The Wisconsin newborn screen (NBS) currently tests approximately 60,000 infants born in Wisconsin each year for 47 different congenital conditions using dried blood specimens, based on recent NBS data from 2020. The goal of NBS is to detect certain genetic disorders early in life to improve outcomes. Annually, the Wisconsin NBS detects approximately 125 affected infants.

Over 50 years ago, the World Health Organization (WHO) commissioned a report to assess the principles and practice of disease screening. As technology continuously advances, the gap widens between what is technologically possible and what is practically and ethically feasible. This report proposed 10 criteria that stakeholders ought to consider for addition of a genetic disorder to the population (Table 1) and is referred to as the Wisconsin and larger classic screening criteria. These criteria help stakeholders weigh the benefits of early identification of disorders versus the potential harms of false positives.

The Wisconsin Department of Health Services has established a process by which individuals or groups may add a condition to the NBS. Each year, 300 children will develop cancer in Wisconsin. Survival rates have improved over time; however, cancer remains the leading cause of nonnatural deaths in Wisconsin. Familial predisposition syndromes (PGCPS) are thought to contribute to at least 8.5% of childhood cancers. Of the 24 conditions screened by state NBS, 9 are related to familial predisposition syndromes (PGCPS). Widespread implementation of PGCPS screening programs could potentially identify approximately 4,000 newborns each year across the United States.

Successful development of a cancer newborn screening (NBS) program in Wisconsin could set a precedent for other states to develop similar NBS programs for pediatric genetic cancer predisposition syndromes (PGCPS). Widespread development of PGCPS screening programs could identify approximately 4,000 newborns each year across the United States.