

Traumatic Brain Injury/ National Association of State Head Injury Administrators
Using a Team Approach to Employment for People with Traumatic Brain Injury

May 19, 2005

KIM GRAVES: Welcome to our webcast on "Using a Team Approach to Employment for People with Traumatic Brain Injury". My name is Kim Graves and I'm a field manager with the Virginia Department of Rehabilitative Services. Today, we'll be discussing the impact of traumatic brain injury on an individual's ability to get and keep a job. The federal/state vocational rehab program is the largest provider of employment services for people with brain injury. Although we'll be presenting primarily on the perspective of the state vocational rehabilitation process, the information is intended to be of benefit to private rehabilitation providers, case managers, and other professionals who work with people with brain injury. We also understand that some of the services we'll discuss today may not be available in your community. We're very pleased to have Shane Wise with us, who is an employee who received employment services and is now working successfully, and we look forward to hearing his perspective, as well. In keeping with our topic of a team approach to providing employment services for people with traumatic brain injury, we've invited many of the key players of the employment support team to present today. Keep in mind that a team is individualized for each person and may be different for different people. We'll identify the major issues encountered in helping people with brain injury return to work and we will also provide helpful strategies and lessons learned from our team members.

Before we start the presentation we have some instructions. Slides will appear in the central window and should advance automatically. The slide changes are synchronized with the speakers' presentations. You do not need to do anything to advance the slides. You may need to adjust the timing of the slide changes to match the audio by using the slide delay control at the top of the messaging window. On the left of the interface is the video window. You can adjust the volume of the audio using the volume control slider, which you can access by clicking on the loudspeaker icon. Those of you who selected "accessibility features" when you registered will see text captioning underneath the video window. We highly encourage you to ask the speakers questions at any time during the presentation.

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The first part of the webcast will be a presentation by neuropsychologist David Hebda, followed by brief presentations by various members of the employment support team. Let me begin quickly by introducing our panel members. Dr. David Hebda. You want to

wave? He's a neuropsychologist whose practice specializes in working with people with traumatic brain injury. He's been in northern Virginia area since 1987. He's worked on the brain injury rehabilitation units at Mount Vernon hospital, Waynesboro hospital, Winchester Hospital, and Learning Center and consulted with Brain Injury Services, Incorporated for years. He's now in private practice and performs evaluations for the (VA) Department of Rehabilitative Services clients on a weekly basis. His list of publications and presentations were far too long for me to address today. Next, we have Susan Rudolph. Susan has been a registered nurse for over 20 years and a certified case manager for over 15 years. Susan has specialized in working with individuals with acquired brain injury for over 15 years in the field of case management. She has been the director of program services at Brain Injury Services, Inc., a non-profit organization in northern Virginia for over ten years. Prior to this she worked in hospitals, private rehabilitation and community based rehab centers.

Carolyn Price is an employment specialist with St. John Community Services. As an employment specialist, she supports individuals with traumatic brain injuries and other disabilities in securing competitive employment. She also has worked as a life skills trainer assisting individuals who have suffered traumatic brain injury with acquiring adequate daily living skills; and she's worked in the field for over ten years. Our next panel member is Sheli Sotiropoulos. Sheli began her voc rehab career in 1989 as a supported employment counselor with the Virginia Department of Rehabilitative Services. During the 1990's, designated as the Decade of the Brain, many training opportunities were available to professionals working with persons who suffered

traumatic brain injury and Sheli took advantage of a chance to specialize in working with this population of DRS's clientele. She has a master's degree in social work from VCU and a master's of cognitive rehabilitation and special education from George Washington University. During the past 16 years at DRS, Sheli has worked as a placement counselor for persons with traumatic brain injury and severe physical disabilities; and on three occasions has carried a caseload as a general counselor during the extended staff vacancies given her knowledge of basic voc rehab process; case management; as well as job placement, brain injury consultation to the counselors, and job salvaging for those at risk of losing established jobs. She served on a committee devoted to issues affecting people with traumatic brain injury and their families, and been a presenter at many workshops on ways of addressing return to work and quality of life issues.

And, our final presenter is Shane Wise. Shane is a mail room clerk with the U.S. Department of Education where he has been employment for almost three years. Shane experienced hydrocephalus as a baby and received special education services to accommodate learning disabilities. He graduated high school and received school to work transition services via Arlington county public schools through which he gained office clerical skills at several volunteer and paid internships during and after high school. Shane was referred by his transition coordinator for services from DRS in 1999, receiving excellent case coordination by DRS's counselor Lisa Snodgrass, who referred him to a variety of services which led to his present job. Shane desired a career with the federal government. He's been very happy to be earning an income and successfully

contributing to his department with the support of follow-along job coaching on a monthly basis and a long term follow-along status.

Again, I'm Kim Graves, currently the manager of a field office for the Virginia Department of Rehabilitation Services. Prior to that, I was a counselor for eight years during which time I had a specialized caseload serving people with brain injury. I have an MS in rehab counseling and I'm a Certified Rehab Counselor. Welcome to the panel. Thank you all for being here today. And we'll begin with a presentation by Dr. Hebda and I'll hand it over to you.

DR. DAVID HEBDA: Thank you, Kim. And thanks to all of you who are watching today. I'm going to begin with discussing the relevance of this topic for vocational rehabilitation counselors. Traumatic brain injury has been referred to as the "silent epidemic". It is the most common disability that no one seems to know about. In fact, it's quite common as this first slide will show. It's ten times more common than cerebral palsy, and 25 times more common than spinal cord injuries. So, during the course of your work, you're quite likely to encounter numerous clients with traumatic brain injury. As you can see from this next slide, the number of individuals who suffer a traumatic brain injury range as high as three million people per year in the United States. This is an estimate because the majority of people with injuries are either discharged from the emergency room or never seek medical attention. As you can see, fewer than 1/6 are hospitalized even overnight. Most assume everything will be fine -- they'll be back to normal after a few

days. Now, part of this assumption is due to some myths that we carry around in our society.

First of all, the Hollywood myth that we've seen on television and in movies over the last 50 years or so, which shows us that conks on the head are insignificant. People lose consciousness and resume what they were doing. This does not happen. This isn't true. Even a mild brain injury can have significant serious neurobehavioral consequences. Even with a relatively mild concussion about -- up to 25% to 30% of people are not able to resume work even a year after their injury, which is a pretty high number. The second assumption we have is that people need to have actually suffered a loss of consciousness to have a brain injury. In fact, it's quite possible to have a significant brain injury, but never lose consciousness. Many so-called "whiplash" injuries or sports injuries like "quarterback sacks" or hockey collisions also produce injuries to the brain via rapid acceleration/deceleration forces-- the so-called sheer-strain injury. The brain, you need to remember, is about the consistency of Jello.

The third assumption is that the effects of a mild brain injury are temporary and recovery is complete. I guess that's two assumptions, but in any case, neither of them is true. As we know, the brain is comprised of nerve tissue. As we know from our clients with spinal cord injuries, nerve cells do not regenerate after childhood. The implication of this is that any trauma which affects the brain at the cellular level, that is, any injury significant enough to produce symptoms, produces some permanent effects. This is not to say that people don't improve after injury --- certainly most do. But, the brain itself is incapable of

healing damaged neurons past childhood. There will always be some residual effects. Recovery is never 100%. So we call it the “silent epidemic.” Society doesn't realize the extent of these injuries. They tend to minimize the effects. And often the person with the injury will, as well. Too often, however, these people fail at their jobs -- they never even relate their problems to an injury. And these often are the ones who end up in your laps in the vocational rehabilitation system. So, it's imperative that counselors identify the problem and make a referral for a more definitive diagnosis.

The peak age for traumatic brain injury is the time of life when most of us are beginning our careers in late adolescence, early adulthood, but certainly they can occur any time. What I'm going to review first is a brief outline of brain functions and I want to emphasize some common problems you may run into with your clients. First, let's take a look at the brain from the bottom up. First the brain stem: brain stem is at the bottom or the base of the brain. It is where the spinal cord enters the brain. The brain stem is responsible for those basic systems which support life itself: consciousness, attention, arousal, heart rate, breathing, blood pressure, swallowing. These are all very basic processes. The brain stem is very susceptible to the effects of intracranial pressure. When the brain is injured and swells, there is nowhere within the rigid frame of the skull for the pressure to go, except downwards. It puts pressure on the brain stem and that's what results in prolonged loss of consciousness, coma and, if there is herniation to the brain stem, even death.

