In 2011, the American Academy of Pediatrics (AAP) was awarded the Genetics in Primary Care Institute (GPCI) to improve primary care providers’ (PCPs) knowledge and skills in the delivery of genetic-based medicine. Family history (FH) provides a basis for identifying potential areas of risk and, for some genetic conditions, a way to screen for genetic diseases. However, FH collection and use remain suboptimal in clinical practice. PCPs often struggle to take an FH or to implement a standardized process. This quality improvement project was implemented to improve FH collection and use in primary care settings.

**OBJECTIVE AND AIMS**

**Objective**

The aim of this project was to improve the collection of family history in pediatric primary care.

**Specific Project Aims**

- Collect, document, and discuss family history information as part of the health supervision visit for all patients aged 0-21, for 50% of patients.
- Family histories are created or updated/maintained at health supervision visits, using the family history component defined by the project.
- Current family histories are discussed.
- Patients with a positive family history and identified genetic concerns of a genetic condition have documentation in the chart.
- Practices have a system for tracking patients’ special needs at office visits.
- Practices have a process to confirm referral.

**METHODS**

**Background**

The GPCI Quality Improvement Project (GPCI QIP) was developed to quantify the implementation of genetics in primary care. A multi-disciplinary Expert Group identified the need to train and document how genetics knowledge in primary care can be implemented in diverse clinical settings. Practical tools and strategies have been identified as important components to assist pediatric practices in making changes in practice to improve care. In 2012, the GPCI and the Quality Improvement Innovation Networks (QuIIN) conducted the GPCI QIP with 13 pediatric practices across the United States. The GPCI collaborated with the Regional Genetic and Newborn Screening Collaboratives (RGCs) to facilitate relationships between PCPs and genetic professionals at the local level.

**PARTICIPATING QuIIN PRACTICES**

- Objective: By the end of the intervention, 100% of practices should use a standardized process for taking a FH.
- Results: Four practices had a 100% success rate of discussing follow-up plans, and four practices had a success rate between 68% and 78%.

**RESULTS**

- Using an EMR to make changes to the FH once a data collection form has been validated and adopted.
- Patient feedback regarding the process.
- A targeted quality improvement project can improve collection and use of FH data in primary care practices.
- Appropriate use of FH information can identify children at-risk for genetic conditions.
- Implementing FH is best accomplished in making small tests of change and obtaining patient and staff feedback.
- Pediatric FH tools are not one-size fits all approach. Electronic patient portal, paper-based, or EMR tools can be implemented.
- Family history should be taken for all patients, beginning with new patient or newborn visits, and continually updated over time.
- FH collection and use can be improved with education, mentorship, and practice tools.
- Improved relationships between PCP and genetic professionals improved patient care and utilization of services.

**CONCLUSIONS**

- By the end of the intervention, 100% of practices used a standardized process for taking a FH.
- About one third of the practices had FH processes documented as a written policy.
- Multiple generations family histories were discussed with patients/families in 84% of patient charts reviewed.
- Positive family histories contained documentation that a follow-up/plan of care was discussed with the patient/family in 68% of charts reviewed.
- Four practices had a 100% success rate of discussing follow-up plans and four practices had a success rate between 68% - 78%.

**BEST PRACTICES FOR IMPLEMENTING A FH PRIMARY CARE USING A QI APPROACH – LESSONS LEARNED FROM PCPS**

- Collect information from all clinic staff and providers.
- Conduct a needs assessment and process map to identify strategies to improve efficiency and implement strategies.
- Anticipate barriers and strategies to overcome challenges.
- Start with small process and make adjustments as needed.
- If using an EMR to make changes to the FH once a data collection form has been validated and adopted.
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- Use EMR to build on FH data across multiple visits.
- Build and FH over time and expand using acute visit information.

**LIMITATIONS**

- Study did not examine patient outcomes.
- Study did not require consistent FH tools and processes to be used.
- This flexibility allows for patient and practice tailored customization but results in a lack of validated FH collection tools.
- All participating practice teams were members of the AAP QuIIN and may not be representative of US pediatric practice teams.
- Measures were assessed for 6 months and may not be indicative of sustainability.

**CONCLUSIONS**

- A targeted quality improvement project can improve collection and use of FH data in primary care practices.
- Appropriate use of FH information can identify children at-risk for genetic conditions.
- Implementing FH is best accomplished in making small tests of change and obtaining patient and staff feedback.
- Pediatric FH tools are not one-size fits all approach. Electronic patient portal, paper-based, or EMR tools can be implemented.
- Family history should be taken for all patients, beginning with new patient or newborn visits, and continually updated over time.
- Engaging with Health Information Technology staff and vendors can improve EMR FH recording capabilities.
- Through education and mentorship, practice teams improved their knowledge of genetic risk assessment.
- Improved relationships between PCP and genetic professionals improved patient care and utilization of services.