Sharing developmental screening results across sectors: Oregon Screening Project and Reliance eHealth Collaborative

Background

The Oregon Health Authority contracted the Oregon Screening Project (OSP) team at the University of Oregon from July 2014 – August 2016 to enhance developmental screening efforts across the state in support of shared goals between Oregon's health and early learning systems. This involved developing and delivering standardized statewide training for early childhood service providers to implement developmental screening and the exploration of sharing developmental screening results across sectors.

The Oregon Screening Project is a research endeavor of the University of Oregon's Early Intervention Program. The OSP studies the utility of an online developmental screening site to provide a check-in on a child's development and identify young children in need of further developmental support services. This free, confidential website (asqoregon.com) allows parents to screen their child's early development from age 1 month to 6 years using Ages & Stages Questionnaires®, Third Edition (ASQ-3) as well as Ages & Stages Questionnaires®: Social-Emotional (ASQ:SE). The online system automatically scores the screening and generates a confidential "Results Letter" that includes recommendations for next steps and follow-up as indicated by the child's results (e.g., referral to Early Intervention/Early Childhood Special Education or the child's health care provider). Completed questionnaires and results letters are available for the participant to view/download or receive by email for personal use. The OSP website is currently available in English and Spanish.

Sharing developmental screening results among early learning and primary care providers is crucial to improving care coordination for Oregon's families and to ensuring that children identified as at risk for a developmental, behavioral and/or social-emotional delay are connected with appropriate services. However, few mechanisms have been identified to facilitate this form of data sharing. As such, OHA asked the OSP team to explore the potential for sharing screening data conducted via asqoregon.com with primary care providers through connection to a health information exchange. The new feature would present an additional choice to forward screening results to the child's health care provider thereby relieving the burden on the parent to remember to bring the results to the child's primary care visit.

What is a health information exchange?

A health information exchange (HIE) is a system that securely and electronically moves clinical information among different health care information systems (for example, electronic health record systems used in clinics and hospitals). The goal of an HIE is to facilitate access to and retrieval of clinical data to provide safer and more timely, efficient, effective, and equitable patient-centered care. HIEs are built to be interoperable with numerous systems and can transport data among those systems in a secure way.

Although there are multiple HIEs operating in Oregon, the timeline and funding for this exploration did not allow for investigation of all HIEs' capabilities in this area. For this project, the OSP team worked with Reliance eHealth Collaborative (formerly Jefferson Health Information Exchange) to explore the potential for HIE connection with the OSP screening website. Reliance has expanded its geography to include users in 16 Oregon counties covering Southern Oregon to the coast, the Columbia Gorge Region and Multnomah and Clackamas Counties, with six of Oregon's 16 coordinated care organizations also participating as Reliance members.

Opportunities

Meetings between the OSP team and staff at Reliance determined that it is feasible to share developmental screening results using these systems; additional resources and capacity are needed to support further testing and the technological enhancements and piloting necessary to implement this system.

Necessary Adaptations to OSP system
Although OSP is not currently structured to share identifiable demographic data with an HIE, this goal could be met with sufficient time and resources. Adding a limited number of personal identifiers to a screening record would be sufficient to enable the participant's health care provider to search and retrieve participant screening data from the HIE. Although inclusion of a full Social Security Number is optimum for the HIE for searching and retrieval, this was not considered as it would invoke stringent regulations and increased security requirements, as noted by the UO HIPAA Compliance Officer.

In order to forward the child's screening record to Reliance, the parent completing the screening would be presented with a HIPAA Authorization form with fields that would capture the parent's (participant's) full name, the child's full name, and name of the child's primary care provider (PCP). The submission of this form would constitute the required approval to make the screening results available for HIE retrieval. This capability would make use of demographic questions at the start of the screening, including the screening date, child's date of birth, child's gender, premature status (if applicable), zip code, and a randomly generated OSP study ID number. A record of the screening results including this identifying information would be stored temporarily in a separate, secure database at the University of Oregon. Reliance would then retrieve the identified screening results from that database via a secure data connection. Shortly after retrieval by Reliance, the record would be automatically deleted from the temporary database.

Areas needing further investigation

- Identification of the child's primary care provider (PCP): Reliance usually matches patients to their provider using the National Provider Identifier (NPI), which is not feasible with the OSP system. There are several options for how the parent might identify the child's PCP in the OSP system, but all would require additional exploration to ensure accuracy in identification of PCPs and matching within Reliance.
- Notifications to primary care providers: This depends on the system for identifying the PCP, and also requires that the PCP subscribe to the notifications function within Reliance and/or request notifications based on their patient population (i.e. the Reliance system would recognize a particular child as a specific PCP's patient and notify the PCP when a screen for that child showed up in the Reliance system).
- Patient demographic identifiers: Because OSP cannot collect a full Social Security Number for children, additional exploration and testing is needed to ensure good rates of patient matching based on other identifiers so that developmental screens are directed to the correct patient record, reducing duplicate records.

Future system potential

If the proposed system is successfully piloted and rolled out to a wider geography, consideration of additional functions should be considered in relation to developmental screening results. These include tracking of screening and referral trends over time and inclusion of early childhood service providers in HIE systems to allow for increased communication and collaboration across early childhood sectors, improved follow up and referral practices and robust care coordination.

Estimated Budget

This exploration considered the costs of building the system linkages between Reliance and OSP (duration of work estimated at 6 months) as well as a 12-month pilot of the system in a targeted geographic area or specific set of participating clinics. The total estimated budget for a limited pilot at the time this was explored was $182,340 plus $4,000 per month in maintenance costs after the pilot period.

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