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Harold Schnitzer Diabetes Health Center

Diabetes Prevention in Oregon: The Evidence, the Guidelines, and the Possibilities

Presented by: Don Kain, MA, RD, LD, CDE

CDC and OHA Diabetes Prevention Efforts

CDC supports efforts nationwide to reduce the risk factors associated with obesity, diabetes, heart disease, and stroke

- **This work includes:**
  - Epidemiology, surveillance, and evaluation to inform, prioritize, and monitor diseases and risk factors and the delivery of interventions.
  - Environmental strategies that reinforce healthful behaviors and expand access to healthy choices.
  - *Health systems interventions to improve the delivery and use of clinical and other preventive services.*
  - ***Clinical and community linkages to better support chronic disease self-management.***

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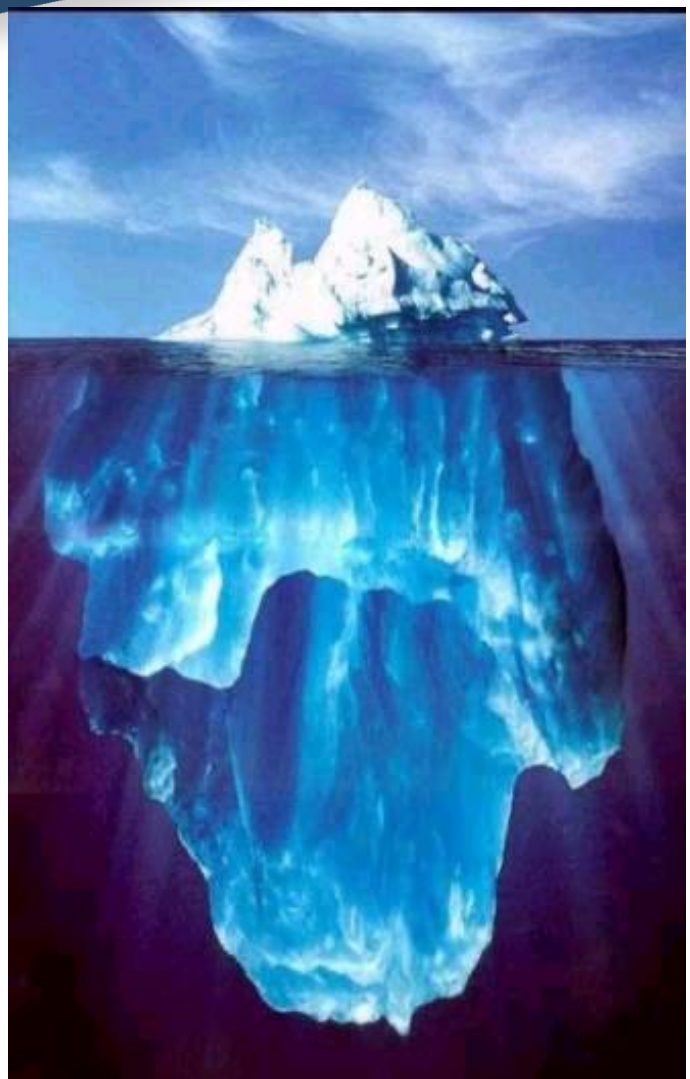
On the Horizon…



Diabetes = 29 million

Pre-Diabetes = 86 million

- 37% of US adults
- 51% of US adults 65 years old and older
- 15-30% develop DM within 5 years if no action is taken

CDC: A Snapshot of Diabetes in the United States, 2014.

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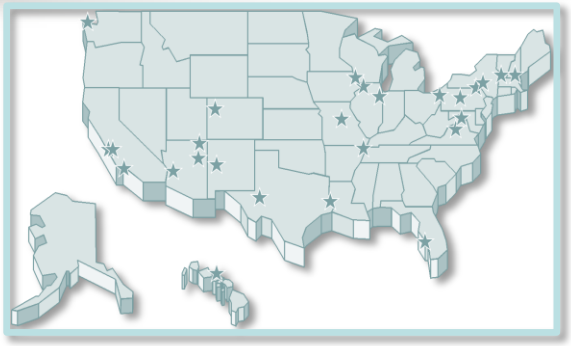
National Diabetes Prevention Program
Original Research



Multicenter NIH Clinical Trial

- 3,234 participants with prediabetes
- 27 clinical centers in U.S.

Lifestyle

- Reduced calories, low-fat diet
- 150 minutes of exercise per week (30 minutes of walking 5 days per week)
- Weight loss goal = 7% of body weight

Metformin

- 850 milligrams BID

Placebo

Study Results

Lifestyle

- Risk for developing diabetes decreased by 58%

Metformin

- Risk for developing diabetes decreased by 31%

DPP Research Group. New England Journal of Medicine. 346: 393-403, 2002.

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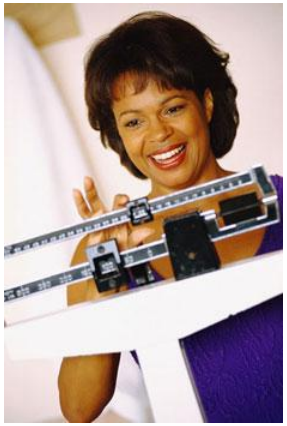
What Did the DPP Research Study Show?

- **Weight loss** was the most important factor in lowering the risk for type 2 diabetes
- The effect of weight loss on the risk for type 2 diabetes was the **same across the board** – regardless of sex, socioeconomic status, race, or ethnicity
- Millions of people at risk for diabetes in the U.S. can **prevent or delay type 2 diabetes** through modest weight loss as part of a structured lifestyle program



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Eligible National DPP Participants

Overweight Adults:

- Limited to persons ages 18 years and older with a BMI of 24 or greater (Asian Americans: 22 or greater)

Prediabetes:

- 50% of participants must have prediabetes **diagnosed** through blood test (FBS, A1C, OGTT)
  - **OR** history of **gestational diabetes**

- Other 50% eligible if screen positive for prediabetes based on **National Diabetes Prevention Program Risk Test**

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National Diabetes Prevention Program

How it Works…

- *Relies on self-monitoring, goal setting, group process*

- *1 year program*
  - **First 6 months**: 16 sessions, usually held weekly
  - **Second 6 months**: biweekly to monthly sessions over 6-8 months

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National Diabetes Prevention Program

Content- 1st 16 weeks of program

Skills	1. Welcome 2. Be a Fat and Calorie Detective 3. Three Ways to Eat Less Fat and Fewer Calories 4. Healthy Eating 5. Move Those Muscles 6. Being Active: A Way of Life 7. Tip the Calorie Balance
Controlling the external environment	8. Take Charge of What's Around You 9. Problem Solving 10. Four Keys to Healthy Eating Out
Psychological and emotional	11. Talk Back to Negative Thoughts 12. The Slippery Slope of Lifestyle Change 13. Jump Start Your Activity Plan 14. Make Social Cues Work for You 15. You Can Manage Stress 16. Ways to Stay Motivated

Is the DPP a Good Investment?

