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GOVERNOR

STATE OF MAINE  
DEPARTMENT OF EDUCATION  
23 STATE HOUSE STATION  
AUGUSTA, MAINE  
04333-0023

SUSAN A. GENDRON  
COMMISSIONER

A Report to the Joint Standing Committee on Education and Cultural Affairs on the prevention, diagnosis and treatment of concussive head injuries in student-athletes as requested by the 124<sup>th</sup> Legislature, through Resolve, Chapter 79 – Resolve, To Create a Working Group on the Prevention, Diagnosis and Treatment of Concussive Head Injuries in Student-athletes.

Prepared by:  
The Maine Department of Education

March 17, 2010

In 2009, the 124<sup>th</sup> Legislature passed Resolve 79 LD 1300 – Resolve. To Create a Working Group on the Prevention, Diagnosis and Treatment of Concussive head Injuries in Student-athletes.

The Resolve directed the Commission of Education to establish a working group. Invitations to participate were extended to the organizations mentioned in the Resolve (Appendix A – Membership). The group was convened for two meetings, including opportunities for individuals to participate via teleconferencing. The work was coordinated with Office of Adults with Cognitive and Physical Disabilities (OACPD), Brain Injury Services, representatives of the Acquired Brain Injury Advisory Council of Maine and the Maine Concussion Management Initiative (MCMI), Colby College.

The participants were provided with access to the report: Brain Injury in Maine: A Needs Assessment, published by the Muskie School of Public Service, University of Southern Maine (Appendix B).

The following section from the the Muskie School of Public Service Report, “Who Has a Brain Injury and Why”, lists provisions specific to the working group and we have bolded them below:

#### “Who Has a Brain Injury and Why?”

Each year 1.4 million American children and adults seek treatment for identifiable brain injuries from falls, motor vehicle crashes and other external blows: 50,000 die, 235,000 are hospitalized and 1.1 million are treated and released from the emergency room. (Langlois 2006). These numbers do not include those who do not seek treatment or do so at a doctor’s office. Another 1 million brain injuries are the results of strokes, infections, tumors, toxins, and metabolic causes. At least 5.3 million people, or two percent of the population, have long-term or a lifelong need for help performing activities of daily living as a result of a traumatic brain injury. (Thurman et al.) In Maine, in 2007, there was an average of 5 deaths and 20 hospital discharges related to traumatic brain injury each week. (Maine CDC 2009).

The leading causes of traumatic brain injury are falls, motor vehicle accidents, and assaults. CDC estimates show that the rate and causes of traumatic brain injury vary by age and gender:

- In almost every age group the rate of traumatic brain injury is higher among males than females; on average males are 1.5 times more likely to sustain a traumatic brain injury than females. (Langlois et al. 2006).
- **Falls are the leading cause of traumatic brain injury and are highest among children ages 0 to 4 and adults ages 75 years and older. (Langlois et al. 2006). In Maine, 7 of 10 deaths due to unintentional falls (73.8%) and one of every 10 unintentional fall related hospital discharges (11.8%) involved a traumatic brain injury. (Maine CDC 2009)**
- Among persons sustaining a traumatic brain injury, adults age 75 years or older have the highest rates of hospitalizations and death. (Langlois et al. 2006).
- **Older adolescents, ages 15 to 19, are the most likely to acquire a brain injury from a motor vehicle accident or an assault; brain injuries caused by a motor vehicle accident or assault are more likely to result in death. (Langlois et al. 2006).**
- In Maine, 40.2% of unintentional motor vehicle traffic deaths and 33.5% of unintentional motor vehicle traffic hospital discharges involved a traumatic brain injury. (Maine CDC 2009)”

Emphasized in the Report is a Section, “Prevention.” We have bolded the section on sports injuries:

## “Prevention

The Maine Injury Prevention Program within the Maine Center for Disease Control and Prevention's (Maine CDC) is the lead state agency for preventing injury, including brain injury. Because of the multiple ways in which brain injury can occur, Maine CDC works with multiple partners both within DHHS and without.

**FALLS.** Falls are the leading cause of traumatic brain injury and are highest among children ages 0 to 4 and adults ages 75 years and older. (Langlois et al. 2006). In Maine, 7 of 10 deaths due to unintentional falls (73.8%) and one of every 10 unintentional fall related hospital discharge (11.8%) involved a traumatic brain injury. (Maine CDC 2009). Maine CDC and the Office of Elder Services are working with a range of community partners to implement a fall prevention program for older adults.

