Welcome to Module 5 of DBHDS Support Coordination/Case Management training modules. This module provides basic information on the primary disabilities experienced by those who use CSB Support Coordination/Case Management services in the Behavioral Health and Developmental Disabilities Services system.
Module 5 is divided into 5 sections.

The first section, 5a Disabilities Defined, introduces the major behavioral health and developmental disability categories.

Section 5b covers mental health disorders and identifies the most common mental health diagnoses of people served in the Behavioral Health Services System.

Section 5c covers substance use disorders and identifies the most common substance use disorders of people served in the Behavioral Health Services System.

Section 5d covers developmental disabilities and identifies the most common diagnoses of people served in the Developmental Services System.

And finally, 5e covers co-occurring disorders
The objectives of module 5a are:

- understand the use of diagnoses; and
- gain an introduction to the DSM-5.
Diagnoses can serve as a short-hand for some of the challenges that someone might be experiencing, but they **do not describe the whole person**. While we continue to use diagnoses for medical billing, some settings are moving away from using them in practice and instead focusing on the person without the labels.

Not only is this a more person-centered approach, it also recognizes that there is a lack of reliability of diagnoses. In other words, the agreement among practitioners about the same people is not high for some disorders.

This is important to keep in mind as the training reviews the main diagnoses of people who use Support Coordination/Case Management services.
A major diagnostic and classification system used in the United States is the Diagnostic and Statistical Manual on Mental Disorders, the DSM-5. The Diagnostic and Statistical Manual of Mental Disorders (DSM) is a classification of disorders with associated criteria designed to facilitate more reliable diagnoses of these disorders.

The current DSM-5 is a revision of the one that was published in 2013. Published by the American Psychiatric Association, it includes all currently recognized mental health, substance use disorders and developmental disabilities. However, in Virginia, the diagnostic criteria for a developmental disability used is the one adopted by the Virginia General Assembly and defined by the Developmental Disabilities Act.

Support Coordinators/Case Managers are not responsible for determining a diagnosis. However, it is important for them to become familiar with the DSM-5 especially if they are supporting someone with co-occurring disorders. Knowing about diagnoses is important as they may determine eligibility for certain resources and services and direct the kind of services and supports a person might need, including referrals for psychiatric or substance use disorder services.
The DSM-5 moved from a multiaxial assessment in the previous DSM, to a non-axial assessment. Presently, disorders or conditions are listed in order of clinical priority or focus. In addition, some diagnostic categories have specifiers including “specify whether”, “specify if” or “specify current severity”, among others. For each diagnostic category, the specifiers are clearly listed in the DSM-5.

It is highly recommended that Support Coordinators/Case Managers have ready access to a DSM-5 for reference. If an agency does not own one, it is important to ask that one be provided. The DSM-5 desk reference is an affordable alternative to the DSM-5 book. Support Coordinators/Case Managers will want to familiarize themselves with the organization of the manual, along with how to find diagnoses as they need to read about them.
It is important to note that the diagnoses discussed in this module serve as a way to describe the challenges that occur for people served by Support Coordination/Case Management services. The DSM system has limited evidence of cross-cultural validity in diagnostic conceptualizations and do not account for people’s strengths or other factors in the environment. It also may not be predictive of someone’s future. The DSM system does not include sufficient emphasis on contextual factors, such as developmental struggles and transitions, culture, gender, strengths, resources, and uniqueness that may better explain the roots of struggles and treatment implications.

A good resource for Support Coordinators/Case Managers may be found at the link on the slide. This link is also listed in the material section of this module.
Behavioral health refers to mental health and substance use disorders services. Major disabilities addressed by behavioral health services are categorized into the following areas:

- serious mental illness specifically adult mental health;
- serious emotional disturbance including child and adolescent mental health; and
- substance use disorders.

Developmental services address:

- intellectual disability;
- autism spectrum disorder; and
- other developmental disabilities.

