

Tarheel Footprints in Health Care

Recognizing unusual and often unsung contributions of individual citizens who have made health care for North Carolinians more accessible and of higher quality

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The Newborn Screening Program of the North Carolina Division of Public Health is considered to be one of the most important public health programs today. The program screens newborns for genetic disorders and provides early diagnosis and timely treatment to those affected. As such, it mitigates the terrible outcomes of undiagnosed and untreated disorders, which may include mental retardation or even death. This screening program has both ethical and financial benefits for the state. Screening and the subsequent treatment of affected newborns is a better use of resources than the long-term care of undiagnosed and untreated children. Moreover, it reduces the emotional burden for families with affected children. Most of the states in the US started to offer this program in the 1960s and North Carolina was no exception. North Carolina started its program in 1965 with screening for a single disorder (phenylketonuria, or PKU) and has, since that time, expanded to screen for more than 30 disorders.

Dr. Kirkman came to North Carolina in 1965, only 6 months before the newborn screening for PKU began. Infants with PKU were initially treated at 2 or 3 university medical centers, but it became apparent that the management for such an uncommon disorder was most economically and effectively done at a single medical center, which became the PKU Center at the University of North Carolina at Chapel Hill (UNC Chapel Hill). Dr. Kirkman served as the Chief of the Division of Genetics and Metabolism at UNC Chapel Hill from 1965 until his retirement in 1991. During his tenure, he cared for nearly all the PKU babies in North Carolina. Along with his medical team, he talked with the parents by telephone the same day he received the word that the baby likely had PKU and made an appointment for the parents to bring the infant to the hospital immediately. He needed to confirm that all the infants who tested positive actually had PKU and that the special PKU diet would not be deadly to the child or be overly restrictive for quality of life reasons. At the hospital, he and his medical team also gave the parents a positive message about early diagnosis of PKU and provided them with an opportunity to ask questions. He continued to care for his PKU patients on a part-time basis even after his retirement. Dr. Kirkman fully retired from seeing patients in 2000. According to Dr. Dianne Frazier, Professor of Pediatrics and a longtime colleague of Dr. Kirkman, "He is loved by all his patients and their families. They still ask about him whenever they come to the clinic."

Dr. Kirkman is not only a clinician but also a laboratorian. He wrote the computer program for confirmatory test for galactosemia, which is still being used in the newborn screening laboratory. After his full retirement in 2000, he made several attempts to develop an automated galatose-1-phosphate uridyl transferase assay, traveling from Chapel Hill to Raleigh. He continues to write and publish scientific papers with his longtime research colleague Dr. Gian Gaetani. His latest project is to write the history of the North Carolina Newborn Screening Program.

Even after his retirement, Dr. Kirkman continues to serve as an active member of the NC Newborn Screening Advisory Committee and campaigns vigorously for the North Carolina Newborn Screening Program. Several years ago, he wrote to the state legislature against privatization when a for-profit commercial company tried to dismantle the state-managed Newborn Screening Program.

His tender care to his patients and his dedication to the North Carolina Newborn Screening Program have won the respect of his patients, their parents, and his colleagues. As Dr. Dianne Frazier summarizes, "He is a scholar and a gentleman, who always went about his work with deep regard for both patients and colleagues."

The Editors of the *NC Medical Journal* are pleased to recognize Dr. H. Neil Kirkman for his lifetime of work dedicated to quality patient care, development of a successful newborn screening program, and contributions to the field of laboratory science and clinical pathology.