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## **Backgrounder: What is Down Syndrome?**

What is Down syndrome? The <u>CDC states</u> that Down syndrome (also commonly called Trisomy 21) is a condition where a child is born with an extra chromosome. Babies are born with 46 chromosomes, but when there is an extra copy of chromosome 21, the child is diagnosed with a condition called Down syndrome. Down syndrome affects "1 in every 700 babies" (CDC, 2021).

There are different physical and mental features that people with Down syndrome exhibit. People with Down syndrome often have loose joints, shorter heights and eyes that slightly slant upwards. Down syndrome affects speech patterns often causing people to speak at a slower pace. In some cases, people with Down syndrome may experience hearing loss, difficulty breathing while asleep, ear infections and heart defects (CDC, 2021).

There are three different types of Down syndrome diagnoses. Most people with Down syndrome have Trisomy 21 (95%). Trisomy 21 is a type that causes there to be three copies of chromosome 21 in each cell. Translocation Down syndrome affects about 3% of people with Down syndrome. This type of Down syndrome occurs when the extra chromosome 21 is "trans-located" to a different chromosome. Mosaic Down syndrome, affecting about 2% of people with Down syndrome, occurs when there are some cells that have two copies, and some cells have three copies of chromosome 21 (CDC, 2021). Even though we know much about this condition, doctors and scientists still don't know what can cause this extra chromosome to appear inside of cells.

When services are given to children with Down syndrome at an early age there can be significant improvements to their physical and mental wellbeing. People with Down syndrome are highly capable and better the world. Despite their disadvantages they have their own abilities that allow them to prosper.