

## NIST issues guidance for pediatric electronic health records

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The National Institute of Standards and Technology (NIST) has released a guide to help improve the design of electronic health records for pediatric patients so that the design focus is on the users—the doctors, nurses and other clinicians who treat children.

While hospitals and medical practices are accelerating their adoption of electronic health records, these records systems often are not ideal for supporting children's health care needs. Young patients' physiology is different from adults—and varies widely over the course of their growing years. Tasks that are routine in larger bodies can be complex in smaller ones, and pediatric patients typically cannot communicate as fully as adults.

These and other challenges can create additional physical and mental demands on the professionals who treat children, and affect the way they interact with an electronic health record. This makes the selection and arrangement of information displays, definition of "normal" ranges and thresholds for alerts in pediatric electronic health records more challenging to design and implement than those created for adults.

The new NIST guide was developed with the help of experts in pediatrics, human factor engineering, usability and informatics (which brings together information science, computer science and health care). The guide was peer-reviewed by both human factors experts and clinicians as well as other professionals in leading pediatric health care organizations in the United States and Canada.



The document offers technical guidance to help the designers of pediatric electronic health records create systems that can be used as intended, efficiently and effectively. Its recommendations include adopting a user-centered design approach that is informed by scientific knowledge of how people think, act, and coordinate to accomplish their goals. It also focuses on critical user interactions—those that can potentially lead to errors, workarounds, or adverse events that can harm patients.

**More information:** A Human Factors Guide to Enhance EHR Usability of Critical User Interactions when Supporting Pediatric Patient Care (NISTIR 7865) is available at <a href="https://www.nist.gov/manuscript-public...ch.cfm?pub\_id=911520">www.nist.gov/manuscript-public...</a>...<a href="https://ch.cfm?pub\_id=911520">ch.cfm?pub\_id=911520</a>.

## Provided by National Institute of Standards and Technology

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