Now, moving upwards, next, I want to talk about the emotional center of the brain, which is the limbic system. The limbic system is very well protected. It is in the deep structures of the brain. The limbic system is where the emotions reside. It is very well developed at birth. It is where anger, rage, pain, happiness, where the emotions tend to reside. The limbic system is not typically affected by a mild brain injury. What is significant is that the limbic system is regulated by the cortex -- the outer part of the brain. And, cortical injuries will tend to have a disinhibiting effect on the limbic system. We talk about the regressive effects of brain injuries where the emotions tend to come out more easily. Emotions are perceived more intensely after a brain injury and, as we know, intense emotions are more likely to manifest in behavior. This is a significant issue for all of us, since behavioral and emotional problems are the single most disqualifying aspects of traumatic brain injuries.

Finally, I want to talk about the cortex. It's the outer bark of the brain. It is the intelligent, rational part of the brain. It is particularly susceptible to injuries. The cortex is responsible for taking in all sensory information and acting on it. It also manages our emotions. It keeps the limbic system in check. The cortex is not considered to be fully developed until maybe the early to mid 20s, maybe a little later in males. (No offense, Shane.) But again, the significance is that by the time the cortex is developed we're considered to have pretty good control over our emotions to the point where we are considered able to live independent, rational lifestyles. So, from bottom to top we look at more primitive life sustaining functions in the brain to more sophisticated functions, more intelligent behaviors in the cortex.

The second important aspect of the brain I would like to talk about has to do with the two hemispheres of the brain. As we know, there are two sides to the brain; two halves, two hemispheres. Essentially, there are two brains in our head. The left hemisphere and the right hemisphere, but they each have very different functions, which has significance for what we do. For instance, the left hemisphere of the brain controls the right side of the body. It controls the right arm, the right leg, the right visual field in both eyes. But, the left hemisphere also is the part of the brain that processes language. That's where we -- when we speak, that's where reading is, that's where the vocabulary is, receptive language. So that's the language centers, Broca's area, Wernicke's area are on the left hemisphere of the brain. The left hemisphere of the brain also thinks in terms of language. It tends to be very detail oriented in how it thinks -- very analytical, very sequential -- very detail oriented -- more logical, perhaps.

The left hemisphere tends to see the trees, although it may sometimes miss the forest. And in male brains, it is slightly larger than the right hemisphere, which accounts for some maybe typical male behaviors. The right hemisphere of the brain has a very different set of functions. It controls the left side of the body. It is the non-verbal hemisphere of the brain. -- more visual/spatial. The right hemisphere of the brain tends to see the big picture of things. That's where synthesis occurs, seeing overall patterns of things. The right hemisphere is the part of the brain that gets the point. It sees the forest, the overall picture -- may not pick up on a lot of the details. It mediates our ability to read non-verbal cues in relationships to get an idea of how other people might be

thinking of us. It gives us our social perspective taking skills. Some people say that's where self-awareness resides in the right hemisphere of the brain.

Now, the point to all of this to talk about the hemispheres is that people with injuries to one hemisphere or the other will have different presentations, which has a great significance for vocational placement. For instance, the rule of thumb is that left hemisphere injuries, people with left hemisphere injuries, tend to look fairly debilitated. They can't speak very well. They may not understand what you're telling them, they may be aphasic. They have little use of the right side of their bodies. They look bad, but function well in society because they have that intact right hemisphere. They get the point, they understand what you mean by things. They're very good at reading non-verbal cues. And, they tend to be quite successful in occupational settings despite their language impairments. They do well interpersonally. People like them. They also tend to be acutely aware of their deficits. Again, that good right hemisphere and therefore may tend to have more of a catastrophic reaction to their injury or perhaps their stroke. And the key to the people with those kinds of injuries to the left hemisphere is to have a much more supportive work environment.

On the other hand, you have another type of deceptive presentation, the person with a right hemisphere injury -- the injury to the non-verbal side of the brain. These people are also deceptive in that they look pretty good. They can carry on a conversation. They know what you're saying, they talk fluently -- sometimes too fluently. Their speech tends to be somewhat tangential -- they tend to talk a good game but miss the big picture.

They don't get the point of things. They focus on details and tend not to see the larger significance of things. They tend to have poor intuition, they have a lack of awareness of deficits. So, whenever they run into problems, they find other culprits to take responsibility. So, again their presentation is deceptive because they look good in normal conversation, but in fact, they have significant problems interpersonally in the work environment. They miss a lot of that non-verbal information that is so essential to relationships, to getting along with our peers and that would also include our families. The point is to be aware if there are hemispheric differences in an injury, to be aware of that and to be able to anticipate the kind of behaviors you're likely to see. They won't function quite so well and they need a lot of very direct, detailed confrontation. OK. Finally I'm going to look at the four lobes of the cortex. These are kind of different areas in our brain.

If we can move to the next slide which talks about the occipital lobes, the occipital lobes are in the back of the brain. That is where vision is mediated and visual information is processed. On the sides of the brain -- the sides of the cortex -- are the parietal lobes. The parietal lobes integrate information from our senses. The sense of touch, it also kind of coordinates all the information coming into the senses and gives us our sense of perceptions, experiences and is also responsible for praxis which is skilled motor activity. The temporal lobes are tucked below frontal lobes are responsible for the sense of hearing and the ability to learn and remember new information.

Finally, the front of the brain, the frontal lobes. -- The frontal lobes of the brain are responsible for actions, for all behavioral plans. The frontal lobes make decisions, they make plans, and they are responsible for initiating all purposeful activity. We call this executive functions: setting goals, making plans, initiating and following through on tasks. Our frontal lobes do this all the time every waking moment. So it is a very dynamic process involving the four lobes of the brain. The frontal lobes are the most highly developed parts of the brain in human beings -- really the parts of the brain that differentiate us from all of the other creatures that make us rational thinking, purposeful creatures as opposed to creatures who act on immediate impulse or immediate needs. The frontal lobes, again, are the last part of the brain to develop not reaching full maturity until sometime in the 20s -- much later in some of us. In any case -- I want to spend a little bit of time talking about two general types of brain injuries we're likely to run across.

First of all, focal brain injuries. -- These are much more specific injuries, more likely to be seen in individuals who have suffered strokes or cerebral vascular accidents or penetrating injuries, such as a gunshot wound, perhaps tumors or even surgical operations on a specific part of the brain. A focal injury will result in focal problems. For instance, a focal injury to the back of the brain may result in will result in visual problems. For example, cortical blindness, nothing wrong with the eyes or visual pathways the brain is unable to interpret what that information means, and so we can't see. We can also have -- if the injury is hemispheric -- we will have what are called visual field cuts where we lose all the vision on one side, say on the left side, if the right

occipital lobe is damaged or on the right side. Essentially we have a huge 180 degree blind spot over here -- or would it be 90 degrees? You know what I mean. So, again occipital lobe injuries will result in visual impairments. Parietal lobe stroke or injury will result in something called apraxia or dyspraxia, the inability to integrate information from the senses. We may not understand how to use objects. We may not understand how to engage in skilled motor activities. People with dyspraxia, for instance, may not be able to dress. They can't figure out how to get the hand through the sleeve or the overall perception of things. They can't tie their shoes, may not be able to tie a tie, use scissors, skilled motor movements. The temporal lobe injuries, that is very susceptible to oxygen deprivation. So, if there are, for instance, any prolonged loss of blood supply to the brain you'll have a temporal lobe injury or ingestion of carbon monoxide. Prolonged alcoholism affects the temporal lobe. When you have temporal lobe injuries the hallmark there is an impairment in memory functions. By memory, I don't mean retrieval of information, we already know, I mean the ability to learn and remember new information -- which again, very critical in going into a new job. And finally, the frontal lobe injury. People with frontal lobe injuries have much difficulty with executive functions: forming goals, making plans, initiating purposeful activities. So they may tend more to engage in stimulus-bound behaviors. If you ask them to do something, to go a movie or something they'll do it, but the initiation needs to come from somewhere else. And, impaired emotional management -- they tend to be much more emotional. Tend to experience more impulsive behaviors. They do what feels good, or on the other hand, you might be people who are quite passive, never initiate anything.

