

---

Joint Legislative Audit and Review Commission



**Access to State-Funded  
Brain Injury Services in Virginia**

Commission Briefing

September 10, 2007



JLARC

---

## Study Mandate

- 2006 Appropriation Act directs review of access to brain injury services in Virginia
  - Effectiveness of current State-funded services to meet the needs of persons with traumatic brain injuries
  - Effectiveness of Department of Rehabilitative Services' oversight of State-funded brain injury services
  - Sufficiency of current resources to meet needs of those with brain injuries in Virginia
- Increases in State funding have raised interest regarding effectiveness of State-funded services

---

# In This Presentation

- Background
- Access to Brain Injury Services Has Improved, But Remains Limited
- Brain-Injured Population Appears to Benefit from State-funded Services
- Identification of Brain Injury Survivors Needs Improvement
- Improving Access to Community-based Brain Injury Services

---

# What Is Traumatic Brain Injury (TBI)?

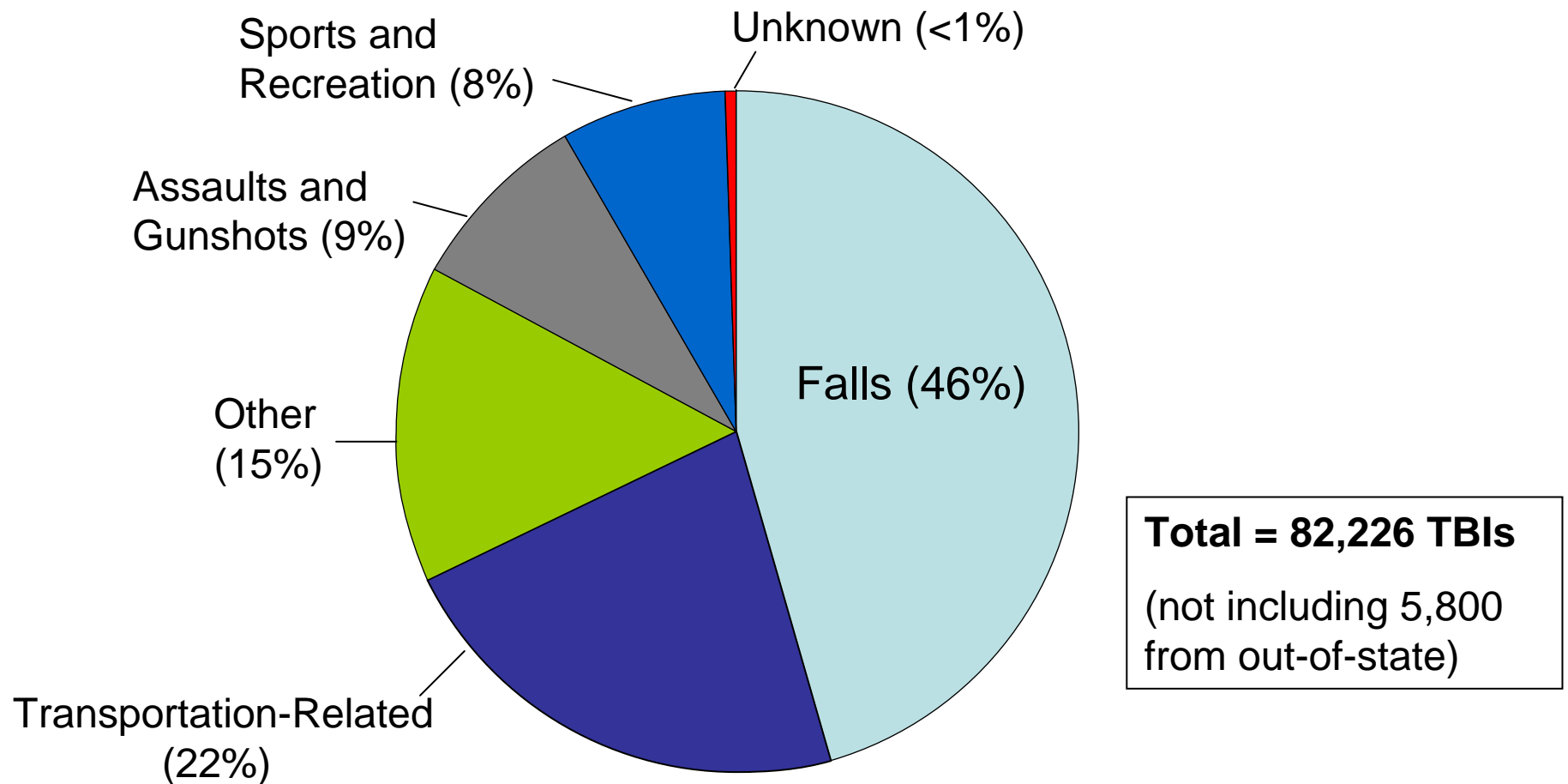
- TBI is
  - blunt or penetrating trauma or
  - accelerating/decelerating forces
  - resulting in altered consciousness
  
