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

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Presenter disclosures

Janet Williams

No relationships to disclose

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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

Diabetes Impact on Clinical Practice

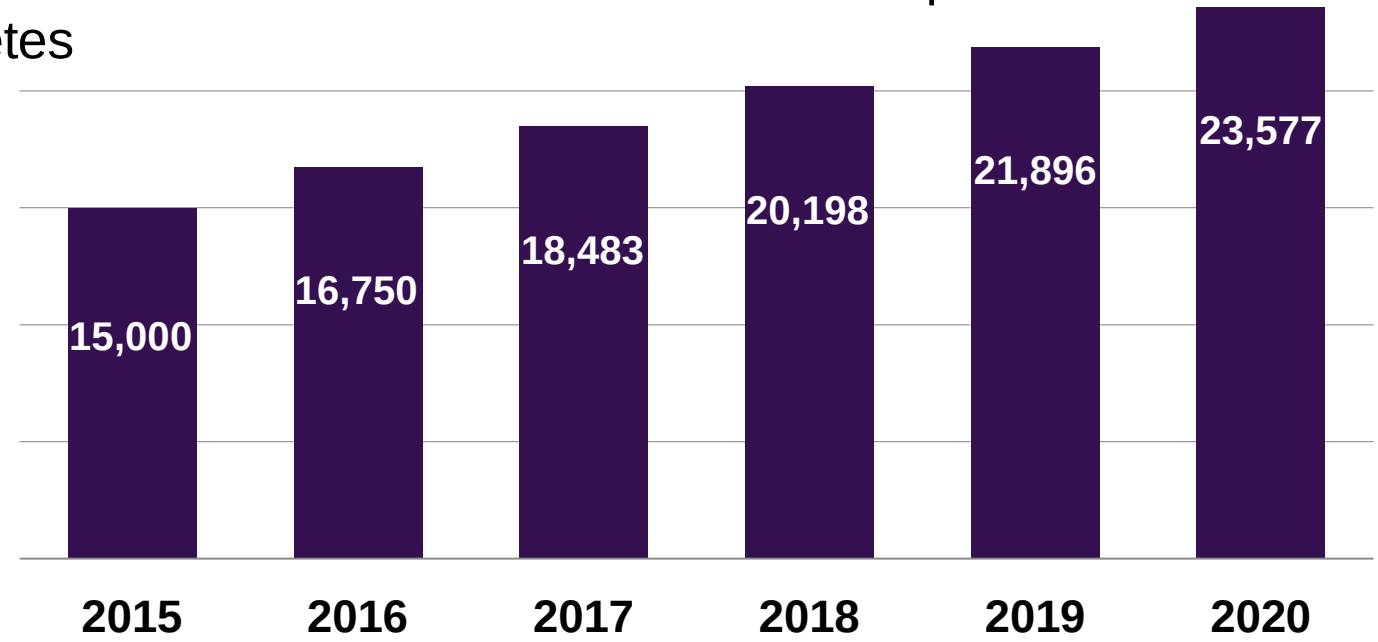
One-third of patients over 18 in the average primary care practice have prediabetes