Now, what we're more likely to see is the diffuse brain injury. If we can move along to that slide -- thank you. With a diffuse injury, again, we tend to see these in concussions, blows to the head. We see a variety of symptoms. Keep in mind the frontal and temporal lobes are particularly susceptible to concussive injuries. So the rule is that concussions will produce problems in the temporal lobe, which is memory, and the frontal lobe, which is self-regulation. Those are more the rule than the exception. The diffuse injury affects many parts of the brain. We see a variety of symptoms and again we're more likely to see this in our practice. For instance, concussive injuries or diffuse injuries can produce somatic or physical symptoms: headaches; dizziness, particularly early after an injury; drowsiness; increased experience of pain and any type of emotion. A diffuse injury will produce a variety of cognitive deficits. Amnesia, very seldom to people with injuries remember the details, which is why Post Traumatic Stress Disorder is not common in people with a prolonged loss of consciousness. Diffuse injury will produce short-term memory loss, general confusion, another hallmark of a diffuse injury, is cognitive slowing. The person thinks, responds to information more slowly, short attention span, distractibility and cognitive fatigue.

The individual may tend to tire quickly when engaged in cognitive tasks such as psychological testing, for instance. Emotional deficits we're likely to see: agitation, irritability, or the other extreme, apathy, depression, or even sometimes we're likely to see emotional lability, which is wild mood swings from moment to moment than we're more likely to see. Diffuse injuries produce a variety of psycho social deficits. These people tend to have more of a confrontational attitude, may be more impatient. Their

temper may at times be explosive particularly if there were previous problems with anger. They may tend to be thoughtless, may tend to be egocentric believing that in a sense that the world revolves around them particularly with a right frontal lobe injury, inability to take perspective knowing how you feel about them. So, the implications of even mild injuries are these people are very often disqualified from obtaining a job or returning to a job. They develop, therefore, increased psychiatric symptoms and enter the psychiatric system, which is poorly prepared to handle them.

It is essential for vocational rehabilitation counselors to be able to identify people with traumatic brain injury, even mild ones. If there is reason to suspect an injury to the brain, refer them for a neuropsychological evaluation in order to optimize their chances to succeed occupationally. Now, this brings us to my favorite topic, the neuropsychological evaluation, which is -- or at least should be -- the best way to translate the brain injury into its functional terms. How does the injury actually affect this person's ability to return to work? Now, what can the vocational rehabilitation counselor do? As I mentioned first, counselors need to routinely screen for an injury. During the intake, ask, "Was there any history in your life of head trauma? Was there any loss of consciousness? Did you experience any problems immediately afterwards -- nausea, vomiting, dizziness, headaches, memory loss, learning problems, etc." If any of these criteria is met this is a red a flag and neuropsychological testing should be considered. Most importantly are you still having problems in those areas? Now, for your information, the appropriate DSM-IV diagnosis for a mild brain injury is 294.9, cognitive disorder not otherwise specified.

But, if you look more carefully in the DSM-IV back in appendix B, which are criteria sets and axis for further study, they give you a synopsis of what to expect after a concussion. They give you specific criteria to look for individuals who sustain a concussive injury. You can read through those yourself in the DSM-IV. Again, it gives you very good information and if people meet these criteria the appropriate diagnosis is “cognitive disorder not otherwise specified.” Hopefully DSM-V will have concussion disorder as a bona fide syndrome in and of itself. Now, the last thing I want to talk about are what I consider to be the six most important things vocational rehabilitation counselors need to know from a neuropsychological evaluation. We can probably skip through that slide. Thank you. Again, as I mentioned a good neuropsychological evaluation should translate the effects of an injury into practical, functional, behavioral terms. It should identify specific strengths and weaknesses and make recommendations for the rehabilitation counselor for treatment, management or accommodations.

The first thing we need to do is differentiate problems associated with a brain injury from pre-morbid characteristics, which are less amenable to treatment. Insist on a comprehensive social and medical history. Is there a presence of mental retardation before injury, learning disabilities, attention deficit disorder, special education, OK? Insist on a comprehensive history. We don't do neuropsychological evaluations in a vacuum or we shouldn't. Number two; insist on obtaining the full scale I.Q. score. This gives you the level of intellectual functioning. It's the single best predictor of the appropriate level of occupational placement. Doesn't tell you what type of job to put the

person in but tells you at what level he or she is more likely to be successful. Below 70, you're looking at sheltered, enclave, highly supervised work environment. 70 to 79 you're looking at borderline intellectual functioning. These people need significant support. Between 80 and 89 are people with low average intellectual abilities. They'll probably need some support in the workplace. You're looking at people who generally don't have high school educations in the general population and 90 and above, you're looking at competitive employment. So again, insist on obtaining a full scale I.Q. score. It gives you a great idea of what level of occupational placement to consider.

Number three; look at hemispheric differences in the neuropsychological evaluation. Are there left hemisphere strengths as opposed to right hemisphere strengths? This gives us essential information not only on the type of job paths the person needs to be involved in. Should it be involved in verbal tasks for non-verbal tasks, essential information. Also, as we saw, it gives us a lot of information about what to expect behaviorally and really how much support we're going to need into the workplace. So if we have this kind of information, we can set up strategies going in and we're not as likely to call Sheli in to do a job save any time too soon. The best way to look at hemispheric differences, by the way, is to look at the verbal I.Q. score as opposed to nonverbal I.Q. score-- a 10 point difference is strongly -- is a real difference, strongly suggestive of hemispheric differences. Beyond ten points the greater the difference. A 10 point difference between verbal and nonverbal I.Q. is reason for concern.

Number four; memory skills. What is this person's ability for new learning? Again we aren't looking at the ability to remember information prior to the injury. But this has

implications for somebody's ability to learn new job tasks: If there were significant memory impairments, which may not be obvious during the intake or the interview, but only obvious during testing; if there are significant memory impairments, then we will need to consider significant accommodations or compensatory strategies in the workplace or we may have to have the person work at a job that involves information he or she has already known using old learned skills. Insist on a comprehensive standardized memory test -- the Wechsler scales or the memory assessment scales. The standard scores they give you should be comparable to IQ scores. If not, we need to make some other accommodations.

Number five, we need to screen for mental health and behavioral issues. Again, these are very significant problems in the workplace. We can accommodate cognitive and physical problems, but people who can't manage themselves will create tremendous problems in the return to work. So ask for specific multi-axial DSM-IV diagnoses in the neuropsych. eval. Is there depression, anxiety, anger management problems? Insist on a comprehensive personality evaluation. The standards are the M.M.P.I. or my preference is P.A.I -- it's much shorter, written at a more basic level and gives you a tremendous amount of information.

Finally, insist on treatment recommendations. I can't tell you how many neuropsych. evaluations I've seen that stop without making any recommendations. Insist on these. You need to know what of these problems, which is treatable? Which would be helped by medication? For instance, attention problems, speed, mood, memory -- there are

medications that will help with all of these. What can benefit from therapy? OK? Insist on treatment recommendations. What is treatable, what problems will require the use of compensatory strategies: visual reminders, schedules, beeping watches. Usually, compensatory strategies are used for memory problems. But a variety of compensatory strategies are out there to help the person compensate for specific problems. Ask for those.

Finally, we're looking for accommodation. If a problem is not treatable to overcome the problem, we need to look for accommodations which are changes made in the work environment to accommodate a particular deficit. Accommodations generally are useful for problems with attention, for instance information may need to be presented more slowly, or for speed. The person may do a good job, but may need extra time to do things. Or, accommodations for memory. If the person has impaired verbal memory, maybe we need to use visual modalities to teach. So, instead of just telling somebody how to do something -- tell them, show them, and, then, watch them do it, OK? -- a variety of accommodations. Now, there is no standard format for the neuropsychological evaluation, as I'm sure you've come to realize. There are thousands of tests out there, there is a variety of writing styles and a variety in terms of the amount of information provided. But if done properly, the neuropsychological evaluation can be a tremendous asset and time saver to the vocational rehabilitation counselor. Insist on obtaining information which is useful to you, such as the six issues I've listed. And also, a good neuropsychological evaluation should be readable. You are educated people. You should not feel intimidated by these reports. If you do, it's the writer's fault, not yours.

Too much jargon: give feedback to the psychologist. Insist on legible, useful reports. If we don't get feedback from you, we just keep on doing what we've been doing. That's about all I have to say. Thank you for listening and I'm going to turn it back over to Kim.

KIM GRAVES: Thank you. We've had a few questions come in so if you don't mind taking a couple minutes.

DR. DAVID HEBDA: Fire away.

KIM GRAVES: OK. Our first one is a concern regarding what you mentioned about the correlation of I.Q. and successful job placement. Some folks with high I.Q.s have significant functional limitations, can you talk a little about that?

DR. DAVID HEBDA: Well, an I.Q. score tends to be fairly robust, particularly with diffuse injuries, particularly with mild injuries. An I.Q. score will be relatively stable with mild injuries. That isn't to say there won't be some other problems. The beauty of the I.Q. score is that it kind of sets the baseline. Somebody with a 126 I.Q. score may have a memory test score of 90. That's average, no problem here. That's why you need the full scale I.Q. score. This is 30 some points lower. This person has a memory problem. So, there can be certainly some very specific problems in somebody who has a pretty solid I.Q. score. That's why you do a variety of tests and why the I.Q. score should be included.

