Welcome to the Pennsylvania Dual Diagnosis Direct Support Curriculum training on Older Adults and Dual Diagnosis.
The Commonwealth of Pennsylvania’s Office of Mental Health and Substance Abuse Services (OMHSAS) and the Office of Developmental Programs (ODP) have undertaken a joint initiative to address the needs of people who have an intellectual disability as well as mental health challenges. People who have both of these challenges are commonly referred to as those who have Dual Diagnosis. For the purpose of this training, Dual Diagnosis is not referring to co-occurring mental health challenges and substance abuse or dependence, although people can have substance abuse or dependence issues as well as a Dual Diagnosis of an intellectual disability and mental health challenges. The curriculum was designed for Direct Supporters, Supports Coordinators and others who work in either the intellectual disability field or the mental health field.

The ultimate goal of this training curriculum is to provide information that can aid in the understanding of the struggles and the triumphs of those you support or will support. The curriculum was designed to demonstrate the complexity of Dual Diagnosis and the factors that need to be considered to best support those with whom you come into contact. The Pennsylvania Dual Diagnosis Direct Support Curriculum was also designed to demonstrate that all people in this world, regardless of their challenges, are much more alike than they are different.
The information presented to you today is to increase your awareness. It is not intended to replace medical advice.

If you believe you or someone you support have these conditions or concerns, please seek the advice of a physician.
By the end of this training you will have a basic understanding of:

- Health issues associated with normal aging
- Aging issues for those with intellectual disability
- Aging issues for selected health conditions
- Tips for promoting good health during aging
- General information on aging
- Body systems and aging
- Mental health and aging

You will also receive general information about aging and how different body systems and mental health may be affected by aging.
Aging is a natural process, involving every molecule, cell and organ in the body. The body tries to maintain homeostasis or a stable internal environment. Aging is also called homeostenosis, which means a decline in the ability of each organ system and body as a whole to maintain homeostasis. The aging process starts gradually in the thirties and the aging rate varies with each person and in each organ.

Some of the factors influencing longevity are heredity and lifestyle choices, including: alcohol use, smoking, drug use, exercise and healthy diet. Some emotional factors could include mental health conditions, having a good social support system and spirituality. Treatment and management of disease is affected by money, access to healthcare and education.

Exposure to toxins, such as second hand smoke and smog, will have an impact on health; and other environmental factors such as noise and workplace stress have an effect on the rate at which we age.
Successful aging includes four key areas to consider. These are maintaining physical function, avoiding disease, maintaining mental function and, of course, enjoying life!

It is important to remember that successful aging is a combination of many things. One of the biggest goals, of course, is to maintain one’s positive physical and mental health; the benefit - the ability to function as independently as possible, for as long as possible.

The enjoyment of one’s life while aging should include the pleasure of friendships and taking part in satisfying hobbies and activities. Most people want to feel they are contributing to society in a meaningful way. Another desire for those who are aging is to participate in community life. For the people we support, we can ask ourselves, does the person we support have any different goals. Most likely, they will probably have the same goals as were just mentioned.
Something to remember as we discuss aging, is that there are growing numbers of people who are aging. And for the people you support, it is also significant to note that the issue of aging of caregivers impacts future support and services for those with disabilities. Changes in public policies also are impacting those who are aging as they affect programs, services and finances. Technological advances are helping people to live much longer than in the past.

A quote by M. P. Janicki PhD, published in 2002 in the *Journal of Intellectual Disability Research* further illustrates the concerns: “…evolutions in the developed nations have produced millions of older adults without necessarily producing age-related expertise to go along with them…” Janicki, 2002

In a research study done in 2002 by Yang, Rasmussen & Friedman, they discovered that people with intellectual and developmental disabilities are now surviving into their 80s and 90s, much longer than previously. People diagnosed with Down syndrome also are living longer, with an average life expectancy into their mid 50s, 25% of those individuals living to 65.
Pharmacotherapy refers to the treatment of disease with pharmaceutical drugs. With aging and the increased likelihood of having one or more chronic health conditions, it is common for an individual to be taking multiple daily medications. Because of the changes that occur normally in the human body during the aging process, some drugs may produce adverse effects in older adults compared with the general population. Some medications are more likely to produce side effects and have a high rate of interaction, especially when multiple medications are prescribed. When you see a change or a new sign or symptom in someone who is older, it is imperative that this, as well as any new medications they may be taking, be communicated to the physician. An adverse effect or drug interaction could be responsible, but be misinterpreted and treated by adding a new drug. Sometimes this new drug could cause another side effect, which can then trigger adding another new drug. This sequence of events is known as the “prescribing cascade”.