The next sections of module 5 will define various serious mental illnesses or SMIs, serious emotional disturbance or SEDs, substance use disorders or SUDs, and developmental disabilities or DDs.
Section 5b of the Disabilities Defined Module reviews characteristics of mental health disorders.
The objectives of Module 5b are to:

- understand the definition of mental illness; and
- identify the main characteristics of diagnoses seen in serious mental health disorders for adults and children.
According to the American Psychiatric Association, mental illnesses are health conditions involving changes in thinking, emotion or behavior, or a combination of these. Mental illnesses are associated with distress and/or problems functioning in social, work or family activities. Mental illness is common. In a given year nearly one in five U.S. adults experience some form of mental illness. One in twenty four has a serious mental illness. A serious mental illness is a mental, behavioral or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities. This module provides a brief overview of the serious mental illnesses that a Support Coordinator/Case Manager may see in people they support.
The most common mental health diagnoses for adults in those served by Support Coordinators/Case Managers are:

- schizophrenia;
- schizoaffective disorder;
- major depression;
- bipolar disorder;
- anxiety disorders; and
- borderline personality disorder.

Information about each diagnosis follows.
Schizophrenia is a thought disorder characterized by cognitive and emotional dysfunctions that impair occupational and social functioning. Its symptoms fall into two categories: positive and negative.

Positive symptoms include distortions of normal functions. For example:

- delusions, which are erroneous beliefs such as “I am being followed by alien beings”;
- hallucinations, which involve sensing something that isn’t there such as “I am hearing voices inside my head”;
- disorganized speech; and
- grossly disorganized or catatonic behavior.

Negative symptoms are restrictions in the range and intensity of:

- emotional expression, for example when a person has a flat affect;
- thought and speech, for example a person has no thoughts come to mind or nothing to say; and
- the initiation of goal directed behavior. An example would be having little self-motivation.
Schizoaffective disorder is thought to be a combination of schizophrenia and an affective (mood) disorder. It includes the same positive and negative symptoms of schizophrenia and the symptoms are concurrent with, at some time, either an episode of mania, a major depressive episode, or a mixed episode of both manic and depressive.

Delusions or hallucinations persist for at least two weeks in the absence of prominent mood symptoms, and symptoms of the mood episodes are present for a substantial portion of the duration of the disorder.
Major depression is not simple sadness. People with major depression also experience:

- a lack of interest or pleasure in most daily activities;
- problems with their sleep (sleep too much or not enough);
- problems with their weight (eat too much or not enough);
- a lack of energy;
- problems concentrating; and
- feelings of worthlessness, excessive guilt, and hopelessness.

Sometimes people with major depression also have recurrent thoughts of death, and think about or plan to commit suicide.
Bipolar disorder, also known as manic depression, is characterized by dramatic mood swings from extremely happy, irritable or an energetic mood, also known as manic episode. Mania episodes may include:

- talking very fast;
- jumping from one idea to another;
- having racing thoughts;
- an unrealistic belief in one's abilities;
- behaving impulsively; and
- taking part in many pleasurable, high-risk behaviors.

Mania can become so severe that it will also include psychotic symptoms. A person with Bipolar disorder can experience sadness, hopelessness, and fatigue also known as depression, which are the same symptoms as someone with a major depression experience.

All people with bipolar disorder have manic episodes that last at least a week and impair functioning, but not all people with bipolar disorder become depressed.
Anxiety disorders cover a range of disorders including:

- generalized anxiety disorder;
- obsessive-compulsive disorder;
- post-traumatic stress disorder or PTSD;
- agoraphobia; and
- panic disorder.
Generalized anxiety disorder is the almost constant presence of worry or tension, even when there is little or no cause.

Obsessive-compulsive disorder is described as unwanted and repeated thoughts, feelings, ideas, or sensations or obsessions, that make a person feel driven to do something also known as compulsions.

Post-traumatic stress disorder is a potentially debilitating anxiety triggered by exposure to a traumatic experience such as an interpersonal event like physical or sexual assault, exposure to disaster, accidents, or combat or secondarily witnessing such a traumatic event.

Agoraphobia is the fear of being in places where escape might be difficult, or where help might not be available.