KIM GRAVES: OK. I guess this is a follow-up question. It comes from Missouri. What are you -- when you talk about appropriate placement based on I.Q., I think we struck a nerve there, what do you base this on? For example, you mentioned if someone has an I.Q. below 70, then likely they should be placed in an enclave or sheltered workshop setting.

DR. DAVID HEBDA: The I.Q. tests, particularly the Wechsler intelligence scales and the Stanford-Benet, are the most well-researched and well-studied tests available and they were originally designed as predictors of academic success. Somebody with an I.Q. score below 70 is unlikely to be successful in competitive academic tasks. The intuitive leap over here that I make is that they're more -- they're likely to be very unsuccessful in competitive occupational tasks as well. So, again, very well researched tests and, again, they don't predict the type of job as much as the level -- at high school level, college level, 110, beyond that. Vocational rehabilitation counselors, 120 and above, at least. (joke)

KIM GRAVES: OK. Then a follow-up question to that is when you write your report, do you make such explicit recommendations in your evaluations based on I.Q.

DR. DAVID HEBDA: I probably make one recommendation based on I.Q. And that is this person's intellectual abilities are at a level to support competitive employment. The I.Q. is 90 or above. This person's intellectual abilities are at a level typically seen in

enclave settings. I make one recommendation based on I.Q. and then the rest of my recommendations are based on the specific problem areas that I find. If there are speed problems, we need to do this. If memory problems, we need to do this. I'm much more interested on the specific problems that I find. I.Q. sets the level of employment, but I'm more interested in how can we overcome these specific problems and why we do a lot of other tests.

KIM GRAVES: I agree. When we reviewed evaluations together we look at the I.Q. but it doesn't become the focus.

DR. DAVID HEBDA: No. It is only part of the test. An important part.

KIM GRAVES: OK. Another question, this one from Alaska. It says we do not have access to many neuropsychologists. Can you recommend any tools or tests that clinicians may use to identify information that might come from a neuropsychological eval.?

DR. DAVID HEBDA: Well, my recommendation is, you know, again, do a careful intake. Get information that gives you a very good history of whether there was an injury or not. But, if I were you, I would at least try to identify a psychologist who has access to some basic instruments. I think the more of this work you can have done by somebody who has some expertise with instruments, the more time you'll save. I feel that's basically what I do. I do my tests. I might save Sheli or Kim trial and error by putting people in

jobs they aren't ready for. I would hate to see our Alaska brethren be doing this all the time. If there were a quick and dirty way to do this, I would be out of a job so I'm not too inclined to -- I really don't know of such information. But, I would go with what you have, the intake. At the same time, I would find a psychologist who is trainable. I know, they trained me to do the kind of tests that they need to have done and I would recommend you do that as well.

KIM GRAVES: Thanks. Any other questions we've gotten? We're running short on time. We'll post them on the website along with answers. Now, we'll move on to the panel presentation. The purpose of this presentation is to talk about, again, the team approach, the roles of the team members and the benefits of bringing all these people together to serve people with brain injury to help them secure and maintain employment. Before we begin the panel discussion, I'm going to provide just a very brief overview of the vocational rehabilitation process and then talk a little bit about the benefits of the team approach when serving people with brain injury.

So, OK, you may hear us use the acronym "DRS", that's the Department of Rehabilitative Services, the title that the state voc rehab goes under in Virginia just to let you know. When you hear DRS, just plug in voc rehab in general in your brain and you'll know what we're talking about. Vocational rehabilitation, and the Department of Rehab Services, is a state agency. Majority of our funding comes from the federal government and we fall under the Rehabilitation Services Administration, which is the federal agency that pretty much gives us our policy and procedures to follow. Every state has a voc

rehab program, no matter where you live, voc rehab will be available to you in every state.

On the next slide we talk about eligibility. We are an eligibility program. People have to meet certain criteria to receive services with us. Our eligibility are that you first have to be legally eligible to work in the United States, You have to have a documented disability, and that disability has to have prevented you from getting or keeping a job.

If we can go on to the next slide -- If someone is receiving Social Security benefits, then they're presumed to have – met those first criteria. Also, the DRS counselor has to reasonably believe that with voc rehab services the person will be successful in securing and maintaining employment. And, basically, that's our eligibility criteria in a nutshell. Once a counselor has determined eligibility, we'll work with the consumer to determine what is an appropriate vocational goal for that person based on their strengths and their interests and also, areas of weakness. Once a goal has been determined, then the counselor and the consumer will put together an individualized plan for employment or I.P.E. where they decide what services that person will need to be successful. The types of services that DRS or voc. rehab can provide are assessments to help determine eligibility, or to help determine a vocational goal. Again, once the goal is established, and a plan is written, the services on the plan could provide any number of things to include job placement services, follow-along services, training, rehab engineering, assistive technology and, of course, job coaching services that we'll talk about today. So, once a person has been stably emotion employed -- it

could take a day or a year-- once someone has been stable on the job for 90 days, generally voc rehab services will end and the case is closed. Here in Virginia, our state legislature has put together some funding that can be used to provide follow-along services long-term ongoing follow-along services using state funds. And, so that is available here.

Now I'm going to talk just a little bit about the team approach and how I found that useful when I was a counselor serving people with brain injury. When you're working with a person with a brain injury, what I found is I had to alter how I provided voc rehab services to that person. Having the support and the expertise and the input of a team made me more successful in what I do and I think led to more success for my consumers. I think the team approach is particularly necessary for VR counselors who carry general caseloads, because of the symptoms of the brain injury. Persons with brain injury often present in ways that are easily misunderstood by the voc rehab counselor. A lot of the folks I work with struggled with organizational skills and would oftentimes miss appointments with me, with other team members, other service providers. Inertia made it difficult for some of my consumers to follow through with services and depending on the location of the injury. Some of my consumers presented as quite high functioning, but their cases didn't seem to progress. All of these behaviors can really easily be misinterpreted by the voc rehab counselor as a lack of interest, lack of motivation, lack of readiness to return to work, and sometimes cases were closed prematurely because of that. These were symptoms of the disability that could be accommodated with some compensatory strategies.

One of the other things I learned when serving folks with disability -- with brain injuries -- is that oftentimes I had to allow more time for each service to be completed in order to get a real feel for the capabilities of the person. For example, when we do situational assessments with job coaches where a job coach will take a consumer into the field to let them try out a job, for the general population of folks we serve, each assessment might last three to four hours. Sometimes when working with a person with a brain injury, you may need to spread that out to two or three days. If you don't allow them enough time (the person with the brain injury enough time) the results that you get may be more negative than what truly reflects that person's abilities.

Another issue that often came up with us serving people with brain injuries was fatigue. If you're working with a consumer, what you need to keep in mind is oftentimes their level of energy could be quite limited. So if they have other issues going on in their lives such as medical problems, housing issues, family issues, they may be using all their energy to deal with those issues and really can't participate in VR services at that time. If you have a team that is working with you and that team involves people like a case manager, family members, job coaches, placement specialists, a neuropsychologist and a consumer, you can have a better grasp of what is really going on in all aspects of their lives and, then, you have a better idea of when you may need to pull back on VR services or when to pursue VR.

In working with people with brain injuries probably the biggest barrier that I've found for them successfully returning to work was their poor insight into how their injury affected their ability to perform on the job. I mentioned before in the voc rehab process that once someone is determined eligible for our services the consumer and the counselor have to agree on an appropriate goal. If the consumer has poor insight into their disability and how it might impact them on the job their goals may seem unrealistic to the VR counselor and could end up with a stalemate and the case really can't move forward. By using the team, the consumer gets supportive feedback from a variety of people who play different roles in their lives. Also, sometimes the best way to deal with poor insight is to put this person in a setting -- in an employment setting that may not be successful - - that it doesn't look like it's likely they'll be successful in the venture. It will allow them to see firsthand how their disability is impacting them on the job. If you have a team in place, you'll have this whole network of support that is there to get them through a real difficult time and also be there to help put together an alternative plan and where do we go next from here. Having the services of a case manager who specializes in brain injury was invaluable for me.

