

TRAUMATIC BRAIN INJURIES AND MENTAL HEALTH- IS THIS REALLY OUR PROBLEM?

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Alaska has a very high incidence of identified Traumatic Brain Injuries (TBI's). The national rate is 82 per one hundred thousand population, and the Alaska rate is 105, 28 % higher than the national rate. In rural areas of the state, the incidence rate is more than twice the statewide rate. In addition to the identified individuals with TBI, there are many more who are not identified as having a brain injury at the time of their accident, but who appear later, often years later, with symptoms of a brain injury.

Despite the high incidence rate, there is no organized system of care for this population in Alaska. Until very recently, no one agency or system of care was identified as the lead agency to address the care and treatment of Persons with TBI, and the limited amount of services available has been fragmented. Acute care following a head injury is available in 21 hospitals in the state, and in medical clinics in nearly every village. There are limited rehabilitation services available, and those that exist are primarily in Anchorage, Fairbanks and Juneau. Some rehabilitation is provided in out-of-state facilities. Funding for rehabilitation services primarily comes from Vocational Rehabilitation, Workman's Compensation, and private insurance. Due to the limitation of these funding sources, rehabilitation tends to be brief, with very little long-term care provided. Little is done to address the cognitive, behavioral, and emotional manifestations of a traumatic brain injury in any comprehensive or sustained manner.

The Then Division of Mental Health and Developmental Disabilities, in partnership with the Brain Injury Association of Alaska (BIAA), succeeded in obtaining an HRSA Planning Grant in 2000. Unfortunately, the BIAA dissolved, and the initial planning effort was unsuccessful. The Division was able to obtain a new planning grant, and the planning effort continued until March of 2003. As part of the planning effort, the Alaska Traumatic Brain Injury Advisory Board was established, and has held quarterly public meetings to provide broad-based community support for a comprehensive service system for persons with a TBI, and to plan for that service system. The mental health section of the then Division of Mental Health and Developmental Disabilities was named the lead state agency for Alaska to develop the system. A statewide needs assessment collecting data from TBI survivors, family members and agencies serving those persons was completed in February, 2003.

In 2002, the Disability Law Center of Alaska, in collaboration with the Division of Mental Health and Developmental Disabilities and Alaska Traumatic Brain Injury Advisory Board, successfully applied for an HRSA Protection and Advocacy grant. The Center is now also an active member of the Alaska Traumatic Brain Injury Advisory Board.

The division was awarded a three-year implementation grant beginning April 1, 2003, to develop the infrastructure for a system that provides for treatment and rehabilitation services for many of the cognitive, behavioral, and emotional manifestations of a TBI, and integrates those services with services for the physical and sensory manifestations.

Is Traumatic Brain injury Really A Mental Health Problem? Why Are We Taking It On?

Traumatic Brain Injury is tissue damage to the brain caused by a blow to the head. Brain tissue damage is not a mental health problem. The tissue damage may result in physical disabilities involving mobility or dexterity. The physical disabilities are not mental health problems. The effects of the TBI may include sensory impairments, which are also not mental health problems. There may be speech problems due to the TBI. Speech problems are not mental health problems.

However, there are Cognitive, Behavioral and Emotional manifestations of Traumatic brain injuries, the "CBE's". The management, treatment and rehabilitation of most, if not all, of these manifestations are within the purview of mental health, and are best dealt with there. The CBE's are definitely mental health problems.

A very high percentage of the rehabilitation failures for persons with a TBI can be traced to a lack of attention to, or an inability to sustain attention to, the CBE's. The most typical approach to rehabilitating a person with a TBI is to focus on the physical, sensory or speech manifestations of the injury, do job readiness, and sometimes refer the person to mental health for limited treatment. The case manager is based at the rehab agency, and the primary focus is on non-CBE issues. Funding of these services tends to be limited, and the rehabilitation is generally brief. Mental health treatment usually ends with the end of rehabilitation. The individual then tries to work and maintain housing, while hindered by severe cognitive and emotional problems and behavior that irritates bosses, co-workers, and neighbors. The result is often loss of job and housing, and the rehabilitation process begins again.