**MOTOR VEHICLE ACCIDENTS.** There were 179 deaths and 877 hospital discharges related to unintentional motor vehicle traffic incidents among Maine residents in 2007. People aged 15 to 24 and 75 to 84 were at significantly higher risk than most other age groups for unintentional motor vehicle traffic hospital discharges. (Maine CDC 2009). The Department of Public Safety has lead responsibility for highway safety. The Maine Legislature has recently passed law regulating the use of hand-held devices by new drivers, distracted drivers, helmet use, pedestrian safety, and other highway safety initiatives.

**DOMESTIC VIOLENCE.** At least 85% of domestic violence victims are women, mostly abused by male partners. The head is a major target of domestic violence assaults. Many victims of domestic violence suffer repetitive injuries. Traumatic brain symptoms also overlap with crisis reactions. For example, domestic violence victims with traumatic brain injury report memory loss, lack of concentration, inability to process information and mental fatigue. (Vaughn & Parry 2004). The Maine Coalition to End Domestic Violence has been participating in a pilot study examining the prevalence and functional deficits among domestic violence victims. (Pearson et al.).

**SPORTS INJURIES.** The CDC estimates that between 1.6 and 3.8 million sports and recreation related concussions occur in the United States each year, most of which are not treated in a hospital or emergency department. (U.S. CDC). For children and youth ages 5 to 18, bicycling, football, basketball, playground activities, and soccer are the five leading sports and recreational activities accounting for concussions. Football accounts for 60% of concussions occurring in high school sports. (Brain Injury Association of America). Through a grant initiative led by Colby College, the Maine Concussion Initiative (MCMII) is working to enhance the health and safety of Maine high school athletes by educating medical practitioners and school administrators about the dangers of traumatic brain injury and the importance of consistent concussion management.

**ABUSIVE HEAD TRAUMA (OR SHAKEN BABY SYNDROME).** A baby has weak neck muscles and a large, heavy head; shaking causes the brain to bounce back and forth inside the skull, causing bruising, bleeding and swelling and tearing of brain tissue. The result can be permanent severe damage or death. Most children injured this way are under a year old. (Kidshealth). The resulting injuries can include blindness, hearing loss, seizures, intellectual

disabilities, cerebral palsy, and other challenges. Thirty-nine Maine residents under the age of two were hospitalized with AHT between 2000 and 2008. The most common perpetrator was the victim's father, stepfather or the mother's boyfriend. (Maine CDC 2009)."

Maine's Abusive Head Trauma Prevention Workgroup has been working with and training hospital staff and community based agencies on the shaken baby prevention program that offers new information on normal infant crying. Currently, 90% of all birthing facilities in Maine are delivering the materials to families, with the remaining 10% in the process of implementation."

The Working Group's focus was on concussive head injuries in student-athletes, even though, as the report highlights, the incidents of children, ages 0 through 4, and adolescents under age 15, are at risk for Abusive Head Trauma.

The focus on student-athletes is also highlighted, at the national level, by the Centers for Disease Control and Prevention, which includes in its web-based resources, a site dedicated to "Concussion In Sports." Information from the web-based DID YOU KNOW? Section includes:

- Each year, U.S. emergency departments treat an estimated 135,000 sports- and recreation-related TBIs, including concussions, among children ages 5 to 18.
- Athletes who have ever had a concussion are at increased risk for another concussion.
- Children and teens are more likely to get a concussion and take longer to recover than adults.

The Working Group reviewed and discussed the Maine Concussion Management Initiative (MCMCI). The Working Group recognized the capacity of this Initiative to:

- Develop data, not only to better understand the incidence and contributing factors, but also, for research;
- Provide guidance on standardized return-to-play guidelines;
- Promote broad-based, professional development;
- Engage schools effectively and efficiently.

The Working Group also recognized the need for the MCMCI to expand statewide. It also recommended the Maine Department of Education continue the Working Group and identify others to participate in additional discussions and in planning statewide strategies. This would include an annual assessment of the progress along with a review of the literature and evidence-based practices.