Panic disorder is repeated attacks of intense fear and anxiety.
According to the National Alliance on Mental Illness, borderline personality disorder (BPD) is a condition characterized by difficulties regulating emotion. This means that people who experience BPD:

- feel emotions intensely and for extended periods of time; and
- it is harder for them to return to a stable baseline after an emotionally triggering event.

This difficulty can lead to impulsivity, poor self-image, stormy relationships and intense emotional responses to stressors. Struggling with self-regulation can also result in dangerous behaviors such as self-harm, for example, cutting oneself.
People diagnosed with borderline personality disorder have five or more of the following symptoms:

- frantic efforts to avoid real or imagined abandonment;
- unstable and intense relationships which alternate between extremes of idealization and devaluation;
- markedly and persistently unstable self image or sense of self;
- impulsivity in at least two areas that are potentially self damaging;
- recurrent suicidal gestures/self inflicted violence;
- unstable and highly reactive affect;
- chronic feelings of emptiness;
- inappropriate, intense anger; and
- paranoid thinking or dissociative symptoms.
Children and adolescents are diagnosed with many of the same mental health diagnoses as adults. According to the National Institute of Mental Health, half of all cases of mental illness begin by age 14.

However, the mental health diagnoses covered in the next four slides, are primarily seen in children.
The DSM has never offered a definition of Serious Emotional Disturbance (SED). This term has been defined historically by the Substance Abuse and Mental Health Services Administration (SAMHSA) and released as a Federal Register notice. The Federal Register notice defines children with a serious emotional disturbance as being "from birth up to age 18 who currently or at any time during the past year have had a diagnosable mental, behavioral, or emotional disorder of sufficient duration to meet diagnostic criteria specified within the DSM that results in functional impairment, which substantially interferes with or limits the child's role or functioning in family, school, or community activities"

The link on the slide provides a good resource covering changes in the DSM-5 that have implications for SED. This link is also listed in the material section of this module.
The following risk factors increase the likelihood that a child will have an SED. The child’s parents, or persons responsible for the child’s care, have predisposing factors themselves that could result in the child developing serious emotional or behavioral problems. Examples are:

- inadequate parenting skills;
- substance use disorder;
- mental illness; and
- other emotional difficulties.

Another risk factor is that the child has experienced physical or psychological stressors that have put them at risk for serious emotional or behavioral problems. Examples are:

- living in poverty;
- parental neglect; and
- physical or emotional abuse.
Attention Deficit/Hyperactivity Disorder (ADHD), is characterized by a persistent pattern of inattention or hyperactive/impulsive behavior (or both) that is more severe than what is typically observed in people of the same age. Those who experience attention-deficit may not give close attention to detail and make careless mistakes. Similarly, they may have difficulty sustaining attention and find it difficult to complete tasks. Hyperactivity is marked by restlessness and impulsivity. Children with ADHD may often seem as if they are “driven by a motor.” The ADHD diagnosis was largely restricted to children and adolescents, but it is now known that the condition can persist into adulthood.

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<td>Pattern of Inattention</td>
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<td>Hyperactive or Impulsive</td>
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<td>Lack of Attention to Detail</td>
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<td>Difficulty Completing Tasks</td>
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<td>Restlessness or Impulsivity</td>
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Children with oppositional defiant disorder display a pattern of disobedient, hostile, and defiant behavior toward authority figures.

Those with a conduct disorder display long-term (chronic) behavior problems, such as:
- Defiant or impulsive behavior;
- Drug use; and
- Criminal activity.

Both conduct disorder and oppositional defiant disorder are categorized as disruptive disorders of childhood and adolescence and are discussed together here because both feature anger, defiance, rebellion, lying, and school problems. Children diagnosed with oppositional defiant disorder (ODD) are usually younger and do not seriously violate the basic rights of others. ODD often precedes conduct disorder.
Section 5c of the Disabilities Defined Module reviews characteristics of substance use disorders.
The objective of this section is to:

- Identify the main characteristics of diagnoses seen in common substance use disorders.
The DSM 5 divides substance related disorders into two groups: substance-induced disorders and substance use disorders. They encompass 10 separate classes of drugs that will be discussed in subsequent slides.