This was oftentimes the person who worked the most closely with the person and who that person trusted the most. And, generally folks have been working with a case manager prior to even being referred to voc rehab. Oftentimes, it is the brain injury case manager who makes the referral. By having this case manager involved in the process, again, since they have such a close relationship with the consumer, they can provide a lot of support to that consumer and the family, as well as information. The

neuropsychologist is also, I think, a key member to the team. I think that if a voc rehab counselor uses the neuropsychologist strictly for administering and interpreting and reviewing test results, they're really missing out. We oftentimes would have the neuropsychologist stay on the team for a while. That way, they were there to provide some ongoing expertise, insight into certain behaviors, what caused them, the best way to accommodate or compensate for certain behaviors or deficits.

In our area, we have neuropsychologists who also provide various groups for persons with brain injury -- some that focus on adjustment to disability, anger management, behavior management and also provide individual and couples or family therapy. So, I found it very useful to have the neuropsychologist continue at least in the very beginning of the voc rehab process to participate. Certainly having a job coach or placement specialist with background working with people with brain injury is very beneficial. Their understanding of this disability makes them better at advocating and educating employers. They're also better able to provide the consumer and their family with insight into employment issues that might come up and how best to handle them. If you're working with a job coach or a placement specialist that does not have specialized training in working with people with brain injury then the team is even more valuable because, again, other team members can bring in the expertise to the table. I think, finally, the team gives the consumer and the family clear information about who is doing what and why.

The consumer and family can contact anyone on the team and pretty much by meeting regularly anyone on the team can tell them what is happening, what the next step is and work on problem solving. I found that working with folks with brain injury and helping them return to work that their needs are pretty complicated and unique and, certainly, I couldn't have done it all on my own. By bringing in a team the counselor has the support and expertise they need to serve that consumer well. So, that's just a little bit of my experience as a counselor working with people with brain injury. Now, we'll go ahead and move on to the different team members so they can each talk about their role and we'll start with Susan Rudolph, who is with Brain Injury Systems, Inc.

SUSAN RUDOLPH: Good afternoon. I would like to start with defining the role of the case manager as a facilitator of the support team, and of the individual with the brain injury. Case management has been around a long time and has a lot of different meanings to different people. But, during the vocational process, I think it is really bringing everyone together and make sure we're working on goals that encompass the person's entire life so that we're solving for issues before they happen if we can -- and using a variety of people's brain functions to problem solve. One of the things that case managers do is that we address the pre-vocational issues that can affect a person's ability to return to work. Adjustment to the disability, family issues, where are they in the process of acceptance of grief and loss? We look at their housing, their socialization, where are they financially during this vocational process? Do they have the means to survive, to pay for housing, to buy their food, to get their clothing?

The support team in essence addresses all of the individual's life areas. There usually are a variety of people on the team. These people will be fluid and come in and out of the individual's life as they move through the process, so even as the vocational plan starts, the case manager may be bringing people in and out of the team process. The case management team facilitator, oftentimes the case managers ask to schedule the meetings, making sure that everybody is available and ready to be at the meeting at an appropriate time. It also works for the individual. Oftentimes, professionals want to have meetings during the daytime. We may need to push them to later in the afternoon so family members can be present. We want to make sure that tasks that are determined by the team are assigned out with target dates and that there is a reminder sent.

One of the most important roles of the case manager is to facilitate communication between team members and between the individual and their team members. Oftentimes, the case managers worked with the person with a brain injury and their families and sometimes right after injury. And they have a really good trusting relationship. So, often they'll communicate to the case manager issues, problems, concerns that they may not talk to a specific team member about. It is the case manager's responsibility then, to ensure the circle of communication is always completed. The case manager can also assist in identifying when a team member is no longer needed or new member should be brought on. This way we're really directing that resource management. Members of the support team, I think, the most important member of any support team, I think everyone would agree, is the recipient of services, the individual with the brain injury.

Another important member of the team is the family member or significant other, whoever the important person is in the individual's life who knows the insides and outsides of that person. They probably have seen them since the very beginning and they know what they can and cannot do. The vocational rehabilitation counselor, the neuropsychologist that Kim has already mentioned, the job coach -- someone overlooked is the social worker. Being able to draw in the social worker from whatever agency looking at what benefits are available to support the individual as they seek adjustment to their disability as they seek employment. There is that time in between that they may need public assistance. Another individual that is very helpful is the life skills trainer. If we don't have the home situation organized enough to facilitate employment, oftentimes the best laid plans will fail. We need to address the following problem: getting up on time, personal hygiene, appropriate dress, scheduling of appointments and being able to get to the appointments. Making sure you scheduled your transportation whether public and private in order to get there and get home. And, the ability to be able to take information from appointment books, physician appointments, vocational appointments, and make a task list and then be able to complete those tasks.

Learning some of those compensatory strategies prior to seeking employment often makes the employment process simpler and the outcome better. When we worked on teams together, one of the real positive people to be on our team is the employer. Once the individual has found employment or is returning to employment from pre-injury,

having the employer as part of the team providing education and support for the employer, and for the individual, helping to mediate and if they have multiple different people to go to has been very successful. We've been able to maintain employment on some individuals for many, many years despite some ups and downs. Sometimes you need to bring in the therapist -- maybe not at the beginning, but either a physical, occupation or speech therapist because you're finding a specific problem on the job that you feel can be rehabilitated and the person may be able to have a positive outcome.

Rehabilitation engineers really working on the accessibility of the job site and I never want to forget the physician, though not often able to bring to every team meeting, but being able to provide him information about what has been happening on the team and obtaining any restrictions from him, protocols. A lot of individuals with brain injuries have seizures. What is the protocol? Let's teach the employer prior to the person starting so that they are not frightened by an event that may happen. Finally, I really believe the case manager is -- turns the wheel of the team. Our job is to offer that individual that has had a brain injury and their family advice and counseling on working effectively with their team. Sometimes you may have an individual on the team and someone from the outside to effectively communicate your issues and help that person work through it so that they can get the best outcome. Another thing that the case manager can do is support the other members of the team. Sometimes working with certain individuals, whether with a disability or without a disability, can be frustrating. Sometimes with brain injury, because it's the brain injury itself that may lead to some frustration on the parts of team members. So, having and facilitating that it will be OK -- we're all working together

-- and having someone else to problem solve with keeps the momentum going and helps people from dropping off on the support team.

One of the things the case manager can also do, which I think has been very effective for all of our case managers, is to keep an accurate record of team meetings. We asked that people include the team members that were present, any discussions that were held during any of the meetings and then the plan with identified tasks on who was to complete what and at what time. Everybody gets a copy of these team notes every month so they can check off where they are and when you return to the meeting the next time, you're able to kind of go through and get done hopefully in less than an hour for any team meeting.

One of the other -- the last things that a case manager can do, assure that there is a clear plan and direction. The last thing that anyone wants to do is spin their wheels. If we make sure everyone is on the same page or at the same time frame and we're understanding where that individual is within the continuum, I think everybody on the support team's work will be well worthwhile. I'll turn it back over to Kim.

KIM GRAVES: Thanks, one of the things I didn't mention, either, is that when we work with a team and, in particular, when a case manager was involved, we tended to meet on a monthly basis and again, as Susan said, that really did keep roles very clear and it did keep the momentum going. So, I failed to mention that earlier. Before we move on, I want to make sure folks out there understand we do want you to continue sending in

questions for the panel, other questions for Dr. Hebda, who is actually part of the panel, too. We do want to continue to have your questions. We had just run out of time to continue to answer questions with Dr. Hebda. Any questions that are submitted that we don't get answered today, they will be on the website and we will address them at the end of the program. So please continue to send questions. Next we're going to hear from Sheli Sotiropoulos, who is a placement specialist with the Department of Rehab Services.

SHELI SOTIROPOULOS: Hello, welcome. I'm going to speak a little extemporaneously a bit on some challenges and pointers I could give for successful placement for people with brain injuries. I've been involved with people with brain injuries for the past 16 years and I have found that -- [inaudible] in various facets of working with someone who has had a brain injury whether it's traumatic or acquired. As Dr. Hebda laid out, some of the many different ways the brain can be affected by injury. And I think it's very valuable to have somebody on a team, whether it's the vocational rehab counselor or is a general caseload carrying counselor to have someone they can turn to that has some experience both with understanding the neuropsychological test results and also how to translate that into on-the-job functioning. We're very fortunate in Northern Virginia to have a vocational evaluator who has made a specific effort in getting specialized training in interpreting and providing testing instruments for the voc. eval. to hone in on the compensatory strategies and recommendations for people who have different kinds of limitations. So, the vocational evaluator is one of the first people I go to in terms of

reading their reports and understanding what the person's vocational strengths, needs and limitations are.