Alaska is trying a new, and unique, approach. We are centering services for persons with a TBI in the mental health system. There are diagnoses in DSM IV-TR that cover almost any cognitive, behavioral or emotional problem arising as a result of a TBI. The mental health agencies can provide direct treatment of the diagnosed disorders, for as long as the disorder is present. For clinical purposes, this approach ensures that the CBE's are attended to, in the amount, scope and duration that are necessary for the person to succeed. The case manager will be a mental health case manager, who will continually attend to the CBE's as a primary focus. Most of the rehabilitation around deficits and problems in the CBE's can be provided directly by the mental health program. The case manager will link treatment and rehabilitation for the CBE's with the amount of physical therapy, speech therapy, etc. that the person needs. Attention to the CBE's can continue indefinitely, up to life-long, as long as the disorder persists.

For financial purposes, the Alaska model will provide more funding for services to persons with a TBI, and will better maintain that funding. An adult with persistent, disabling, non-psychotic CBE problems will qualify as an SED Adult for Alaska Medicaid and mental health grant purposes. If there are psychotic features present, which can occur, the adult would qualify as a "Chronically Mentally Ill Adult". A child with these same difficulties, with or without psychosis, will qualify as an SED Youth. All of the treatment and rehabilitation can be billed to Medicaid under mental health rehabilitation, using the standard billing codes. The state's decision to finally adopt the federal definitions of Seriously Mentally Ill (SMI) Adults and Severely Emotionally Disturbed Youth will not cause a problem. Alaska's CMI and SED adults, combined, exactly match the federal definition of SMI. The state and federal SED Youth definitions are essentially the same.

For those not on Medicaid, we have adopted the federal definition of Seriously Mentally Ill Adults, and have given equal priority for services to the SED Adult sub-population. Persons with any persistent, disabling, non-psychotic disorder resulting from a TBI is an SED adult for grant purposes, as well as for Medicaid purposes. They also qualify as Seriously Mentally Ill for federal purposes.

Federal Definition of Adults with a Serious Mental Illness

Pursuant to Section 1912(c) of the Public Health Service Act, as amended by Public Law 102-321 "adults with a serious mental illness" are persons:

- age 18 and over,
- who currently or at any time during the past year,
- have had a diagnosable mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria specified within DSM-III-R,
- that has resulted in functional impairment which substantially interferes with or limits one or more major life activities.

These disorders include any mental disorders (including those of biological etiology) listed in DSM-III-R or their ICD-9-CM equivalent (and subsequent revisions), with the exception of DSM-III-R "V" codes, substance use disorders, and developmental disorders, which are excluded, unless they co-occur with another diagnosable serious mental illness. All of these disorders have episodic, recurrent, or persistent features; however, they vary in terms of severity and disabling effects.

Functional impairment is defined as difficulties that substantially interfere with or limit role functioning in one or more major life activities including basic daily living skills (e.g., eating, bathing, dressing); instrumental living skills (e.g., maintaining a household, managing money, getting around the community, taking prescribed medication); and functioning in social, family, and vocational /educational contexts. Adults who would have met functional impairment criteria during the referenced year without the benefit of treatment or other support services are considered to have serious mental illnesses.

Federal Definition of Children with a Serious Emotional Disturbance

Pursuant to Section 1912(c) of the Public Health Service Act, as amended by Public Law 102-321 "children with a serious emotional disturbance" are persons:

- from birth up to age 18,
- who currently or at any time during the past year,
- have had a diagnosable mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria specified within DSM-III-R,
- that resulted in functional impairment which substantially interferes with or limits the child's role or functioning in family, school, or community activities.

These disorders include any mental disorder (including those of biological etiology) listed in DSM-III-R or their ICD-9-CM equivalent (and subsequent revisions), with the exception of DSM-III-R "V" codes, substance use, and developmental disorders, which are excluded, unless they co-occur with another diagnosable serious emotional disturbance. All of these disorders have episodic, recurrent, or persistent features; however, they vary in terms of severity and disabling effects.

Functional impairment is defined as difficulties that substantially interfere with or limit a child or adolescent from achieving or maintaining one or more developmentally-appropriate social, behavioral, cognitive, communicative, or adaptive skills. Functional impairments of episodic, recurrent, and continuous duration are included unless they are temporary and expected responses to stressful events in the environment. Children who would have met functional impairment criteria during the referenced year without the benefit of treatment or other support services are included in this definition.

What are the "CBE's"?

The "CBE's" are cognitive, behavioral, and emotional manifestations of a traumatic brain injury that interfere with the individual's ability to maintain their own affairs, live independently, work, and have meaningful personal relationships.