Medications that are more likely to produce side effects are cardiovascular drugs, psychotropic drugs, anti-seizure drugs and drugs that have anticholinergic properties. Interactions could occur with other drugs, foods or beverages and may worsen a condition, sometimes with serious or lethal effects. Some of these drugs include warfarin, digoxin, ACE inhibitors, theophylline and drugs which treat metabolic bone disorders.

It is important for direct supporters to know that older adults are more sensitive to drugs which have anticholinergic effects, as they can impair cognitive functioning and increase the risk for delirium and falls.

Please note that a list of potentially inappropriate medications for use in older adults is commonly known as the “Beers List”.
There are a number of conditions that can lead to functional declines as the natural aging process unfolds. It is important to understand, monitor and prevent the types of declines that can lead to problems with self care, Activities of Daily Living or ADLs and with social skills. Any type of decline noticed will require medical assessment, for accurate diagnosis and appropriate intervention. Functional assessment tools are available that can quantify one’s functional ability. Sometimes, with age related declines, there are behavioral manifestations that become noticeable and these too should be documented. A question to consider while in this observation phase is “might there be a concealed medical problem”. Also important to consider is if the declines are related to an adverse effect of medications. Other possible reasons for a decline in someone’s health could be the presence of untreated pain, which the supporters are unaware of. Other significant declines could also be related to psychosocial issues, or be due to unresolved grief or loss.
Sometimes a person who is aging can start to decline but is inaccurately assessed. There might be clinical errors that occur when a medical provider attributes decline simply to old age or to an intellectual disability, without further testing or investigation into other causes. When this occurs, it is referred to as “diagnostic overshadowing” as when an obvious condition, such as old age or a disability, causes a diagnostic bias or oversight. This leaves other possible diagnoses overlooked.

Other considerations for decline include chronic health conditions such as insulin resistance, complications from diabetes, or the presence of heart disease. Physical conditions such as having had a stroke, or having peripheral vascular disease will also impact someone who is declining in their health. Finally, someone who is overweight or obese also has an increased risk for functional impairment, arthritis, spasticity and cardiopulmonary disease.
It is important to understand that while it is hard for anyone to lose a loved one, such losses may have an even greater impact on someone with an intellectual or developmental disability. Some possible examples are experiencing a loss or a decline in the functional ability to perform skills, which can lead to feelings of grief and loss. Other things that cause significant distress and emotional pain are the losses of family members, friends, or even staff members, whether through death or transitions. Other significant issues could include any home life changes, changes in opportunities or even changes in the level of choice-making.

It is important to understand how people handle losses. Those connected with others usually fare better as they work through grief and loss. Social groups are important and the opportunity to network with others is helpful, it gets them through those tough times of loss. These opportunities may not always be present or may be restricted for those with a disability, so their ability to successfully navigate these times may be difficult. As supporters, we might mistakenly assume that, because they are not showing any outward signs, everything is okay. It is good to carefully observe people and find ways to check in with them to find out how they are really doing.
Sensory changes play a central role in one’s ability to gather information and participate in social interaction. As people age, changes in sensorium will naturally occur. Everyone experiences some degree of change and they vary from person to person. The most noticeable change occurs with vision. Visual changes can result in a loss of acuity, a loss of accommodation (presbyopia) and a decrease in light transmission. There are also changes in color perception (especially greens, blues, and violets), and a decrease in adaptation to darkness. Older eyes are less able to adapt to glare, have an increased sensitivity to glare, may experience a decreased visual field and have decreased tear production.
As you can see, in looking at each picture above and the distorted views, the first picture depicts when someone experiences macular degeneration. There could be large areas of distortion or darker spots in one’s vision that can cause difficulty in seeing the whole view. Most people with macular degeneration are unable to see items directly in front of them. If someone you support has macular degeneration, try to anticipate what they will struggle to see, in order to better support them.