The Working Group also had access to "Brain Injury in Maine: A Growing Public Health Issue," published by the Acquired Brain Injury Advisory Council of Maine in January of 2010 (Appendix C). Below is the Section on "Sports Concussions" with the Advisory Council's recommendation. The Working Group did not concur with the recommendation regarding Legislative action at this time.

Sports Concussions – **The Council is very encouraged by the action of the 124<sup>th</sup> Legislature and the Governor in adopting LD1300 to evaluate options for sports concussion management for high school athletes.** Unfortunately, at this point, the Department of Education has not convened the work group. Failure to identify and provide appropriate care for Maine's school aged youth is a significant concern. New medical research clearly points to the risk to a young person's long-term health and well-being when pressured to return to play before the brain has had time to heal. The efforts of the Maine Concussion Management Initiative at Colby are to be praised and supported. More than 30 high schools in Maine are participating.

All sports programs across the state should have the benefit of trained coaches, a statewide safety standard and access to computerized concussion screening.

**2010 Recommended Action** – The Legislature and Governor should establish in law a concussion management standard for all student athletes based upon the most current medical knowledge.

**APPENDIX A**  
**LD 1300, Resolve Chapter 79 Work Group**

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## Appendix B

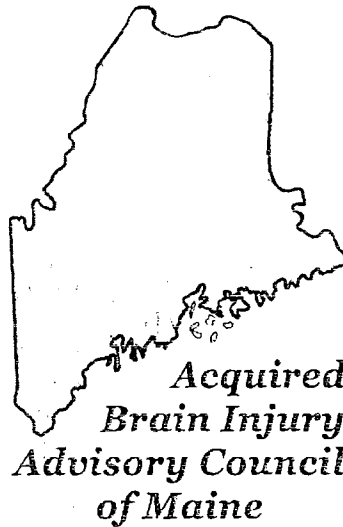
Brain Injury in Maine: A Needs Assessment, published by the Muskie School of Public Service, University of Southern Maine, January, 1020

<http://webapp.usm.maine.edu/MuskieWebDBfrontend/publicationView.action?publicationId=7089>



Appendix C

**BRAIN INJURY IN MAINE:**  
**A GROWING PUBLIC HEALTH ISSUE**



**2009 REPORT**

January 15, 2010

Our goal is to achieve better understanding and identification of brain injury, access to care and overall improvement in the efficiency and quality of services for persons with brain injuries, their families and caregivers.

The Acquired Brain Injury Advisory Council of Maine

<i>Representing</i>	
James Feverston, PhD, Co-Chair	Families
Stacie Linkel, Co-Chair	Persons with Brain Injuries
Marcia Cooper, Secretary	Persons with Brain Injuries
Lewis Lamont	Families
Beverly Bryant	Advocates
Peter Rice	Advocates
Penny McGonagle	Providers
Matt Hickey, Secretary-Elect	Providers
Kevin C. Baack, Ph.D.	Providers
Kelley McTague, Chair-Elect	Providers
Cherie Wenzel	Office of Elder Services
Katharyn Zwicker	Maine CDC
Alice C. Johnson	Vocational Rehabilitation
Tom Ward	Office of Mental Health Services

We can no longer deny the impact brain injury has on Maine's citizens and the economy. We literally cannot afford to ignore these issues or "shoehorn" people into the wrong diagnosis and treatment. It is our responsibility, even in times of economic downturn to use this new

knowledge to create access and greater efficiencies that lead to improved outcomes for individuals, their families, and our communities.

### The Acquired Brain Injury Advisory Council

The Council was established in April 2002 and became a formal state advisory council in September of 2007 to address the needs/challenges of persons with brain injury and their families and to raise awareness of those needs to promote systemic change. The original mission of the Council continues to speak directly to the issues today: *To plan and promote a statewide system of services and supports that is driven by the needs of individuals with brain injury and their families.*

Throughout 2007, 2008 and 2009 the Council held 8 public hearings (Bangor, Portland, Caribou, Lewiston, Sanford, Houlton, Calais, and Farmington) receiving testimony focused on the experiences of Maine citizens with brain injuries and their families. More than 100 Maine citizens submitted formal testimony. The Council sponsored four, one-day forums for in-depth exploration of critical public health challenges. In June 2007 a forum on military service members and veterans with brain injuries was held in Augusta. In October 2008 another forum focused on children and adolescents with brain injuries. Two forums were held in 2009: a forum on brain injury in domestic violence was held in March and in October 2009 a broad-based forum covering the experiences of persons with brain injury in employment, homelessness, and incarceration resulted in identifying critical action steps. The Council has studied and prioritized its recommendations based upon a broad base of information and experience gathered through these Public Hearings and Forums over the past 25 months.

