INTRODUCTION
Prediabetes and type 2 diabetes are global health concerns:
- 541 million adults worldwide have prediabetes & projections increase to 730 million by 2045
- 38% of U.S. population has prediabetes, 80% are unaware of it
- 26-50% of patients with prediabetes will progress to type 2 diabetes in 5 years if left unmanaged
- Diabetes is the 7th leading cause of death in the U.S.
- Costs exceed $327 billion dollars annually → most expensive chronic condition in the nation
- Lifestyle change programs & medication have proven effectiveness

PROBLEM STATEMENT
There are inconsistent screening and referral practices among primary care providers. Healthcare providers must improve their screening processes to identify prediabetes so that referral to lifestyle intervention to prevent or delay the onset of type 2 diabetes can take place.

OBJECTIVES
Project Goal: Improve prediabetes identification and referrals

Project Aims:
1. Develop a prediabetes screening algorithm and provider education plan
2. Implement and evaluate the screening algorithm to compare the number of patients identified as having prediabetes, and the number of patients referred for lifestyle intervention to two prior recent years
3. Sustain and scale the prediabetes screening algorithm

METHODS

Aim 1: Develop Screening Algorithm and Tool

Algorithm included validated screening tool & point-of-care hemoglobinA1c testing for those identified as high risk, with guidance for intervention based on results

Aim 2: Implement and Evaluate

Project implemented in a Primary Care Practice, that is part of a large multi-specialty care organization in New England

- Education session with a pre- and post-test, re-administered following implementation to assess retention of knowledge
- Evaluate number of patients identified with prediabetes & number of referrals placed during implementation
- Compare implementation data to pre-algorithm implementation data from corresponding time frame in 2019 and 2021

Aim 3: Sustain and Scale

- Solicit feedback from staff and providers through post-implementation survey
- Communicate results with stakeholders
- Consider adapting the screening algorithm for use in additional primary care offices
- Recommend incorporating prediabetes screening as a yearly health maintenance metric

RESULTS

 Staff & Provider Knowledge & Retention
Average % of Questions Answered Correctly

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<thead>
<tr>
<th>Year</th>
<th>Pre-education</th>
<th>Post-education</th>
<th>Post implementation</th>
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<tbody>
<tr>
<td>2019</td>
<td>10%</td>
<td>70%</td>
<td>80%</td>
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<tr>
<td>2020</td>
<td>90%</td>
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Risk Test Scores

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PRACTICE IMPLICATIONS
Algorithm feasible & cost-effective with a marked increase in prediabetes identification and referrals

REFERENCES

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