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

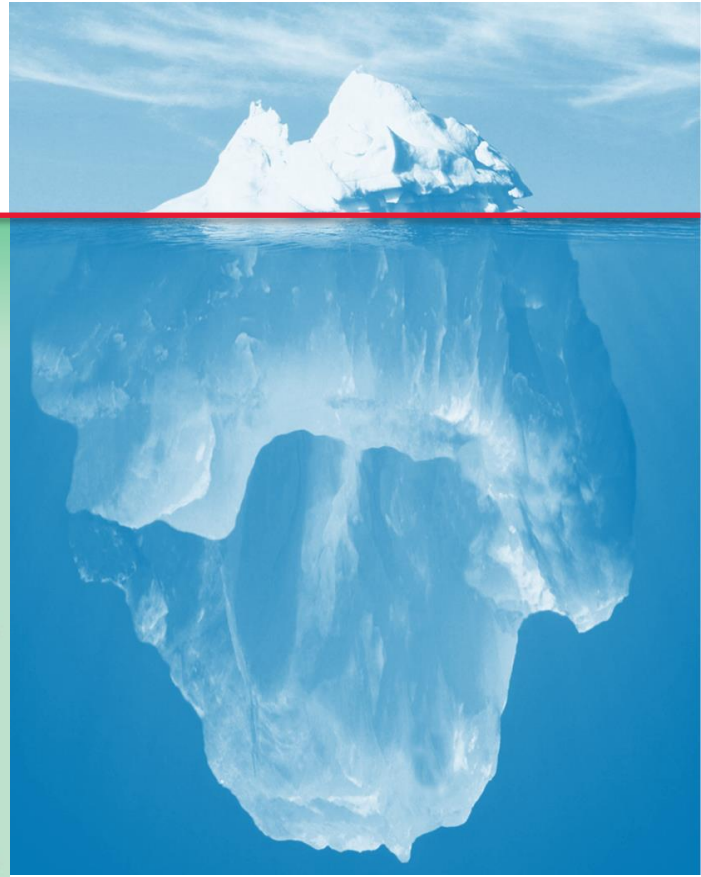


Based on a panel size of approximately 100,000 patients

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

Placebo	11.0 cases/100 person year
Metformin	7.8 (31% reduction)
Lifestyle	4.8 (58% reduction)

Knowler et al. N Engl J Med 2002;346:393-403.

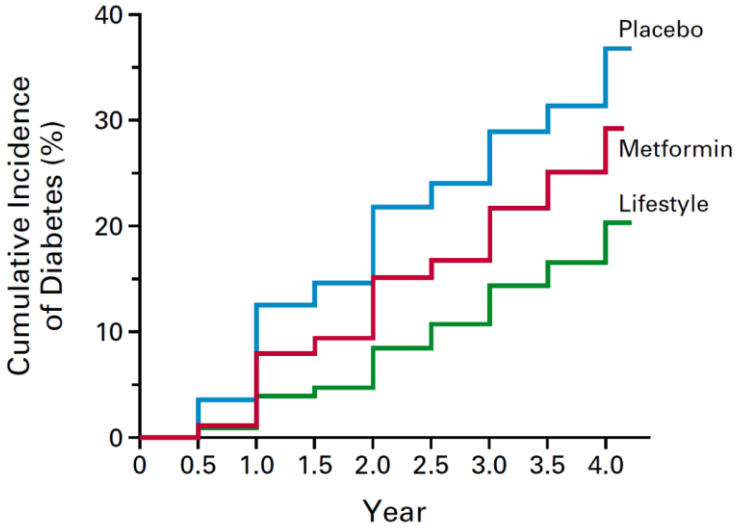
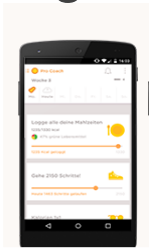


Figure 2. Cumulative Incidence of Diabetes According to Study Group.

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]

[1] Knowler WC, Barrett-Connor E, Fowler SE, et al. Diabetes Prevention Program Research Group. Reduction in the incidence of type 2 diabetes with lifestyle intervention or metformin. *N Engl J Med*. 2002;346(6):393-403.
[2] Dall, Timothy M., et al. "Value of Lifestyle Intervention to Prevent Diabetes and Sequelae." *Am J Prev Med.* 2015;48(3): 271-80.
[3] Ratner R, Goldberg R, Haffner S, et al. Impact of intensive lifestyle and metformin therapy on cardiovascular disease risk factors in the diabetes prevention program. *Diabetes Care*. 2005;28(4):888-94.

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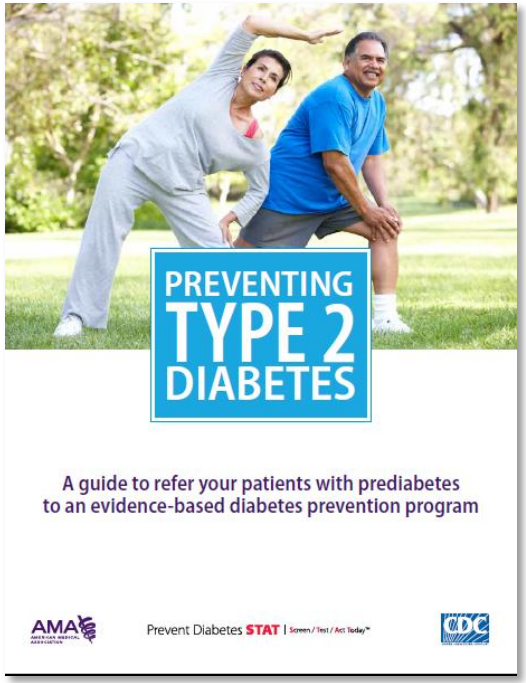
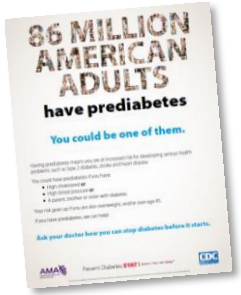
AMA's Prediabetes Screening and Referral Initiative