Cost to Deliver Program

Median Program Cost per Participant (Group Delivery)
$424

Annual Cost of Meds for Persons with DM

Annual Per Capita Expenditure on Rx Medications
$1423

Rui, L, et al. Ann Intern Med. Doi: 10.7326/M15-0460. Published online 14 July 2015.

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DPP Endorsements

Clinical Guideline: US Preventive Services Task Force-Behavioral Counseling to Promote a Healthful Diet in Adults with CVD Risk Factors

- DPP is one of two trials singled out as a high intensity, good quality, behavior change trial
- DPP trial results showed statistically significant improvements in blood glucose, blood pressure and blood lipids
- Grade B recommendation

Lefevre, M, et al. Ann Intern Med 161:587-593, 2014.

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DPP Endorsements

Clinical Guideline: Community Preventive Services Task Force-Combined Diet & Physical Activity Promotion Programs for Prevention of Diabetes

- Combined diet & physical activity promotion programs increase likelihood of reversion to normoglycemia, and improve DM and CVD risk factors.
- Programs commonly include weight loss goal, individual or group sessions about diet and exercise.
- Programs aimed at preventing diabetes in individuals at high risk are cost effective.

Pronk, N & Reminton, P. Ann Intern Med: doi: 10.7326/M15-1029. Published online 14 July 2015.

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I Hear the Train a Coming

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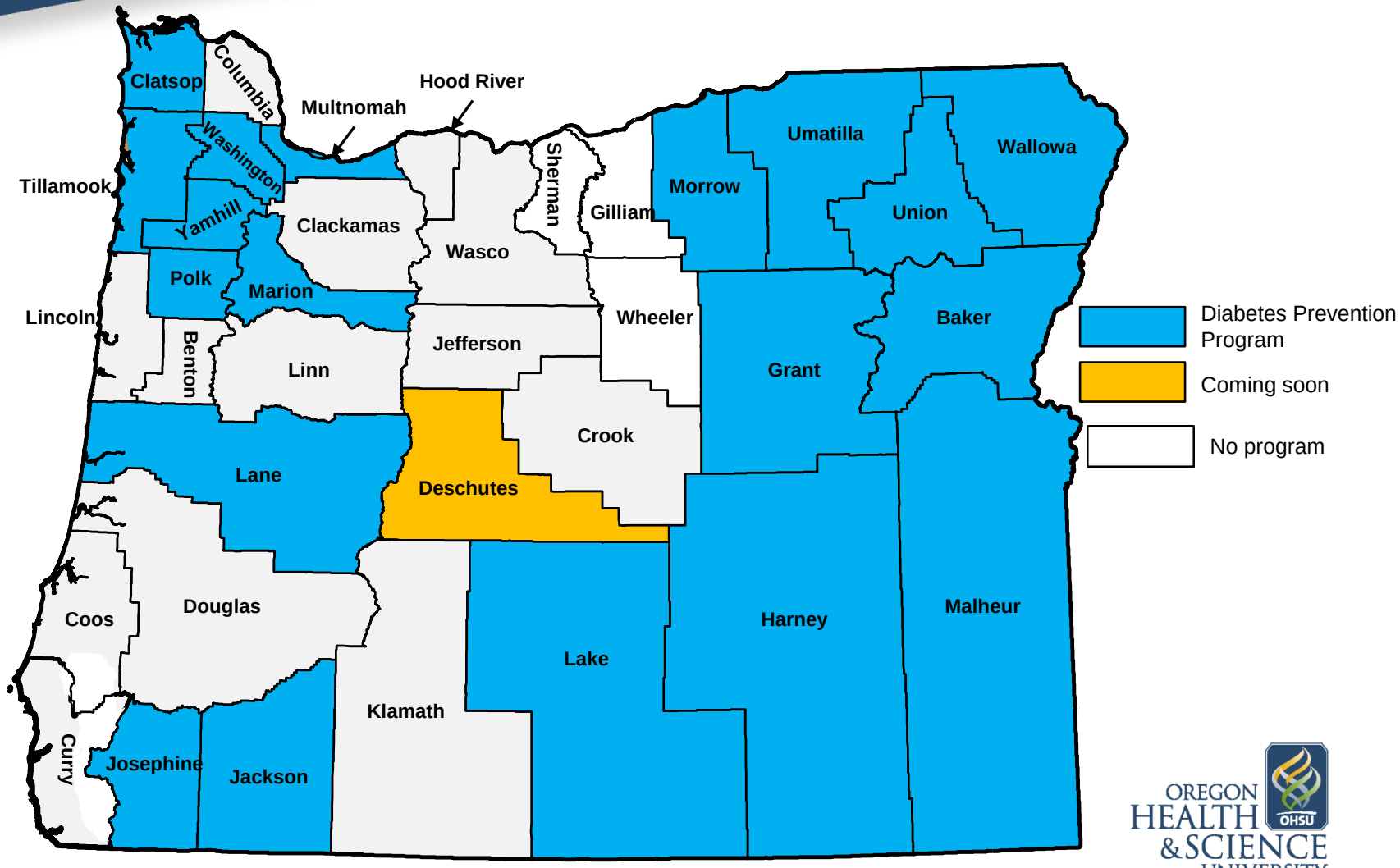
Diabetes Prevention in Oregon

