Adoption and Utilization of Electronic Health Records and Quality Improvement

Cardiovascular Health Area Networks

Many state health departments (SHDs) have been focusing on utilization of Electronic Health Record (EHR) data to identify patients with undiagnosed and uncontrolled hypertension to improve patient outcomes. This requires collaboration with a variety of health system departments, including clinical, IT, and data management, potentially yielding insights into social determinant needs and providing input support for quality improvement initiatives, with the ultimate goal of improving population health.

Discussion Highlights

This discussion focused on how states have been supporting EHR data utilization, highlighting successes and promising practices such as social determinants screening and quality improvement approaches, as well as challenges and ways to mitigate them.

Key Take-Aways

EHR data can be used in a variety of ways to compliment SHD efforts, such as social determinants screening and quality improvement initiatives.

Health systems often capture social determinants data

They may use a screening tool such as PRAPARE and/or EHR-branded population health analytics software. Statewide surveys of screening tool utilization can be helpful and lead to collaboration

Robust and well-rounded teams are critical to collaborative success, helping generate new ideas and encourage internal cooperation

- A health system lead or champion
- Clinical staff
- IT and EHR specialists
- Data analyst with SQL (structured query language) experience

A focused kick off meeting and subsequent regular team check-ins keep projects on task

- Kick off meeting to set goals and define roles
- Monthly meetings for technical assistance and updates
- Training for new staff and residents

Funding requirements can drive sustained effort and motivation

- Contingent upon EHR program participation
- Staff incentives to make workflow changes and to document
- Required participation in other initiatives, such as team-based care

A variety of quality improvement initiatives can benefit from EHR data utilization

- Assess control for individual or comorbid diagnoses such as hypertension and/or diabetes
- Review recency of labs and need for follow ups
- Examine prescription fill patterns
- Track enrollment in self-management programs
- Contact patients (could be a Community Health Worker or Nurse Care Coordinator) to arrange necessary follow up care

Challenges and Lessons Learned

Accessing EHR data can present challenges requiring consideration and planning to address. These include:

- Healthcare systems use a variety of EHRs that do not cross-communicate, thus workflow modifications (e.g., referrals to chronic disease management programs) must be completed in each EHR separately
- Large healthcare systems that operate small clinics may retain control of EHR modifications centrally. In these cases, small clinics do not have administrative permissions to modify EHR workflows
- Electronic Health Records vary in quality, with smaller clinics often using less powerful EHRs
- Staff turnover is a barrier to the sustainability of new EHR workflows, especially when the departing individual was a champion for the work
- State procurement rules may prohibit working directly with for-profit health systems, even though these systems may be serving priority populations or geographic areas

Utilization of EHR data also requires careful planning and preparation to mitigate potential barriers, such as:

- Demographic data can be difficult to extract from EHRs, highlighting that it is important for states to understand potential limitations of EHRs
- The quality of an EHR data query is dependent on the quality of the data input. In other words, human error may the cause of a problem rather than the EHR software
- Staff turnover negatively impacts the ability to fully utilize EHR software packages
- The software packages required to track referrals are expensive
- Clinics serving high-needs populations may not have the resources to focus on a particular sub-group that has been identified as high-priority
- Many clinical settings are incorporating screening for social determinants of health needs into their EHRs, though it can be resource-intense to address the identified needs and not every clinic has the resources to take on this additional work