Cognitive Problems and TBI – The "C's"

Post-traumatic amnesia, general memory problems, information processing difficulties, problems with attention, decreased ability to recognize social cues and boundaries, and loss of previously acquired knowledge or skills.

Behavioral Problems and TBI – The “B’s”

Impulsivity, Irritability, Emotionally Labile, Generally Increased Aggressiveness, Outbursts of Anger, Apathy.

Emotional Problems and TBI – The “E’s”

- A. **Pre-existing Conditions:** Any mental disorder may exist pre-injury. A TBI may cause an exacerbation of the symptoms of that disorder.
- B. **Conditions Arising Post-Injury, But Not Directly the Result of the TBI:** A youth with a TBI may later develop schizophrenia as he enters adulthood. The schizophrenia is not caused by the brain injury, but will likely interact with it.
- C. **Conditions That are the Direct Result of the TBI:** There are a number of diagnosable mental disorders involving cognition, behavior or mood. These are outlined below.
- D. **Conditions That are Secondary to the TBI and Resultant Life Changes:** Other disorders can arise that are secondary to the TBI and result from the experience of living with disability. A common one would be depression.

Diagnosis of TBI-Related Disorders:

The table on the next page illustrates mental health diagnoses on two axes: persistent disorders versus non-persistent and disorders with psychosis and without. The table illustrates the diagnostic possibilities and the relationship among sub-populations of persons with mental health disorders.

The diagnoses in bold italics are conditions that can arise as a direct result of a TBI. Note that these same conditions can also arise from other medical conditions, such as stroke, intra-cranial infections, tumors, FAS/FAE, and others. Also note that the mental health system can move beyond a focus on TBI to the broader Acquired Brain Injury (ABI), and that the resulting CBE’s from sources other than head injury can be both diagnosed and treated through mental health Medicaid.

The diagnosis on Axis I must include the name of the medical condition, e.g.: Amnestic disorder due to head trauma. Also, the medical condition must be listed on Axis III, using an ICD-9 code.

Following the table are descriptions of the selected diagnoses, taken from the DSM IV-TR.

Disorders with Psychosis

Disorders without Psychosis

Persistent Disorders

Schizophrenia
 Bi-Polar Disorder
 Schizo-Affective Disorder
Psychotic Disorder Secondary to Physical Condition, Including TBI
Delirium Secondary to Physical Condition, Including TBI

Disabling Personality Disorders
 Disabling Eating Disorders
 Disabling Anxiety Disorders
 Persistent Major Depression
Dementia Secondary to Physical Condition, Including TBI
Amnestic Disorder Secondary to Physical Condition, Including TBI
Catatonic Disorder Secondary to Physical Condition, Including TBI
Personality Change Secondary to Physical Condition, Including TBI
Mental Disorder NOS Secondary to Physical Condition, Including TBI
Mood Disorder Secondary to Physical Condition, Including TBI
Anxiety Disorder Secondary to Physical Condition, Including TBI

Seriously Mentally Ill Adults

Non-Persistent Disorders

Brief Reactive Psychosis
Delirium Secondary to Physical Condition, Including TBI
Psychotic Disorder Secondary to Physical Condition, Including TBI

Adjustment Disorders
 Mild – Moderate Depression
 Non-Disabling Personality Disorders
 "V" Codes

Criteria for Disorders Directly Related To A TBI:

Diagnostic Criteria for 293.0 Delirium Due to . . . [Indicate the General Medical Condition]

- A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.
- B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.
- C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.
- D. There is evidence from the history, physical examination, or laboratory findings that the disturbance is caused by the direct physiological consequences of a general medical condition.

Coding note: If delirium is superimposed on a preexisting Vascular Dementia, indicate the delirium by coding 290.41 Vascular Dementia, With Delirium.

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.0 Delirium Due to Hepatic Encephalopathy; also code the general medical condition on Axis III.

Diagnostic Criteria for 294.1x Dementia Due to Other General Medical Conditions

- A. The development of multiple cognitive deficits manifested by both
 - 1. memory impairment (impaired ability to learn new information or to recall previously learned information)
 - 2. one (or more) of the following cognitive disturbances:
 - aphasia* (language disturbance)
 - apraxia* (impaired ability to carry out motor activities despite intact motor function)
 - agnosia* (failure to recognize or identify objects despite intact sensory function)
 - disturbance in executive functioning* (i.e., planning, organizing, sequencing, abstracting)
- B. The cognitive deficits in Criteria A1 and A2 each cause significant impairment in social or occupational functioning and represent a significant decline from a previous level of functioning.