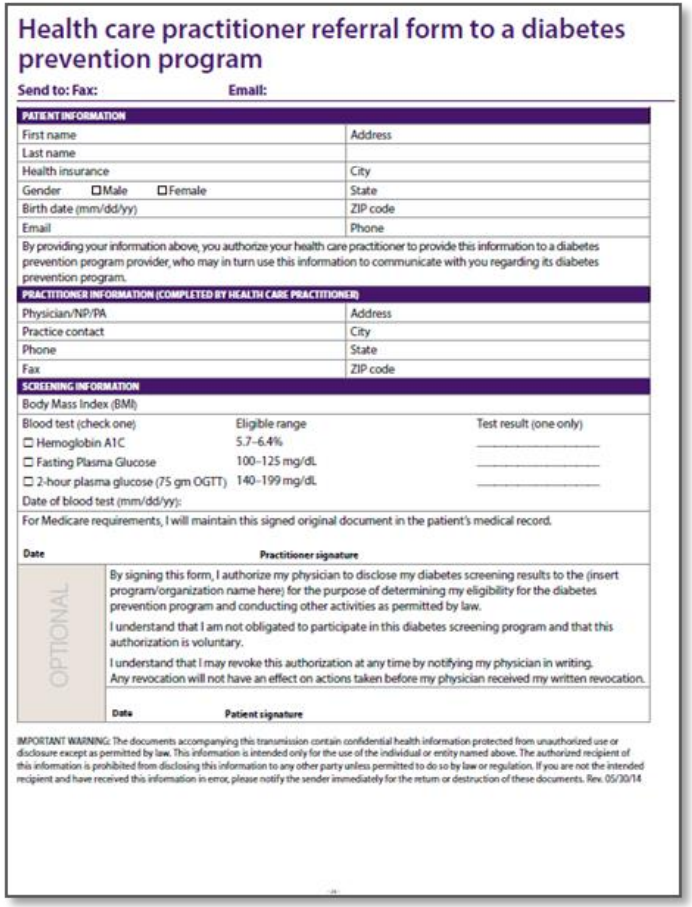


Tools for primary care:

- 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



Health care practitioner referral form to a diabetes prevention program

Send to: Fax: **Email:**

PATIENT INFORMATION	
First name	Address
Last name	
Health insurance	City
Gender ☐ Male ☐ Female	State
Birth date (mm/dd/yy)	ZIP code
Email	Phone

By providing your information above, you authorize your health care practitioner to provide this information to a diabetes prevention program provider, who may in turn use this information to communicate with you regarding its diabetes prevention program.

PRACTITIONER INFORMATION (COMPLETED BY HEALTH CARE PRACTITIONER)	
Physician/NP/PA	Address
Practice contact	City
Phone	State
Fax	ZIP code

SCREENING INFORMATION		
Body Mass Index (BMI)		
Blood test (check one)	Eligible range	Test result (one only)
☐ Hemoglobin A1C	5.7–6.4%	_____
☐ Fasting Plasma Glucose	100–125 mg/dL	_____
☐ 2-hour plasma glucose (75 gm OGTT)	140–199 mg/dL	_____
Date of blood test (mm/dd/yy):		

For Medicare requirements, I will maintain this signed original document in the patient's medical record.

Date **Practitioner signature**

OPTIONAL

By signing this form, I authorize my physician to disclose my diabetes screening results to the (insert program/organization name here) for the purpose of determining my eligibility for the diabetes prevention program and conducting other activities as permitted by law.

I understand that I am not obligated to participate in this diabetes screening program and that this authorization is voluntary.

I understand that I may revoke this authorization at any time by notifying my physician in writing. Any revocation will not have an effect on actions taken before my physician received my written revocation.