Find a Program



www.healthoregon.org/takecontrol

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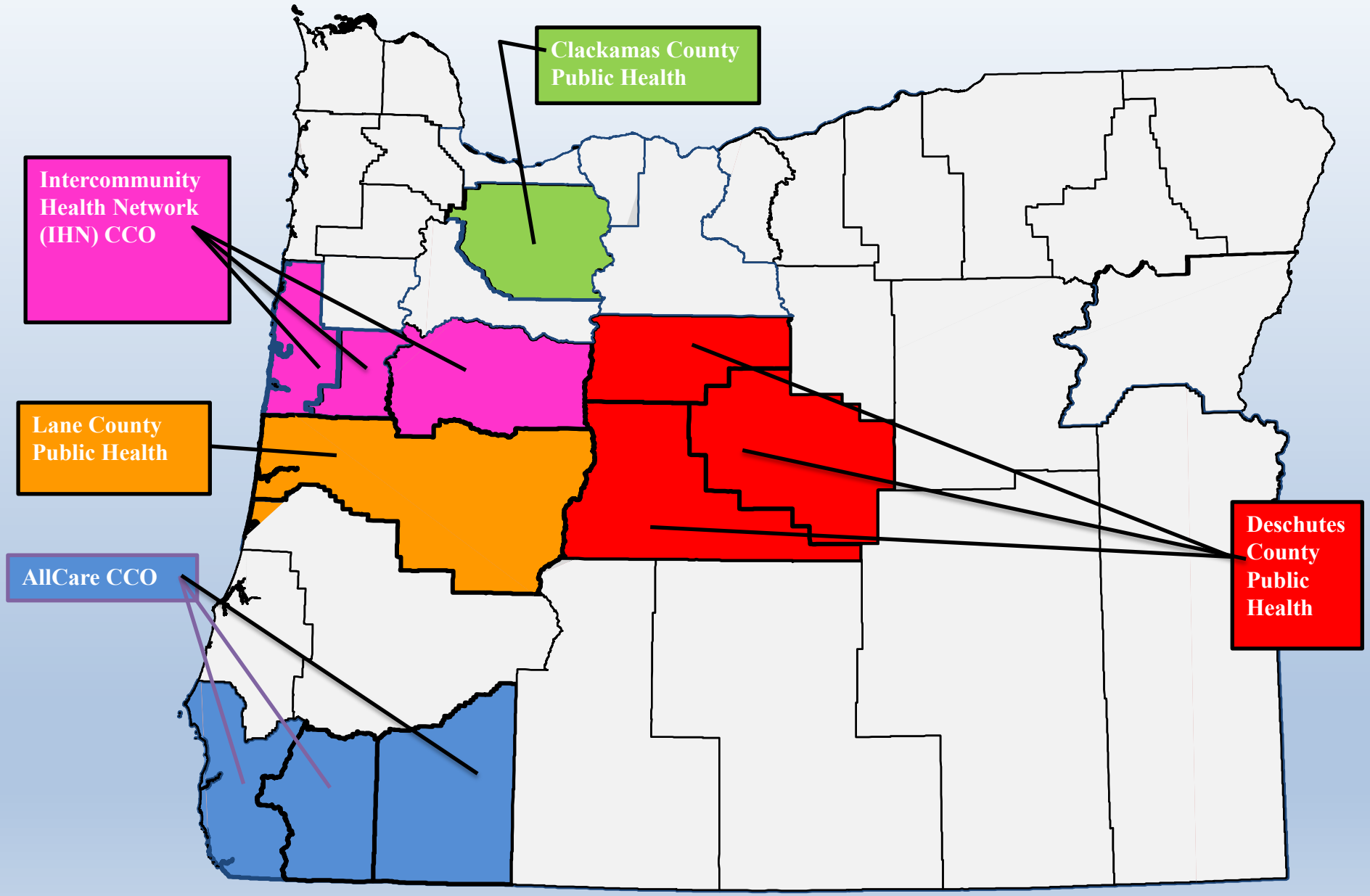
SRCH Grantees, 2015



OHA/OHSU DPP Priorities

Support Oregon CCOs & Other Providers:

- Increase awareness of the program
- Assist with designing referral systems to in-person or online DPPs
- Support providers in making referrals to in-person or online DPPs
- Build case for reimbursement for delivery of program
- As needed, train additional DPP Lifestyle Coaches to deliver program

Useful Tools

- AMA/CDC Prevent Diabetes STAT tool kit
- Statewide DPP list and other resources on the OHA-PHD website

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Questions?

Don Kain, MA, RD, CDE

kaind@ohsu.edu

503.494.5249

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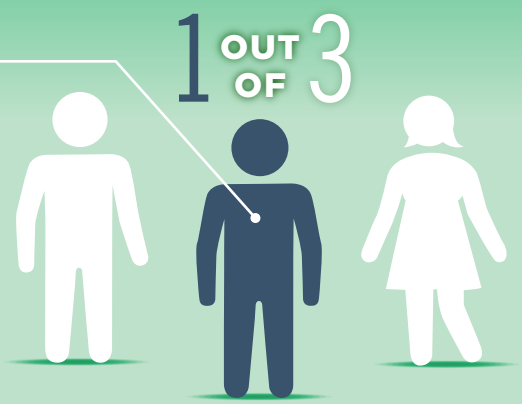
PREDIABETES

COULD IT BE YOU?

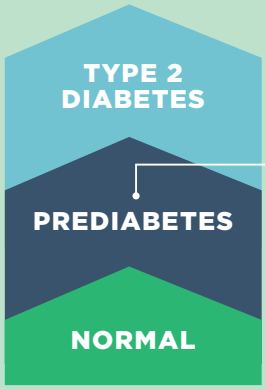
CDC
Centers for Disease Control and Prevention

86 MILLION

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



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



Prediabetes is when your blood sugar level is higher than normal but not high enough yet to be diagnosed as type 2 diabetes

Prediabetes increases your risk of:

TYPE 2 DIABETES | HEART DISEASE | STROKE

If you have prediabetes, losing weight by:

EATING HEALTHY & BEING MORE ACTIVE

can cut your risk of getting type 2 diabetes in

HALF

Without weight loss and moderate physical activity

15–30% of people with prediabetes will develop type 2 diabetes within 5 years

People who have diabetes are at higher risk of serious health complications:

BLINDNESS

KIDNEY FAILURE

HEART DISEASE

STROKE

LOSS OF TOES, FEET, OR LEGS

YOU CAN PREVENT TYPE 2 DIABETES

FIND OUT IF YOU HAVE PREDIABETES —
See your doctor to get your blood sugar tested

JOIN A CDC-RECOGNIZED
diabetes prevention program

- ✔ eat healthy
- ✔ be more active
- ✔ lose weight

LEARN MORE FROM CDC AND TAKE THE **PREDIABETES RISK QUIZ** AT
http://www.cdc.gov/diabetes/prevention

REFERENCES

Centers for Disease Control and Prevention. National diabetes statistics report: estimates of diabetes and its burden in the United States, 2014. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2014.

Knowler WC, Barrett-Conner 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;346:393–403. As cited in March 22, 2013, MMWR.

Tuomilehto J, Lindstom J, Eriksson J, et al; Finnish Diabetes Prevention Study Group. Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. N Engl J Med 2001; 344:1343–1350.

CDC's Division of Diabetes Translation works toward a world free of the devastation of diabetes.

PREVENTING TYPE 2 DIABETES

A guide to refer your patients with prediabetes to an evidence-based diabetes prevention program

AMA AMERICAN MEDICAL ASSOCIATION

Prevent Diabetes **STAT** | Screen / Test / Act Today™

CDC SAFER • HEALTHIER • PEOPLE™

Preventing diabetes: Making a difference by linking the clinic with the community.

In the average primary care practice, it's likely that one-third of patients over age 18, and half over age 65, have prediabetes.