If someone is diagnosed with glaucoma, which is sometimes called “the sneak thief of sight”, it can cause gradual losses of side vision (peripheral vision) and, in severe cases, it may lead to total blindness. With someone who has cataracts, the clear lens inside the eye becomes cloudy. This will impair vision, but does not cause permanent damage to the eye, and in most cases, eye surgery can help restore vision. There is an increased incidence of vision problems with certain syndromes and it is important to understand how vision impairments can affect people overall.
If someone you support has a vision problem they may show signs such as squinting, shutting or covering one eye, or tilting or thrusting their head forward. Sometimes, they might have dry eyes, which may feel scratchy or irritated. They could develop blepharitis, an inflammation of the eyelids, which worsens when a person rubs them too much. Age-related macular degeneration (ARMD) is the most common cause of vision loss and is considered incurable. The presence of cataracts leads to a gradual clouding of the eye lens, causing vision changes that may require surgery. Another cause of vision loss is diabetic retinopathy, which is damage to the retina that can lead to blindness. Glaucoma results from damage to the optic nerve and is related to increased pressure inside the eye and if left untreated can lead to blindness. Finally, the condition that leads to vision loss known as keratoconus, is a disease of the cornea, the outer surface of the eye. This last vision loss of concern can affect anyone, however it is more commonly found in people who have Down syndrome.
As people age, they may experience visual changes that can lead to a decline in functional abilities, such as stumbling or hesitancy on steps or a curb. You might notice that a person is holding a book or newspaper closer to their face in order to see it better. They might refuse to participate in activities that they previously enjoyed, but now cannot see well enough to do them. Another indication that someone can’t see well is when they are sitting very close to the TV, or closer than they did in the past.
As you assist those who are aging and may be experiencing vision problems, one supportive strategy is to schedule regular eye exams, so that a professional can diagnose and treat any problems as they occur. It is important to get a professional explanation of the problem and a treatment plan. Some additional resources and programs include Low Vision Specialists and the Office of Vocational Rehabilitation Bureau of Blindness and Visual Services. Other support strategies are to modify the environment as needed, using high contrast colors, non-glare lighting and surfaces, and having large print reading materials available. Use colors such as red, orange, and yellow, which are more easily seen and much better than blue, green and violet. You can provide increased lighting, use night lights and help those you support organize their belongings and keep locations consistent to avoid confusion. Assist in keeping eyeglasses clean and use cases to prevent scratches. You may need to modify activities, such as more daytime activities, while also providing increased support for night-time activities. Allow time for those being supported to adjust to changes of light and help them to protect the “good” eye, if there is a stronger one.
Some physical changes related to aging greatly affect a person’s sense of hearing. There is a loss of auditory nerve cells and fibers which decreases hearing ability. Another change is the reduction of blood supply to the auditory nerve transmission area. The thickening of eardrums decreases one’s ability to hear as well as before. Sometimes the presence of increased ear wax can cause impairment. Some effective strategies to assist those you support include reducing background noise whenever possible to help control the auditory input. Arranging for regular hearing exams is very important to help monitor and support someone whose hearing is declining. When interacting with people whose hearing is diminished, you should speak in lower tones. Be sure to face the person when speaking to them. Be sure they understand you are trying to get their attention. Be aware that hearing loss can lead to social isolation and there may be emotional concerns that the person has about their situation. It is essential for them to maintain positive social interaction. If left untreated, this can be the most socially disabling of all sensory impairments.
Many aging individuals experience a type of hearing loss known as presbycusis. This is a bilateral high frequency hearing loss. Over time, the person loses the ability to hear high pitched speech and tones. Tinnitus, also known as ringing in the ears, may or may not be present.

This can also mean difficulty in discriminating between high and low tones and in determining the direction of sounds. It is important to be alert, as a supporter, to make necessary changes to the environment depending on the individual’s needs.

