Lessons Learned when Implementing Electronic Health Record-based Referrals to Diabetes Prevention Program Classes in a Rural County

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Introduction

One in three Americans has prediabetes, yet 90% are unaware they have this condition which increases risk of type 2 diabetes (CDC, 2018). The National Diabetes Prevention Program (DPP) is a lifestyle change intervention that can delay or prevent progression from prediabetes to type 2 diabetes (CDC, 2019). Since 2016, healthcare organizations in a rural Wisconsin county have worked to implement electronic health record (EHR)-based programs for identifying patients with prediabetes and referring them to DPP classes.

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Purpose

The purpose of this study was to identify barriers, best practices, and lessons learned in two healthcare organizations involved in this project.

Methodology

A qualitative design was used for this program evaluation study. Participants were purposively selected staff members involved with program implementation (N=4). They included DPP key informants from each organization, a provider, and an information technology administrator. Data were collected using open-ended questions in electronic survey format and analyzed for themes in three categories: challenges or barriers; best practices; and lessons learned. The study was approved by the UW Eau Claire Institutional Review Board.

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Health Systems

Two diverse health systems within one rural county were part of this program evaluation study. Health system 1 is a single branch within a statewide health system with an employee population of over 10,000. Health system 2 is an independent, non-profit, small community-based system with a clinic, hospital and some specialty care services.

Results

Challenges and/or Barriers

Timely, clear communication is challenging

- Provider: “It is hard for me to promptly review the list of patients before the (referral) letters are sent out, but I have tried to do so with help from my medical assistant.”
- “One (referral letter) mailing went out late and the response was overwhelming. We now plan far in advance for mailings to allow people adequate time to enroll if they choose to.”
- “They (providers) are so busy that it's hard to reach them. Some want email notifications, many do not read emails.”

More education is needed for both patients and providers

- “Providers have different thoughts on how to diagnose and when to begin treatment.”
- “Point of care referral algorithm is in the EHR but providers lacked training to this point to use effectively.”
- “One of our problems is that the patients do not understand that they have Pre-Diabetes when the provider tells them their blood sugar is elevated"

Results (continued)

Best Practices

Start small with one provider champion

- “Work with one provider initially to perfect the process.”
- “Initially one provider was identified as the champion to test the order set process which actually did work well.”

Create a referral process that doesn’t exceed resources

- Use narrow, selective query criteria for retrospective referrals: “Initially the query was very broad and we were getting patients who were already diagnosed with Type 2 diabetes in the query. We have now narrowed the query based on diagnosis codes.”
- Avoid starting a point-of-care referral process at the same time as a larger system change. “I almost think it was unfortunate that the implementation and development of the new EMR was occurring at the same time. There were so many learning curves challenging all the providers that referral to the DPP was not the priority it could have been.”

Providers should be actively involved in referral discussions and decisions

- Provider: ““I appreciate the opportunity to review the list before it goes out. I have had one patient who was offended to receive the letter and information in the mail, and I would like to prevent that in the future.”
- “Patients are more likely to participate if the program is recommended by their provider.”

Lessons Learned

Interest in the DPP was higher than expected

- “I have been surprised at the number of patients who have responded to the mailed invitation based on EHR referral.”
- “On our first attempt, we selected across too many providers and were then overwhelmed with the response and couldn't offer DPP services at a rate to accommodate them.”

Start with a passionate provider champion and then expand

- “We just began approaching primary care providers who were interested in the program. Started with one and that champion starting speaking to other providers about the program and the value/impact of the program. Others began asking to also participate.”
- “Need to get all providers trained so if champion provider leaves the program still has referrals."

Conclusions

Healthcare organizations implementing EHR-based DPP referral programs should start small with one passionate provider champion and expand within available resources. Effective communication and education may help support success.

References

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