### OVERVIEW

Brain Injury is a growing public health issue that can impact each of us, our families and our communities. Falls, motor vehicle crashes, and violence represent real risks to every Maine citizen. In addition, health problems such as strokes, brain tumors and other diseases can cause acquired brain injuries that result in significant thinking, emotional, behavioral and physical changes that alter lives.

Thirty years ago most people who experienced a brain injury died. Today, with the advances in medicine, the vast majority of individuals survive. Each year doctors are able to save many more individuals who have severe injuries. More than 8,000 Mainers experience brain injuries each year. Many will make good recoveries, especially if they can access needed rehabilitative care. Unfortunately, private health insurance pays less and less for rehabilitative care. And some who experience a brain injury will live with very difficult, life-altering disabilities. More than 6,000 Maine citizens live with these long-term disabilities due to brain injuries. Providing immediate access to information and education, care coordination and rehabilitation is crucial. Unfortunately, the system of care sometimes gives up prematurely on these people condemning them to nursing homes or institutions that are costly, and often times ineffective and unnecessary. At the other end of the injury spectrum are those individuals who appear uninjured but have significant cognitive and behavioral disabilities that can improve with expert assistance. Too many times the problems of individuals with brain injury are dismissed or misdiagnosed; treatments are provided that are not only ineffective but create greater problems leaving individuals and clinicians with feelings of failure and frustration. This creates a significant misuse of valuable resources, poor interactions with family, employers and problems in the community.

We can do better, by providing the right services and support at the right time. And when we do the "right thing" we create efficiencies that allow our State tax dollars to be used effectively.

### PRIORITIES

This report reflects the highest priority areas the Council has identified that will begin to lead to substantive improvements. The needs of Maine citizens with brain injuries are very broad and complex. Future work of the Council will address the many other areas identified through needs assessments, public hearings, and forums.

## **1 – PREVENT BRAIN INJURIES**

The only cure for brain injury is prevention. Injuries are traditionally regarded as random, unavoidable accidents. However, the nature of injuries is predictable and preventable. Brain injury frequently kills or threatens the life and well-being of individuals of all ages. Many brain injuries are preventable.

**The Council is very encouraged by the action of the 124<sup>th</sup> Legislature and the Governor in raising the mandatory helmet motorcycle helmet age to 18.** Helmets are highly effective in preventing brain injuries, which often require extensive treatment and may result in lifelong disability. In the event of a crash, motorcycle riders without helmets are three times more likely than helmeted riders to suffer traumatic brain injuries. Additionally, taxpayers often foot the bill for higher medical costs through MaineCare and Medicare. Riders without helmets have higher health care costs as a result of their crash injuries, and many lack health insurance. The government at taxpayer's expense pays a majority of medical costs for those without private insurance.

Abusive Head Trauma – Maine's Abusive Head Trauma workgroup has been working with training hospital staff and community based agencies on a **Period of Purple Crying**, a promising-practices shaken baby prevention program that offers information on normal infant crying. Currently, 90% of all birthing facilities in Maine are delivering the materials to families, with the remaining 10% in the process of implementation.

Sports Concussions – **The Council is very encouraged by the action of the 124<sup>th</sup> Legislature and the Governor in adopting LD1300 to evaluate options for sports concussion management for high school athletes.** Unfortunately, at this point, the Department of Education has not convened the work group. Failure to identify and provide appropriate care for Maine's school aged youth is a significant concern. New medical research clearly points to the risk to a young person's long-term health and well-being when pressured to return to play before the brain has had time to heal. The efforts of the Maine Concussion Management Initiative at Colby are to be praised and supported. More than 30 high schools in Maine are participating. All sports programs across the state should have the benefit of trained coaches, a statewide safety standard and access to computerized concussion screening.