Some hearing losses are conductive in nature, which means there is a problem with the physical conduction of sound through the ear structures. Some possible causes for this could include earwax, ear infections, head trauma, or damage to the ear drum. When a person’s hearing loss is due to sensori-neural impairment, there is a disruption in the conduction of the sound signals through the nerves to the brain or with the processing of information in the brain. Some possible causes could include head trauma, drugs, diabetes, high blood pressure, heredity, kidney disease or cardiovascular disease.
If someone you support begins to experience hearing losses, some possible signs may include increasing the volume of the television and speaking louder or louder than before. They may even begin to speak loudly. They may give inappropriate responses to a question or be confused because they only hear bits and pieces of a conversation. Sometimes they might respond to a comment they think they heard but it doesn’t quite match the flow of conversation. Sometimes hearing difficulties worsen in certain environments, like noisy places or large groups, where many people are talking at the same time. This type of hearing loss can feel isolating and the person will “shut down” to avoid looking foolish. They may feel left out, such as when a joke has been told and they don’t laugh along with the others. In more challenging situations, a person may react by engaging in self- injurious behaviors due to their frustration.
There are some support strategies suggested for people who have hearing challenges they include: arranging for regular hearing exams to check for wax build up or ear disease, and screening for gradual hearing loss. A hearing aid may be recommended.

When communicating with someone who has hearing loss, be sure to speak slowly and clearly and use lower tones. If possible, try to reduce background noise to help them hear you better. When speaking with someone you support, face that person with the light toward your face, not behind you. Make eye contact when speaking and do not speak to them if their back is turned. If hearing aids are used, it is important to ensure they are kept clean and dry, make sure batteries are fresh, and when not in use, that they are safely stored in containers that preserve longevity.
Aging changes can occur that affect the mouth or the sense of taste. Some of these include a decrease in the number of taste buds, gum disease and thinning of tooth enamel. Usually sweet and salty tastes are affected first.

Someone who has altered taste sensation may lose their enjoyment of eating. Watch if the person’s increases their use of salt and spices. Their mouth may be more susceptible to injury and dental problems. If someone has dentures, they may irritate the gums or no longer fit well.

Someone who has an altered sense of taste may need more frequent dental and mouth exams to monitor this condition carefully. As a supporter, it is important to pay attention to safety and hygiene issues for the people who are relying on you.
Certain conditions and medications can cause a decrease in saliva production, known as “dry mouth”. This can increase a person’s risk for dental decay, gum disease and abscesses. Chronic inflammation of the gums is known as periodontitis and can lead to gum tissue and bone loss in the area that holds the teeth in place. This, in turn, can lead to a loss of teeth in the affected area.

It is important to monitor for mouth sores, especially if someone has dentures, and also check regularly for possible infection of the mucus membranes. When a person develops problems in the mouth, they need to be evaluated promptly by their dentist or physician, as the risk of oral cancer increases with age.
Some support strategies for people who have mouth or taste problems include:

- Regular dental checkups and good oral hygiene, even if no teeth
- Floss or use proxi-brush
- Consider battery-powered toothbrush
- Alcohol-free mouthwash
- Ask dentist about mouthwash to decrease bacteria and infections
- Increase seasonings of food except salt
Our sense of smell allows us to identify and distinguish odors and aromas in the environment around us. Experiencing a gradual decline in sense of smell is normal as one grows older and may be due to a decrease in the number of nerve fibers in the nasal passages. People may experience either a loss in their ability to smell or a change in the way they perceive odors. The mucous membrane lining of the nose may become thinner and dryer.

Certain conditions can have a negative effect on one’s sense of smell. These include Parkinson’s disease, Alzheimer’s dementia, nasal or sinus blockages or diseases and allergies. Cigarette smoking, head or facial injuries and some medications, can also be associated with having a decreased sensitivity to smell.