C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition other than Alzheimer's disease or cerebrovascular disease (e.g., HIV infection, traumatic brain injury, Parkinson's disease, Huntington's disease, Pick's disease, Creutzfeldt-Jakob disease, normal- pressure hydrocephalus, hypothyroidism, brain tumor, or vitamin B12 deficiency).

D. The deficits do not occur exclusively during the course of a delirium.

Code based on presence or absence of a clinically significant behavioral disturbance: 294.10 Without Behavioral Disturbance: if the cognitive disturbance is not accompanied by any clinically significant behavioral disturbance. 294.11 With Behavioral Disturbance: if the cognitive disturbance is accompanied by a clinically significant behavioral disturbance (e.g., wandering, agitation).

Coding note: Also code the general medical condition on Axis III (e.g., 042 HIV infection, 854.00 head injury, 332.0 Parkinson's disease, 333.4 Huntington's disease, 331.1 Pick's disease, 046.1 Creutzfeldt-Jakob disease).

Diagnostic Criteria for 294.0 Amnestic Disorder Due to . . . [Indicate the General Medical Condition]

A. The development of memory impairment as manifested by impairment in the ability to learn new information or the inability to recall previously learned information.

B. The memory disturbance causes significant impairment in social or occupational functioning and represents a significant decline from a previous level of functioning.

C. The memory disturbance does not occur exclusively during the course of a delirium or a dementia.

D. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition (including physical trauma).

Specify if:

Transient: if memory impairment lasts for 1 month or less

Chronic: if memory impairment lasts for more than 1 month

Coding note: Include the name of the general medical condition on Axis I, e.g., 294.0 Amnestic Disorder Due to Head Trauma; also code the general medical condition on Axis III.

294.9 Cognitive Disorder Not Otherwise Specified

This category is for disorders that are characterized by cognitive dysfunction presumed to be due to the direct physiological effect of a general medical condition that do not meet criteria for any of the specific deliriums, dementias, or amnesic disorders listed in this section and that are not better classified as Delirium Not Otherwise Specified, Dementia Not Otherwise Specified, or Amnesic Disorder Not Otherwise Specified. For cognitive dysfunction due to a specific or unknown substance, the specific Substance- Related Disorder Not Otherwise Specified category should be used.

Examples include

1. *Mild neurocognitive disorder*: impairment in cognitive functioning as evidenced by neuropsychological testing or quantified clinical assessment, accompanied by objective evidence of a systemic general medical condition or central nervous system dysfunction
2. *Postconcussional disorder*: following a head trauma, impairment in memory or attention with associated symptoms.

Diagnostic Criteria for 293.89 Catatonic Disorder Due to . . . [Indicate the General Medical Condition]

A. The presence of catatonia as manifested by motoric immobility, excessive motor activity (that is apparently purposeless and not influenced by external stimuli), extreme negativism or mutism, peculiarities of voluntary movement, or echolalia or echopraxia.

B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.

C. The disturbance is not better accounted for by another mental disorder (e.g., a Manic Episode).

D. The disturbance does not occur exclusively during the course of a delirium.

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.89 Catatonic Disorder Due to Hepatic Encephalopathy; also code the general medical condition on Axis III.

Diagnostic Criteria for 310.1 Personality Change Due to . . . [Indicate the General Medical Condition]

A. A persistent personality disturbance that represents a change from the individual's previous characteristic personality pattern. (In children,

the disturbance involves a marked deviation from normal development or a significant change in the child's usual behavior patterns lasting at least 1 year).

B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.

C. The disturbance is not better accounted for by another mental disorder (including other Mental Disorders Due to a General Medical Condition).

D. The disturbance does not occur exclusively during the course of a delirium.

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify type:

Labile Type: if the predominant feature is affective lability

Disinhibited Type: if the predominant feature is poor impulse control as evidenced by sexual indiscretions, etc.

