiological, neuropsychological and psychophysiological testing or treatment; neurofeedback therapy, remediation; post-acute transition services; or community reintegration services necessary as a result of and related to an acquired brain injury. The coverage may be subject to deductibles,

copayments, and annual or maximum payment limits that are consistent with other similar coverage under the benefit plan.

In the reporting directions, insurers/HMOs are instructed to isolate services related only to the mandated benefit requirements as described above. Other related services for medical treatment or other therapies for ABI should *not* be included in the reported claims data since those services are not a requirement under the mandated benefit provision. However, companies' claims data analyses are completely dependent on the accuracy and level of detail provided on the claim form submitted by the provider. If the description of services provided on the claim form is not detailed enough to isolate only those costs associated with cognitive therapy-type claims, carriers may either under-report or over-report claims paid for ABI therapy required by law. TDI provides a list of recommended diagnosis codes and treatment codes that may be used to initially identify ABI claims, along with additional reporting guidelines that direct companies to use a variety of other data elements in order to accurately limit claim reporting to include only those charges covered under the ABI mandated benefit requirement.

Despite these instructions, most companies have difficulty identifying only those claims costs associated with the benefit requirement. Insurers/HMOs have correctly pointed out that their ability to identify such costs is limited both by the software used to process claims and the extent to which providers submit detailed information for all types of services provided. Companies that rely on outside vendors to process claims face additional challenges as they must rely on the accuracy of vendors' data systems to compile information. For these reasons, compared to other mandated benefits for which data are collected, data for ABI claims are more difficult to identify and report in a consistent manner.

In follow-up discussions with companies to verify data that appears questionable, some have indicated they may have under-reported claims while others believe they may have over-reported claim costs due to an inability to isolate therapy-related services. A few companies reported no claims, either because they cannot accurately identify the costs associated specifically with the required therapy, or they cannot determine whether there were any claims at all for these specific services. Companies are directed to use their best judgment in these cases, but the reporting specifications and values are ultimately a decision of the company.

Insurers and HMOs also provide estimates for average premium costs associated with each mandated benefit. Companies are required to provide an annual premium estimate for "single coverage" and for "family coverage" to demonstrate the cost impact of mandated benefits on the least expensive and most expensive forms of coverage. "Single coverage" as used in this report refers to coverage provided to a single individual and does not include any dependent coverage for children or a spouse. "Family coverage" refers to coverage provided to the employee/enrollee plus spouse and children. Single coverage is the least costly category since it insures only one person, and family coverage is the most expensive since it insures the entire family.

Premium cost estimates can vary significantly from company to company. While claims coding and payment processes are generally standardized, the process insurers/HMOs use to determine premium costs for specific benefits varies. Although all companies use similar actuarial principles, there are technical variances among carriers that result in methodological differences in the way they develop premium cost estimates. The exact process and underlying data assumptions used are highly protected

trade secrets that are not generally subject to TDI oversight or review. A standardized, prescribed methodology for rate development does not exist. As such, the reported premium cost estimates are developed according to each company's internal guidelines rather than an industry-wide or TDI standard. However, TDI does advise companies that the premium estimate should reflect a reasonable relationship to the claims paid.

Finally, companies also must provide an estimate of administrative costs associated with providing coverage required under each mandated benefit. Because no standard definition exists for "administrative costs", each carrier determines what expenses to include in this estimate. Companies may include only costs directly associated with that claim, such as claims processing expenses and fees for providing physician referrals or authorizations. Other companies include a much broader range of expenses, such as overhead, commissions, salaries, taxes, and any other costs not directly used for health care services. Some companies simply apply a standard percentage to each mandated benefit claim. Each of these methodologies is allowed under the current reporting guidelines. However, carriers are instructed not to include first-year expenses (such as policy form updates, riders, or printing costs incurred when a mandated benefit is initially enacted), in any subsequent years.

Data reported by carriers are not "audited" by TDI, but are reviewed to identify extreme data anomalies or outliers. Carriers submitting questionable data or missing data elements are contacted by TDI to verify the accuracy of the information and to correct any reporting errors. Companies are responsible for assuring that the information they report is accurate and complete to the greatest extent possible and are required to provide supporting documentation if requested by TDI. Through this process, TDI has identified numerous reporting errors each year, and has required carriers to re-submit corrected data.

All data in this report are aggregated and represent industry-wide averages. State law specifically prohibits TDI from publishing data that identifies any specific company. The following table provides a summary of all reported claims costs associated with benefits for acquired brain injury for 2003 through 2005.

Group Benefit Plans – Claims and Utilization

As shown above, claims costs associated with ABI claims under group benefit plans totaled $29.6 million in 2003, but decreased significantly to $14.6 million in 2005. At the same time, the total number of claims increased substantially from 147,316 claims in 2003 to 221,145 claims in 2005. A review of the detailed claims data shows the majority of the 2005 decrease in claim costs is attributed to one carrier, which previously reported the highest volume and value of claims paid for ABI service. The carrier experienced an overall decline in its group business, with a decrease in total premiums of more than $200 million and a decrease in ABI claims of more than $13 million from 2004 to 2005. However, most of the other carriers/HMOs also reported a decline in both the number of claims and the cost of claims for 2005 compared to 2004. Based on discussions TDI had with several carriers, the decline appears to be due in large part to improved claims reporting and an ability to isolate claims costs associated with ABI therapy rather than a decline in total services. After three years of participating in this data call, TDI saw a marked improvement in the overall accuracy of reporting, with fewer errors, outliers, and questionable data elements than in the previous years. This is true not only for ABI claims data, but for all mandated benefit reporting.