Use this guide to help your patients delay or prevent the onset of type 2 diabetes

Prediabetes is a health condition characterized by blood glucose levels that are higher than normal, but not high enough to be diagnosed as diabetes. Prediabetes increases the risk for type 2 diabetes, heart disease and stroke.

Prediabetes is treatable, but only about 10 percent of people who have it are aware that they do. Left untreated up to one-third of people with prediabetes will progress to diabetes within five years.

During that window of time your patients can benefit from a proven lifestyle change intervention that is part of the National Diabetes Prevention Program (National DPP) led by the Centers for Disease Control and Prevention (CDC).

As part of the National DPP, the American Medical Association (AMA) and the CDC are collaborating to create tools and resources that care teams can use to identify patients with prediabetes, and refer eligible patients to in-person or online diabetes prevention programs.

Physicians and care teams from a diverse group of practices helped the AMA and the CDC create the tools in this guide, and have used them in their own practices to:

- Screen and identify patients for prediabetes
- Refer patients to diabetes prevention programs
- Create feedback loops, linking the patient's progress in the diabetes prevention program back to the practice

Part of a national movement

To achieve CDC recognition as part of the National DPP, programs must provide evidence they are following a CDC-approved curriculum and achieving meaningful results with patients. These programs are based on research showing that a year-long, structured lifestyle change intervention reduced the incidence of diabetes by 58 percent among adults with prediabetes and by 71 percent in those aged 60 years or older.

These programs are successful in part because they require only moderate weight loss to achieve preventive health benefits. Weight loss of 5 to 7 percent of body weight—10 to 14 pounds for a person weighing 200 pounds—led to the results mentioned above.

The AMA and the CDC are promoting these diabetes prevention programs because they are one of the most effective ways to help physicians prevent or delay type 2 diabetes in high-risk patients.

Use this implementation guide and its tools to help identify and refer patients with prediabetes to a diabetes prevention program that is part of the CDC's National DPP.

Overview of guide tools

Resource	Purpose
Engage clinicians	
You can prevent type 2 diabetes Health care provider fact sheet	Provides a brief overview of the evidence-based diabetes prevention program and a rationale for engaging with the program, such as improved patient outcomes. Also assists clinicians in advocating to their colleagues and leaders about the value of incorporating diabetes prevention screening and referral into their practices.
Engage patients	
Diabetes Risk Assessments CDC and American Diabetes Association (ADA) questionnaires	Offers an educational opportunity for patients to learn about their risk for prediabetes, and help physicians and care teams identify their patients at great risk.
Promoting prediabetes awareness to your patients 8" x 11" poster)	Helps practices increase patient awareness of prediabetes to pave the way for conversations with patients about screening and referral.
Are you at risk for type 2 diabetes? Patient handout	For use by physician practices in patient waiting areas to increase patient awareness and pave the way for conversations with patients about screening and referral.
So you have prediabetes … now what? Patient handout	For use by physician practices in the exam room after screening has revealed that a patient has prediabetes. Helps the patient leave the office visit with concrete information for later reference.
Sample "Patient letter/email and phone script"	Enables physician practices to conduct efficient follow-up and referral with patients who have been identified as having prediabetes, informing them of their prediabetes status and referral to an evidence-based diabetes prevention program.
Incorporate screening, testing and referral into practice	
M.A.P. to diabetes prevention for your practice One-page overview	Offers practices a one-page roadmap to applying the elements of the diabetes prevention screening and referral guide.
Patient flow process Infographic	Provides a high-level overview of how office staff can facilitate point-of-care identification.
Point-of-care prediabetes identification algorithm Infographic and narrative	With a graphic on one side, and narrative on other, the document offers practices an option to adapt/ incorporate a prediabetes screening and referral process into their workflow.
Retrospective prediabetes identification algorithm Infographic and narrative	With a graphic on one side, and narrative on other, the document offers practices an option to adapt/ incorporate an identification and referral process into their electronic health records and generate a registry of patients at risk for type 2 diabetes.
Sample patient referral form/table for calculating body mass index	Makes the referral process easier for practices, helps engage the patient (particularly if they sign the optional patient signature box) and prepares diabetes prevention program providers to engage with the patient as well.
Commonly used CPT and ICD codes Table	Enables physician practices to obtain reimbursement for prediabetes screening.
Connect your clinic with diabetes prevention programs	
Link to sample "Business Associate Agreement" on AMA's website	Provides link to template agreement some practices have used to share information with diabetes prevention program providers.

Additional information

AMA diabetes prevention initiative
preventdiabetesstat.org
Learn more about the AMA's commitment to preventing type 2 diabetes.

Centers for Disease Control and Prevention's National Diabetes Prevention Program
cdc.gov/diabetes/prevention
Visit this site for detailed information about the CDC's National Diabetes Prevention Program.

National Diabetes Education Program
ndep.nih.gov/am-i-at-risk/
Find educational resources about preventing diabetes for you and your patients.

How does a diabetes prevention program work?

Diabetes prevention programs that are part of the National DPP use lifestyle change interventions that target improving diet, increasing physical activity and achieving moderate weight loss.

The goal for each participant is to lose ≥5% of body weight by:

- Progressively reducing dietary intake of calories and fat through improved food choices
- Gradually increasing moderate physical activity (e.g., brisk walking) to ≥150 minutes per week
- Developing behavioral problem-solving and coping skills

Features include:

- A year-long structured program (in-person group, online or distance learning) consisting of:
  - An initial six-month phase offering at least 16 sessions over 16–24 weeks
  - A second six-month phase offering at least one session a month (at least six sessions)
- Facilitation by a trained lifestyle coach
- Use of a CDC-approved curriculum
- Regular opportunities for direct interaction between the lifestyle coach and participants
- An emphasis on behavior modification, managing stress and peer support

Who is eligible for referral to a diabetes prevention program?
To be eligible for referral, patients must:

- Be at least 18 years old **and**
- Be overweight (Body Mass Index (BMI) ≥24; ≥22 if Asian) **and**
- Have a blood test result in the prediabetes range within the past year:
  - Hemoglobin A1C: 5.7–6.4% **or**
  - Fasting plasma glucose: 100–125 mg/dL **or**
  - Two-hour plasma glucose (after a 75 gm glucose load): 140–199 mg/dL **or**
- Be previously diagnosed with gestational diabetes and
- Have no previous diagnosis of diabetes

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

How can patients find a diabetes prevention program near them?
Diabetes prevention programs are available in varied locations such as local YMCAs, wellness centers, faith-based organizations and worksites—as well as in health care facilities. Online versions are also available. Visit nccd.cdc.gov/DDT_DPRP/Registry.aspx to find a program that is part of the CDC's National DPP recognition program.