Aggressive Type: if the predominant feature is aggressive behavior

Apathetic Type: if the predominant feature is marked apathy and indifference

Paranoid Type: if the predominant feature is suspiciousness or paranoid ideation

Other Type: if the presentation is not characterized by any of the above subtypes

Combined Type: if more than one feature predominates in the clinical picture

Unspecified Type

Coding note: Include the name of the general medical condition on Axis I, e.g., 310.1 Personality Change Due to Temporal Lobe Epilepsy; also code the general medical condition on Axis III.

293.9 Mental Disorder Not Otherwise Specified Due to a General Medical Condition

This residual category should be used for situations in which it has been established that the disturbance is caused by the direct physiological effects of a general medical condition, but the criteria are not met for a specific Mental Disorder Due to a General Medical Condition (e.g., dissociative symptoms due to complex partial seizures).

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.9 Mental Disorder Not Otherwise Specified Due to HIV Disease; also code the general medical condition on Axis III.

Diagnostic Criteria for 293.xx Psychotic Disorder Due to . . . [Indicate the General Medical Condition]

- A. Prominent hallucinations or delusions.
- B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.
- C. The disturbance is not better accounted for by another mental disorder.
- D. The disturbance does not occur exclusively during the course of a delirium.

Code based on predominant symptom:

- .81 *With Delusions*: if delusions are the predominant symptom
- .82 *With Hallucinations*: if hallucinations are the predominant symptom

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.81 Psychotic Disorder Due to Malignant Lung Neoplasm, With Delusions; also code the general medical condition on Axis III.

Coding note: If delusions are part of Vascular Dementia, indicate the delusions by coding the appropriate subtype, e.g., 290.42 Vascular Dementia, With Delusions.

Diagnostic Criteria for 293.83 Mood Disorder Due to . . . [Indicate the General Medical Condition]

- a. A prominent and persistent disturbance in mood predominates in the clinical picture and is characterized by either (or both) of the following: 1. depressed mood or markedly diminished interest or pleasure in all, or almost all, activities 2. elevated, expansive, or irritable mood
- B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.
- C. The disturbance is not better accounted for by another mental disorder (e.g., Adjustment Disorder With Depressed Mood in response to the stress of having a general medical condition).
- D. The disturbance does not occur exclusively during the course of a delirium.

E. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify type:

With Depressive Features: if the predominant mood is depressed but the full criteria are not met for a Major Depressive Episode

With Major Depressive–Like Episode: if the full criteria are met (except Criterion D) for a Major Depressive Episode

With Manic Features: if the predominant mood is elevated, euphoric, or irritable

With Mixed Features: if the symptoms of both mania and depression are present but neither predominates

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.83 Mood Disorder Due to Hypothyroidism, With Depressive Features; also code the general medical condition on Axis III.

Coding note: If depressive symptoms occur as part of a preexisting Vascular Dementia, indicate the depressive symptoms by coding the appropriate subtype, i.e., 290.43 Vascular Dementia, With Depressed Mood.

Diagnostic Criteria for 293.84 Anxiety Disorder Due to . . . [Indicate the General Medical Condition]

A. Prominent anxiety, Panic Attacks, or obsessions or compulsions predominate in the clinical picture.

B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.

C. The disturbance is not better accounted for by another mental disorder (e.g., Adjustment Disorder With Anxiety in which the stressor is a serious general medical condition).

D. The disturbance does not occur exclusively during the course of a delirium.

E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Specify if:

With Generalized Anxiety: if excessive anxiety or worry about a number of events or activities predominates in the clinical presentation

With Panic Attacks: if Panic Attacks predominate in the clinical presentation

With Obsessive-Compulsive Symptoms: if obsessions or compulsions predominate in the clinical presentation

Coding note: Include the name of the general medical condition on Axis I, e.g., 293.84 Anxiety Disorder Due to Pheochromocytoma, With Generalized Anxiety; also code the general medical condition on Axis III.

Alaska's Goals and Objectives For The TBI Project:

GOAL 1: Expand and improve state-level and community-based capacity for providing access to comprehensive, high quality, culturally competent and coordinated services for individuals with TBI and their families statewide.

Objective 1.1. In Year 1 and continuing thereafter, prioritize TBI as eligible for Severely Emotionally Disturbed (SED) Community Mental Health Medicaid services to be provided to adults and children by all Community Mental Health Clinics (CMHC) statewide.

Objective 1.2. In each of Years 1-3, redirect up to \$ 1,000,000 of State services to 'chronically mentally ill' grant funds to a pool of prioritized SED funding from which CMHCs may charge the costs of new or expanded services and supports for individuals with TBI and their families.

