Preventing diabetes with the establishment of a health system policy for screening and referral to a community-based program

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Improving Health Outcomes

American Medical Association
Presenter disclosures

Janet Williams
No relationships to disclose
Acknowledgements

• Christopher S. Holliday, PhD, MPH
• Vanessa Salcedo, MPH
Learning objectives

• Describe the AMA's Prediabetes Screening and Referral Initiative
• Compare referral models and outline benefits and barriers for implementation
• Discuss the benefits of screening for prediabetes and referring to diabetes prevention program
AMA Efforts to Prevent Diabetes

Goal:
Galvanize efforts to increase screening for prediabetes and raise participation in evidence-based diabetes prevention programs

Approach:
• Engage physicians across the U.S. in diabetes prevention
• Help link clinical practices to diabetes prevention programs
• Develop, test and disseminate relevant tools and resources
• Advocate for inclusion of lifestyle interventions in health benefits
One-third of patients over 18 in the average primary care practice have prediabetes

In the absence of any lifestyle intervention:
Close to 1/3 of people with prediabetes will develop diabetes in 3 years.
Diabetes Impact on Clinical Practice

Over the next 5 years, a typical large clinical practice could experience a 57% increase in the number of patients with diabetes

Based on a panel size of approximately 100,000 patients

Bar graph showing the increase in the number of patients with diabetes from 2015 to 2020:
- 2015: 15,000
- 2016: 16,750
- 2017: 18,483
- 2018: 20,198
- 2019: 21,896
- 2020: 23,577

Slide courtesy of Ronald T. Ackermann, MD, MPH, Northwestern University Feinberg School of Medicine
29 MILLION Americans have diabetes

86 MILLION 86 million American adults—more than 1 out of 3—have prediabetes

1 OUT OF 3

9 OUT OF 10 people with prediabetes do not know they have it

Source: CDC
The Diabetes Prevention Program (DPP)

- NIH-funded 3-arm RCT (N=3,234) comparing placebo vs metformin vs intensive lifestyle counseling
- Lifestyle: ↓ diet, ↑ physical activity
- Incidence of diabetes

<table>
<thead>
<tr>
<th>Group</th>
<th>Incidence (cases/100 person year)</th>
<th>Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placebo</td>
<td>11.0</td>
<td></td>
</tr>
<tr>
<td>Metformin</td>
<td>7.8 (31% reduction)</td>
<td></td>
</tr>
<tr>
<td>Lifestyle</td>
<td>4.8 (58% reduction)</td>
<td></td>
</tr>
</tbody>
</table>


Figure 2. Cumulative Incidence of Diabetes According to Study Group.
Diabetes prevention programs in the real-world

- The YMCA diabetes prevention program
- Web-based with coaching
- Smart phone apps
- Promising models for wide-scale dissemination
Framework for Preventing Type 2 Diabetes

**Awareness**
- Increase public and clinician awareness of prediabetes as a treatable condition

**Coverage**
- Increase health plan coverage for diabetes prevention programs

**Availability**
- Increase the availability of diabetes prevention programs

**Screening/Referral**
- Increase clinical screening and referrals

**Enrollment**
- Increase participation in diabetes prevention programs that are part of CDC’s National Diabetes Prevention Program
Key Challenges

• Awareness: >90% with prediabetes are unaware of condition

• Affordability: limited coverage by health insurers (public/private)

• Availability: limit of in-person programs

• Physician buy-in: increasing prediabetes screening and referrals to evidence-based programs
Benefits of referring to National DPP

- **58%** reduction in incidence of diabetes \(^1\)
- **20-30%** reduction in onset of stroke and heart attacks \(^2\)
- **25%** reduction in medication use for hypertension and hyperlipidemia \(^3\)
- **1-2%** reduction in absenteeism (missed work days) and productivity loss \(^2\)


AMA's Prediabetes Screening and Referral Initiative
Tools for primary care:
- Engage clinical care teams
- Identify high-risk patients
- Educate and engage patients
- Connect with programs
- Refer to local programs

Connecting strategies:
- Clarify DPP expectations
- Referral guide (online)
- Convene stakeholders
A model for clinical-community linkages that supports patients

Patient–approved updates provided to physicians

The Retrospective algorithm helps Dr. Reed query his EHR

Identify those at risk

Refer to a diabetes prevention program
Referral methods:

Building Clinical-Community Linkages to Prevent Diabetes
Point-of-care identification and referral method

Point-of-care prediabetes identification

MEASURE
- Patient is age ≥18 and does not have diabetes, provide self-screening test (CDC Prediabetes Screening Test or ADA Diabetes Risk Test)
- Self-screening test reveals risk, proceed to step

Review medical record to determine if BMI ≥24 (≥22 if Asian) and/or history of GDM

NO
- If patient does not currently meet program eligibility requirements

YES

Determine if a HbA1c, FPG, or OGTT was performed in the past 12 months

NO
- Order one of the tests below:
  - Hemoglobin A1C (HbA1c)
  - Fasting plasma glucose (FPG)
  - Oral glucose tolerance test (OGTT)

YES

Diagnostic test

Normal

Prediabetes

Diabetes

HbA1c (mmol/mol)

< 57

57-64

≥ 65

Fasting plasma glucose (mg/dL)

< 100

100-125

≥ 126

Oral glucose tolerance test (mg/dL)

< 140

140-199

≥ 200

RESULTS

ACT

- Encourage patient to maintain a healthy lifestyle.
  - Continue with exam/consult. Retest within three years of last negative test.