Does health insurance cover patient participation in a diabetes prevention program?
A growing number of private health insurers offer coverage for patient participation in diabetes prevention programs. Several employers include coverage as part of workplace wellness programs. Costs for a full year of program participation are approximately $400–$500. Some program providers offer monthly payment plans and discounts based on ability to pay. The AMA and the CDC continue to advocate for public and private insurance coverage of the diabetes prevention program.

How do I code for prediabetes screening?
Depending on the type of office visit, practices can use several CPT and ICD codes to bill for prediabetes screening and counseling. A list of commonly used CPT and ICD codes is included in this guide.

Feedback from diabetes prevention program to referring clinicians

Most programs send reports of participant progress to referring clinicians after the eighth and 16th group sessions. In addition, participants in the program complete periodic self-evaluations that referring clinicians can request directly from patients.

Sending patient information to a diabetes prevention program provider

Business Associate Agreement
Under the U.S. Health Insurance Portability and Accountability Act of 1996 (HIPAA), a HIPAA Business Associate Agreement (BAA) is a contract that protects personal health information in accordance with HIPAA guidelines. Some physician practices may want to explore whether a BAA is needed to exchange information with a diabetes prevention program. (Link to a "Business Associates Agreement" template on AMA's website.)

Engage clinicians

You can prevent type 2 diabetes

Test your patients for prediabetes and refer those at risk to an evidence-based diabetes prevention program

You likely know which of your patients is at high risk for type 2 diabetes. Until now you may not have had a resource to help them stop the progression from prediabetes to diabetes. Now, you do.

The American Medical Association and the Centers for Disease Control and Prevention (CDC) have created a toolkit that can help physician practices screen and refer patients to evidence-based diabetes prevention programs without adding a burden to your practice. Visit **preventdiabetesstat.org** to learn more.

- Progression from prediabetes to diabetes can take as little as five years.
- During that window of time, your patients can benefit from a proven intervention that is part of the CDC's National Diabetes Prevention Program (National DPP).
- Counsel your patients that prediabetes is a potentially reversible condition, and one that you can help them manage effectively by:
  - Screening and Identifying patients for prediabetes
  - Referring them to a program that is part of the CDC's National DPP

This program is evidence-based

- The diabetes prevention program is a lifestyle intervention based on research funded by the National Institutes of Health that showed, among those with prediabetes, a 58 percent reduction in the number of new cases of diabetes overall, and a 71 percent reduction in new cases for those over age 60.
- These results were achieved through reducing calories, increasing physical activity, and a weight loss of just 5 to 7 percent of body weight—10 to 14 pounds for a person weighing 200 pounds.*
- Based on strong evidence of effectiveness in reducing new-onset diabetes, the Community Preventive Services Task Force (thecommunityguide.org) now recommends combined diet and physical activity promotion programs like the National DPP, for people at increased risk of type 2 diabetes.

Program overview

- The program empowers patients with prediabetes to take charge of their health and well-being.
- Participants meet in groups with a trained lifestyle coach for 16 weekly sessions and 6–8 monthly follow-up sessions.
- These are NOT exercise classes. At these sessions patients learn ways to incorporate healthier eating and moderate physical activity, as well as problem-solving, stress-reduction and coping skills into their daily lives.

See next page to determine which of your patients is eligible for the diabetes prevention program.

In the average primary care practice it's likely one-third of patients over age 18, and half over age 65, have prediabetes.

* Visit **http://diabetes.niddk.nih.gov/dm/pubs/preventionprogram** to learn more about this research.

Locating a program

- Programs are offered in varied locations such as local YMCAs, community centers, faith-based organizations, hospitals and worksites, and are also available online.
- Find a program for your patients at **cdc.gov/diabetes/prevention**.

Eligibility for the diabetes prevention program

A. Inclusion criteria:
- Current 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

Consider referring eligible patients:
- At the time of an office visit, and/or
- By generating a list of eligible patients from your electronic health record using a structured query

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

Engage patients

Patient risk assessment

ARE YOU AT RISK FOR

TYPE 2 DIABETES?

American Diabetes Association®

Diabetes Risk Test

Write your score in the box.

1 How old are you?

Less than 40 years (0 points)
40—49 years (1 point)
50—59 years (2 points)
60 years or older (3 points)

2 Are you a man or a woman?

Man (1 point) Woman (0 points)

3 If you are a woman, have you ever been diagnosed with gestational diabetes?

Yes (1 point) No (0 points)

4 Do you have a mother, father, sister, or brother with diabetes?

Yes (1 point) No (0 points)

5 Have you ever been diagnosed with high blood pressure?

Yes (1 point) No (0 points)

6 Are you physically active?

Yes (0 points) No (1 point)

7 What is your weight status? ***(see chart at right)***

Height	Weight (lbs.)		
4′ 10″	119-142	143-190	191+
4′ 11″	124-147	148-197	198+
5′ 0″	128-152	153-203	204+
5′ 1″	132-157	158-210	211+
5′ 2″	136-163	164-217	218+
5′ 3″	141-168	169-224	225+
5′ 4″	145-173	174-231	232+
5′ 5″	150-179	180-239	240+
5′ 6″	155-185	186-246	247+
5′ 7″	159-190	191-254	255+
5′ 8″	164-196	197-261	262+
5′ 9″	169-202	203-269	270+
5′ 10″	174-208	209-277	278+
5′ 11″	179-214	215-285	286+
6′ 0″	184-220	221-293	294+
6′ 1″	189-226	227-301	302+
6′ 2″	194-232	233-310	311+
6′ 3″	200-239	240-318	319+
6′ 4″	205-245	246-327	328+
	(1 Point)	(2 Points)	(3 Points)

You weigh less than the amount in the left column (0 points)

Adapted from Bang et al., Ann Intern Med 151:775-783, 2009.
Original algorithm was validated without gestational diabetes as part of the model.

Add up your score.

If you scored 5 or higher:

You are at increased risk for having type 2 diabetes. However, only your doctor can tell for sure if you do have type 2 diabetes or prediabetes (a condition that precedes type 2 diabetes in which blood glucose levels are higher than normal). Talk to your doctor to see if additional testing is needed.

Type 2 diabetes is more common in African Americans, Hispanics/Latinos, American Indians, and Asian Americans and Pacific Islanders.

For more information, visit us at www.diabetes.org or call 1-800-DIABETES

Visit us on Facebook
Facebook.com/AmericanDiabetesAssociation

Lower Your Risk

The good news is that you can manage your risk for type 2 diabetes. Small steps make a big difference and can help you live a longer, healthier life.

If you are at high risk, your first step is to see your doctor to see if additional testing is needed.

Visit diabetes.org or call 1-800-DIABETES for information, tips on getting started, and ideas for simple, small steps you can take to help lower your risk.

STOP DIABETES®

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CDC Prediabetes Screening Test

COULD YOU HAVE PREDIABETES?