Objective 1.3 : Identify alternative funding streams for individuals who are not eligible for Medicaid.

Objective 1.4. To inform and help guide system planning, track and assess during Years 1-3 the number of individuals and their communities of residence with individuals with TBI diagnoses on DSM-IV-TR AXIS III.

Objective 1.5. In Year 1, establish a baseline for measuring survivors' and family members' satisfaction with TBI services and supports using Quality Assurance consumer surveys and Mental Health Statistical Improvement Project (MHSIP) Consumer Report Cards; measure and assess improvements in satisfaction levels during Years 2 and 3.

GOAL 2: Enhance community-based capacity for identifying adults and children with TBI.

Objective 2.1. In Years 1-3, require all CMHCs to screen all clients for the possible presence of a TBI.

Objective 2.2. In Years 1-3, require all substance abuse agencies that are supported by State funds to screen all clients for the possible presence of a TBI.

Objective 2.3. In Year 1, establish a baseline for the number of adults and children with TBI identified by CMHCs and substance abuse agencies, and the number of those who are engaged for services and supports; measure and assess improvements in identification/engagement levels during Years 2 and 3.

Objective 2.4. In Year 1, Advisory Board and project staff work with the Anchorage School District (ASD) to develop and adopt an enhanced

methodology for identifying students with TBI from among the Special Education population.

Objective 2.5. Implement the adopted methodology in 5 schools within ASD in Year 2 and in 15 schools within ASD in Year 3.

Objective 2.6. In Years 2 and 3, track and assess the number of students with TBI who are identified using the new methodology, and compare these to incidence and prevalence numbers collected under the CDC TBI Surveillance effort.

Objective 2.7. In each of Years 2 and 3, coordinate with ASD to provide quarterly teacher in-service trainings on TBI, and provide TBI consultations on request.

Objective 2.8. Using ASD experience and lessons learned, develop in Year 3 a public school-based model for identifying students with TBI for potential replication in other school districts (Mat-Su Borough, Kenai Peninsula Borough, Fairbanks North Star Borough).

GOAL 3: Use existing research-based knowledge, state-of-the-art systems development approaches, and best practices to enhance community-based skills and competence in identifying adults and children with TBI and providing TBI screening, assessment, treatment and rehabilitation services.

Objective 3.1. In Years 1, 2 and 3, contract with nationally-recognized TBI expert(s) to assist the Advisory Board and project staff in identifying, assessing and implementing best practices with the greatest potential applicability to Alaska's diverse cultural and geographic needs.

Objective 3.2. In Year 1 and Year 3, sponsor a statewide TBI training conference on system development/best practices that is targeted to major stakeholders and service providers.

Objective 3.3. In Year 2, sponsor four regional TBI training workshops (Southcentral, Southeast, Southwest and Northern) that focus on specific local needs/challenges and system development approaches/best practices to address them.

Objective 3.4. In Year 1, conduct a site visit by Advisory Board and project staff representatives to a community-based outreach, assessment and treatment center recognized for excellence by the Health Resources Services Administration (HRSA) and the TBI Technical Assistance Center (TBI TAC); in Years 2-3, incorporate applicable/replicable lessons learned from the site visit into Alaska's system development and implementation initiatives and maintain

on-going contact, including invitations to participate in regional/statewide TBI training conferences and workshops.

GOAL 4: Establish on-going capacity to sustain the incorporation of culturally competent TBI services within Alaska's service delivery system.

Objective 4.1. In Years 1 and 2, track and assess the percentage of the \$1,000,000 SED funding pool that CMHCs use to provide services/supports to individuals with TBI diagnoses on DSM-IV-TR AXIS III (cross reference Objectives 1.2, 1.3 and 2.2); based on Year 1/2 assessments, develop and implement recommendation in Year 3 to earmark a portion of the State's SED funding pool to sustain TBI supports/services in follow-on years.

Objective 4.2. In each of Years 1, 2 and 3, increase the utilization of DSM-IV-TR AXIS III diagnoses of brain injury/trauma for identifying TBI services/supports needs and sustain their provision using Medicaid dollars, as eligible.