All drugs that are taken in excess have in common direct activation of the brain reward system, which is involved in the reinforcement of behaviors and the production of memories. This system regulates movement, emotion, cognition, motivation and feelings of pleasure. The overstimulation of this system, which normally rewards natural behaviors, produces the euphoric effects sought by those who abuse drugs and teaches them to repeat the behavior. They produce such an intense activation of the reward system, that normal activities may be neglected.
Substance-induced disorders include:

- intoxication;
- withdrawal; and
- other substance/medication-induced mental disorders, such as psychotic disorders, bipolar and related disorders, depressive disorders, anxiety disorders, obsessive-compulsive disorders, sleep disorders, sexual dysfunctions, delirium and neurocognitive disorders.

The signs and symptoms of intoxication and withdrawal vary greatly depending on the class of drug being used. Each drug category, including alcohol, is listed in the DSM-5 and includes criteria that describes intoxication and withdrawal for each particular class. The signs and symptoms are too numerous to include in this training module.
Substance use disorders are organized by the class of drug and are determined to be mild, moderate or severe depending on the number of symptoms present. Symptoms for substance use disorders vary slightly depending on the class of drugs, but most include symptoms that are listed on the next two slides.
• The substance is taken in larger amounts or over a longer period than intended.
• There is a persistent desire or unsuccessful efforts to cut down or control the substance.
• A great deal of time is spent in activities necessary to obtain the substance, use or recover from its effects.
• There is a craving or strong desire or urge to use the substance.
• Use of the substance causes a failure to fulfill major role obligations at work, school or home.
• There is continued substance use despite having persistent or recurrent social or interpersonal problems caused by or exacerbated by the effects of the substance.
• Important social, occupational or recreational activities are given up or reduced because of the substance use.
• There is recurrent substance use in situations in which it is physically hazardous.
• Tolerance to the substance is present. This means a need for markedly increase amounts to achieve intoxication or desired effect or a markedly diminished effect with continued use of the same amount of the substance.
• Withdrawal which was defined in a earlier slide.
It is important to make sure that a person has been carefully assessed by an expert in substance use disorders when questions of substance use issues arise.

The Support Coordinator/Case Manager may become aware of situations where someone’s health and safety may be at risk because of substance use problems and they will need to consult with appropriate staff to determine how to support and protect the person.
The following slides will present 9 of the 10 categories of drugs that are in the DSM 5. The 10\textsuperscript{th} category is reserved for Other. Designer drugs will also be reviewed and may typically fall into the “other” category.
The following drugs are classified as depressants:

- alcohol;
- barbiturates;
- benzodiazepines;
- tranquilizers; and
- methaqualone.

Depressants may be injected, swallowed or snorted.
Effects can occur quickly and last up to several hours.

They include:

- reduced anxiety;
- feeling of well-being;
- euphoria;
- lowered inhibitions;
- slowed pulse and breathing;
- lowered blood pressure;
- poor concentration;
- fatigue;
- confusion;
- impaired coordination, memory and judgement;
- drowsiness;
- chronic sleeping problems;
- seizures;
- respiratory depression and arrest; and
- Death.
Caffeine may be ingested through capsules, coffee, sports or energy drinks, chewing gum, bars, gels, mouth rinses, and aerosols. It is consumed by 80% of adults in the United States. Many studies have shown caffeine to be beneficial in certain instances. However, taken in high doses over long periods of time, caffeine can have the following negative effects:

- insomnia;
- nervousness and restlessness;
- stomach irritation;
- nausea and vomiting;
- increased heart rate;
- increased respiration;
- headaches;
- agitation;
- chest pain;
- ringing in the ears; and
- irregular heartbeats.
Cannabinoids include hashish and marijuana and may be swallowed or smoked. Effects can occur rapidly and last up to several hours. THC or tetrahydrocannabinol is the active chemical and it moves quickly through the bloodstream to the brain and other organs throughout the body and it accumulates in fat tissue. Effects may persist.