Date **Patient signature**

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A model for clinical-community linkages that supports patients

The Retrospective algorithm helps Dr. Reed query his EHR

Identify those at risk

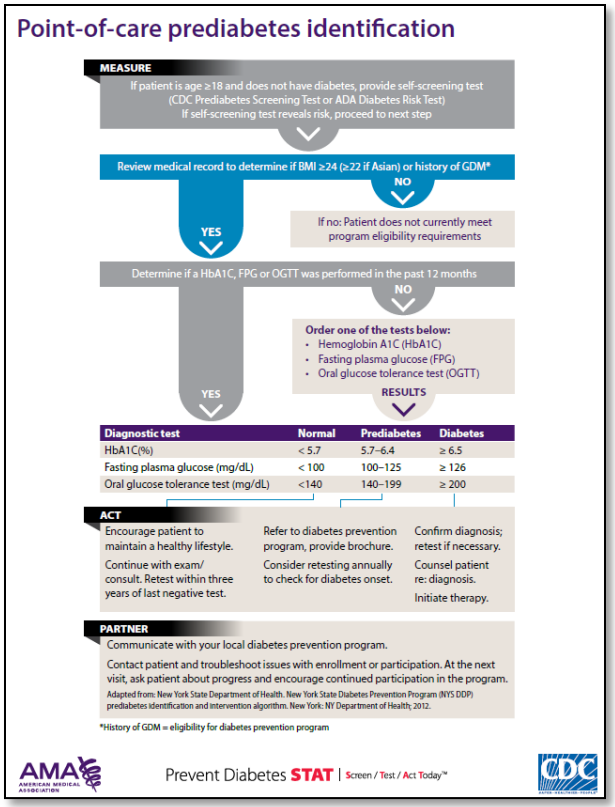
Refer to a diabetes prevention program

Patient–approved updates provided to physicians

Referral methods:

Building Clinical-Community Linkages to Prevent Diabetes

Point-of-care identification and referral method



Point-of-care prediabetes identification

MEASURE

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

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

NO → If no: 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 → RESULTS

Diagnostic test	Normal	Prediabetes	Diabetes
HbA1C(%)	< 5.7	5.7–6.4	≥ 6.5
Fasting plasma glucose (mg/dL)	< 100	100–125	≥ 126
Oral glucose tolerance test (mg/dL)	<140	140–199	≥ 200

ACT

Encourage patient to maintain a healthy lifestyle.	Refer to diabetes prevention program, provide brochure.	Confirm diagnosis; retest if necessary.
Continue with exam/ consult. Retest within three years of last negative test.	Consider retesting annually to check for diabetes onset.	Counsel patient re: diagnosis.
		Initiate therapy.

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 (NYS DDP) prediabetes identification and intervention algorithm. New York: NY Department of Health; 2012.

*History of GDM = eligibility for diabetes prevention program

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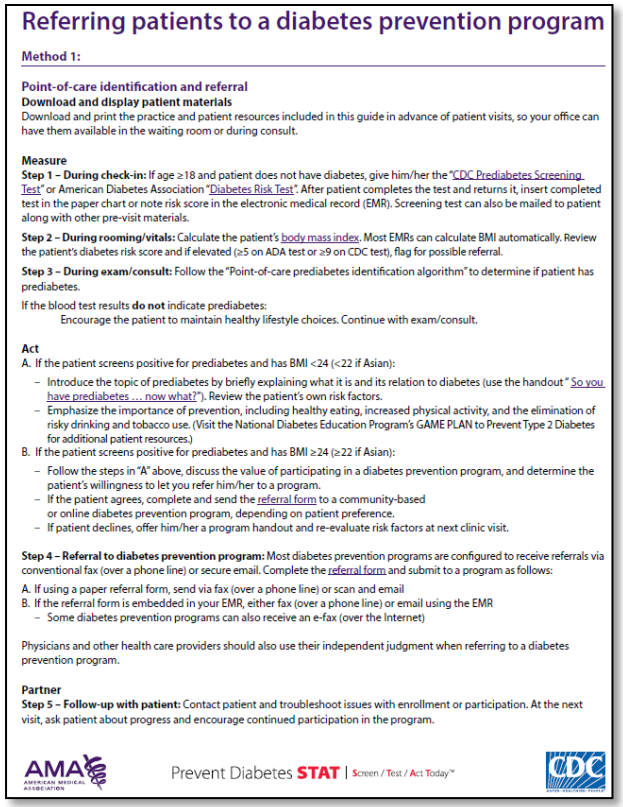

Referring patients to a diabetes prevention program

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 and 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 pre-visit materials.

Step 2 – During rooming/vitals: Calculate the patient's body mass index. Most EMRs can calculate BMI automatically. Review the patient's diabetes risk score and if elevated (≥5 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 GAME 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 form to a community-based or online diabetes prevention program, depending on patient preference.
- If patient declines, offer him/her a program handout and re-evaluate risk factors at next clinic visit.

