When a devastating earthquake hit Haiti earlier this year, physicians and health care workers were immediately deployed to the capital, Port-au-Prince. A study on the creation and evolution of a pediatric field hospital - from a disaster service facility to a full-fledged children's hospital - during the weeks and months following the disaster, was presented on Sunday, Oct. 3, 2010, at the American Academy of Pediatrics (AAP) National Conference and Exhibition in San Francisco.

"Disaster Response in a Pediatric Field Hospital: Lessons Learned in Haiti," chronicles the deployment of Miami Children's Hospital staff - surgeons, pediatricians, nurses, operating room personnel, physical therapists, pharmacists, X-ray technicians and social workers - to a field hospital operated by the non-profit organization Project Medishare. The hospital operated for 45 days, with rotating medical teams specifically composed of specialists and caregivers to best provide the services needed.

Initially, the goals of the hospital were to staff 75 beds for admitted children, an operating room, and a wound care center where surgical management of open wounds (debridement) and dressing changes could occur with sedation.

During the first five days, 93 percent of pediatric patients were surgical specialty admissions, with 40 children undergoing operations, mostly for fractures and wounds. Simultaneously, more than 50 procedures - debridement, dressing changes and castings - took place in the wound center.

Two months after the disaster, however, care needs evolved dramatically.

"As time passed, the facility evolved to more closely emulate a children's hospital with 80 percent of patients requiring general pediatric and neonatal care and only 20 percent requiring admission for surgical issues," said Cathy Burnweit, MD, FAAP, lead author of the study. As the hospital developed the capacity for intensive care, newborns - including those born premature and with congenital anomalies - and children with acute burns and trauma were transported to the hospital.

The transformation of the facility from a disaster service facility to a pediatric hospital with intensive care capacity required changes in equipment, medical staff and leadership.

"In addition to assuring that the major specialty needs were covered, the team approach afforded us an amazing esprit de corps and a built-in support system," said Dr. Burnweit.

"Numerous sources have stressed how grateful the Haitian people were for the care provided by the volunteers in the aftermath of the earthquake. But we physicians and health care workers, in return, reaped remarkable benefits out of our commitment to provide services to Haiti's children," said Dr. Burnweit. "This was truly the most uplifting and rewarding experience I have had as a doctor."

Provided by American Academy of Pediatrics