

VIRTUAL HEALTH VILLAGE ALLENTOWN, PENNSYLVANIA

BACKGROUND

Lehigh Valley Health Network, located in Allentown, Pennsylvania, has the region's only children's hospital and emergency department. The community's two school districts, Allentown School District and Bethlehem Area School District, include underserved pediatric populations that are part of transient households moving between the two districts. In 2012–2013, asthma and obesity were identified as two of the most urgent health conditions in the school districts, with approximately 20 percent of the Allentown School District's student population diagnosed with asthma.

INTERVENTIONS

In 2011, Lehigh Valley Health Network reached out to the Allentown and Bethlehem school districts, the Lehigh Valley Business Coalition on Healthcare and three other health care organizations: Sacred Heart HealthCare System, Good Shepherd Rehabilitation Network and St. Luke's University Health Network. LVHN led the formation of a strategic partnership between these stakeholders, known as the Children's Care Alliance. Addressing the prevalent health problems of the community's students and their families' high mobility rate, the Children's Care Alliance established the Virtual Health Village, a health information exchange. This exchange aligns with the four health care networks' existing membership in the Health Care Council of Lehigh Valley, which works to address health care and socioeconomic challenges affecting the health of its patient population.

Health information exchange. The Virtual Health Village is a health information exchange for sharing secure, up-to-date student health information among all collaborating care partners. This exchange equips school nurses with faster access to a complete and accurate record of a student's underlying health conditions, medications, visits to the emergency department, and other information.

Aligned with the Triple Aim, the aims of Virtual Health Village are to:

- » Improve patient experience by providing high-quality, well-coordinated care for students within their school and at local health care providers.
- » Improve population health by facilitating the exchange of patient health information between care providers and reducing incidents of delayed care, missing information and duplicated efforts.
- » Reduce overall costs by preventing expensive duplicate tests, procedures and immunizations.

To support Virtual Health Village's efforts to improve community health, Lehigh Valley Health Network leadership invested more than \$7 million on training and technology, including iPads for school nurses, and secured nearly \$1 million from the Kresge Foundation and the Harry C. Trexler Trust. The partners of Children's Care Alliance provided in-kind resources and services, ranging from equipment to technical support and marketing, with a total value of more than \$14.5 million. These program contributions decreased the district schools' cost burdens, other than the time required for school nurses to learn how to use iPads for accessing and sharing student health information. With the iPads, school nurses have also been able to access free apps that engage students in learning about their health conditions.

Committees and collaboration. The Children's Care Alliance governance structure has committees that develop, coordinate and disseminate Virtual Health Village's practices to provide coordinated care.

- » Steering committee: Involves school nurses and IT staff from each collaborating partner to regularly discuss ongoing successes and opportunities for improvement. Demonstrates effective community engagement by having relevant community partners working together toward a common goal.
- » Marketing and communication subcommittee: Collaborates with several community organizations, including the Allentown and Bethlehem health bureaus and faith-based communities, to provide coordinated community outreach and educational campaigns on the benefits of student enrollment in Virtual Health Village.
- » Legal subcommittee: Ensures that the Children's Care Alliance partners appropriately use the community data and also outlines the shared responsibilities of partners.

Lehigh Valley Health Network selected Lumina as the health information exchange technology vendor that would best fit the partners' needs for data hosting and sharing. To accommodate the different needs of each partner's electronic systems, IT staff invested hundreds of hours to ensure interoperability.

RESULTS

As of May 2015, more than 12,000 children were enrolled in the Virtual Health Village by parents or guardians. Enrollment is projected to grow each year, now that enrollment strategies are fully in place. Using iPads has resulted in substantial time savings for the school nurses. With increasing interest in the Children's Care Alliance and the Virtual Health Village, the alliance plans to expand across regional school districts over the next several years. This collaborative model can be replicated and scaled for similar strategic partnerships.

CONTACTS

Mary Ellen Herzog, Senior Director of Grants
Lehigh Valley Health Network
(484) 862-3780
Maryellen.herzog@lvhn.org
<http://www.lvhn.org/>

Brian Nester, President and CEO
Lehigh Valley Health Network
(610) 402-7505
Brian.Nester@lvhn.org
<http://www.lvhn.org/>