<p><u>2010 Recommended Action</u> – The Legislature and Governor should establish in law a concussion management standard for all student athletes based upon the most current medical knowledge.</p>
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## **2 – PROVIDE CARE COORDINATION FOR PERSONS WITH BRAIN INJURIES**

Individuals, families, educators, providers and medical professionals consistently cite case management and care coordination as areas of critical need. A brain injury diagnosis often eliminates access to this essential service due to regulatory barriers. Brain injury is the only long-term disability that has limited or no access to case management. The complex medical, legal and community service resources are sparse and require expertise to access and navigate.

Persons with a brain injury can continue to improve for many years if provided the support and services necessary to facilitate progress. However, an individual may decompensate medically and or cognitively if there are not supports to help navigate and cope with some of life's demands and changes: i.e. return to work, paying bills, ordinary self-care or caring for family.

The efficacy of case management/care coordination services for individuals and families dealing with other disabilities or chronic illness can be demonstrated in Maine and other states. A case management system that is flexible and directly meets needs that change over time could provide persons with brain injuries the needed care and avoid unnecessary health and safety risks. This would result in a highly efficient use of taxpayer resources.

**The Council is very encouraged by the action of the 124<sup>th</sup> Legislature and the Governor to include funding for Targeted Case Management services for children with brain injuries under the responsibilities of Children's Behavioral Services.**

There are no case management services for adults with brain injuries except for those participating in a rehabilitation program or receiving services under another system (Mental Health, Developmental Services or Adult Protective Services).

**2010 Recommended Action** - Provide care coordination /case management under MaineCare regulations by removing the discriminatory exclusion of adults with a diagnosis of brain injury. DHHS should seek alternative approaches to the existing Targeted Case Management services when designing services for adults with brain injuries in order to provide effective care coordination and remain budget neutral.

### **3 – TRAIN PROFESSIONALS AND DIRECT CARE WORKERS TO IMPROVE OUTCOMES**

A lack of sufficient knowledge, training and skill among Maine’s healthcare, mental health and educational professionals were the leading issues identified by stakeholders attending the ABIAC’s hearings and forums over the past three years. Testimony cited misidentification of brain injuries, inappropriate treatment, denial of services, and poor quality of care. The knowledge and best practices in neuroscience have exploded over the past decade. Maine’s educators, healthcare professionals and community service providers lack sufficient access to this new information. In-service training and continuing education budgets continue to shrink. The demands on professionals and direct care staff to take on an increasing workload has created a serious gap in Maine’s ability to provide quality care and services to persons with brain injuries who receive care and support in both the private and public sectors. Many of the “hands-on” direct care workers, providing day-to-day care in clinics, residential programs, nursing homes and hospitals are not properly trained to work with persons with brain injuries. Of special concern are the insufficient skills of many professionals and direct care staff providing support for persons with challenging behaviors. Maine does not mandate specific brain injury training. Reports received from various stakeholders by the ABIAC, raise significant concerns for the safety of service providers, other program participants and the individual with the challenging behaviors. Improperly trained staff can lead to increased risk for all involved, and often results in failure of the person with the brain injury to learn how to manage their behavior effectively. This training should reach across all departments including DHHS (mental health, developmental services, elder services, substance abuse services, Maine CDC, and financial eligibility), DOL, Public Safety, Corrections and others who work with persons with brain injuries.

**2010 Recommended Action** - Establish in regulation, minimum staff training standards for all healthcare, rehabilitation, and long-term care residential programs that serve individuals with brain injuries. DHHS should adapt existing training programs to include specific modules on brain injury and offer information and technical assistance to other state departments in their training efforts.

### **4 – RESPOND TO PERSONS WITH COMPLEX NEEDS DUE TO BRAIN INJURIES**

Maine’s system of residential supports for persons with significant disabilities due to brain injuries is not meeting the existing need. The waiting list for existing residential services for this group is over 60 persons for the 112 specialized beds.

**The Council is very encouraged by the action of the 124<sup>th</sup> Legislature and the Governor to include funding for six additional beds of 24/7 specialized brain injury residential support designated for northern Maine, where no such services currently exist.**

**The Council is also very encouraged by the establishment of a strategic priority within DHHS to address individuals with complex needs. Additionally, the Department’s efforts to bring individuals with brain injuries home from out-of state placements have been outstanding. In the past year, more than 12 individuals have returned to Maine and are receiving better care with an estimated savings of more than \$500,000/year.**

However, individuals with brain injuries have no options for specialized brain injury support in their own home or apartment once they have progressed to the point of not needing intensive residential services. Contrary to common understanding, many people with brain injuries, even with severe, life-long disabilities, can make progress over time to greater levels of independence and self-care. Initially, residential systems were designed upon the assumption that living in a group home with 24-hour, seven-day a week care was the final destination for an individual with severe disabilities.