- TBI is not the result of congenital defects or disease

---

# What Are the Effects of TBI?

- Problems resulting from TBI
  - Physical disabilities
  - Short-term memory loss, poor judgment
  - Behavioral dysfunction, depression
  - Walking or talking impaired
- 1.4 million Americans sustain a TBI each year (CDC)
- Children (0-9), older adolescents (15-19), and adults 75 years and older are more likely to sustain a TBI

# Falls Account for Most TBIs in Virginia Since 2002



Source: DRS, Virginia Central Registry for Brain Injury and Spinal Cord Injury

---

## **“Silent” Nature of Brain Injury Limits Identification, But 150,000 Virginians May Have Lifelong Disability**

- Brain injuries are not visible and public awareness is limited
- More than 82,000 Virginians reported to brain injury registry since FY 2002
- 150,000 Virginians may have a permanent disability as the result of a TBI (CDC)

---

## DRS Is Lead Agency for Brain Injury Services

*Code of Virginia* designates Department of Rehabilitative Services to coordinate rehabilitative services to persons with functional and central nervous system disabilities

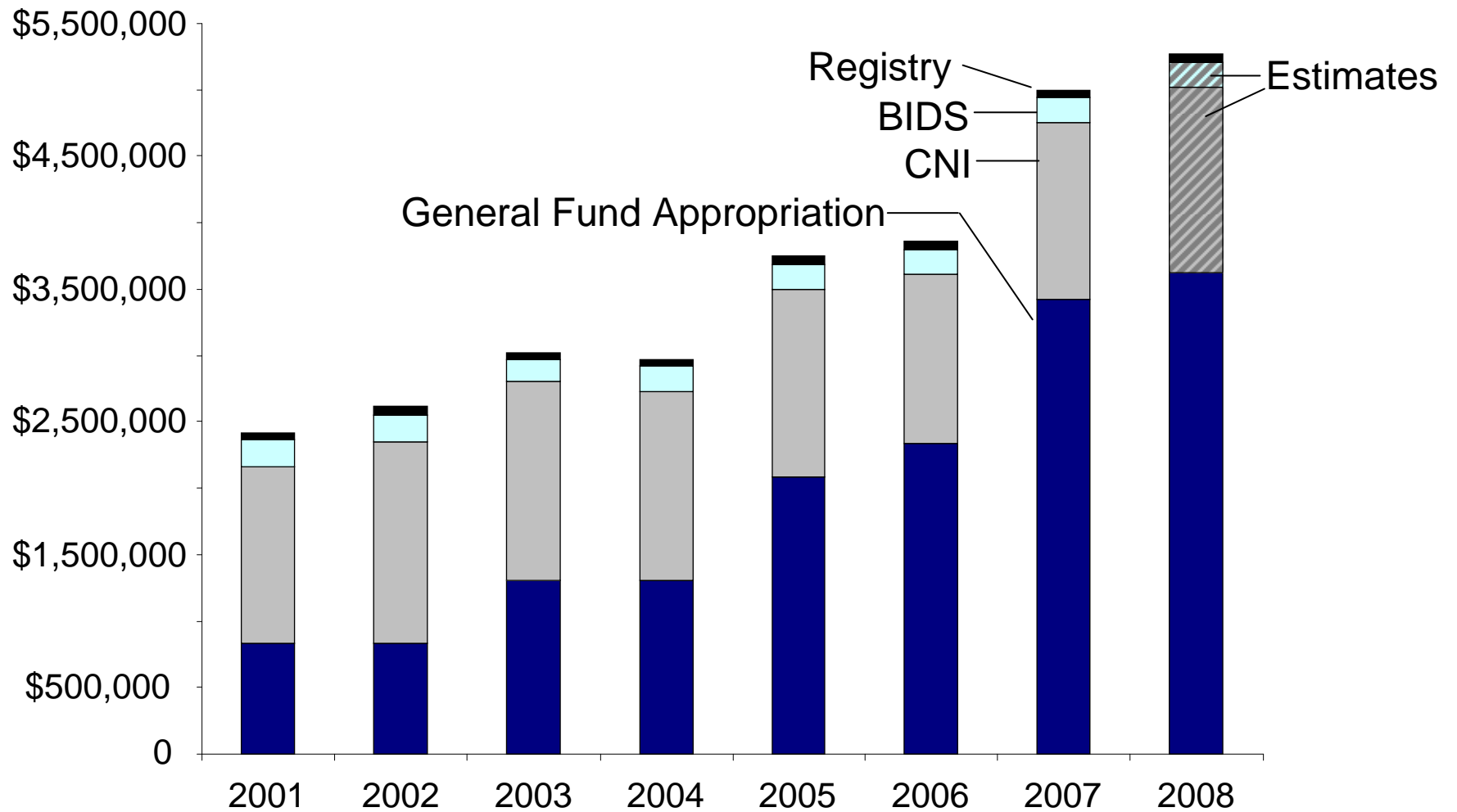
### ■ State Contracted Services

- Case Management
- Clubhouse/Day Programs
- Regional Resource Coordination
- Information and Referral for Brain Injury Registry

### ■ State Administered Services

- Brain Injury Registry
- Commonwealth Neurotrauma Initiative (CNI) Trust Fund
- Brain Injury Direct Services Fund (BIDS)
- Vocational Rehabilitation Program
- Case Management

# More than \$5 Million in State Funding for Brain Injury Services in FY 2007



---

# In This Presentation

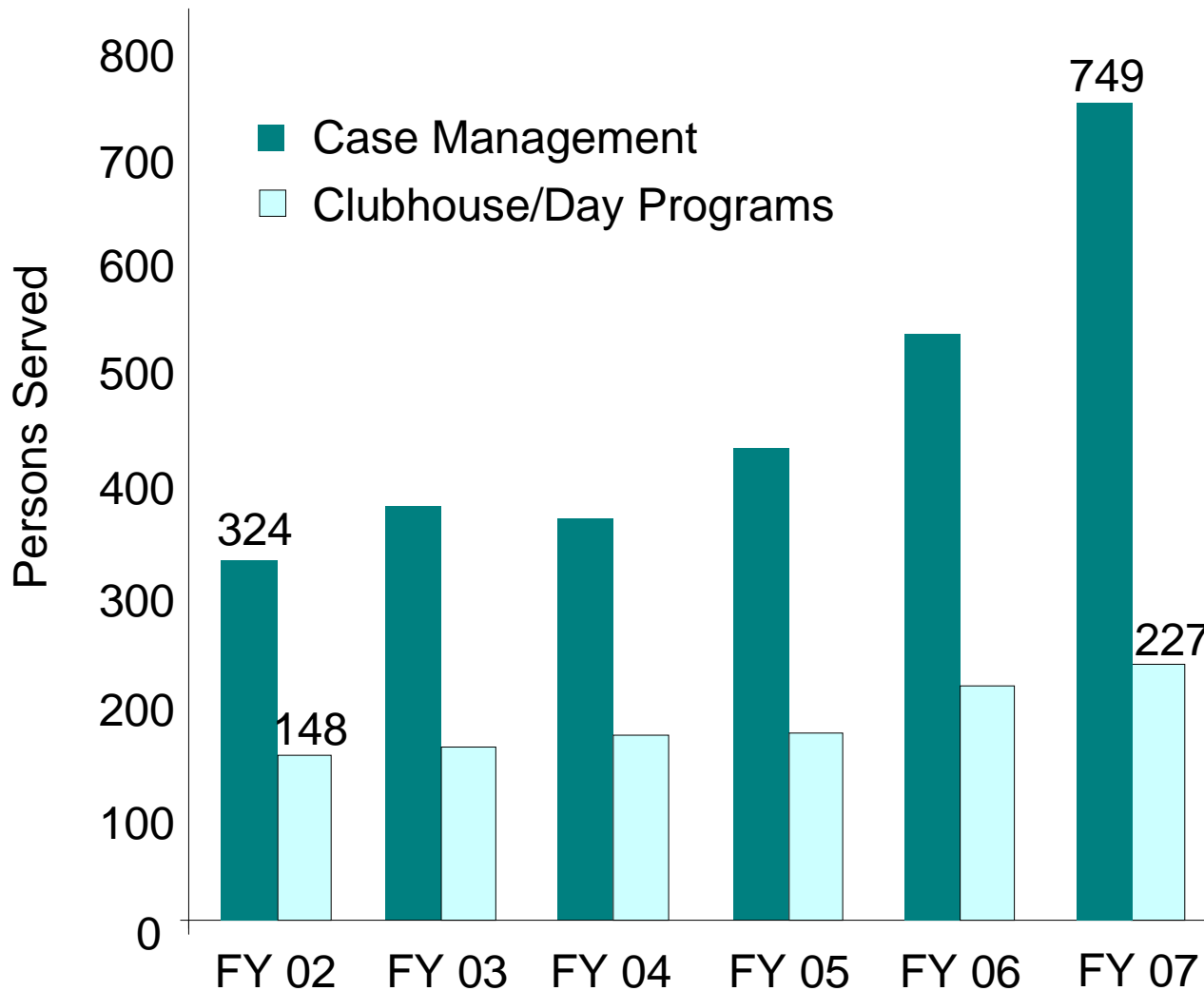
- Background
- Access to Brain Injury Services Has Improved, But Remains Limited
- Brain-injured Appear to Benefit from State-funded Services
- Identification of Brain Injury Survivors Needs Improvement
- Improving Access to Community-based Brain Injury Services