Step 4 – Referral to diabetes prevention program: Most diabetes prevention programs are configured to receive referrals via conventional fax (over 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
B. 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-fax (over the Internet)

Physicians and other health care 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.

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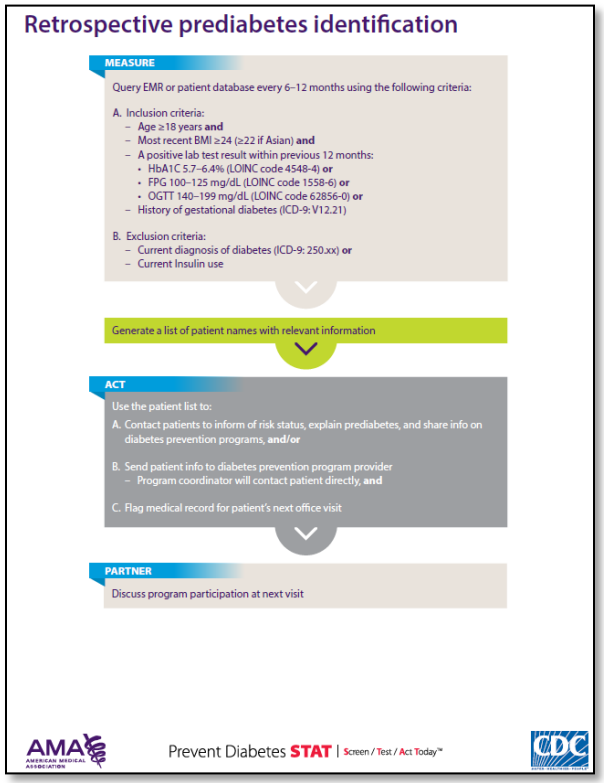
Retrospective identification and referral method



Retrospective prediabetes identification

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 (≥22 if Asian) **and**
- A positive lab test result within previous 12 months:
  - HbA1C 5.7–6.4% (LOINC code 4548-4) **or**
  - FPG 100–125 mg/dL (LOINC code 1558-6) **or**
  - OGTT 140–199 mg/dL (LOINC code 62856-0) **or**
- History of gestational diabetes (ICD-9: V12.21)

B. Exclusion criteria:
- Current diagnosis of diabetes (ICD-9: 250.xx) **or**
- Current Insulin use

Generate a list of patient 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 record for patient's next office visit

PARTNER

Discuss program participation at next visit

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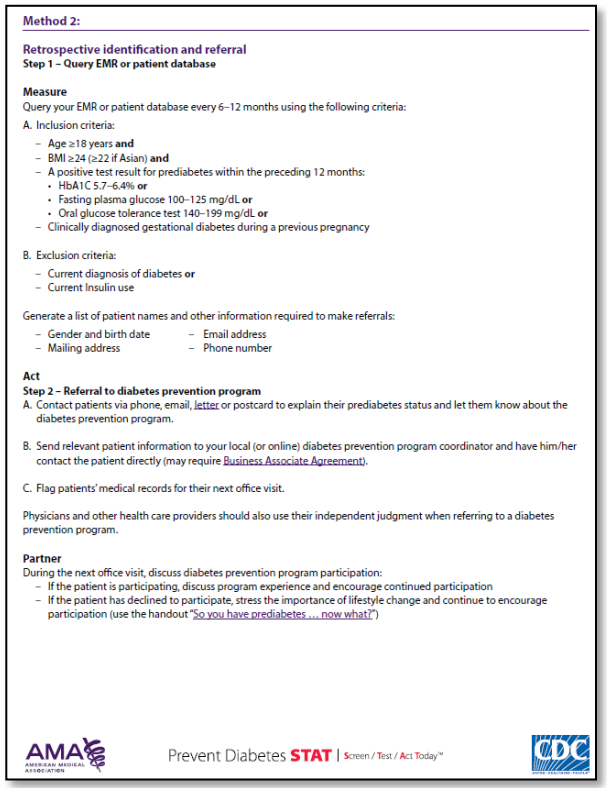

Method 2:

Retrospective identification and referral

Step 1 – Query EMR or patient database

Measure

Query your EMR or patient database every 6–12 months using the following criteria:

A. Inclusion criteria:
- Age ≥18 years **and**
- BMI ≥24 (≥22 if Asian) **and**
- A positive test result for prediabetes within the preceding 12 months:
  - HbA1C 5.7–6.4% **or**
  - Fasting plasma glucose 100–125 mg/dL **or**
  - Oral glucose tolerance test 140–199 mg/dL **or**
- Clinically diagnosed gestational diabetes during a previous pregnancy

B. Exclusion criteria:
- Current diagnosis of diabetes **or**
- Current Insulin use

Generate a list of patient names and other information required to make referrals:
- Gender and birth date
- Mailing address
- Email address
- Phone number

Act

Step 2 – Referral to diabetes prevention program

A. Contact patients via phone, email, 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 patients' 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.