Over a decade of experience, ongoing brain research indicates that individuals can recover skills and abilities long after the injury. Many people in their current residential settings are ready to move to less intensive, less restrictive, less expensive, more independent living situation. Unfortunately, no alternatives exist, except to move from round-the-clock support to no support. Many people in nursing or assisted living facilities remain there because there are not adequate supports to insure health and safety in their own home. Although many individuals have moved back to Maine from out of state, resulting in cost savings, in some cases the opposite is true. The lack of transitional options has forced a few individuals to be moved to costly out-of-state specialized programs, far from their families and communities.

Two studies conducted in the 2007 by the Maine Department of Health and Human Services (DHHS) evaluated the functional capacity for greater independence of persons now in Specialized Assisted Living or Out of State placements. Studies confirmed that nearly 20% (20 individuals) progressed in their rehabilitation to the point of needing less than 24-hour a day, seven day a week support and are able to live in less restrictive settings.

**2010 Recommended Action** – DHHS should establish community living services with less than 24/7 supports that allow individuals to live in their own home with adequate support to maintain health and safety within current budget levels.

## **5 – IMPROVE OUTCOMES THROUGH IDENTIFICATION OF BRAIN INJURIES**

The effects of brain injury can often look like other health issues; learning disabilities, dementia, or mental illness. The care and treatments provided to address the misdiagnosis are ineffective and can sometimes do harm. At the very least, additional costs and great frustration occur for the individual who has a brain injury and for the person's family. Healthcare and long-term care providers are burdened and use precious resources ineffectively. Sometimes the individual and family give up resulting in long-term dependence. Sometimes the patient is passed around to other providers or services. And the cycle is repeated.

**2010 Recommended Action** – Require screening for brain injury upon admission to any healthcare, long-term care or rehabilitation program funded by DHHS. DHHS contracts should require the use of consistent, standardized screening protocols to insure that all individuals with brain injuries are identified and their needs are adequately addressed in their plan of treatment and care.

## **6 – IMPROVE SERVICES FOR CHILDREN WITH BRAIN INJURIES**

The Office of Special Education and Child Development, within the Maine Department of Education (DOE), collects data on school age children designated as having special needs. In 2007, only 81 children in the State of Maine were specifically identified as having a brain injury. In contrast, a 2004 study of MaineCare members under the age of 18 identified 1,631 children and youth with a diagnosis of a brain injury. This apparent widespread under-identification leads to significant problems for each child with a brain injury and for the parents and the school staff since appropriate education may not be provided. As the Council heard in testimony, misidentification can result in long-term school failure and social adjustment issues as the child moves into adulthood. On the larger scale, misidentification of large numbers of children results in the inefficient use of special education funds.

**The Council is very encouraged by the action of the 124<sup>th</sup> Legislature and the Governor in establishing a Resolve (LD866) requiring the Department of Education to establish a working group to consider the widespread misidentification of children with brain injuries in special education. Unfortunately, as of this date, the Department of Education has been unable to begin this effort.**

**2010 Recommended Action** – Require that the annual health screening of all children and youth in schools include a standardized set of questions to identify possible brain injury. The Legislature should mandate the LD866 statewide study group led by Department of Education, educators, pediatricians, and DHHS to evaluate the steps needed to better identify, educate and coordinate services for students in special education with brain injuries.

## **7 – SUPPORT FAMILIES WHO CARE FOR PERSONS WITH BRAIN INJURIES**

The primary support system for Maine citizens with brain injuries is family members and friends - not the healthcare system. There is unanimous agreement that support from families and friends is vital for improving outcomes of persons with brain injuries.

During the acute care phase of a brain injury, family members are concerned with the survival and immediate needs of their loved one. The family can experience frustration and impatience when the individual with a brain injury is back at home. The family may feel that it is time to 'get over it' and 'move on' once the acute phase of the injury is passed. Often family and friends do not acknowledge the long term problems resulting from the injury or do not understand the effects of the injury.