---

## Finding

- More than 1,000 persons with brain injury accessed State-funded case management and clubhouse/day programs in FY 2007

# Number of Persons Accessing State-Funded Services Doubled Since FY 2002

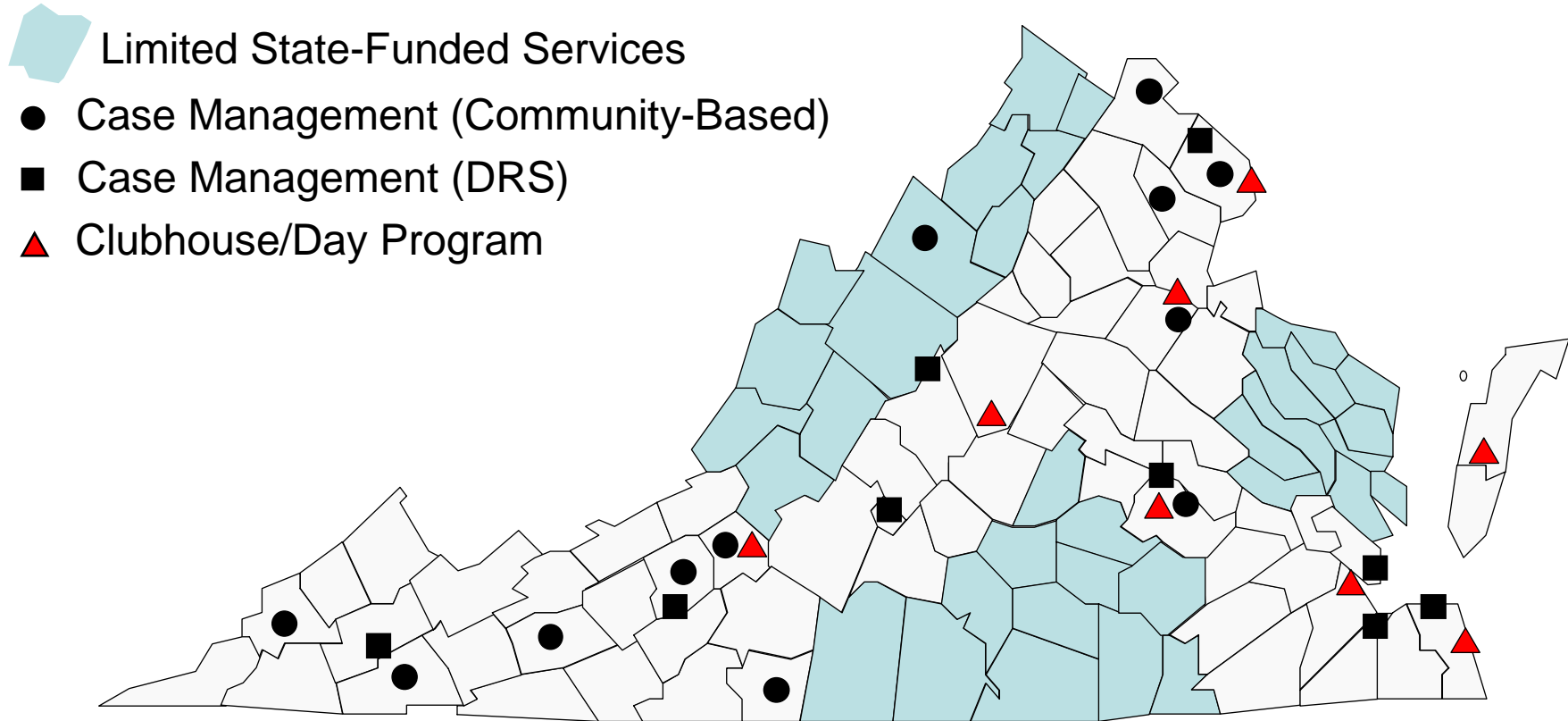


---

# Findings

- Some areas of Virginia have few State-funded community-based brain injury services, particularly rural areas
- In areas with community-based services, wait lists and/or lack of transportation may limit access
- Cost may also limit access