Prediabetes means your blood glucose (sugar) is higher than normal, but not yet diabetes. Diabetes is a serious disease that can cause heart attack, stroke, blindness, kidney failure, or loss of feet or legs. Type 2 diabetes can be delayed or prevented in people with prediabetes through effective lifestyle programs. Take the first step. Find out your risk for prediabetes.

TAKE THE TEST—KNOW YOUR SCORE!

Answer these seven simple questions. For each "Yes" answer, add the number of points listed. All "No" answers are 0 points.

Yes	No	
1	0	Are you a woman who has had a baby weighing more than 9 pounds at birth?
1	0	Do you have a sister or brother with diabetes?
1	0	Do you have a parent with diabetes?
5	0	Find your height on the chart. Do you weigh as much as or more than the weight listed for your height?
5	0	Are you younger than 65 years of age and get little or no exercise in a typical day?
5	0	Are you between 45 and 64 years of age?
9	0	Are you 65 years of age or older?

Add your score and check the back of this page to see what it means.

AT-RISK WEIGHT CHART

Height	Weight *Pounds*	Height	Weight *Pounds*
4'10"	129	5'7"	172
4'11"	133	5'8"	177
5'0"	138	5'9"	182
5'1"	143	5'10"	188
5'2"	147	5'11"	193
5'3"	152	6'0"	199
5'4"	157	6'1"	204
5'5"	162	6'2"	210
5'6"	167	6'3"	216
		6'4"	221

National Center for Chronic Disease Prevention and Health Promotion
Division of Diabetes Translation

IF YOUR SCORE IS 3 TO 8 POINTS

This means your risk is probably low for having prediabetes now. Keep your risk low. If you're overweight, lose weight. Be active most days, and don't use tobacco. Eat low-fat meals with fruits, vegetables, and whole-grain foods. If you have high cholesterol or high blood pressure, talk to your health care provider about your risk for type 2 diabetes.

IF YOUR SCORE IS 9 OR MORE POINTS

This means your risk is high for having prediabetes now. Please make an appointment with your health care provider soon.

HOW CAN I GET TESTED FOR PREDIABETES?

Individual or group health insurance: See your health care provider. If you don't have a provider, ask your insurance company about providers who take your insurance. Deductibles and copays may apply.
Medicaid: See your health care provider. If you don't have a provider, contact a state Medicaid office or contact your local health department.
Medicare: See your health care provider. Medicare will pay the cost of testing if the provider has a reason for testing. If you don't have a provider, contact your local health department.
No insurance: Contact your local health department for more information about where you could be tested or call your local health clinic.

86 MILLION AMERICAN ADULTS

have prediabetes

You could be one of them.

Having prediabetes means you are at increased risk for developing serious health problems such as type 2 diabetes, stroke and heart disease.

You could have prediabetes if you have:

- High cholesterol **or**
- High blood pressure **or**
- A parent, brother or sister with diabetes

Your risk goes up if you are also overweight, and/or over age 45.

If you have prediabetes, we can help!

Ask your doctor how you can stop diabetes before it starts.

AMA AMERICAN MEDICAL ASSOCIATION

Prevent Diabetes **STAT** | Screen / Test / Act Today™

CDC SAFER · HEALTHIER · PEOPLE™

The American Medical Association and the Centers for Disease Control are supporting physicians, care teams and patients to prevent diabetes.

Are you at risk for prediabetes?

1 in 3 U.S. adults has prediabetes. Most don't know it. Are you at risk?

You may have prediabetes and be at risk for type 2 diabetes if you:

- Are 45 years of age or older
- Are overweight
- Have a family history of type 2 diabetes
- Have high blood pressure
- Are physically active fewer than three times per week
- Ever had diabetes while pregnant (gestational diabetes) or gave birth to a baby that weighed more than 9 pounds

Prediabetes can lead to serious health problems

Having prediabetes means your blood glucose (sugar) level is higher than normal, but not high enough to be diagnosed as diabetes. But, nearly 90 percent of adults who have prediabetes don't know they have it.

If you have prediabetes and don't lose weight or increase your physical activity, you could develop type 2 diabetes within five years. Type 2 diabetes is a serious condition that can lead to health issues such as heart attack, stroke, blindness, kidney failure, or loss of toes, feet or legs.

What can you do?

- Talk to your doctor about your risk of having prediabetes.

Here's the good news

If you have prediabetes, your doctor may refer you to a proven lifestyle change program that can help you prevent or delay getting type 2 diabetes.

The National Diabetes Prevention Program can help!

The National Diabetes Prevention Program (National DPP) uses a program that is proven to prevent or delay type 2 diabetes, and will help you lower your risk by improving your food choices and increasing physical activity.

How does it work? As part of a group in your community or online, you will work with a trained lifestyle coach to learn the skills you need to make lasting lifestyle changes. You will learn to eat healthy, add physical activity to your life, manage stress, stay motivated and solve problems that can get in the way of healthy changes.

Features

- Trained coach to guide and encourage you
- In-person or online
- CDC-approved program
- Support from others working on the same goals as you
- Skills to help you lose weight, be more physically active and manage stress
- Some insurance companies will cover

What participants are saying …

"I love having a lifestyle coach. She has given us great information, helped me stay on track and stay positive!"
—Bruce

"I'm so excited because I went to the doctor last week and all of my numbers were down and I officially no longer have prediabetes."
—Vivien

Now is the time to take charge of your health and make a change! Ask your doctor or nurse.

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So you have prediabetes … now what?

Prediabetes means your blood glucose (sugar) level is higher than normal, but not high enough to be diagnosed as diabetes. This condition raises your risk of type 2 diabetes, stroke and heart disease.

What can you do about it?

The good news is that there's a program that can help you.

The National Diabetes Prevention Program, led by the Centers for Disease Control and Prevention (CDC), uses a method proven to prevent or delay type 2 diabetes.

By improving food choices and increasing physical activity, your goal will be to lose 5 to 7 percent of your body weight—that is 10 to 14 pounds for a person weighing 200 pounds.

These lifestyle changes can cut your risk of developing type 2 diabetes by more than half.

How does the program work?

As part of a group, you will work with a trained diabetes prevention coach and other participants to learn the skills you need to make lasting lifestyle changes. You will learn to eat healthy, add physical activity to your life, manage stress, stay motivated and solve problems that can get in the way of healthy changes.

The program lasts one year, with 16 sessions taking place about once a week and six to eight more sessions meeting once a month. By going through the program with others who have prediabetes you can celebrate each other's successes and work together to overcome challenges.

Some insurance plans will cover the cost of the program. Check with your insurance provider to see if it is covered. Also, some places that provide the program will adjust the fee you pay based on your income.

Why should you act now?