PARTNER

- Communicate with your local diabetes prevention program.
  - Contact patient and troubleshoot issues with enrollment or participation. At the next visit, ask patient about progress and encourage continued participation in the program. Adapted from New York State Department of Health, New York State Diabetes Prevention Program (NYSDP) prediabetes identification and referral algorithm, New York State Department of Health (2011).
  - *History of GDM = eligibility for diabetes prevention program

Referring patients to a diabetes prevention program

Method 1:

Point-of-care identification and referral

Download and display patient materials

Download and print the practice and patient resources included in this guide in advance of patient visits, so your office can have them available in the waiting room or during consult.

Measure

Step 1 - During check-in: If age ≥18 patient does not have diabetes, give him/her the "CDC Prediabetes Screening Test" or American Diabetes Association "Diabetes Risk Test". After patient completes the test and returns it, insert completed test in the paper chart or note risk score in the electronic medical record (EMR). Screening test can also be mailed to patient along with other previsit materials.

Step 2 - During rooming/visits: Calculate the patient’s body mass index. Most EMRs can calculate BMI automatically. Review the patient’s diabetes risk score and if elevated (≥7 on ADA test or ≥9 on CDC test), flag for possible referral.

Step 3 - During exam/consult: Follow the “Point-of-care prediabetes identification algorithm” to determine if patient has prediabetes.

If the blood test results do not indicate prediabetes:
- Encourage the patient to maintain healthy lifestyle choices. Continue with exam/consult.

Act

A. If the patient screens positive for prediabetes and has BMI ≥24 (≥22 if Asian):
  - Introduce the topic of prediabetes by briefly explaining what it is and its relation to diabetes (use the handout: “So you have prediabetes...now what…”). Review the patient’s own risk factors.
  - Emphasize the importance of prevention, including healthy eating, increased physical activity, and the elimination of risky drinking and tobacco use. (Visit the National Diabetes Education Program’s GAIN PLAN to Prevent Type 2 Diabetes for additional patient resources)

B. If the patient screens positive for prediabetes and has BMI ≥24 (≥22 if Asian):
  - Follow the steps in “A” above, discuss the value of participating in a diabetes prevention program, and determine the patient’s willingness to let you refer him/her to a program.
  - If the patient agrees, complete and send the referral forms to a community-based or online diabetes prevention program, depending on patient preference.
  - If patient declines, offer him/her a program brochure and/online diabetes prevention program, depending on patient preference.

Step 4 - Referral to diabetes prevention program:

Most diabetes prevention programs are configured to receive referrals via conventional fax (via a phone line) or secure email. Complete the referral form and submit to a program as follows:

A. If using a paper referral form, send via fax (over a phone line) or scan and email.
  - If the referral form is embedded in your EMR, either fax (over a phone line) or email using the EMR
  - Some diabetes prevention programs can also receive an e-mail (over the Internet)

Physicians and other healthcare providers should also use their independent judgment when referring to a diabetes prevention program.

Partner

Step 5 - Follow-up with patient:
Contact patient and troubleshoot issues with enrollment or participation. At the next visit, ask patient about progress and encourage continued participation in the program.
Retrospective identification and referral method

**MEASURE**

- **Query EMR or patient database every 6–12 months using the following criteria:**
  - A. Inclusion criteria:
    - Age ≥18 years and
    - Most recent BMI ≥24 (or ≥22.9 for Asian and
    - A positive lab test result within 12 months:  
      - HbA1c ≥5.7–6.4% (LEDC: code 0484-8 or
      - FPG 100–125 mg/dL (LEDC: code 1584-6 or
      - DPP7 140–199 mg/dL (LEDC: code 6356-0 or
      - History of gestational diabetes (ICD-9: T12.2)
  - B. Exclusion criteria:
    - Current diagnosis of diabetes (ICD-9: 250.xx) or
    - Current insulin use
  
  Generate a list of patients names with relevant information

**ACT**

- Use the patient list to:
  - A. Contact patients to inform of risk status, explain prediabetes, and share info on diabetes prevention programs, and/or
  - B. Send patient info to diabetes prevention program provider
    - Program coordinator will contact patient directly, and
  - C. Flag medical records for patient’s next office visit

**PARTNER**

Discuss program participation at next visit

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**Method 2:**

**Step 1 – Query EMR or patient database**

- **Step 2 – Referral to diabetes prevention program**
  - A. Contact patients by phone, mail, letter or postcard to explain their prediabetes status and let them know about the diabetes prevention program;
  - B. Send relevant patient information to your local (or online) diabetes prevention program coordinator and have him/her contact the patient directly (may require Business Associate Agreement);
  - C. Flag patient’s medical records for their next office visit.

Physicians and other health care providers should also use their independent judgment when referring to a diabetes prevention program.

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Retrospective
• More inclusive
• Reduced Burden

Point-of-Care
• Immediate
• High Touch
Lessons Learned

- Integrating screening/referral into practice workflow is key to success
- Care coordinators or equivalent staff can help offload physicians
- Where possible, identifying patients with prediabetes in the EHR and contacting them via phone or mail can increase DPP enrollment
  - Calls from DPP provider staff, following practice outreach, can boost enrollment
- Patients want to hear about risks of diabetes complications
Working with the AMA to Prevent Diabetes in a Busy Practice

Park Nicollet Clinic collaboration with diabetes prevention program
WHAT YOU SHOULD KNOW ABOUT PREDIABETES
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