# Some Parts of Virginia Have Few State-Funded Services



---

## State Funding Not Allocated for High Cost Services

- State allocating funds for comparatively low cost services
- Higher cost services deemed too expensive for State funding
  - Neuropsychological examinations cost between \$700 and \$1,200
  - Residential treatment programs cost between \$250 and \$650 per day

---

## Finding

- Without access to adequate services, persons with brain injury may experience social isolation and decreased functioning, and caregivers may experience financial and health challenges

---

# Finding

- Persons with severe neurobehavioral problems that may result in harm to others or themselves do not have sufficient access to needed treatment

---

## Substantial Number of Virginians Could Have Need for Intensive Neurobehavioral Treatment

- Panel of neuropsychologists in Virginia estimates that tens of thousands of individuals may have severe neurobehavioral problems resulting from acquired brain injuries
- Resulting behavior may lead to detention or incarceration in local hospital, skilled nursing home, or correctional facility, without adequate treatment

---

## Case Study: Behavioral Issues Led to Incarceration

*'Jane' sustained a traumatic brain injury as the result of a motor vehicle accident in the 1960s, and now lives in subsidized housing in the Tidewater area. Her subsequent behavioral issues have resulted in verbal altercations with police and at least five arrests with overnight stays in local jails. She also has severe deficits in her ability to plan and short-term memory.*

---

## Few Opportunities Exist for Needed Care and They Are Costly

- 20 beds are available in Virginia for specialized intensive neurobehavioral treatment
- Cost of beds is about \$470 per day per person

---

## Case Study: Treatment Is Expensive and Limits Access to Services

*“Peter” lives in the Tidewater area and sustained a traumatic brain injury in 2005. In February 2007, Peter’s wife was unable to find residential behavioral services for her husband, whom she described as “violent, delusional, and obsessed” with her. She could not afford treatment at a private in-state facility, and DRS and other organizations were unable to help her secure such funding. In August, another violent incident led to a temporary detention order. He was admitted to a local psychiatric hospital and placed under suicide watch. Peter’s wife was informed by adult protective services that if she is unable to bring her husband home, he will be placed in a shelter.*

---

# Finding

- Individuals with brain injury placed in long-term care facilities may not receive services appropriate for treating their injuries

---

## Brain Injury Survivors in Long-Term Care Facilities May Not Receive Brain Injury Services

- About 450 TBI survivors in long-term care facilities (FY 2004-2006)
  - Median daily rate was \$102 per day (paid by Medicaid)
- Brain-injured individuals in long-term care facilities appear to have limited access to brain injury services
  - Little outreach by State-funded service providers
  - Not typically equipped or staffed to meet the needs of TBI survivors

---

## Finding

- Other unmet service needs include cognitive rehabilitation, supportive housing, and transportation

---

# Finding

- Private health insurance plans tend not to cover services that address ongoing and long-term cognitive and emotional problems of persons with brain injury

---

## Private Health Insurance Coverage Is Limited by Policy Purchased and Level of Improvement

- Acute medical care for brain injuries appears to be covered
- Nationally, length of stay in rehabilitation facilities has been reduced by six days for acute care and ten for post-acute
- Problems associated with brain injury are cognitive and emotional, and may result in a lifelong need for services
- Most covered services are subject to benefit plan limits and medical necessity criteria
  - Needed service must be included in policy
  - Individual must demonstrate improvement

---

## Finding

- Potential exists for significant numbers of service members who suffered TBIs in Afghanistan and Iraq to seek community-based services outside the federal military and veteran service systems
- Virginia has not initiated any planning activities to assist returning service members who may seek such care in the community

---

## TBI Is Considered Signature Wound of Afghanistan and Iraq Conflicts

- Service members are surviving blasts from improvised explosive devices in greater numbers than previous wars
- Estimates of TBI incidence vary
  - Department of Veterans Affairs – 1,800
  - Commission on Care for Wounded Warriors – 2,700
- Active and retired service members receive care in several federal settings
- National Guard members serving in Afghanistan or Iraq are eligible for care under the federal system