Without weight loss and moderate physical activity, many people with prediabetes will develop type 2 diabetes within five years. Type 2 diabetes is a serious condition that can lead to health issues such as heart attack, stroke, blindness, kidney failure, or loss of toes, feet or legs. **NOW is the time to take charge of your health and make a change.**

Features of the program:

- A trained coach to guide and encourage you
- A CDC-approved program
- Group support
- Skills to help you lose weight, be more physically active and manage stress

What participants are saying …

"I love having a lifestyle coach. She has given us great information, helped me stay on track and stay positive!"

—Bruce

"I'm so excited because I went to the doctor last week and all of my numbers were down and I officially no longer have prediabetes."

—Vivien

Sign up today for a program near you!

To find a program in our area that is part of the National Diabetes Prevention Program, visit **cdc.gov/diabetes/prevention.**

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Letter template

Use/adapt these templates to conduct efficient follow-up and referral with patients who have been identified as having prediabetes

<<YOUR LETTERHEAD>>
<<ADDRESS>>
<<PHONE NUMBER>>

<<DATE>>

<<PATIENT NAME>>
<<PATIENT ADDRESS>>

Dr. Mr./Mrs. <<PATIENT LAST NAME>>,

Thank you for being a patient of the <<PRACTICE NAME HERE>>. We are writing to tell you about a service to help make your health better.

Based on our review of your medical chart, you have a condition known as prediabetes. This means your blood sugar is higher than normal, which increases your risk of developing serious health problems including type 2 diabetes, as well as heart disease and stroke.

We have some good news. Our office wants you to know that you may be eligible for a diabetes prevention program run by our partners, <<NAME OF PROGRAM PROVIDER>>. This program is proven to reduce your risk of developing diabetes and other health problems.

We have sent a referral to <<NAME OF PROGRAM PROVIDER>> and someone will call you to discuss the program, answer any questions you may have and, if you are interested, enroll you in the program.

Please feel free to give <<NAME OF PROGRAM PROVIDER>> a call at <<PHONE NUMBER>>.

–OR–

We have sent a referral to <<NAME OF PROGRAM PROVIDER>> and we urge you to call <<PHONE NUMBER>> to learn more about the program and enroll.

We hope you will take advantage of this program, which can help prevent you from developing serious health problems.

Sincerely,

Dr. <<PHYSICIAN LAST NAME>>

Sample "Talking points" for phone outreach

- Hello <<PATIENT NAME>>.
- I am calling from <<PRACTICE NAME HERE>>.
- I'm calling to tell you about a program we'd like you to consider, to help you prevent some serious health problems.
- Based on our review of your medical chart, you have a condition known as prediabetes. This means your blood sugar is higher than normal, which makes you more likely to develop serious health problems including type 2 diabetes, stroke and heart disease.
- We have some good news, too.
- You may be eligible for a diabetes prevention program run by our partners, <<NAME OF PROGRAM PROVIDER>>.
  - Their program is based on research proven to reduce your risk of developing diabetes and other health problems.

Option A

- We have sent a referral to <<NAME OF PROGRAM PROVIDER >> and someone will call you to discuss the program, answer any questions you may have and, if you are interested, enroll you in the program.
- Please feel free to give <<NAME OF PROGRAM PROVIDER>> a call at <<PHONE NUMBER>>.
- Do you have any questions for me?
- Thank you for your time and be well.

Option B

- We have sent a referral to <<NAME OF PROGRAM PROVIDER>> and we urge you to call <<PHONE NUMBER>> to learn more about the program and enroll.
- We hope you will take advantage of this program, which can help prevent you from developing serious health problems.
- Do you have any questions for me?
- Thank you for your time and be well.

Incorporate screening, testing and referral into practice

M.A.P. (Measure, Act, Partner)

THE M.A.P. (Measure, Act, Partner) to prevent type 2 diabetes—physicians and care teams can use this document to determine roles and responsibilities for identifying adult patients with prediabetes and referring to community-based diabetes prevention programs. "Point-of-Care" and "Retrospective" methods may be used together or alone.

Choose and check what works best for your practice

Step 1: Measure	**When**	**Who**	**How (draw from AMA-CDC tools)**
Point-of-care method • Assess risk for prediabetes during routine office visit • Test and evaluate blood glucose level based on risk status	• At the front desk • During vital signs	• Receptionist • Medical assistant • Nurse • Physician • Other _____	• Provide "Are you at risk for prediabetes?" patient education handout in waiting area • Use/adapt "Patient flow process" tool • Use CDC or ADA risk assessment questionnaire at check-in • Display 8 x 11" patient-facing poster promoting prediabetes awareness to your patients • Use/adapt "Point-of-care algorithm"
Retrospective method • Query EHR to identify patients with BMI ≥24 and blood glucose level in the prediabetes range	• Every 6–12 months	• Health IT staff • Other _____	• Use/adapt "Retrospective algorithm"
Step 2: Act			
Point-of-care method • Counsel patient re: prediabetes and treatment options during office visit • Refer patient to diabetes prevention program • Share patient contact info with program provider*	• During the visit	• Medical assistant • Nurse • Physician • Other_____	• Advise patient using "So you have prediabetes … now what?" handout • Use/adapt "Health care practitioner referral form" • Refer to "Commonly used CPT and ICD codes"
Retrospective method • Inform patient of prediabetes status via mail, email or phone call • Make patient aware of referral and info sharing with program provider • Refer patient to diabetes prevention program • Share patient contact info with program provider*	• Contact patient soon after EHR query	• Health IT staff • Medical assistant (for phone calls) • Other_____	• Use/adapt "Patient letter/phone call" template • Use/adapt "Health care practitioner referral form" for making individual referrals • Use/adapt "Business Associate Agreement" template on AMA's website if needed
Step 3: Partner			
With diabetes prevention programs • Engage and communicate with your local diabetes prevention program • Establish process to receive feedback from program about your patients' participation	• Establish contact before making 1st referral	• Medical assistant • Nurse • Physician • Other_____	Use/adapt "Business Associate Agreement" template on AMA's website if needed Refer to "Commonly used CPT and ICD codes"
With patients • Explore motivating factors important to the patient • At follow-up visit, order/review blood tests to determine impact of program and reinforce continued program participation • Discuss program feedback with patient and integrate into care plan	• During office visit • Other_____	• Office manager • Other_____	• Advise patient using "So you have prediabetes … now what?" handout and provide CDC physical activity fact sheet **www.cdc.gov/physicalactivity**

Following the M.A.P. for Preventing Type 2 Diabetes can help your practice achieve Patient Centered Medical Home (PCMH) recognition, as well as Meaningful Use of your electronic medical record. (Supports PCMH recognition via Standard 4: Self-Care Support, B. Provide Referrals to Community Resources (3 points), *NCQA Facilitating PCMH Recognition, 2011.*)
* To share patient contact information with a diabetes prevention program, you may need a Business Associate Agreement (BAA).