Appendix B

Acquired Brain Injury Premium Data

Acquired Brain Injury Average	January 2003 to December 2003 Reporting Period	October 2003 to September 2004 Reporting Period	October 2004 to September 2005 Reporting Period
Group Benefit Plans			
Number of Acquired Brain Injury Claims Paid	147,316	251,984	221,145
Percentage of the Total Number of Mandated Benefit Claims Paid	3.53%	5.95%	5.60%
Value of Acquired Brain Injury Claims Paid	$29,670,771	$27,530,060	$14,675,648
Percentage of the Total Value of Mandated Benefit Claims Paid	8.78%	7.98%	3.90%
Percentage of the Total Value of All Claims Paid	0.40%	0.37%	0.19%
Average Annual Claim Cost Per Certificate for Acquired Brain Injury	$7.73	$12.57	$7.18
Annual Administrative Cost for Acquired Brain Injury	$4,723,998	$5,435,539	$3,020,362
Annual Administrative Cost as a Percent of All Claims Paid	0.06%	0.07%	0.04%
Individual Benefit Plans			
Number of Acquired Brain Injury Claims Paid	1,384	8,658	1,249
Percentage of the Total Number of Mandated Benefit Claims Paid	0.35%	1.98%	0.31%
Value of Acquired Brain Injury Claims Paid	$1,031,402	$1,033,044	$320,291
Percentage of the Total Value of Mandated Benefit Claims Paid	3.91%	3.77%	0.92%
Percentage of the Total Value of All Claims Paid	0.14%	0.16%	0.04%
Average Annual Claim Cost Per Certificate for Acquired Brain Injury	$10.56	$5.19	$1.37
Annual Administrative Cost for Acquired Brain Injury	$66,020	$225,388	$35,791
Annual Administrative Cost as a Percent of All Claims Paid	0.01%	0.03%	0.00%

Consistent with the decline in claims paid as described above, as a percentage of all mandated benefit claim costs, ABI claims declined from 8.78 percent in 2003 to 3.90 percent in 2005. As a percentage of all claims paid, ABI represented 0.19 percent of total claim costs in 2005. The average annual claim cost per certificate-of-coverage also dropped slightly from $7.73 in 2003 to $7.18 in 2005. Total annual administrative costs associated with ABI were estimated at $3,020,362 in 2005, down from both 2003 and 2004.

Appendix B

Individual Benefit Plans – Claims and Utilization

Claims data for individual benefit plans also show a significant decline in ABI claims from 2003 to 2005 for the same reasons described above. As carriers have improved their ability to identify ABI claims for cognitive therapy, nearly all insurers/HMOs reported a decline in both the total cost and utilization of services over time. In 2005, ABI claims represented 0.92 percent of mandated benefit claims paid, for a total of $320,291. As a percentage of total claims paid, ABI benefits represented less than four-hundredths of one percent in 2005. The average claim cost per certificate of coverage was nominal at $1.37. Increased claims and utilization rates reported in 2004 were due primarily to data reported by two companies, both of which revised their methodology for 2005 and submitted data consistent with that of other carriers.

Premium Cost Data

As described above, carriers/HMOs are required to provide estimated annual premium costs for each mandated benefit provision. As the table below illustrates, estimated premiums for group and individual coverage have decreased since 2003. This is at least partly due to improvements in companies' data methodologies and their ability to isolate costs specifically related to the cognitive therapy services required under the ABI benefit mandate. The premium cost should reflect the expense associated only with the specific services mandated, and should not reflect other non-mandated types of services provided for acquired brain injury treatment.

Costs are provided in the table below for single coverage (one person) and family coverage (employee/enrollee, spouse and children). In 2005, coverage for employee-only ABI mandated benefits under a group benefit plan cost an average of $4.94 a year. Family coverage was approximately $10.02 per year. For individual benefit plans, single coverage was $2.79 on average, and family coverage cost $6.14 a year.

Acquired Brain Injury Premium Data

Acquired Brain Injury Average	January 2003 to December 2003 Reporting Period	October 2003 to September 2004 Reporting Period	October 2004 to September 2005 Reporting Period
Group Benefit Plans			
Single Coverage	$6.07	$6.34	$4.94
Family Coverage	$16.43	$22.30	$10.02
Individual Benefit Plans			
Single Coverage	$3.20	$2.69	$2.79
Family Coverage	$8.01	$4.88	$6.14

Additional information on mandated benefit expenses and costs are provided in the full mandated benefit reports mentioned earlier. For a better understanding of how the costs summarized in this report compare in relation to other mandated benefit provisions, please see the 2003, 2004 and 2005 TDI reports at: http://www.tdi.state.tx.us/reports/report3.html.

Study of Health Benefit Plan Coverage for Brain Injuries

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Sunset staff also thanks Dianne Longley,
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for providing the cost and
utilization study for this report.

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