---

## Service Members with TBI May Access Virginia's Community-Based Services

- Virginia Brain Injury Council members expressed concern regarding potential impact of returning veterans
- Federal legislation would require Veterans Affairs to contract with community-based providers when no federal facility is accessible

---

## Recommendation

- Virginia agencies that could have responsibility for providing care to the State's returning military service members should develop a plan by July 1, 2008, to address coordination and access to brain injury services by active and retired military personnel

---

# In This Presentation

- Background
- Access to Brain Injury Services Has Improved, But Remains Limited
- Brain-Injured Population Appears to Benefit from State-Funded Services
- Identification of Brain Injury Survivors Needs Improvement
- Improving Access to Community-based Brain Injury Services

---

## DRS Funds Three Core Community-Based Brain Injury Services

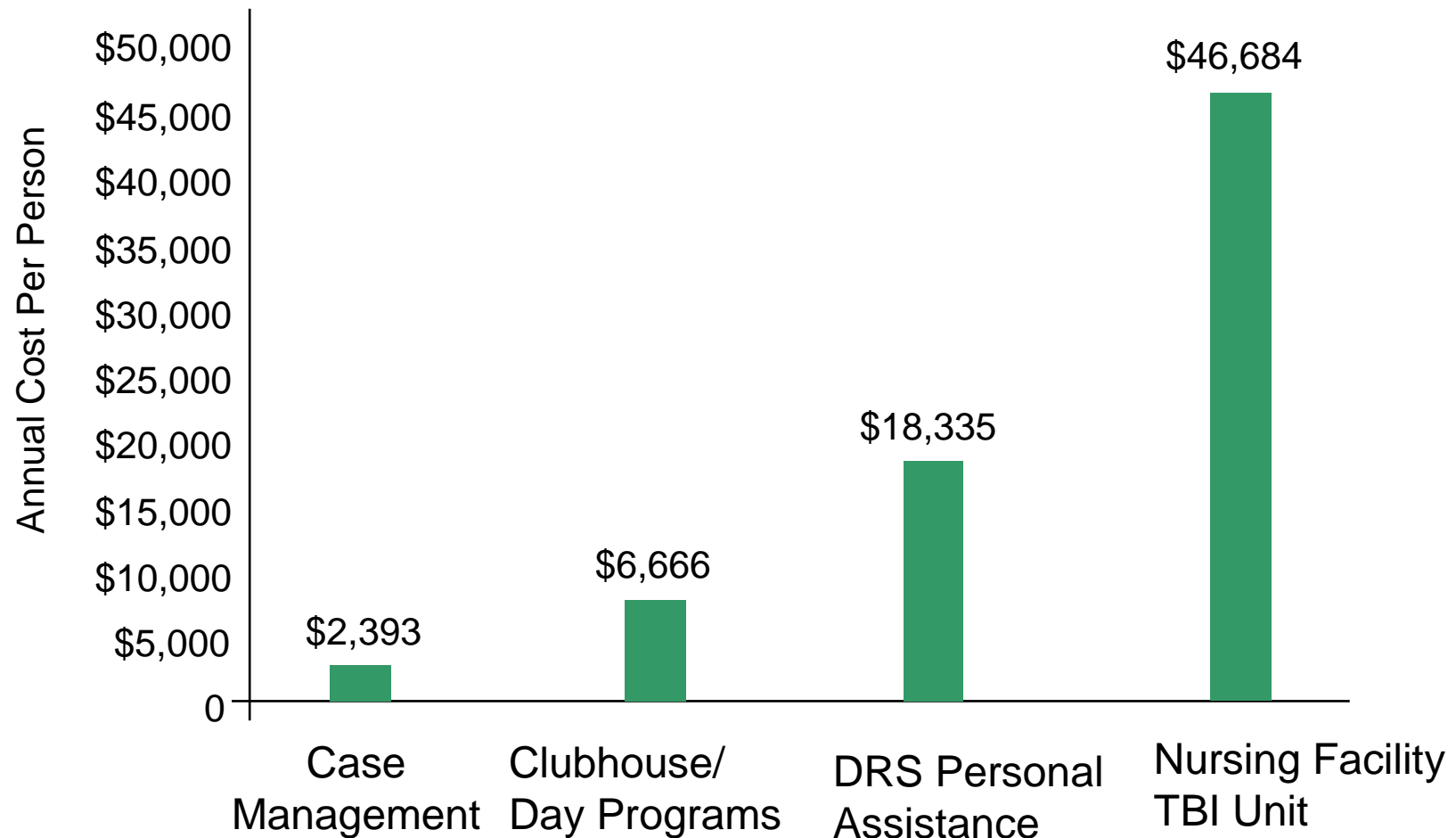
- Needs of brain-injured population initially identified in 2001
  - Information and referral, community living, individual and family support, transportation
  - Neurobehavioral treatment options
  - Identification
  - Case management
  - Day programs and services
  - Public education and awareness efforts
- Limited resources resulted in prioritizing three core services
  - Case management
  - Clubhouse/day programs
  - Regional resource coordination (information and referral, education and awareness efforts)