Brain injury covers such a wide spectrum and every individual is unique. So, really the most important person, as Susan was saying, is the person himself. What do they want to do? What dreams got squished when they had this life altering injury, surgery or stroke or whatever the cause was. Motivation is still important. As Dr. Hebda mentioned, there are certain categories of self-perception that go along with frontal lobe injuries, which is what we see so often from car accidents or sports injuries where the frontal lobe gets affected. And, often the person will come across as superficial contact as not having any kind of memory issues or learning struggles. So often the two kinds of profiles that a lot of folks will fall into one or the other would be for them to underestimate their abilities and doubt themselves and need a lot of reassurance. Or to overestimate themselves and have difficulty taking us seriously when we're trying to give them instruction and trying to help them understand how to best perform their job or help to be more efficient or help to respond to feedback from their employer or their co-workers. So, similarly the employers can fall into a couple of categories with how they interpret what they see from a person with a brain injury, particularly in the early stages of working with them.

On the one hand, employers may overestimate somebody who, like we said, might walk and talk in ways that aren't noticeable to have a struggle. Then, if the person has problems with memory and concentration or with sequencing of tasks, then the

employer might think they're being lazy or they are not taking responsibility for learning. They aren't motivated. Those labels can go along with the appearance, when the education that that employer needs is to see that with some prompting or repetition or with job coaching that some of those symptoms can be compensated for. And that it's not a deliberate passive-aggressive sort of behavior. And, sometimes people will get new tasks too soon, before they've had the chance to have real concrete learning of certain tasks. One of the strategies I use with people who have memory impairments is to ask the employer for a longer learning curve for the person to learn certain tasks and really master them before adding new tasks.

Through the 1990s, a lot of jobs became such that people who used to have specific roles are now doing a number of different roles: doing their own data entry, doing their own customer service or doing their own secretarial work. There used to be a more compartmentalized job tasks. Sometimes the person I'm working with may only be able to do or to master certain tasks and we will approach the employer and ask if the person with the brain injury can really have time to master certain tasks. If there are other staff that can perform some of the tasks to be learned later, that that will help the person with the brain injury to be more efficient at learning. Another piece that I think is so important is that sometimes people who do appear to have disabilities in their physical presentation, but may have very strong intellectual abilities, that can be a problem where that person might be really underestimated and in that case I've had some good luck in asking for what we call on-the-job training or unpaid work experience.

Both of those models of employment we're asking the employer to give the person sort of an internship where the person under OJT, the Department of Rehabilitative Services, agrees to pay half the salary to reimburse the employer for half of the salary for a period of time. Usually, I ask for three months, three to six months and then it is hoped that after that period of time the employee, the person with the brain injury, will have been recognized as a valuable part of the team and will be kept on as a regular employee in the competitive setting or with job coaching. But, that by DRS paying -- reimbursing part of the salary -- it is like a training or tuition of sorts. Another model that has helped me get people through the door sometimes with employers that are reluctant or unsure of what kind of support they can offer or what the person will need is the unpaid work experience. And, in that case, the DRS sets aside funds for an individual to receive a small stipend for expenses. It is not considered a wage, but, it gives the person a chance to work in a company. It doesn't cost the company or agency anything other than giving them supervision, giving them work at a pace in which they can learn and master and then grow and learn new tasks. Gives them a chance to be in the work environment and to get used to the expectations.

So, sometimes when I'm working with a person with a brain injury -- also the term brain injury scares employers off that have never had a loved one or a friend or a colleague that had a brain injury, or like Dr. Hebda mentioned they have the Hollywood concept and unrealistic about what to expect -- I don't lead the way with disclosing someone's disability with a brain injury when I'm marketing someone for a job. I will often, if they ask why does the person need your services, I'll refer to learning style, I will refer to the

kind of accommodations that they need versus explaining any personal information about the fact that they had a brain injury. What is relevant under the Americans With Disabilities Act as we know really is what would the person need in order to be able to meet the essential functions of the job. We try to approach it from that direction. Often a lot of creativity is needed in terms of asking employers to consider bringing someone on in a different -- instead of just in a cookie cutter fitting certain roles and certain expectations, but to have some flexibility. There is still room for describing to employers the fact that a person with a brain injury who really likes the job and is capable of the job may stick with the job they feel confident in and that they feel good about, whereas someone else might use it as a stepping stone and there may be a lot of turnover in some types of jobs. That's often a marketing plus. One of the things, I need to close shortly, but one of the things I found very valuable in helping me with job placement and with educating employers, a client years ago told me she is very articulate and she had tried her own job search and she had been hired again and again and then she would lose the job within a few months. I found when she was coming to see me for job search and job placement assistance, we -- she would come -- she would arrive in different conditions. Sometimes she'd be just really spacey and tangential in her thinking and sometimes as sharp as a tack.

Before my brain injury if I had 100 units of energy, abstract units of energy, after my brain injury maybe I have 50 and then if I get up in the morning and I can't find the cereal, or if something I chose to wear is dirty, that will throw me off so much that I might not have any more than 10 or 20 units of energy for the whole rest of the day.

And, so for that, that really showed me a lot. Over the years I've seen that play out again and again. An example that I use is, if somebody is learning something new or they're starting a new job, to often relieve them of having to use so many units of energy by doing more for them upfront as they master what is most important at the time. Shane, we work together very successfully. You'll be hearing from him shortly. I think he can describe also how it is helpful to have somebody helping you learn the transportation, so it's one less thing on your plate as you're trying to learn the names of your co-workers and all the different steps of your new job. The long-term follow-up is really important. I do a lot of job salvaging, about six or seven of my clients per year are job salvage and often it's when a supervisor that knew the person, knew their style, knew the accommodations and respected their work. When that supervisor gets transferred or moved to another agency, the new supervisor often comes in and starts to react and respond in ways that aren't productive and don't recognize the value of that person. So, sometimes reeducating as new supervisors come in is so important. So, there is always more to say and if anybody has specific questions, I would be happy to answer them through the website. Thank you.

KIM GRAVES: Thank you, Sheli. Next we're going to hear from Carolyn Price. And Carolyn is a job coach with St. John's Community Services and they're a local supported employment vendor for voc rehab.

CAROLYN PRICE: Good evening. I will be speaking with you about job coaching and how that plays a role in helping a person that has sustained a traumatic brain injury be

successful on the job. Once an individual has sat down with their counselor and developed a vocational plan and has worked with someone like Sheli in targeting a position and has been made a job offer, that's when the support of a job coach is needed. The level of support that is required from a job coach could depend on the individual's level of ability to acclimate themselves to the job. What is job coaching is what I would like to talk about. Job coaching is a service provided to support someone with a traumatic brain injury on the job site for people who live with a disability. Job coaching involves one-to-one assistance to help a person become skilled in all aspects of the job.

The person that is providing the job coaching services as an advocate, serves as an advocate and a support for the individual. The job coach helps that person learn what their responsibilities are and helps them with training of that individual. If he or she is having problems with socialization or having problems building positive professional relationships with their co-workers it is the role of the job coach to support individuals in all aspects of their job. How is that support provided? Well, one way is building trusting relationships. It is my belief that by building relationships with first the individual will afford the job coach an opportunity to obtain a strong knowledge base by which the job coach can tap into when speaking on the individual's behalf, and supporting them as needed. I believe it is safe to say that when we trust someone, we tend to be less guarded and will share more information with that person. The same applies with the job coach communicating with the family members, the friends and the individual support team. I only caution that as you develop relationships with these individuals, that you

are mindful of the fact that the consumer's privacy should be respected at all times.

These relationships can be a valuable tool when trying to support the individual once he is on the job and learning the different tasks that is required of the position. Knowing the individual will also give you a better opportunity to put in place compensatory strategies if needed, which brings me to the next slide, job coaching strategies. Dr. Hebda mentioned some of the strategies that are put in place when an individual are having problems on the job. We know that strategies are systems or a particular way of doing something in order to get a task completed. When deciding which strategies to use when working with the consumer, it is important to customize your strategy to fit the person's ability. You would not give a person a list of instructions if you know that that person has a problem reading.

Strategies, I feel, should be kept simple. Verbal cues can be used if the person needs cues to stay on task, which was mentioned earlier. If he can work alongside maybe someone that can help him to navigate through the workday where he can perform his tasks by maybe modeling his co-worker's performance. Another strategy that can be used is written instructions which can be used to identify step-by-step instructions on how to go about completing a task, if it doesn't present a problem to the consumer. And then there is the assistive technology devices that can help with staying on task. For an example, an electronic watch that can be programmed to beep to signal when that individual should go to lunch if they're having problems keeping track of time. The watch can beep to let them know that their break is over. The same applies when it is time for the individual to go back to work. This can be a very helpful tool, since employers do not

take lightly if an employee, by not clocking in and clocking out on time, put themselves in an overtime situation -- which brings me to job coaching problems.