They include:

- euphoria;
- slowed thinking and reaction time;
- confusion;
- changes in senses;
- impaired balance and coordination;
- frequent respiratory infections;
- impaired memory and learning;
- increased heart rate;
- anxiety; and
- panic attacks.
Hallucinogens include LSD, mescaline, peyote, and psilocybin mushrooms. They can be swallowed, absorbed through mouth tissues or smoked.

Effects occur within 30 minutes and lasts several hours.

They include:

- altered states of perception and feeling;
- nausea;
- persisting perception disorder (flashbacks);
- distorted reality;
- hallucinations;
- (some cause) increases in body temperature, heart rate and blood pressure;
- sleeplessness;
- lack of appetite;
- delusions; and
- persistent mental health problems.
Types of inhalants include solvents such as paint thinners, gasoline, glues, nail polish remover and gases such as propane, butane, household cleaning items and art supplies.

Fumes from substances are inhaled or “huffed”. Sometimes the substance is put on a cloth which is put in bags and inhaled or, inhaled directly from the cloth.

Effects vary with each substance. They include:

- euphoria;
- hallucinations;
- delusions;
- vivid fantasies;
- mood swings;
- prolonged anxiety or depression;
- paranoia;
- restlessness;
- impaired coordination;
- irritability;
- aggression;
- impaired judgment;
- confusion;
- headaches; and
- nausea or vomiting.

Inhalants can cause loss of brain cells, cerebral atrophy, and breakdown of myelin. Frequent or prolonged use can cause heart damage, liver failure, or muscle weakness. Death can occur from heart failure or suffocation.
Types of Opioids and Morphine Derivatives include codeine, fentanyl, heroin, morphine, opium, hydrocodone, oxycodone, vicodin, propoxyphene, and hydromorphone. They are administered by being injected, smoked, snorted or swallowed.

Effects differ somewhat depending on type of drug taken, dose & route. They include:

- analgesia;
- “rush” sensation followed by relaxation;
- flushing skin;
- heaviness of extremities;
- decreased tension, pulse, and respiration;
- increased body temperature;
- dry mouth;
- constricted pupils;
- pain relief;
- euphoria;
- drowsiness;
- nausea;
- constipation;
- confusion;
- sedation;
- collapsed veins;
- respiratory depression & arrest;
- unconsciousness;
- coma; and
- death.
Types of Stimulants include: amphetamine, cocaine, methamphetamine, dextroamphetamine, nicotine, and Ritalin®

They are administered by being injected, swallowed, smoked, snorted, snuffed or chewed.

The onset of effects depends on the route and dose. For example, intravenous use of cocaine can take about 30 seconds for effects to occur. Snorting can peak in 15 to 30 minutes.

Effects include:
- increased heart rate, blood pressure, and metabolism;
- feelings of exhilaration;
- energy;
- increased mental alertness;
- rapid or irregular heart beat;
- reduced appetite;
- weight loss;
- heart failure;
- nervousness;
- decreased sleep;
- insomnia;
- muscle spasms; and
- stroke.

Stimulants can also induce psychosis in susceptible individuals when taken at high doses or after long periods of use. The psychotic symptoms can last up to ten days.
Tobacco may be smoked or chewed. Cigarette smoking harms nearly every organ of the body, causes many diseases, and reduces the health of smokers in general. Tobacco use increases the likelihood that the users will develop:

- heart disease;
- stroke;
- lung and other cancers;

Other risks to tobacco use are numerous. Some are:

- increased risk of early delivery, stillbirth, low birth weight, sudden infant death syndrome and ectopic pregnancy;
- reduced fertility in men;
- increased risks for birth defects and miscarriage;
- affects to bone health;
- affects the health of teeth and gums and can cause tooth loss;
- increased risk for cataracts;
- can cause type 2 diabetes mellitus; and
- can cause rheumatoid arthritis.
Designer Drugs or Club Drugs are created and marketed to avoid provisions of existing drug laws, usually by preparing analogs or derivatives of existing drugs or by using legal substances that have similar effects to illegal drugs. As the harmful effects of some become more widely known, laws are passed to make them illegal. The drugs are then chemically changed slightly in order to become legal again. Some are “herbal” mixtures. It can, therefore, be very difficult to know exactly what was in a substance that someone used or to know how they may harm the body and mind.

