Three additional conditions approved for newborn screening in Minnesota

The Minnesota Department of Health (MDH) is boosting health protections for newborn infants in the state by adding three new conditions to its Newborn Screening Program.

Newborn screening is a public health practice designed to help parents and health care providers catch and treat conditions early in life so they can be treated effectively and limit negative impacts for the child and family.

The MDH Public Health Laboratory routinely screens all babies born in Minnesota for more than 60 conditions, and Minnesota Commissioner of Health Dr. Brooke Cunningham recently approved an advisory committee's recommendation to add guanidinoacetate methyltransferase (GAMT) deficiency, Mucopolysaccharidosis Type II (MPS II) and Krabbe disease to the Minnesota Newborn Screening Panel.

"Minnesota has one of the most comprehensive newborn screening programs in the country, and regularly considers additions to the program," Commissioner Cunningham said. "I want to thank the members of the Newborn Screening Advisory Committee for their dedication to this important public health service."

Although rare, the three new conditions can be serious if not detected and treated early.

- **Guanidinoacetate Methyltransferase Deficiency (GAMT)** is a disorder that can lead to neurological problems, such as intellectual disability, seizures, behavior problems and limited speech development. Treatment may include amino acid supplements such as creatine and ornithine as well as dietary guidance from specialists.
- **Mucopolysaccharidosis Type II (MPS II)**, also known as Hunter Syndrome, occurs almost exclusively in males. It affects many body systems, including the muscles, skin, eyes and nerves. Treatment may include enzyme replacement therapy, physical therapy, dietary changes and surgeries.
- **Krabbe Disease** can cause muscle stiffness, blindness and deafness, and it can be fatal if treatment is not administered in time. Treatment involves a stem cell transplant by 4-6 weeks of age, which is not a cure but greatly improves quality and length of life for most affected children. Newborn screening for Krabbe will allow families to consider a stem cell transplant before their child develops symptoms and it is too late to do treatment.

The MDH Public Health Laboratory will prepare to begin screening for the three additional conditions by validating testing methods, developing result and follow-up protocols, and working with external partners to establish clinical guidelines. A start date for screening will be determined as this process unfolds.

Since 1964, when Minnesota started screening for PKU (phenylketonuria), blood samples from all Minnesota newborns have been sent to MDH's Public Health Laboratory for newborn screening unless their parents opted out. Last year, the lab screened more than 62,600

newborns from across the state and recommended early intervention and treatment for conditions detected in about 400 of them. When a condition is detected, MDH contacts the child's health care provider to discuss the result, inform them about the condition and review the recommended follow-up steps.

"As scientific knowledge advances, our Public Health Lab can detect more conditions during the screening process," said Commissioner Cunningham. "By identifying these conditions early, we can help connect infants and their families with life-changing—and potentially lifesaving—interventions and treatment."