---

## Finding

- Case management and clubhouse/day programs cost less, on average, than certain other services

# Case Management and Clubhouse/ Day Programs Cost Less Than Other Services



---

## Finding

- Persons with brain injury appear to benefit from assistance provided by case managers in navigating complicated systems of care

---

## Case Management Appears to Help Brain Injury Survivors Remain in the Community

- State-contracted case managers assist more than 700 persons with brain injury
- Academic research notes value assisting survivors and caregivers navigate federal and state service bureaucracies
- Interviews with brain injury survivors and their caregivers indicate benefit

---

## Case Study: “Andrew’s” Case Manager Helped Him Find Housing

*“Andrew” suffered a traumatic brain injury in a motor vehicle accident 30 years ago. He still has limited concentration, memory, and organizational skills. Earlier this year, he became homeless. His case manager helped him apply for and receive assistance from the local housing authority. Today, Andrew lives independently in subsidized housing.*



---

# Finding

- Persons who attend clubhouse/day programs appear to benefit from structured nature of each program, social integration, and the pre-vocational training provided

---

## Clubhouse/Day Programs Meet Some Needs

- Benefit survivors by teaching appropriate interpersonal skills and behavioral controls, promoting involvement in the community, and providing respite for caregiver
- Provide alternative for those unable to participate in vocational rehabilitation
- Evidence suggests survivors benefit
  - Nine of 12 case managers rate clubhouses as effective
  - Survivors and caregivers indicate value of clubhouse keeping members involved with community

---

## Case Study: “Mark” Uses Clubhouse to Improve Pre-Vocational Skills

*“Mark” suffered a TBI as a child. Now in his 40s, he attends a clubhouse three to four times per week. Mark has struggled to manage his anger and often responds to stress by yelling and injuring himself. Staff recognize this behavior will make it difficult to maintain employment or complete a vocational rehabilitation program. They help him recognize when he is becoming angry and guide him away from the stressful situation. Since staff began working with him, his outbursts are more easily contained.*

---

## Finding

- Effectiveness of regional resource coordination effort is difficult to measure. Coordination effort is meeting its contractual requirement, but extent to which activities have resulted in measurable outcomes is difficult to evaluate

---

## Effectiveness of Regional Resource Coordination Is Uncertain

- Regional resource coordinators are
  - Located in Virginia Beach, Warsaw, Staunton, Roanoke
  - Responsible for
    - Building public awareness of TBI
    - Assessing unmet community needs
    - Building community service capacity
  - Funded through federal and state dollars, and have received almost \$1 million since 2002
- Few new resources have begun operations in areas where coordinators have had longest presence
- Lack of public awareness of brain injury is still cited as a major issue, especially among medical staff

---

## Finding

- Not all individuals with a brain injury are capable of entering the workforce. For those that do, DRS offers several vocational employment programs. Among persons with brain injury who do return to work, the extent to which they stay employed varies as does their earnings.

---

## For Persons with TBI Who Can Work, Employment Rates Are Low

- Few academic studies have documented long-term employment rates and earnings of TBI survivors
- A study reported employment rates increase as time passes from the injury, but after 3 years only 42% of participants were employed
- DRS vocational rehabilitation programs result in successful employment about half the time

---

# Finding

- DRS staff are limited from providing comprehensive oversight of the State-funded service providers by resource constraints

---

## DRS Needs to Improve Program Oversight

- Staff resources limit ability to conduct program reviews of service providers
- DRS contracted for a series of program audits in 2004, but none have been conducted since despite substantial increases in funding
- Programmatic oversight is currently conducted through provider self-evaluations
- DRS is attempting to implement a case management reporting system to impose department oversight

---

## Recommendations

- At least two program evaluations of service providers should be conducted annually
- DRS should require service providers to submit copies of annual independent financial audits