Many family members often describe a sense of loss, grief and denial. They recognize that their loved one may not be the same person as they were prior to the injury and may feel they are living with a stranger. For children, the impact of having a 'different' parent can be significant. The entire family requires time and education to learn about the effects of a brain injury. Families that become primary caregivers for persons with a brain injury are often ill prepared for the personality and behavior changes that may occur. Individuals and caregivers report that physical problems cause the least amount of stress since routines are created and needs anticipated. Cognitive problems are rated as intermediate stress, while the changes in personality and behavior are the most stressful, increasing over time since they are unpredictable and perhaps embarrassing. This results in increased isolation for the family and individual. Caregiving can often overwhelm the caregiver emotionally, economically and physically. The combination of these pressures frequently results in loss of jobs, shattered marriages, bankruptcies, or institutionalization of the individual with the brain injury.

**2010 Recommended Action** – DHHS should establish a study group to evaluate options for addressing family issues.

## **8 – SUPPORT SERVICE MEMBERS AND VETERANS WITH BRAIN INJURIES**

Traumatic Brain Injury is the signature injury of the wars in Afghanistan and Iraq. Diagnosis is a critical area in question since often times the impact of mild traumatic brain injury is not immediately apparent. Many Maine soldiers serving in Iraq and Afghanistan are in the National Guard, these service men and women do not receive the same benefits as active duty soldiers. An astonishing high percentage of US service members who have returned from these theaters report experiencing some level of brain injury during their deployment. Testimony given during the ABIAC public hearings indicated a need for more information and training for veteran support organizations and programs. Furthermore, veterans are limited to VA facilities for treatment. Veterans should have access to the full array of brain injury services in Maine. Rapid diagnosis, rehabilitation and access to that array of support services over time are critical to assist our service men and women with the opportunity to return to their full potential and mitigate unnecessary consequences.

As a result of the ABIAC sponsored forum on veterans and brain injuries in June of 2007, a collaborative effort was established between the Maine National Guard and the Dartmouth Medical School. With the help of a Maine Health Access Foundation grant all Maine National Guard troops going into combat zones are now screened before deployment and upon their return to better monitor for post-concussive disabilities. Maine is one of the few states in the US to support its National Guard troops in screening for brain injuries.

**2010 Recommended Action** – Insure that the Maine National Guard can continue the screening and follow-up program for brain injuries when grant funding ends in 2010. Mandate DHHS to enhance ongoing collaborative efforts between State agencies, Veterans Administration, veterans groups, and community-based brain injury providers to improve coordination, care and support for Maine’s veterans.

## **9 – IMPROVE EMPLOYMENT OPPORTUNITIES FOR PERSONS WITH BRAIN INJURIES**

One of the most devastating impacts of disability due to a brain injury is the loss of work. Frequently, during rehabilitation and recovery, the individual is unable to work due to the cognitive and physical consequences of the injury to the person’s brain. This loss of work affects the entire family either through direct loss of income or through the need for a family member to give up a job and stay home to care for their loved one. The Council heard two messages repeatedly from individuals and families in its Hearings and Forums across Maine: 1) the loss of work leads to emotional and economic ruin, and 2) an intense desire and motivation to return to work from persons with brain injuries.

Many factors affect the work opportunities for persons with brain injuries. Lack of awareness and knowledge of methods to support persons with brain injuries is widespread. Employers and job counselors need more information to better accommodate persons with brain injuries on the job. Data from Department of Labor (DOL) doesn’t always include specific causes of a person’s disability and as a result a clear picture of the scope of need is not available. And long term support funds are available from DOL but not always accessed by persons with brain injuries.

**2010 Recommended Action** – Department of Labor and Department of Health and Human Services should establish a joint task force to better coordinate vocational rehabilitation and long term job supports.

## **10 – PROVIDE ACCESS TO NEUROREHABILITATION SERVICES IN RURAL MAINE**

Maine’s system of neurorehabilitation programs serves more than 700 individuals each year. Unfortunately, the nine clinics providing these services are clustered in population centers in the state leaving citizens living in rural areas without access to effective rehabilitative treatment.

**2010 Recommended Action** – DHHS should establish a broad-based study to evaluate the needs, barriers, and benefits of providing ongoing neurorehabilitation in rural areas of the state.

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