Some consequences of these conditions can be a decreased interest in food or a desire for saltier or more seasoned food. Having decreased sense of smell means the person has a reduced awareness of body odors as well as environmental odors. As a supporter, you will need to stay alert to potential hygiene issues and safety hazards for these individuals.
When someone loses their sense of smell, there will be safety concerns such as being unable to detect smells of smoke, gas or food that has spoiled. They may not be able to smell body odors or they may go overboard with fragrances. Some safety considerations to remember when supporting an individual who has an altered sense of smell, include having working smoke detectors to use in the home, and taking extra care if a gas stove or oven is used, since they may not be able to smell smoke or gas. Other proactive considerations include: discarding food on the recommended use-by date and doing regular checks for food and beverage spoilage. As a supporter, you should also assist individuals to be aware of body odor or any over-use of fragrances.
There are additional changes that occur with aging regarding skin, hair and nails. There is a decrease in sweat glands, subcutaneous fat, blood supply, elasticity and the thickness of skin. There is also a loss of pigment, a decrease in skin cell production and rate of hair growth and changes in the nail matrix. Also, be aware that people can experience a decrease in their sensation of touch, pain, pressure and changes in temperature. Sometimes the alterations in the sense of touch can be significant, especially with heat, cold and pain. Additional things to watch for are sun damage, burns, damage to skin and poor healing of wounds. In some situations, these can pose a serious threat to an aging person’s health. Also potential issues to be aware of include hot or cold temperatures, dry skin and necessary fluid intake. Hair thinning, baldness and the rate of graying, is often genetically determined, and varies, of course, from person to person. After menopause, many women develop facial hair especially on their chin and upper lip. In contrast, other areas with body hair may become thinner. Nail growth slows down and nails may become brittle and develop ridges. With age, the risk of nail fungal growth increases.
As people become older, their skin becomes thinner and requires more protection. Some preventive measures are to minimize the use of soap, and if using soap products, rinse well after using, so no residue is left on the skin. Individuals should be sure to gently dry their skin well and to use moisturizers. It is also important for those who are immobile to be repositioned frequently to prevent skin issues, such as sores, skin breakdown and other conditions. For anyone who is older, it is essential to check skin frequently for potential problems.

Other precautions include the clear labelling of hot and cold water, and the monitoring of water temperature to ensure safety. For those who are older and also have Down syndrome, there is an increased risk for skin issues. There is a need for heightened awareness regarding those who face issues with limited mobility, incontinence or poor nutrition.

And, it is important for all people to use proper sun protection.
Of significant concern related to the aging population are the changes related to the cardiovascular system. These changes result from reductions in heart and lung function as well as the decrease in the ability to respond to stress. This can sometimes lead to difficulty breathing and overall fatigue. A lowered heart rate is due to slower contraction of cardiac muscle fibers. There is also a slower return to one’s normal heart rate after being elevated. A build-up of fatty plaques and calcifications in the arteries is also common.
Additional concerns regarding aging and the cardiovascular system include the decreased elasticity of arteries which causes the heart to pump harder and faster. Red blood cell production decreases and may result in anemia. Someone older is also at risk for peripheral vascular disease which leads to intermittent leg pain when walking and is due to a decrease in blood flow to the legs and feet. According to an article cited in the Resource section entitled “Aging with developmental disabilities: Women’s Health Issues”, heart disease accounts for half of all deaths in women over the age of 50 and research suggests it is a leading cause of death in women who have developmental disabilities. Some risk factors to be aware of include family history, high blood pressure, diabetes, lack of cardiovascular fitness and cigarette smoking. Another common condition is orthostatic hypotension which results in dizziness when a person stands up after sitting or lying down and is due to a decrease in blood flow to the brain. Fatty deposits can develop in the arteries and cause a decrease in blood flow that leads to heart attacks or strokes, depending on where the narrowing or blockage occurs. Blood clot formation can also result from certain conditions and cause blockages in blood vessels, that can lead to tissue damage and death. Muscle cells in the aging heart may degenerate over time and heart valves may thicken and become stiff, causing a heart murmur.
To help those you support protect their heart, suggestions for some include encouraging regular, moderate exercise, while for others, to slow the pace of activities if they are currently overdoing it. It is also important to watch for signs of decreased endurance, such as dizziness, distress or confusion. With those who have mobility challenges, they need to change position slowly in order to prevent dizziness or stress to the heart.

Other ways to promote heart health include stopping cigarette smoking and encouraging a healthy and nutritious diet. Individuals should have their blood pressure checked regularly and decrease their intake of salt, trans fatty acids and fried foods.