The American Medical Association and the Centers for Disease Control and Prevention have created a tool kit that can help physician practices screen and refer patients to evidence-based diabetes prevention programs. Visit **preventdiabetesstat.org** to learn more. Physicians and other health care providers should also use their independent judgment when referring to a diabetes prevention program.

Sample patient flow process

MEASURE

CHECK-IN

- If age ≥18 and patient does not have diabetes, provide CDC Prediabetes Screening Test or ADA Diabetes Risk Test
- Patient completes test and returns it
- Insert completed test in paper chart or note risk score in EMR

ROOMING/VITALS

- Calculate BMI (using table) and review diabetes risk score
- If elevated risk score or history of GDM, flag for possible referral

ACT

EXAM/CONSULT

- Follow "Point-of-care prediabetes identification algorithm"
- Determine if patient has prediabetes and BMI ≥24 (≥ 22 for Asians) or a history of GDM
- Advise re: diet/exercise and determine willingness to participate in a diabetes prevention program
- If patient agrees to participate, proceed with referral

PARTNER

REFERRAL

- Complete and submit referral form via fax or email

FOLLOW UP

- Contact patient and troubleshoot issues with enrollment or participation

† Use handouts included in this toolkit or request brochures from your local diabetes prevention program provider.

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.

Continue with exam/ consult. Retest within three years of last negative test.

Refer to diabetes prevention program, provide brochure.

Consider retesting annually to check for diabetes onset.

Confirm diagnosis; retest if necessary.

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.

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

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?")

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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BMI calculation chart

WEIGHT / HEIGHT	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290	300	310	320	330	340	350	360	370	380	390	400
5'0"	19	21	23	25	27	29	31	33	35	37	39	41	43	45	47	49	51	53	55	57	59	61	63	65	67	69	71	72	74	76	78
5'1"	18	20	22	24	26	28	30	32	34	36	37	39	42	44	45	47	49	51	53	55	57	59	61	63	64	66	68	70	72	74	76
5'2"	18	20	22	23	25	27	29	31	33	34	36	38	40	42	44	46	48	50	51	53	55	57	59	61	62	64	66	68	70	72	73
5'3"	17	19	21	23	24	26	28	30	32	33	35	37	39	41	43	44	46	48	50	52	53	53	57	59	60	62	64	66	67	69	71
5'4"	17	18	20	22	24	25	27	29	31	32	34	36	38	40	41	43	45	46	48	50	52	53	55	57	59	60	62	64	65	67	69
5'5"	16	18	20	21	23	25	26	28	30	31	33	35	37	38	40	42	43	45	47	48	50	52	53	55	57	58	60	62	63	65	67
5'6"	16	17	19	21	22	24	25	27	29	30	32	34	36	37	39	40	42	44	45	47	49	50	52	53	55	57	58	60	62	63	65
5'7"	15	17	18	20	22	23	25	26	28	29	31	33	35	36	38	39	41	42	44	46	47	49	50	52	53	55	57	58	60	61	63
5'8"	15	16	18	19	21	22	24	25	27	28	30	32	34	35	37	38	40	41	43	44	46	47	49	50	52	53	55	56	58	59	61
5'9"	14	16	17	19	20	22	23	25	26	28	29	31	33	34	36	37	39	40	41	43	44	46	47	49	50	52	53	55	56	58	59
5'10"	14	15	17	18	20	21	23	24	25	27	28	30	32	33	35	36	37	39	40	42	43	45	46	47	49	50	52	53	55	56	58
5'11"	14	15	16	18	19	21	22	23	25	26	28	29	31	32	34	35	36	38	39	41	42	43	45	46	48	49	50	52	53	55	56
6'0"	13	14	16	17	19	20	21	23	24	25	27	28	30	31	33	34	35	37	38	39	41	42	44	45	46	48	49	50	52	53	54
6'1"	13	14	15	17	18	19	21	22	23	25	26	27	29	30	32	33	34	36	37	38	39	41	42	44	45	46	48	49	50	52	53
6'2"	12	14	15	16	18	19	20	21	23	24	25	27	28	30	31	32	33	35	36	37	39	40	41	42	44	45	46	48	49	50	51
6'3"	12	13	14	16	17	18	19	21	22	23	24	26	28	29	30	31	33	34	35	36	38	39	40	41	43	44	45	46	48	49	50
6'4"	12	13	14	15	17	18	19	20	21	23	24	26	27	28	29	31	32	33	34	35	37	38	39	40	41	43	44	45	46	48	49
6'5"	11	13	14	15	16	17	19	20	21	22	24	25	26	27	29	30	31	32	33	34	36	37	38	39	40	42	43	44	45	46	48

Blue **Underweight:** Less than 18.5

Green **Healthy Weight:** 18.5 - 24.9

Yellow **Overweight:** 25 - 29.9

Orange **Obese:** 30 - 39.9

Red **Extreme Obesity:** 40 or greater

BMI stands for "**BODY MASS INDEX**" which is an estimate of total body fat based on height and weight. It is used to screen for weight categories that may lead to health problems.

THE GOAL for most people is to have a BMI in the green area. It is usually best for your BMI to stay the same over time or to gradually move toward the green area.

Codes: When screening for prediabetes and diabetes

Codes for prediabetes and diabetes screening*,†,‡			
International Classification of Diseases (ICD)-9 for diabetes screening		**Current Procedural Terminology (CPT®) for diabetes screening tests**	
V77.1	Diabetes Screening	**CPT 82947**	Fasting Plasma Glucose Test
790.2	Abnormal Glucose	**CPT 82950**	Post-meal Glucose (2-hour plasma glucose; 2hPG; 2 hr specimen)
790.21	Impaired Fasting Glucose	**CPT 82951**	Oral Glucose Tolerance (3 specimens with 2 hr value included)
790.22	Impaired Glucose Tolerance (oral)	**CPT 83036**	Hemoglobin A1C
790.29	Other Abnormal Glucose NEC	**CPT 83036QW**	Hemoglobin A1C (used for POC test that is CLIA waived [~DCA])
278.00	Obesity		
278.02	Overweight		

These codes may be useful to report services/tests performed to screen for prediabetes and diabetes.

References

* New York State Department of Health. New York State Diabetes Prevention Program (NYS DPP) prediabetes identification and intervention algorithm. New York: NY Dept of Health; 2012.

† American Diabetes Association. Standards of medical care in diabetes—2013. Diabetes Care. January 2013; 36:S11-66. doi: 10.2337/dc13-S011

‡ Ackermann RT. Coding Guide for Diabetes and Prediabetes Testing. 2013. (Published here with permission from Ronald T. Ackermann MD, MPH.)

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