**Appendix 2 –Case Descriptions**

**Case 1:** JL is a 2nd grade girl in the special ed. program (resource room) at an elementary school. She has been referred for assessment of her gross motor needs. She is not currently on any medications, rarely misses school due to illness and has been pronounced “perfectly healthy” by her pediatrician. She is a very sweet child and demonstrates caring and concern for her friends & family. JL was premature at birth, with pulmonary problems. She spent most of the first year of life in the hospital. Developmentally, she was slow to creep and cruise, and was diagnosed with hypotonicity. She walked independently just prior to her second birthday. She was labeled DD in pre-school. Her IQ is 68. She is tall for her age, at 51 inches, but also quite overweight. The school nurse reports that at the beginning of the school year she weighed 111 lbs., and now in January, she weighs 123 lbs. She has a BMI of 32 which places her at the 99th%.

She was tested with the BOT (1st ed) and received a Z-score of less than -2.0 (below the 1st %) on the gross motor portion. She received a minimum score on running speed and agility because of speed. She scored very poorly on strength although by MMT showed fairly good strength for her age. She was intimidated by the balance beam and could barely clear the ground for the jumping tasks. She was successful at the bilateral coordination activities that are performed in sitting.

JL participates in regular P.E. She lags behind the rest of the class for running activities, “jogs” slowly with feet barely leaving the ground and begins to walk after the first lap, with moderate SOB. During stretching exercises she has difficulty attaining the positions. She has fairly good ability to coordinate her hands, can grip a bat or racquet correctly, and swings with good strength and aim. She can shoot a basketball fairly well and dribble several times in a row, but is slow to respond during a game or drill. She can kick a stationary ball but has poor timing for kicking if the object is moving, hesitating to shift onto one foot and only keeping her other foot off the ground for a very short time. She has no back swing with kicking. She can gallop (slowly), goes through the motions of skipping, but does not leave the ground on the “hop” phase. She attempts to “bear crawl” but has difficulty getting into position and can’t move her feet forward once on all fours. During recess she has a group of friends with whom she plays jump rope. She does not attempt to jump and appears quite satisfied to turn the rope for the others. She cannot clear the rope with attempts to jump.

JL tends to stand with a wider base of support, and demonstrates a slight genu valgus and hip internal rotation in standing, with some tibial rotation and varus. She has never been diagnosed with Blount disease. She has never had orthoses of any kind and does not complain of knee or foot pain. Her active ROM is within expected limits except for some moderate hamstring tightness and the passive insufficiency due to her body structure. JL rides the special education bus because she needs extra time to get down the stairs. She is independent slowly ascending stairs with alternating feet using a railing/handle on both sides. She fearfully descends the stairs by turning to the side and leading with one foot, holding onto the same railing with both hands.

With her parents, older sister and younger brother, JL lives in a nice house in a small community. Her parents present as intelligent and appear to be concerned, knowledgeable advocates for their daughter. Both parents are overweight (by about 30 to 50 lbs. each) and a little sensitive about it. The siblings are slightly overweight. Their afternoons are filled with afterschool activities (arts & crafts, music lessons, clubs, etc.) but neither the children nor parents participate in sports or fitness activities and don’t express interest.

**Case 2:** KS is a male high school junior who is in the regular education program at school. He typically gets good grades, mostly B’s and A’s with an occasional C. His main problem at school is that he is profoundly overweight. This has greatly impacted his health and his social life. Over the summer, he was diagnosed with Metabolic Syndrome and Type II Diabetes by his family physician. Functionally, he struggles to get around school. He is complaining of significant bilateral knee pain, shortness of breath and excessive fatigue and sweating when attempting to climb the stairs to his biology class which is located on the second floor. He has received special permission to use the elevator instead of climbing the stairs. He drives himself to school, and was recently issued a handicapped parking placard so he can park in the accessible spaces at the front of the faculty parking lot, rather than have to walk in from the student lot.

He refuses to allow himself to be weighed at school but by visual estimates he weighs around 350 pounds and is only 5’7” tall. Mom reports that he has “always been a little chunk.” He has not attended P.E. since the beginning of high school, providing a medical waiver from his physician to excuse him from participating. Mom reports that he was very stressed out about having to dress/undress in the locker room. He has never been involved in afterschool sports. Until the age of twelve, he went to daycare after school. After that, he stayed at home by himself in his family’s apartment, generally playing video games or watching television, after dutifully finishing his homework on his own.

He has been seeing a nutritionist on an outpatient basis. His parents attempt to provide healthy food at home, but he purchases unhealthy food elsewhere and brings it to school. He is also seeing a mental health therapist outside of school, and Mom has said that his weight is a large part of the treatment session, but there has been no communication between the therapist and the school. KS views that as a private matter. Most recently his parents are considering taking him out of school and are wondering if he could receive instruction, at home due to his medical conditions and the “intense verbal abuse” he has suffered from his peers. Mom is very much in favor of him receiving physical therapy services from the school district and would like for him to eventually be able to enjoy school and live his life without the physical accommodations. She worries that he is “missing out on everything.” He does not have private healthcare insurance.

He is an only child, living in an urban area with his mother and step-father. His biological father passed away from heart disease, complicated by diabetes, in his early forties. KS was four years old at the time. His teachers and school counselors consider him to be depressed, extremely sensitive to the slightest negative comment and unmotivated to attempt any in-depth social interaction with his peers. There have been witness reports of “mild teasing” in the hallways and at lunch by various students (usually males) but there are other classmates who have displayed kindness and acceptance of him during group activities in class, and have attempted unsuccessfully to get him to be more involved in school activities.