Everyone, including direct supporters and those being supported, should learn the signs and symptoms of a heart attack.
As a person ages, there are normal declines in the respiratory system including the lungs becoming less elastic and less able to take in oxygen. As lung capacity decreases, respiration becomes less efficient and the tolerance for exercise decreases. There may also be a diminished cough reflex and a decrease in the cilia lining of the respiratory tract. Aging challenges can also lead to muscle atrophy in the rib cage. This in turn, can lead to shortness of breath with exertion, another cause of reduced exercise tolerance. There also may be a decreased ability to tolerate high altitudes. Some of these conditions can be associated with increased risks of airway collapse and possibly sleep apnea. There may be changes that occur in the larynx, commonly known as the voice box. The voice may change in pitch, loudness and quality. The person may speak more softly and become slightly hoarse.
It is important for you as a direct supporter to know and follow ways to protect the lungs of those you support, especially in encouraging them to avoid smoking and being exposed to second-hand smoke. You should also encourage deep breathing and regular physical activity. For persons who have more difficulty, slow the pace of activity and allow rest as needed. Also, it is important to help alleviate stress. This can be accomplished partly through proper diet, fluids and a healthy relaxed environment. Also essential is the cycle of regular immunizations against flu and pneumonia. Remember to watch for signs of illness or infection, which can include coughing, fever, shortness of breath, colored sputum or confusion. Modified diets should always be followed exactly as prescribed when supporting someone who is diagnosed with dysphagia. It is critical to know the aspiration precautions for those individuals with unique needs. It is also important to observe for signs of reflux, which can include: heartburn or discomfort after meals or at nighttime. Individuals may experience difficulty or pain with swallowing. Observe for any challenges with swallowing or excessive salivation when not eating or coughing during the night.
It is important to have some general information regarding the aging process of the gastrointestinal or GI system. As we age, our metabolism slows down and in every decade, our calorie needs are reduced. Our saliva production decreases, which can lead to dental disease and potential swallowing issues. In general, smooth muscle tone decreases and results in a slower digestion process and less absorption of nutrients. Also with aging, the gag reflex decreases.

- Decreasing total calorie needs every decade
- Decreased saliva production may lead to more gum disease, swallowing issues
- Decreased smooth muscle tone, slower emptying and digestion, less absorption of nutrients
- Gag reflex decreased
Some age related changes in the digestive system include a gradual decrease in the production of secretions in the stomach, pancreas, small intestine and liver. This can lead to symptoms of indigestion. There may also be an increased risk of developing ulcers. Also, as people age, there is a gradual decline in gall bladder function and bile may thicken, increasing the risk of gall stone formation. Changes in appetite may occur, so monitoring and ensuring adequate food and fluid intake of older individuals may be a challenge for supporters. The risk of malnutrition and dehydration is high for those who are disinterested or have difficulty with eating and/or drinking.
With the people you support, there are some strategies to promote effective elimination such as incorporating fluids and fiber into the diet and encouraging physical activity. Direct supporters need to observe individuals closely for signs of constipation. It may be necessary to encourage a slower pace of eating and offer smaller, more frequent meals. Individuals should also be encouraged to avoid consuming “empty calories” which come from foods that have a high number of calories, but not many nutrients, for example, a donut.
When supporting an older individual, there are some changes in the genitourinary system that may impact that person. Kidney function may be altered and be less efficient at filtering blood and removing waste, from the body. Impaired kidney function can have an effect on the elimination of some medications. Diabetes, hypertension and other conditions may cause further kidney damage. The capacity of the aging bladder to hold urine is reduced, and along with decreased muscle tone in the pelvic area, there may be urinary retention, frequency, nighttime urination, incontinence, and a higher risk of urinary tract infections, or UTIs.

Common conditions that can occur in aging men and women, can cause the urethra to become blocked. In men, this can be an enlargement of the prostate gland. In women, bladder prolapse can occur. Blockages can lead to urinary retention as well as erectile dysfunction in men.
Many issues that occur in the genitourinary system of aging adults relate to the effects of declining hormone levels. There is a gradual loss of muscle mass and connective tissue that support the pelvic organs. Bladder and uterine prolapse can occur leading to feelings of pressure, urinary incontinence and other conditions. Also associated with tissue loss in women is vaginal dryness and possible pain with intercourse. In men, the prostate gland enlarges with age and may cause problems with urination and ejaculation. With lower hormone levels, men can experience erectile difficulties.

