

The impact of the COVID-19 pandemic on our nation's blood supply was not very apparent in public discussion. As schools and workplaces transitioned to remote access, blood centers could not use blood drives, which counts for a large portion of the blood collected across the U.S. This dramatic decrease in blood availability coincided with a surge in demand for COVID-19 Convalescent Plasma (CCP). And yet the radical shifts in the demand for blood products, and the availability thereof, should be studied and analyzed to improve the robustness and resilience of our blood supply. One interesting example is blood centers that notify donors when their donation is transfused to a patient in need – whether it is a child fighting leukemia, a teenager undergoing bone marrow transplantation or an elderly patient undergoing open-heart surgery. This was a completely new product that blood centers had to master quickly, learning how to efficiently collect, process, test and distribute these CCP units to the hospital blood banks that direly needed it. In my role as CEO of a Biolog-ID LLC, I meet with leaders in community blood centers and hospital blood banks across North America.

Data-Driven Allocation of Blood Products

Through digitizing our blood supply chain, we have an opportunity to enhance real-time visibility and improve decision-making processes regionally and nationally. Balancing the need and availability of blood products is a delicate task even on the most normal of times—let alone in a global pandemic. On the community level, imagine the possibilities of harnessing digital visibility to facilitate the coordination between blood collection centers and the hospital blood banks they supply. Consider, for example, how access to next week's surgical scheduling can better inform blood collection, manufacturing, and distribution decisions for the blood center supporting these procedures. A digital inventory that would allow for a secure, centralized search will facilitate a simpler and faster way of acquiring the needed blood. Access to inventory levels across the entire network becomes particularly valuable—whether it is to optimize the distribution of current inventory or inform collection and manufacturing decisions that impact future inventory. The journey to digitize blood banking is ongoing on multiple levels.