There are many types of problems that a consumer can have on the job. They could have sexual and social inappropriate behavior. They could have problems completing a task because he has a problem staying focused on that particular task. And, the individual may not have a clear understanding of what is to be done to complete a task - - or just not being able to establish supportive and good rapports with their co-workers. These are all potential problems that we face on the job for -- but for a person living with a traumatic brain injury these problems can be devastating due to their inability to problem solve effectively. We understand that there are more than one way to sometimes correct a problem. For a person with a traumatic brain injury a job coach can help them to choose the right way to correct a problem within their abilities. The individual could have a problem recognizing that they have a problem in a particular area.

The job coach can be proactive and help to recognize potential problems for that person. If the job coach knows that the individual functions best when they are given tasks, instructions and small steps, one step at a time, that's when strategies can be put in place to accommodate that. Make good judgments and to understand boundaries is often a problem. And, not having a good support system. The consumer is challenged to respond and to respond appropriately to things that come up on the job. The term "office politics" was not coined because it did not exist. Office politics occurs at various

degrees on most jobs so the consumer has, in addition -- has an additional challenge. One, to be able to compensate for their disability by using compensatory strategies, as well as being able to navigate around and through the office politics. It is my approach to encourage the consumer to communicate his feelings and concerns with their job coach so that they can work together in coming up with a plan to respond to problems quickly and appropriately. And the last thing I would like to talk to you briefly about, is natural support. Natural supports are things that are in place on the job that supports the employee in doing the best job possible.

Most companies are seeing the benefits of using a team-building approach. They design and implement activities that will bring their employees together so that good working relationships are built with their co-workers. They may sponsor activities such as company picnics for the employees. They might provide tickets to go to things at a discount and they encourage their employees to have maybe potluck lunches to celebrate various occasions, birthdays, someone leaving, and when the company meets a company goal. These are all opportunities for the person that has a traumatic brain injury to join in and become part of the team. When the job coach helps the consumer build up their self-esteem, the consumer can better self-advocate when problems come up. I feel job coaching is a very rewarding job. To see a person become productive and feeling good about themselves is a goal that my company, St. John's, strives for, to provide community support and opportunities for people living with a disability. Thank you.

KIM GRAVES: Thanks, Carolyn. Finally we're going to hear from Shane Wise, who is a consumer of voc rehab (DRS) and he and Sheli will present together. I'll hand it over to them.

SHANE WISE: Hi, I want to talk to you a little bit about how DRS helps me to find the current position I have. It started with my case was opened by Lisa and we had found some internships in the schools. One of those positions was with the county treasurer's office and there I had done some data entry and mail-outs. Another internship I had was with a recreation center. There, I had also worked with copying and some data entry and I did mail-outs as well. Another thing that Lisa had helped me with was the situational assessments. We had done various government agencies and it was for, you know, data entry and mail clerk positions. And we had a customer service position as well. Then, Sheli and I had worked for a year on job placement, sending out resumes and being called for interviews. Then, I was finally called for an interview with the Department of Education for a file clerk position. I did accept this position and once the position was accepted, I also got help with some travel training from Jane Popek. I found this to be very helpful because when you have a new job, you have a lot of different things you have to work out. So this helped. I also got help from Shannon from D.R.S. and she helped with organization and memory skills. Writing what was necessary to write down for my duties. Currently I am working with Lisa Reid. She is just -- she is a follow-along counselor and she helps a lot with reorganization of files and other kinds of organization.

SHELI SOTIROPOULOS: Shane, what would you say was especially helpful to you in terms of the job search? I remember times when you had a chance to look online at home or to -- I know that some people would say to go ahead and independently keep looking for jobs in addition to when you came to DR.S. What helped from your DRS. team, when you were looking for opportunities, what helped kind of get you to the next step that might not have been so easy to do by yourself?

SHANE WISE: I think the -- helping to write the resume and submit it was a big help. I think it helped once we were consistently looking for positions.

SHELI SOTIROPOULOS: Something that Shane and I did quite a bit of was to rehearse before going into interviews even in the car driving to an interview or in advance like making notes for today, things like that, so that the main points that he wanted to be sure to make or questions that he might have for employers were fresh on his mind. The situational assessment process was very important because Shane has some great verbal and personality skills, brings a lot to wherever he works. However, some job descriptions involved more attention to detail or handwriting or speed and so that was something that Shane got to experience what it would be like to work for, say, the food and Food and Drug Administration or the patent trademark office where you would have a few hours to work with a job coach who was observing and guiding with a situational assessment. Can you say anything that you would feel would be valuable to folks to know about what you got from situational assessments?

SHANE WISE: I think they are valuable because it helps you to figure out your strengths and weaknesses. And you can -- once you know what your strengths and weaknesses are -- you can try to better focus in on your strengths.

SHELI SOTIROPOULOS: Shane had several internships, paid and unpaid. So, had some work experience following high school. And Shane, I wanted to ask you beyond salary, which of course is nice to have a full time paycheck. Beyond your salary what is especially valuable to you or satisfaction to you about your job and the support you get on a monthly basis from Lisa for the follow along?

SHANE WISE: What's valuable to me is just being -- knowing that I'm a part of, you know, being successful in what I do and helping the people in my program help to support them and run the program. It means a lot to me. What was the other part of the question?

SHELI SOTIROPOULOS: I think that was -- just what you enjoy about your job and what is meaningful to you about your job and I think you covered that as well. One of the things that Shannon, his job coach, did when she got on the job was to work with the employer on changing the filing system because she found very quickly that in her efforts to train Shane on the current system, there was a lot of confusing aspects of it. And so the message there is for the job coach employment specialist, or counselor, whoever is actually interacting with the employer to be willing to say improvements that might benefit other people that are using that system as well and so you all were able to

create and change labels and create a slightly different system that made it easier for Shane to retrieve and file the folders and also other people who would use that same system. Yes?

SHANE WISE: Yes

KIM GRAVES: We've had some questions come in and we'll address as many of them as we can. One of the first that came in is our case manager-- is this same as a VR counselor or in addition. What we presented today was a case manager that would be in addition to the voc rehab counselor and again they can address issues like the voc rehab counselor can't like housing and other issues. In Virginia we're fortunate that we do have funding provided by our legislature. Long-term case managers who provide case management to people with physical disabilities including brain injury. Something Susan and I had talked about when we were putting our portion of the presentation together is that we understand a lot of folks out there don't have the specialized case managers, but maybe you can talk about some alternatives. You may have brought it up before.

SUSAN RUDOLPH: Often I understand that there is -- there aren't resources for outside case managers. Some people that can take on this case management role is a voc rehab counselor, if they have the time to do that. If you can find the time to fit it into the schedule, so you have this very comprehensive team and being very well directed. Some family members are extremely competent and very good at supporting their loved

one in this whole approach to life in general. And you can count on those family members to pull it all together. Social workers for the Department of family services or the Department of Social Services, some of them can also facilitate the teams. They're usually trained in their masters of social work program to use a team approach and we count on them at times and, as much as possible, the individual with the brain injury should be in control in facilitating their own team to the highest level they can and maybe have one person support them and allowing them to do as much as they can. These are some other options.

KIM GRAVES: Great. Thanks. Dr. Hebda I handed you a question earlier.

DR. DAVID HEBDA: The question is what a neuropsychological evaluation distinguished between a diagnosis of personality disorder undiagnosed prior to rather than after a brain injury. Are there personality disorders common to brain injury?

Well, this is an interesting question, certainly. It gets back to the point that it is the personality behavioral interpersonal issues that give us most of our problems in placement. And it's a question that the DSM-IV is a bit contradictory on. Personality disorders have to emerge early in life and where they come from is considered a combination of nature versus nurture. But by definition they have to occur early in life. Technically to answer to your question is that the personality disorders in a DSM-IV cannot be caused by traumatic brain injury. That being said, certainly a traumatic brain injury has a disinhibiting effect and tends to unleash those problems we've struggled

with prior to the injury. And so, brain injury will exacerbate some of these personality characteristics, particularly the negative ones we've tried to pack in the first 20 some years of our lives. There is a category in the DSM-IV of organic personality disorder. It's why I said it is a little contradictory or personality disorder due to traumatic brain injury.

