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Challenges, Lessons Learned, and Progress in Expanding Health Plan Engagement With PCORnet

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Background: In 2013, the Patient-Centered Outcomes Research Institute (PCORI) established PCORnet (National Patient-Centered Clinical Research Network), 11 clinical data research networks (CDRNs) and 18 patient-powered research networks, to create a national resource for conducting patient-centered clinical comparative effectiveness research. PCORnet has been challenged in engaging health plans with the CDRNs as collaborators sharing data and conducting research. With a common data model, PCORnet resembles other networks, including U.S. Food and Drug Administration's Sentinel system and Health Care Systems Research Network's virtual data warehouse. Lessons learned, particularly from Sentinel, have guided PCORnet's development. PCORnet is part of a national evidence-generation network that includes government and private entities such as manufacturers, health systems, and insurers generating evidence to support a learning health care system. Health plans are important partners for PCORnet — as sources of research questions and essential data for answering them as well as end users of research findings. Except for a few CDRN-specific links with individual plans, PCORnet began with few established links to health plans. In 2016, PCORI funded two large national health plans to join PCORnet as partners with the CDRNs.

Methods: This highlights key lessons from a PCORI-funded Engagement Award project focused on building collaboration by (PCORnet) and health plans. Updates on progress since the completion of the award project will be included.

Results: Among challenges for health plans engaging with PCORnet: establishing trust and governance for collaboration and use of data; efficiently merging claims and clinical data; determining the minimum data necessary for any purpose; and defining the business case for collaboration by each stakeholder.

Conclusion: Among the lessons learned: organizations will clearly be more motivated to share data when it is worth their while to participate; health plans may be interested in using PCORnet and sharing data to address a wide range of research questions in which they have a stake; public interest is a key motivating factor for sharing data through PCORnet; completeness of data is an objective that supports collaboration; and establishing bidirectional relationships between the plans and CDRNs is necessary to sustain collaboration.

Keywords: ownership, governance, health care organization, virtual data warehouse, evaluation research, engagement of stakeholders, research administration, contracting, operations, HCSR structure

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Real-Time Text Message Alerts to Emergency Physicians Identifying Potential Study Candidates Increases Clinical Trial Enrollment

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Background: Challenges in conducting prospective clinical research in the emergency department (ED) include 1) the unpredictable nature of the clinical environment, 2) the often short duration of patient stay, and 3) the difficulty in recognizing potentially eligible patients. To help mitigate these challenges and increase enrollment rates in ED research, we developed a software application that notifies physicians if their patients are eligible for enrollment in a prospective investigation. The Prospective Intelligence System for Clinical Emergency Services (PISCES) system scans electronic health records (EHR) for preselected clinical characteristics and reports to the treating physician via a real-time text message alert.

Methods: This investigation was conducted as part of a larger prospective study that implemented an EHR-based risk stratification tool for pediatric abdominal pain in the ED. PISCES alerts began 3 months into the data collection phase at 11 EDs across Northern California. When a patient, age 5–20 years, with a chief complaint of abdominal pain was admitted to the ED, the assigned provider received an automatic text alert on their mobile phone within 3 minutes. No protected health information was revealed in these text alerts. Other study recruitment techniques (site investigator education, iterative feedback, and gift card incentives) did not change across pre- and postintervention periods. Study enrollment rates were tracked before and after PISCES implementation on a monthly basis. We present aggregate enrollment over study periods by percentage of potentially eligible patients (patients who met basic eligibility criteria) before and after alert availability, and compare differences in their means via chi-squared and Fisher's exact tests.

Results: The study period ran from October 2016 through June 2017, with PISCES implementation in January 2017. Enrollment in the preintervention period was 10.2% (273 of 2687 eligible patients), with monthly rates ranging from 9.5% to 11.1%. Enrollment in the postintervention period was 21.0% (1347 of 6424 eligible patients), with monthly rates ranging from 20.8% to 24.1% ($P < 0.001$).

Conclusion: Mobile phone text alerts of potential study candidates to emergency physicians significantly increased enrollment and can serve as a valuable tool to assist prospective research in the ED setting. Additional strategies are needed to further increase study enrollment.