The average age of onset of menopause in women in the general population is 51. Women with Down syndrome may develop signs of menopause 4 – 5 years earlier.

As people age, they also have a higher risk for cancer in the genitourinary system.
It is important to understand some of the support strategies that can be used for those who have challenges related to the genitourinary system. One of the most significant ways is to observe individuals for any changes in urination patterns or signs of infection. Note changes in patterns of frequency, urgency, accidents, discomfort, unusual odor, color or bleeding. There may be no fever or usual symptoms. Encourage regular screening tests and examinations with medical providers. Encouragement of good hygiene practices is very important because older adults, especially women, have a higher risk of urinary tract infections.
Aging can certainly impact the musculoskeletal system. Muscle mass and elasticity decreases and there is an overall decrease in strength and flexibility of muscles, tendons, and joints. In addition, the proportion of body fat may increase up to 30% by later ages. Bones reach maximum developmental mass between ages 25-35, then begin to shrink in size and density. The loss of bone mass can lead to osteopenia or osteoporosis.

In older adults, the vertebrae of the spinal column loses density and the discs between them may become brittle and shrink.

There is a likelihood of developing arthritis, especially in post-menopausal women. Aging individuals may experience other changes, such as a decline in their sense of balance, due to age related changes in the inner ear. Slow movement and less sensation leads to slower reaction times and decreased protective responses.
There are several key ways to help those who are aging protect their musculoskeletal system. One way is to encourage independent movement and self-care. It is important to promote regular exercise and implement safeguards, in order to prevent falls. Those who are older and need assistance should be taught how to safely use mobility aids. Physical inactivity plays a key role in many chronic illnesses of aging. It is important to provide seating that is comfortable, firm and not so deep, as to prevent an individual from getting up without difficulty. Also, ask health care providers about adding calcium and vitamin D supplements. Hormone replacement therapy or other medication may be an option for some individuals to preserve bone density. It is important to know that elderly individuals with weak muscles have a higher risk of premature death.
The nervous system has some unique issues related to aging. There is a decline in the number of nerve cells that results in decreases in the conduction of nerve impulses in the body. This leads to decrease in blood flow and oxygen to the brain. Aging also impacts sleep. Individuals experience a decline in the REM or rapid eye movement stage of sleep, and as people age, they may have an altered response to pain.

Aging in the brain leads to a series of subtle, but progressive, alterations that may eventually lead to behavioral changes. The risk of developing dementia increases with age. Approximately 10% of people 65 years old have Alzheimer’s dementia and this number increases to more than 50% in people 85 years or older. About 50% of people with Down syndrome will develop Alzheimer’s dementia and may begin showing symptoms beginning in their 50’s and 60’s.

Motor function also steadily deteriorates in elderly individuals. With aging, there may be an increase or decrease in seizure frequency depending on the individual and his or her health history. There are also cumulative effects of the long term use of seizure medications. Decreased bone density, osteoporosis and falls related to seizures, increase the risk of bone fractures.
The health benefits of physical activity have been well documented and are supported by recommendations in Healthy People 2010 regarding the frequency, intensity and duration of physical activity for optimal health. The majority of U.S. adults, however, do not follow these recommendations. Physical inactivity is particularly prevalent among adults with a disability, who are already at increased risk for secondary health conditions. These conditions can be a result of their disabilities or from their behavior, lifestyle or environment. You can research this further by using the link above to the Centers for Disease Control and Prevention (CDC).
As we support those who are aging, there may be mental health challenges to consider. As these individuals age and experience changes in their physical health, you may see an increase in mental health conditions, such as depression, anxiety and dementia. They may have more difficulty with processing and organizing new information as well as recalling old information.

Dual Diagnosis issues may occur in people who are aging and have an intellectual disability, with depression being the most common mental health condition. According to a study done in 2001 by Kemp, within the general population, 5-10% of people experience clinical depression, however within the population of people with intellectual or developmental disabilities, or I/DD, this estimate may rise to 15-40%.

For some people, as they age, mental health issues which were resolved in the past may reappear.
Depression is common in people who have an intellectual or developmental disability and, as people age, the incidence of depression increases. Signs and symptoms of depression include an increase in tiredness, loss of interest or pleasure in activities, irritability, confusion and difficulty sleeping. Some possible causes include genetics, medications, losses, chronic illnesses, physical disabilities, social isolation.