Objective 4.3. In Year 1, collect and assess data on the number of children and adults with TBI who would potentially qualify for Medicaid Home and Community Based TBI-waiver; in Year 2 develop Advisory Board-recommended policy regarding Medicaid Home and Community Based TBI-waiver based on assessment of potential benefits and constraints; if decision is made to establish a TBI-waiver program, seek approval in Year 3.

Objective 4.4 In Years 1, 2, and 3, collect information about the number of individuals on existing Home and Community Based waivers, such as the Development Disabilities Waiver, who have a TBI and assess the appropriateness of the existing waiver program services for the specific needs of individual with a TBI.

GOAL 5: Determine if Alaska has sufficient need to develop in-state post-acute residential rehabilitation capacity to serve the medically stable, combative, individual with TBI, or if included with other types of brain injury.

Objective 5.1. In Year 1, collect information about the number of medically stable individuals who would otherwise be discharged home, though due to combativeness and other problems of impulse control warrant residential rehabilitation as opposed to prolonged acute or nursing home levels of care.

Objective 5.2. Assess if there is sufficient numbers to support the development of an in-state capacity, if not continue to monitor for need in Years 2 & 3.

Objective 5.3. If there is sufficient need assessed, identify an entity, or entities, willing to develop responsive in-state capacity in Year 2.

Objective 5.4. The identified entity, in conjunction with the Advisory Board's Treatment, Rehabilitation, and Long-term Care Committee, will develop a program and funding plan in Year 2.

Objective 5.5. In Year 3, secure funding to implement responsive in state residential rehabilitation capacity to medically stable individuals with TBI, or included with other types of brain injury who are combative or exhibit other problems of impulse control, which prevent the individual from returning home.

GOAL 6: Establish on-going capacity of the Alaska TBI Advisory Board, survivors and their families to sustain their oversight of statewide planning for culturally competent TBI services/supports within Alaska's service delivery system.

Objective 6.1. In Years 1-3, conduct Advisory Board quarterly meetings for purposes of overseeing statewide planning for services and supports for individuals with TBI and their families. In Year 1, hold one quarterly meeting in a rural locale (Bethel); identify rural locales in which to hold one quarterly meeting in each of Years 2 and 3.

Objective 6.2. In Years 1, 2 and 3, contract for Advisory Board-directed administrative services/supports (Executive Director) and evaluate the potential for sustaining these beyond the grant period by using Medicaid administration dollars, or other public/private resources.

Objective 6.3. In Year 2, evaluate options to sustain the Advisory Board as a formal part of the State Boards and Commissions structure, or by obtaining 501(c) (3) designation; implement adopted strategy by the end of Year 3.

Objective 6.4. In Year 1, create a seat on the Advisory Board for a Brain Injury Association of America (BIAA) Alaska Affiliate (if re-established), or similar survivor advocacy group.

Objective 6.5. In Years 1-3, continuously network with the BIAA and provide technical assistance through the BIAA and DMHDD's Consumer Affairs Administrator to work with survivors and family members interested in re-establishing a BIAA Alaska Affiliate.

Objective 6.6. In Years 1-3, maintain Advisory Board interface/liaison with its stakeholder network and expand the existing network as needs/opportunities arise.

Objective 6.7. In Years 1-2 establish formal liaison relationships with each of the four Alaska Mental Health Trust Advisory Boards in order to facilitate communication about the Alaska TBI Advisory Board's work and to develop common funding priorities for TBI survivors in each of the service structures

represented by the advisory boards, as well as for those that are underserved by the existing structures.

Goal 7: Continue and expand the efforts to prevent traumatic brain injury in Alaska

Objective 7.1. Develop an educational campaign for head injury awareness and prevention for use in schools.

Objective 7.2. Continue and expand the program to hand out helmets for bicycling and other sports.

Objective 7.3. Develop a variety of public media campaigns to raise awareness of TBI

Objective 7.4. Continue and expand the educational program for proper use of automobile safety seats for children.

Objective 7.5. Develop a web site for dissemination of TBI prevention information.

Goal 8: Provide data support for the implementation of services described in the implementation grant.

Objective 8.1. Continually update Needs Assessment

Objective 8.2. Support data efforts of Treatment, Rehab, and Long-Term Care Committee

Objective 8.3. Guide and evaluate Prevention efforts

Objective 8.4. Continue to monitor new CDC TBI surveillance data (Alaska and US) and disseminate

Objective 8.5. Disseminate TBI information to survivors, caregivers, public, providers, and others.