Effects of Designer Drugs and Club Drugs vary depending on the family of drugs that the designer or club drug is manufactured or found to resemble. Effects will be similar to the drug it is replicating. Due to manufacture in illegal labs or unknown nature of ingredients in herbal mixes, it can be difficult to know what exactly is in some of these. Some have very serious potential for physical or psychological harm. Club drugs tend to be used by teens and young adults at bars, nightclubs, concerts and parties.
Types of Designer drugs include:

MDMA is also known as “ecstasy,” “Adam,” “E,” “love drug,” “X,” “XTC,” and “peace”. The effects include emotional warmth, enhanced sensory perception, increased physical energy, nausea, chills, teeth clinching, muscle cramping, blurred vision, sleep disturbance, and hyperthermia.

Ketamine is also known as “bump,” “cat killer,” “cat valium,” “K,” “ket,” “special k,” and “super C”. This drug creates feelings of being separate from ones body, analgesia, impaired memory, delirium, respiratory depression, arrest, and death.

Mephedrone is known as “bath salts,” “plant food,” “ivory wave,” “purple wave,” “zoom,” “vanilla sky,” and “white lightening”. This drug acts in the brain like stimulants. Effects can include chest pains, increased blood pressure and heart rate, agitation, hallucinations, delusions, and extreme paranoia.

Gamma hydroxybutyrate otherwise known as “cops,” “cherry,” “everclear,” “G,” “grievous bodily harm,” and “liquid X” creates drowsiness, nausea, headache, disorientation, loss of coordination, unconsciousness, seizures, coma; feelings of being separate from ones body, analgesia, impaired memory, delirium, respiratory depression and arrest and death.

Rohypnol is known as “forget me pill,” “circles,” “la rocha,” “Mexican valium,” “R2,” “roofies,” and “rope”. Effects include sedation, muscle relaxant, confusion, memory loss, dizziness, and impaired coordination.

Spice which are herbal mixtures used as alternatives to marijuana, is known as “K2,” “Yucatan fire,” “skunk,” and “moon rocks”. Effects are similar to marijuana and include changes in mood and perceptions, rapid heart rate, vomiting, agitation, confusion, and hallucinations.
Other Designer Drugs include:

- MPTP, which is a narcotic analog, known as “new heroin”;
- MPPP, which is a narcotic analog of demerol;
- fentanyl, which is a narcotic otherwise known as “China white”;
- methamphetamine, otherwise known as “beanies”, “crank,” “crystal,” “crystal meth,” “ice,” or “rock”;
- THG, which is a steroid; and
- krokodil, which is a synthetic morphine derivative.
Section 5d of the Disabilities Defined Module will review the characteristics of developmental disabilities.
The objectives for this section are:

- understand the definition of a developmental disability (DD); and
- identify the main characteristics of conditions that are categorized as a developmental disability.
A developmental disability as defined by the Developmental Disabilities Act, is a severe, chronic disability that:

- is attributable to a mental or physical impairment, or a combination of mental and physical impairments, other than a sole diagnosis of mental illness;
- is manifested before age 22;
- is likely to continue indefinitely;
- results in substantial functional limitations in three or more of the following areas of major life activity: self-care, receptive and expressive language, learning, mobility, self-direction, capacity for independent living, or economic self-sufficiency; and
- reflects a need for a combination and sequence of special interdisciplinary or generic services, individualized supports, or other forms of assistance that are of lifelong or extended duration and are individually planned and coordinated.
A person from birth to age nine, inclusive, who has a substantial developmental delay or specific congenital or acquired condition may be considered to have a developmental disability without meeting three areas of substantial functional limitations if, without services and supports, they have a high probability of meeting this criteria.
The following diagnoses are those a Support Coordinator/Case Manager will most commonly see in those that use Support Coordination/Case Management Services:

- intellectual disability;
- Down syndrome;
- fragile X;
- cerebral palsy;
- spina bifida;
- autism spectrum disorders;
- Rett's disorder; and
- Tourette syndrome.
The term intellectual disability (ID) as defined by the American Association of Intellectual and Developmental Disabilities (AAIDD) and utilized by the state of Virginia, means a person has significant limitations in intellectual functioning and in adaptive behavior. Intellectual functioning includes reasoning, learning, and problem solving. Adaptive behavior covers a range of everyday social and practical skills. The disability originates before the age of 18.

