When I was a resident, one common warning delivered to us by our putatively omniscient attendings was, “Well you know, most children are not hospitalized at children’s hospitals.” This caution was likely meant to warn us future pediatricians that the supports and access to pediatric subspecialists we took for granted in a children’s hospital would be different once we graduated and left for community settings. However, it is doubtful that any resident ever challenged the validity of that statement. Are most children hospitalized at general hospitals and is the availability of subspecialty services different between general and children’s hospitals? In this issue of the Journal of Hospital Medicine, Leyenaar et al. set out to test that warning and to quantify where children in the United States are hospitalized. They investigated differences in the pediatric hospitalizations at general and freestanding children’s hospitals. In doing so, their findings began to implicitly explore what is meant by the term children’s hospital. The authors utilized the Agency for Healthcare Quality and Research’s (AHQR) 2012 Kids Inpatient Database (KID), which after excluding in-hospital births and pregnancy-related admissions, captured nearly 4000 hospitals and 1.4 million acute care pediatric admissions across the United States.

Leyenaar et al. found that our attendings were correct, confirming a prior study on the subject; close to three-quarters of discharges were from general hospitals. However, although the most frequent reasons for hospitalization were similar between the 2 types of hospitals, that is where the similarities ended. They found that although the median annual number of discharges at the 50 freestanding children’s hospitals was 12,000, it was only 56 at the nearly 4000 general hospitals. Approximately 80% of general hospitals (the equivalent of nearly 3000 hospitals) accounted for only 11% of all discharges and had less than 375 annual pediatric discharges, essentially 1 discharge per day or fewer. In addition, over one-third of discharges at freestanding children’s hospitals were for children with medical complexity, compared to 1 in 5 at general hospitals. Furthermore, one-quarter of discharges at freestanding children’s hospitals were of high or highest severity, compared with half that amount at general hospitals.

Although it is not possible to determine the quality of care from the KID, the authors insightfully discuss the implications these differences have on quality improvement and quality measurement. General hospitals with low volumes of pediatric inpatients may have difficulty providing condition-specific quality metrics or implementing condition-specific quality improvement processes. How can you compare quality across hospitals averaging only 56 pediatric admissions a year? If existing quality metrics are not meaningful for those hospitals, but the majority of children are admitted to them, the development of new, more useful, quality metrics is needed.

Perhaps the most interesting finding resulted from a new and unfortunate limitation in the KID database. Beginning in 2012, the AHQR began deidentifying all hospitals contributing data to the KID, leaving researchers reliant on KID’s categorization of hospitals as either freestanding children’s hospitals or general hospitals. The authors attempted to work around these limitations to identify those children’s hospitals that were not freestanding but were located within general hospitals. They found that 36 general hospitals had patient volumes equivalent to freestanding children’s hospitals, whereas 20 freestanding children’s hospitals had very infrequent admissions for the most common discharge diagnoses. The authors are almost certainly correct in deeming the latter 20 hospitals to be subspecialty children’s hospitals, such as those focused solely on orthopedic or oncologic conditions. Among the 36 high-volume general hospitals, the authors found that patient complexity and severity was more similar to freestanding children’s hospitals than to the low-volume general hospitals. Length of stay (and therefore presumably costs as well) for high-volume general hospitals was positioned between freestanding children’s hospitals and low-volume general hospitals.

Who are those high-volume hospitals that appear to be general in name only? Because of KID’s deidentification of hospitals, we do not know. It is possible that those hospitals self-identify as being children’s hospitals, but are not freestanding, meaning that they are located within a general hospital (hospitals within a hospital). If they are children’s hospitals within general hospitals, it would provide a different perspective to the study’s overall finding that 71% of hospitalizations, 64% of hospital days, and 50% of costs occur at general hospitals. As the authors allude to, some institutions may not call themselves freestanding children’s hospitals but function that way; other institutions call themselves freestanding children’s hospitals but offer very focused specialty services. Through this limitation in the KID database, the authors began the process of...
identifying hospitals that look like freestanding children’s hospitals but are not called that. In other words, they began creating a more robust functional definition of which institutions are truly children’s hospitals. Volume does not, of course, always equate into specialization, and much work needs to be done measuring the availability of subspecialty and critical care services before any functional definition of children’s hospital can be made; the potential, however, is intriguing.

Does it matter which hospitals are deemed children’s hospitals? Although a hospitalist may not place importance on the name over the hospital’s entrance, the Centers for Medicare and Medicaid Services (CMS) and state insurance regulators may find the difference extremely important. CMS and state insurance regulators are increasingly focusing their attention on the adequacy of pediatric insurance networks. They are seeking to create rules that ensure health insurance plans have a broad range of pediatric subspecialists in close proximity to the great majority of children insured by the plan. For adult insurance, the adequacy of a plan’s network is typically defined by the time and distance from a patient’s home to a specialist. However, unlike in adult medicine, pediatric subspecialty care is becoming increasingly regionalized at academic medical centers, especially children’s hospitals. Furthermore, unlike adult care, a wide range of pediatric subspecialists is unlikely to be found at the hospital closest to a patient’s home. Therefore, time and distance rules for ensuring network adequacy may fail within pediatric care. Instead, inclusion of a hospital designated—by functional or other criteria—as a children’s hospital may be the best way to ensure the adequate provision of pediatric specialty care within a network.

How policymakers define pediatric network adequacy will have important implications for ensuring that pediatric inpatient medicine achieves the goal of “the right patient, the right place, the right time.” Therefore, the attending from our residency may have been correct that most children are not hospitalized at children’s hospitals. However, depending on how pediatric network adequacy rules are developed, that may not have to mean that these children (and their pediatricians) will be out there alone.

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References