---

# In This Presentation

- Background
- Access to Brain Injury Services Has Improved, But Remains Limited
- Brain-Injured Population Appears to Benefit from State-funded Services
- Identification of Brain Injury Survivors Needs Improvement
- Improving Access to Community-based Brain Injury Services

---

## TBIs Must Be Reported to Brain Injury Registry

- Reporting requirement enacted in 1984
- DRS defined types of head injuries that must be reported
- Hospitals must report name, age, place of residence, cause of injury within 30 days
- Hospitals report by completing reporting form or submitting data electronically

---

# Finding

- Brain injury registry is not collecting comprehensive information about TBI survivors
- Information and referral process is not producing desired results

---

# Not All TBIs Are Reported to Registry

- TBI may be misdiagnosed or overlooked
  - Because problems involve thinking and behavior, brain injuries are not always visible
  - Symptoms may not be apparent until weeks after injury
- Data compatibility problems have prevented at least two Level I Trauma hospitals from reporting

---

## Use of Brain Injury Information Is Limited

- Fewer than 2% of outreach mailers result in direct contact for additional information
- DRS does not obtain brain injury information collected by Statewide trauma registry
- DRS does not use registry information for planning purposes because of accuracy concerns

---

## Recommendations

- General Assembly may wish to consider requiring hospitals to report brain injury information to the Statewide trauma registry and VDH to provide such information to DRS
- General Assembly may wish to eliminate hospital reporting to the brain injury registry
- Work group consisting of staff from DRS, VDH, and brain and spinal cord injury stakeholders should be established to identify data that should be reported
- DRS should integrate the collected brain injury information into the department's program, policy, and fiscal planning

---

# In This Presentation

- Background
- Access to Brain Injury Services Has Improved, But Remains Limited
- Brain-Injured Population Appears to Benefit from State-funded Services
- Identification of Brain Injury Survivors Needs Improvement
- Improving Access to Community-Based Brain Injury Services

---

## Extent to Which Virginia Provides Brain Injury Services Is A Policy Choice

- Funding increases have resulted in significantly more people accessing services
- Unmet needs still exist across Virginia
- Without access to services, State may bear the cost of care in a skilled nursing facility or of incarceration
- If additional resources are available, State may wish to consider first addressing the needs of individuals with most severe impairments

---

## Services for Persons with Severe Neurobehavioral Issues Are Needed

- Annual proceeds deposited in the Commonwealth Neurotrauma Initiative Grant fund could be used
  - Fund produces about \$1.4 in revenues annually
  - Virginia Brain Injury Council estimates cost of treatment to be about \$172,000 per person per year
  - Could serve 8 persons for one year
- State could contract with residential facility offering intensive neurobehavioral treatment
  - Facilities already licensed by DMHMRSAS
  - State would not need to build a new facility or eliminate hospital beds available to the general public

---

# Potential Improvements to Virginia's Brain Injury Program

- Use additional State resources to address existing service needs
  - Increase number of case managers and reduce wait lists
  - Fund additional clubhouse/day programs around the State
  - Provide supportive or transitional housing and/or transportation opportunities to keep individuals integrated in their communities
  - Fund cognitive therapy services
- Use additional State and federal resources to enable severely disabled persons to remain in their communities
  - Increase funding for personal assistance care
  - Fund respite care for family and caregivers

---

## Some Funding Options Exist to Address Unmet Needs

- Provide additional State resources to Virginia's brain injury program
- Fund a Medicaid brain injury waiver
  - State can provide services under Medicaid to selected population
  - Non-medical services can be provided, such as behavioral intervention and transitional and supported living
  - 24 other states operate specific TBI waivers
  - 50-50 State-federal funding match
- Increase funding and expand services offered under existing waiver
  - Target segment of population with brain injury
  - Develop list of brain injury services to address certain needs
  - Drawdown equal amount of federal matching funds

---

## Key Findings

- Increases in State funding have led to more brain-injured individuals accessing community-based services
- Unmet needs still exist throughout the State and waiting lists limit access to services
- Hospitals should be required to provide brain injury information to the statewide trauma registry and the current information and referral function should be eliminated
- Tens of thousands of persons with brain injury have neurobehavioral disorders but only 20 beds are available for the costly and intensive treatment needed
- If additional resources are available, the State may want to first address needs of those with most severe impairments

---

## **JLARC Staff for This Report**

Hal E. Greer, Division Chief

Eric H. Messick, Team Leader

Jamie S. Bitz

Pinki Shah

## **For More Information**

<http://jlarc.state.va.us>      (804) 786-1258

Copies of these slides are available on our website  
and on the table by the door.