Other factors considered when determining a diagnosis of intellectual disability are as follows:

- conceptual skills, such as language and literacy; money, time and number concepts; and self-direction;
- social skills, such as interpersonal skills, social responsibility, self-esteem, gullibility, naiveté, social problem solving, and the ability to follow rules or obey laws and to avoid being victimized; and
- practical skills, such as activities of daily living or personal care, occupational skills, healthcare, travel and transportation, schedules and routines, safety, use of money, and the use of telephone.
On the basis of multi-dimensional evaluations, professionals can determine whether someone has an intellectual disability and can tailor a support plan for each person. In defining and assessing intellectual disability, AAIDD stresses that professionals must take additional factors into account, such as:

- limitations in present functioning should be considered within the context of community environments typical of the individual’s age, peers, and culture;
- cultural and linguistic diversity as well as differences in communication, sensory, motor and behavioral factors;
- knowing that within someone, limitations often co-exist with strengths;
- the purpose of describing limitations is to develop a profile of needed supports; and
- understanding that with appropriate personalized supports over a sustained period, the life functioning of the person with an intellectual disability generally will improve.
Down syndrome is the most common genetic chromosomal disorder that causes an intellectual disability while fragile X syndrome is the most common known cause of an inherited intellectual disability worldwide.

For more information on each of these conditions, go to the links provided. The links are also listed in the material section of this module.
According to the National Institutes of Health (NIH) cerebral palsy refers to a group of neurological disorders that appear in infancy or early childhood and permanently affect body movement and muscle coordination.

Cerebral palsy (CP) is caused by damage to or abnormalities inside the developing brain that disrupt the brain’s ability to control movement and maintain posture and balance. The term cerebral refers to the brain; palsy refers to the loss or impairment of motor function.

Cerebral palsy is the most common motor disability in childhood. CP is caused by abnormal development of the motor cortex during fetal growth. In others, the damage is a result of injury to the brain either before, during, or after birth. In either case, the damage is not repairable and the disabilities that result are permanent.

In addition to effects on the body, about 30 to 50 percent of children with cerebral palsy have some level of cognitive impairment.

The link provided gives additional information about cerebral palsy. The link is also listed in the material section of this module.
Spina bifida is a condition that affects the spine and is usually apparent at birth. It is a type of neural tube defect (NTD). Spina bifida can happen anywhere along the spine if the neural tube does not close all the way. When the neural tube doesn’t close all the way, the backbone that protects the spinal cord doesn’t form and close as it should. This often results in damage to the spinal cord and nerves.

Spina bifida might cause physical and intellectual disabilities that range from mild to severe.

The severity depends on:

- the size and location of the opening in the spine; and
- whether part of the spinal cord and nerves are affected.

The link provided gives additional information about spina bifida. The link is also listed in the material section of this module.
According to the American Psychiatric Association, “autism spectrum disorder (ASD) is a complex developmental disorder that can cause problems with thinking, feeling, language and the ability to relate to others. It is a neurological disorder, which means it affects the functioning of the brain. The effects of autism and the severity of symptoms are different in each person.”

People with ASD have varied thinking and learning abilities from gifted to severely challenged. It occurs in all racial, ethnic and socioeconomic groups and is four times more likely to occur in boys than girls. ASD begins before the age of 3 and lasts throughout a person’s life.
People with autism spectrum disorder exhibit the following:

- difficulty with communication and interaction with other people;
- restricted interests and repetitive behaviors; and
- symptoms that hurt the person’s ability to function properly in school, work, and other areas of life.

