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Juvenile diabetes information collection is significantly complicated by inaccurate and missing data; specifically, guardians may not be able to properly and accurately describe symptoms experienced by children, while children are inconsistent and unreliable for self-reporting of information. Redundant information from both the guardian and the child, however, may provide significantly useful accuracy; a child-friendly mobile device interface which allows for ‘gamification’ of information reporting, such as meals eaten, as well as potential symptoms of the disease, could potentially allow children to willingly ensure a more accurate information response. Such a child-friendly interface would likely have to include options for those too young to read, such as a solely picture mode, while allowing for more complicated options for older children. Parents would likely have to confirm the information created by their children, which can take place with a parent interface, or in other words, a “bird’s eye” view into the data the children generate. Children with Type I diabetes would preferably self-monitor insulin administration each day, while children with Type II diabetes would focus on diet.

Beyond simple mobile self-reporting, an application could potentially begin to integrate actual empirical information, such as from a blood sugar monitor. Unfortunately, 24/7 sensor use is unpractical, especially for children, meaning that blood sugar would likely be sampled in an infrequent manner. Solutions to solve this include interpolating between sample points to retrieve the most likely approximation,

Any implementation of a mobile health device would also have to likely follow HIPAA regulations on security and privacy of patient information, likely requiring the use of secure encryption. In addition, despite continuous advancements in mobile technology, limitations of network availability and significant variability of all devices on the market would likely have to also be considered.