

# The Health of Our Young

David Murray Cowie left a legacy for America's children. BY JAMES TOBIN

AT THE END OF HIS PRESIDENCY, early in 1909, Theodore Roosevelt convened the first national conference on the state of American children. The conferees declared the U.S. was better informed on the health of fish and wildlife than on the health of its own young.

It was one signal of an awakening to the need for urgent attention to children's health. Another was the establishment of regular instruction in the new field of pediatrics. Michigan, like its peer institutions, had only recently joined this endeavor with the appointment of David Murray Cowie, M.D., as its first instructor in pediatrics in 1906, when he was 34 years old.

Patients of young Cowie — an ancient Scottish name for the herders of cows — looked up into a calm, narrow face with a soaring forehead already devoid of hair. Cowie's father, a physician trained in Edinburgh, had emigrated to New Brunswick, where the younger Cowie grew up in Moncton, the eastern terminus of Canada's transcontinental railway. His family wanted him to take a medical degree in Edinburgh, but he chose Michigan instead, then finished his training at Heidelberg.

He returned to Ann Arbor in 1897 and became a protégé of legendary internist George Dock, whose work in the infectious diseases of children apparently nurtured Cowie's interest in the specialty.

A crisis in children's health had long been obvious. In the close-packed industrial cities of the mid-1800s, children died in appalling numbers. Many fell to infectious killers such as diphtheria and whooping cough, others to contaminated "formulas" produced by unsanitary, unregulated dairies. In 1858, Alonzo Palmer, Michigan's professor of the theory and practice of medicine, pathology and materia medica, estimated the mortality rate for children under 5 at close to 50 percent, and he urged the special study of childhood diseases.

"They are different in their course and character, different in their appearances and treatment, and different in the methods by which they are distinguished," Palmer declared.

Yet physicians continued to treat children merely as small adults. The early pioneers of pediatrics were not medical scientists but public-health

crusaders, and it wasn't until the turn of the century that most medical schools embraced Palmer's hunch that the physiology, biochemistry and pathology of childhood diseases were sufficiently distinct to warrant a whole new field of study.

For Cowie, early-1900s Ann Arbor presented the difficulty that had stymied medical professors since the school's founding. If it was still too small a town to support a major hospital, it was certainly too small to support a children's hospital. Cowie opened his own clinic at 320 South Division Street, but that was scarcely enough to support an ambitious pediatric research program. In research he was a generalist, publishing some 100 articles on topics ranging from digestion to allergies and immunity.

His impact on U-M pediatrics was chiefly as a teacher and academic administrator. He offered the first pediatrics

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course, and when the specialty was split off from internal medicine in 1920, he was named U-M's first professor of pediatrics and department chair. He insisted that pediatric experience should be part of every physician's armament.

"I am still old foggy enough," he told students in 1914, "to believe that no matter what branch of medicine or surgery you may take up, all of you should ... go into general practice for a time. I think you will make a better specialist if you do. If you do this, there are four subjects you must know thoroughly. They are internal medicine, the principles of surgery, diseases of children, and obstetrics. The supreme effort of the medical college should be to see that there is no question about your knowledge of these subjects."

Cowie did leave a major legacy to America's children, which again

reflected the public health roots of pediatrics. He knew of the infamous "goiter belt" stretching from eastern Canada across the Great Lakes to the Dakotas. Here an astonishing number of children and young adults were found to have at least minor swelling of the thyroid, and in many the condition was painful, disfiguring and dangerous — the worst cases affecting mental capacity. When prospective soldiers were examined in one county of Michigan's Upper Peninsula in 1918, nearly one in three showed symptoms of goiter. The cause was environmental. Swelling of the thyroid results from iodine deficiency, and iodine is all but absent in the water and soils of many parts of the upper Midwest.

In 1921, Cowie began to think about how to apply the iodizing of table salt — a method pioneered in Switzerland

— to the widespread American goiter problem. He enlisted the Michigan State Medical Society in his cause, then spearheaded a concerted campaign to persuade power-brokers and the public of the wisdom of iodizing salt. With no small difficulty, he and his allies persuaded salt purveyors the project could make business sense. After Cowie secured the medical society's endorsement in 1924, the Morton Salt Co. began to sell iodized salt not only in Michigan but across the U.S., and its competitors followed suit. The new product swept the market, and by the 1930s, the incidence of endemic goiter had plummeted.

Cowie's teaching, research and service informed the generations that made the modern Medical School. As he told students, invoking the names of Michigan medical luminaries of his era: "Each of us, surely though unconsciously, is part Vaughan, part de Nancrede, Lombard, Novy, Huber."<sup>[M]</sup>

*Sources include Howard Markel, "When It Rains, It Pours": Endemic Goiter, Iodized Salt, and David Murray Cowie, M.D.," American Journal of Public Health (February 1987); Nicholas H. Steneck, "Emergence of Children's Medicine as a Clinical Specialty in Michigan;" and Timothy R.B. Johnson, "Doctor Elizabeth Bates and the Bates Professorship of the Diseases of Women and Children" in Howard Markel and Janet Tarolli, eds., Caring for Children: A Celebration of the Department of Pediatrics and Communicable Diseases (U-M Historical Center for the Health Sciences, 1998); C. Beckett Mabnke, "The Growth and Development of a Specialty: A History of Pediatrics," (Clinical Pediatrics, December 2000), and the David Cowie collection at the Bentley Historical Library.*