The link provided gives additional information about autism spectrum disorder. The link is also listed in the material section of this module.
Rett’s syndrome occurs after a 5 month period of normal development. Rett’s syndrome is characterized by:

- a deceleration of head growth between ages 5 and 48 months;
- a loss of previously acquired purposeful hand skills followed by;
- the development of stereotyped hand movements such as hand-wrangling or hand washing;
- the loss of social engagement early in the course, although often social interaction develops later;
- the appearance of poorly coordinated gait or trunk movements; and
- severely impaired expressive and receptive language development.

The link provided gives additional information about Rett’s syndrome. The link is also listed in the material section of this module.
Tourette syndrome is a motor disorder which becomes evident in early childhood or adolescence before the age of 18. A person with Tourette syndrome will experience multiple motor and vocal tics that are frequent, repetitive, involuntary, and rapid.

Coprolalia is the involuntary use of obscene words or socially inappropriate words and Copropraxia is the involuntary use of obscene gestures or socially inappropriate gestures. Echolalia or echo speech is also a criteria for Tourette syndrome.

Associated conditions can include attentional problems such as attention deficit hyperactivity disorder, attention deficit disorder, impulsiveness, obsessive-compulsive behavior, and learning disabilities.

The link provided gives additional information about Tourette syndrome. The link is also listed in the material section of this module.
Section 5e of this Module discusses co-occurring disorders.
The objectives of section 5e include:

- obtain basic knowledge of what co-occurring disorders include; and
- understand a Support Coordinator’s/Case Manager’s role in recognizing possible co-occurring disorders.
The term ‘dual diagnosis’ or ‘co-occurring disorder’ refers to anyone who has any combination or all three types of disorders including a developmental disability, substance use disorder and/or a mental illness.
Co-occurring mental health and substance use disorders, otherwise referred to as CODs, can occur at any age.

Co-occurring mental health and substance use disorders are common. 35 percent of people with serious mental illness use alcohol or other drugs in a way that compromises stable recovery, and 19 percent of persons with alcohol abuse or dependence have mental illness.
An estimated half of all people with serious mental illness also have a substance use disorder.

Individuals with co-occurring disorders tend to exhibit more problems with psychiatric symptoms and difficulties in multiple other areas of their lives, including legal, medical, and social relationships.

Persons with co-occurring disorders are more likely to drop out of treatment and have higher rates of relapse (using substances again after achieving sobriety).
Co-occurring mental health and substance abuse problems are generally categorized by the level of severity of each disorder. For example, many people with a drug or alcohol problem also have depression or other mental health disorders. Similarly, many individuals with serious mental illness are unable to use any substances without significant problems.

Support Coordination/Case Management in the Virginia-endorsed New York Model* occurs at three levels, depending upon the severity of someone’s symptoms.

**In Quadrant I, (low MH/low SA)** consultation consists of informal relationships among providers that ensure both mental health and substance use problems are addressed.

**In Quadrants II (high MH/low SA) and III (low MH/high SA),** in which services are provided in either the substance use or mental health treatment system, collaboration describes more formal relationships among providers that ensure both mental health and substance use problems are addressed in the treatment regimen.

**Quadrant IV – (high MH/high SA)** for those with the highest severity of both mental health and substance abuse problems -- the goal is integration of services, in which the contributions of professionals in both fields are merged into a single treatment setting and regimen.
Individuals with co-occurring developmental disabilities and mental illnesses are a particularly vulnerable population. Given the complexity of their needs and the structure of the service delivery system, it is critical for Support Coordinators/Case Managers to attend to the additional services and supports that may be necessary to support them in leading a good life. Support Coordinators/Case Managers need to be alert for symptoms that may suggest mental health problems in people with a developmental disability.

Some things to look for are:

- new onset or escalation of aggression, self-injurious behavior, or both;
- changes in mental status, such as: hyperactivity or extreme irritability;
- confusion or disorientation;
- lethargy or withdrawal;
- psychotic symptoms; or
- other changes in mood, energy, or sleep patterns.
Congratulations!

You have completed Module 5 DBHDS Support Coordination/Case Management online training. Please note that all of the web links provided in this Module are contained in the accompanying training materials. Please complete the assessment for Module 5 before proceeding to Module 6.

Thank you for your participation!