There are two types of those. One is the personality disorder that is more disinhibited and then there is the other personality disorder after a brain injury that is more passive, unmotivated. So there is such a category for that. The point is that what is essential about neuropsychological evaluations is point out the problems that exist in the present and how to treat those problems. It becomes a judgment as to whether those problems were longstanding or the result of a brain injury and there you need to take a look at a host of factors, premorbid personality, level of functioning, etc. So the simple answer is no. The long answer is it's a little more complicated than that and bottom line is we need to identify and address personality problems if this person will be successful.

KIM GRAVES: Great. Thanks. The next question we do have a lot of questions so we'll try to get through as many as we can. This one comes from California State University in Fresno and the question is, what if the consumer's dream is not ideal for them? Example, the client wants to be a voc rehab counselor, but has low I.Q., memory problems, etc. What if the consumer insists on this type of education/job placement? I think this is an issue that comes up fairly commonly. A harsh term that I've used is sometimes if the person has poor insight into their disability, talking and talking to them about why this is an inappropriate goal or training, etc., really isn't going to help. They

are going to have to face this head on and so we sort of planned for failure. A fairly harsh term, but it is what we do. Again, that's where the team is really useful to have that support around them.

Often, what I've done is tried to set up volunteer jobs. I worked with a woman who had been an accountant previous to her brain injury and was quite insistent that she was going to go back to that type of work. So, we set up a series of volunteer jobs doing bookkeeping, things like that. For education, sometimes we'll let folks try a class out as an assessment to see how they do. Again, then it becomes clear very quickly whether or not that is going to be appropriate. And frankly, folks have proven me wrong, too.

There have been times I've been certain that someone's goal is inappropriate and we've given them a chance to show us what they can do and they've proven us wrong and been quite successful. I think when you're providing voc rehab you do have to have a different train of thought. It is not going to be the normal voc rehab case where you put together -- you do some assessments, come up with a goal and you put the services in place and the consumer follows through and reaches that goal. You may need to plan for setbacks and allow the person the opportunity to take the risk of succeeding or failing. Hopefully that answers the question and if other folks want to jump in.

DR. DAVID HEBDA: What you're saying is sometimes people do need to get worse before they get better. Sometimes they need to face difficulties before they develop insight. That is sometimes difficult to watch.

KIM GRAVES: Yes, it is painful but that's where the team is the most useful. Let me see. We have a question for Sheli and perhaps Carolyn, too. In terms of job salvaging, how do you stay on top of that? This comes from Columbia, Maryland. We generally learn about problems on the job site when it's too late. What do you do to be proactive? Follow along is not available because we have a long waiting list for services.

SHELI SOTIROPOULOS: Ideally we would contact the client and the employer every few months. If there isn't funding for long-term follow-along, we call it L.T.E.S.S. funds. If that's not available in your state, for instance, I take on interns, masters level interns either in voc rehab and social work every year and I might task them with calling some of my closed clients and saying please check on this person. Tell them you're calling for me to see how they're doing and call the supervisor and ask how things are going. And it's surprising how often that will lead to either the employee or the employer sharing something that has kind of been brewing, but hasn't been addressed or the employer has been struggling with how to bring something up or on the verge of being fed up. I think to be proactive would be every couple of months to make that phone call. I think that goes a long, long way and even though we will end a supportive employment situation if somebody is stable on the job, even if we'll end with assuring them we want them to call if there is a new task to be learned, if anything changes, if there are any concerns, we want them to call. Often they just won't, they'll forget to or they'll think that the service is over. They'll lose our card. And so I think using people that might come in as interns can be helpful.

Sometimes support staff wants to have more active involvement with clients and that might be a role for support staff as well. So, those are just a couple of examples. Ideally there is long-term follow along available. If not, that can be helpful. The vocational rehab counselors have an enormous number of tasks on their plate. A huge job with so many facets that it is hard to have to add one more thing, but I might even put a reminder to myself in my outlook calendar to be prompted in a few months at a certain date to check on someone if I haven't heard from them. So these are just some examples. Interns have been really wonderful. For any masters program in psychology or social work or vocational rehabilitation, the vocational rehab process is relevant to all those fields. You can often get good either bachelor's or master's level interns.

They've done a lot for my clients over the years. In fact, I had a wonderful intern from Taiwan at George Washington University who actually filled out the 12 page or so application and questions and questionnaire that resulted in Shane getting his job. Although Shane and I worked together diligently for about two years, it was an intern that did that particular piece of paper that set it in motion. I'm a big proponent of interns. Often with state agencies there is a budget that doesn't afford us the ability to get counselors' assistants. That can be a big help. I wanted to throw out from an earlier question if Virginia part of what funds some of our brain services is trauma initiative where the State of Virginia uses some of the proceeds from the tickets and court fees that people pay when they have drunk driving charges and so that money has been rechanneled back into serving the community that gets damaged by those accidents and

injuries. If your state doesn't have something like that, a key member -- we didn't quite mention was the local Brain Injury Association.

Every state should have some chapter of a Brain Injury Association where it's often run by volunteers, parents and loved ones and people with brain injuries who will provide a wealth of information. And so those are just two aspects I wanted to throw out there to look into something like a neurotrauma initiative if it is not being operated in your state to provide for services with people with brain injuries affected by the drunk drivers and also to utilize your Brain Injury Association for your particular state or region.

KIM GRAVES: Thanks. Question is for Carolyn, are there any rules regarding the estimated length of time that job coaching will be required?

CAROLYN PRICE: No, not really because you have to approach each job placement and working with an individual on an individual basis. And, some individuals will require more job support than others. So my company, we support people with brain injuries as well as other types of disabilities on a one-on-one basis that is a customized service.

We actually support them where it's needed. So it truly varies.

KIM GRAVES: This one is for Susan. Do you refer to voc rehab or to VR counselors refer people to you for case management?

SUSAN RUDOLPH: It actually goes both ways. We may be working with an individual right after injury. That's the perfect scenario. And it may be a year to a year and a half before they would really be ready to return to work. There is a lot of rehabilitation that goes on in that period. And, then, sometimes people have gone into voc rehab and they have found that we have counselors -- rehab counselors have found that they need outside support in order to be ready to go on to the job market. So they'll refer to us. And we have a really close relationship between our voc rehab department and our case managers. We sit on the same boards together, we -- they come to our intake interviews and give their opinions on what services are needed so we have a good relationship.

KIM GRAVES: This one goes to Dr. Hebda, comes from North Dakota. Is there a point at which recovery is maximized?

DR. DAVID HEBDA: Rule of thumb, I think there is a lot to it, is that the brain undergoes its physical recovery in the first six months or so following injury. That's again the brain is not good at healing itself. By the time the brain clears all the dead tissue and blood cells it is about six months. Recovery continues for maybe another year and a half to two years as the brain reorganizes, some parts of the brain take over some other functions. Certainly, people can continue to make improvements, continue to learn things as we all can. But in terms of actually recovering from an injury, I think there is a lot to be said for that two-year period at which time people at least need to plan to work within their current capabilities. The only true exception to that are the anoxic injuries.

They have a slower recovery curve which can continue for many, many years. But, I think there is a lot to be said about that two-year period. We need to start to plan to work within what we have at that point.

KIM GRAVES: I know, too, at one point rule of thumb that we used to have is that we would not do a neuropsych eval before six months post injury. Is that still?

DR. DAVID HEBDA: That's probably a good idea. It depends on what it's for. I've done it early after an injury to establish a baseline and direct rehabilitation. But, in terms of returning to work, I think that waiting for the physical recovery to occur you need to have the brain relatively stable and I would say that at the six month period is probably a good benchmark.

KIM GRAVES: Thank you. We appear to be running out of time. We do have some questions we haven't had an opportunity to answer via the webcast, but we will answer those and they'll be posted on the website. These have been really great questions and thank you for sending them in. I would like to thank everyone on the panel for the time you've given us today to share your experiences and your expertise. I would like to thank the audience for joining us. Hopefully, the information we've provided and will provide is useful for you as you provide voc rehab services to people with brain injury. Again, we understand that a lot of the services we've talked about today may not be available in your community, but we urge you to look at the resources you have, see if there is another way to use those resources and to provide the support. Additional

resources are available on the NASHIA website and we would like to thank it -- the webcast has been supported in part by project U93MC0015803 in Partnership for Information & Communication agreement with the U.S. Department of Health and Human Services, HRSA, Maternal and Child Health Bureau, federal TBI program. Resources to contact: National Association of State Head Injury Administrators at www.nashia.org. Technical assistance provided by the Center for the Advancement of Distance Education, University of Illinois-Chicago. School of Public Health, www.uic.edu/. Please fill out the evaluation form and send that in.