Partner

During the next office visit, discuss diabetes prevention program participation:
- If the patient is participating, discuss program experience and encourage continued participation
- If the patient has declined to participate, stress the importance of lifestyle change and continue to encourage participation (use the handout "So you have prediabetes … now what?")

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Retrospective

- More inclusive
- Reduced Burden

Point-of-Care

- Immediate
- High Touch

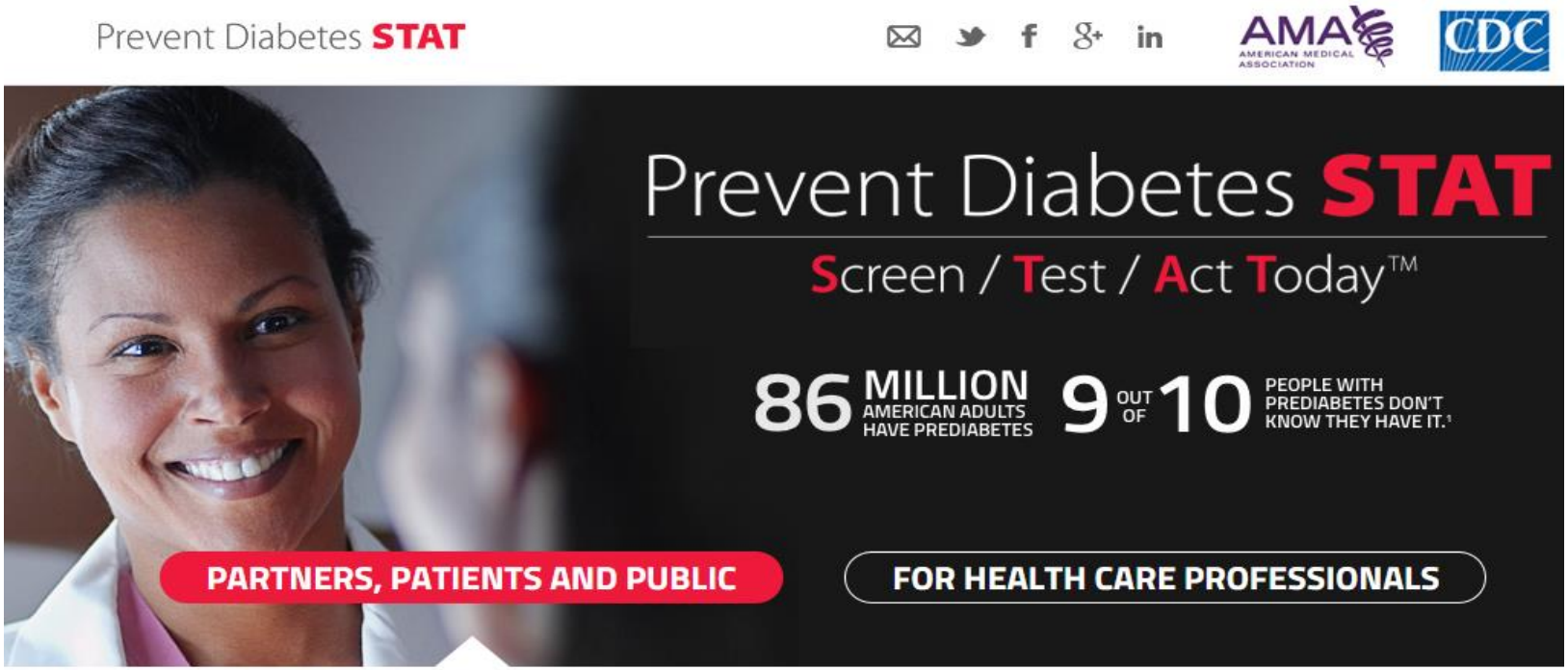
Lessons Learned

- 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

preventdiabetesstat.org



WHAT YOU SHOULD KNOW ABOUT PREDIABETES

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