Some treatment options include: therapy, support groups, medication and electroconvulsive therapy or ECT. Prevention strategies include preparing individuals for changes before they occur, maintaining significant friendships, increasing physical activity, and maintaining a healthy and well-balanced diet.
Fear and anxiety are a part of life. According to the National Institute of Health, Senior Health Division, anxiety disorders affect between 3 and 14 percent of older adults in a given year.

According to the Digest on Dual Diagnosis, the most common types of anxiety disorders associated in a person who has an intellectual or developmental disability, or I/DD are: panic disorders, obsessive-compulsive disorders, post-traumatic stress disorder, fear of open spaces and generalized anxiety disorders.
There are certain symptoms related to anxiety to watch for, including those with both physical and emotional elements. Some of these signs and symptoms are excessive worrying, restlessness, fatigue, difficulty concentrating and sleep problems.

Some options for treatment include cognitive behavioral therapy and the elimination or decrease of stimulants.

Other methods to treat or manage anxiety include the use of relaxation techniques and medications.

It is important to note that some people with disabilities may have an increased risk of having complications from anti-anxiety medications. The elderly also have a high risk for adverse medication reactions and the Beer’s List should be reviewed before medication is prescribed.
It is important for direct supporters to be familiar with some types of dementia. Alzheimer’s Dementia is the most common type and has a gradual onset and progresses in stages of increasing severity. The second most common type is a vascular dementia also known as Multiple Infarct Dementia. This results from numerous tiny strokes, related to heart disease and/or high blood pressure, and can have a sudden onset. Individuals who have Down syndrome and dementia may experience an onset of symptoms in their forties, and may experience an increased pace in the progression of the disease. The definition of dementia includes having impaired brain function and problems with memory and judgment. This is often accompanied by confusion, along with difficulty retrieving information that was once familiar. There is a general decline in the basic ability to think and understand.
With dementia, there can be varying degrees of functioning depending on each individual and the progression of the disease. People who have a higher level of functioning may experience some memory impairment, reduced verbal output and some time disorientation.

Many of the standard screening tools that are used in the general public, such as the clock test and the Mini Mental Status Exam, aren’t used with individuals who have intellectual or developmental disabilities due to cognitive problems. Instead, a recommended dementia screening tool can be found at PCHC.org, as noted in the Resource section.

Remember the importance of baseline observation of changes. Medical providers must rule out all other possible issues such as those involving sensory changes, depression, grief and loss and other co-occurring medical conditions.
Signs of dementia in an individual who has an intellectual or developmental disability, might include apathy, inattention or a diminished alertness. There may also be a slowing of movement and a decreased ability for social interaction. Sometimes dementia is not the real problem. Other conditions that could mimic signs and symptoms similar to dementia are anemia, high blood pressure or a brain tumor. An individual could have serious adverse effects of medication or have hearing or vision problems. Metabolic disturbances, such as diabetes or a thyroid dysfunction, could mistakenly present as dementia. Other conditions to consider are alcohol or other substance abuse and mental health conditions, such as affective disorders, which can cause delirium or depression. Finally, in extreme cases, vitamin deficiencies could be a factor in dementia-like presentation.
When supporting those who are aging and have signs of dementia, one thing to always do is get a medical evaluation so the medical provider can rule out other possible causes for symptoms and behaviors. Document a progressive decline from the person’s former or baseline status to assist in getting an accurate diagnosis. A possible or probable diagnosis is best done by a process of elimination and reviewing characteristic patterns of difficulties. It is essential in screening for dementia to use a standardized test. It is important to do these periodically, at the beginning of someone’s care and before you anticipate problems. If possible, include a video recording of the person’s functional abilities to establish a baseline. In this way, a medical provider can compare changes that occur over time. One resource is the PCHC Dementia Screening Tool. This can be used to establish a baseline and observe for changes in functional abilities. Information on how to locate this tool is available in the Resource section.
Congratulations, you have successfully completed the *Older Adults and Dual Diagnosis* training.
Thank you for your participation in this training.