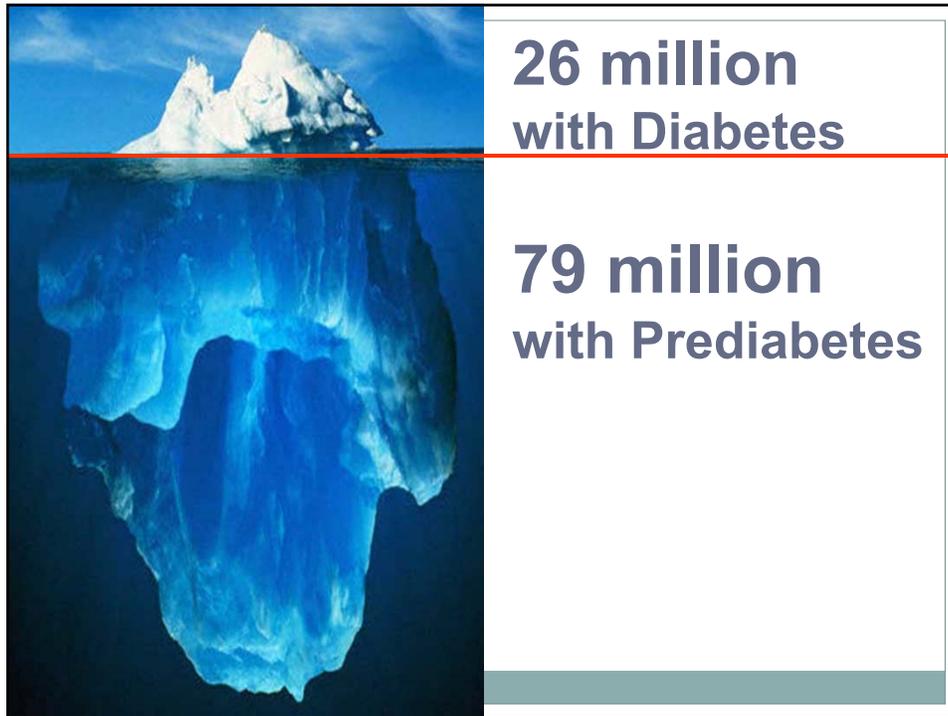


# Pre-Diabetes: Closing the Care Gap

HEATHER READHEAD, MD MPH  
FAMILY MEDICINE, PREVENTIVE  
MEDICINE & PUBLIC HEALTH

## Learning About the Care Gap

- **Epidemiology – scope of the problem**
- **Why it's an important problem**
  - Pathophysiology, complications & quality of life
  - Health care costs
  - Social & economic costs
- **Which adults you should screen – minorities, overweight patients & metabolic syndrome**
- **Which numbers you should know – HbA1c 5.7 & fasting sugar >100**
- **How you should manage these patients – education, motivational interviewing, referrals & follow-up**



**Diabetes: Prevention**

### Diagnostic Criteria for Pre-diabetes and Diabetes

Category	A1C	Fasting Plasma Glucose Test (FPG)	2-Hour Oral Glucose Challenge
<b>Acceptable</b>	N/A	Below 100 mg/dl	Below 140 mg/dl
<b>Pre-diabetes</b>	5.7% - 6.4%	100-125 mg/dl (IFG)	140-199 mg/dl (IGT)
<b>Diabetes</b>	≥ 6.5%	126 mg/dl or above	200 mg/dl or above

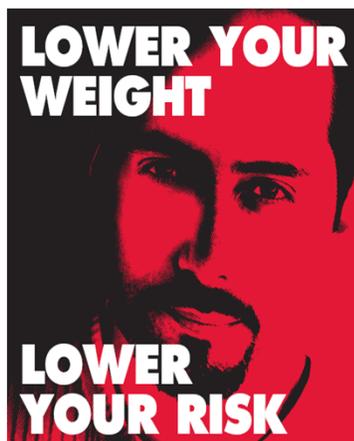
American Diabetes Association. Diabetes Care 2011; 34;(Suppl.1):S11-61. Revised February 2011



**National Diabetes Education Program**  
[www.YourDiabetesInfo.org](http://www.YourDiabetesInfo.org) • 1-888-693-NDEP (1-888-693-6337)  
 A joint program of NIH and CDC



## Preventing Diabetes



## What is Pre-diabetes?

### Learning About the Care Gap

- Only 10% of people with prediabetes know that they have the condition.
- Flip it around: 90% of people with prediabetes don't know that they have the condition.
- *Is this acceptable for the world's most well-resourced healthcare system in the world?*
- *Note: unfortunately, spending the most \$ has not gotten us the best health outcomes...*

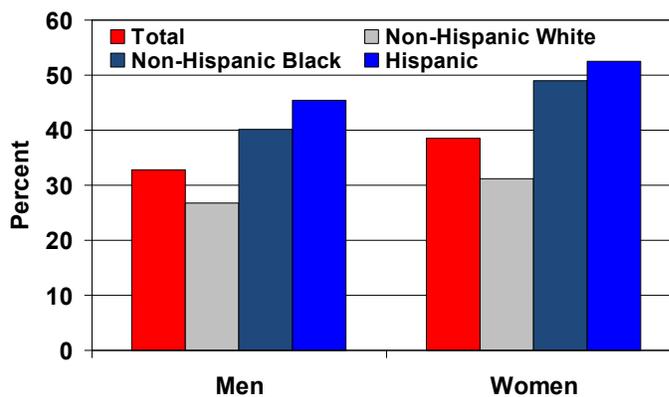
## We are doing a bad job.

- You should have some guilt.
- None of us probably spend enough time on what is most important.

But... Consider yourself forgiven for the past...

- If it was easy, we would probably already be doing it.
- It's a big problem. Obesity. It's a hard problem.
- It's a relatively new problem.
- Time/resource management choices are hard.

## Estimated lifetime risk of developing diabetes for individuals born in the United States in 2000



Narayan et al, JAMA, 2003



## If you're not working on it, you're missing the boat.



- Twin epidemics: diabetes/obesity → "Diabesity" (F.Kaufman, MD)
- Most type 2 diabetes is preventable with weight loss.
- You can find these people very easily. Easier than a mammogram.
  
- Preventing obesity means preventing:
  - Self-esteem issues, depression, anxiety
  - Musculoskeletal problems, arthritis, joint replacements, chronic pain meds (addiction to opiates)
  - Ambulatory dysfunction, using a wheelchair or motorized scooter, unemployment/job loss/disability
  - Surgical complications & blood clots (from not moving)
  - Breathing problems, sleep apnea, hypoventilation syndromes
  - High blood pressure, high cholesterol, GESTATIONAL DIABETES & TYPE 2 DIABETES
- Preventing diabetes means preventing:
  - Cardiovascular disease – MI/stroke – "vasculopathies"
  - Hospitalizations & job loss, unemployment, permanent disability
  - Kidney failure/dialysis
  - Blindness
  - Infections
  - Ulcers
  - Amputations
  - Depression
  - Anxiety
  - Financial stress

## Preventing Diabetes



### The Diabetes Prevention Program study showed

*30 minutes a day of moderate physical activity along with a 5 to 10% weight loss produced a 58% reduction in diabetes*

## Losing 5 to 10%



If You Weigh:	Losing 5 to 10% is
150 pounds	8 to 15 pounds
175 pounds	9 to 18 pounds
200 pounds	10 to 20 pounds
225 pounds	11 to 23 pounds
250 pounds	13 to 25 pounds
300 pounds	15 to 30 pounds

## Closing the Care Gap: Solutions

- What kind of solution?
- How to find the prediabetics & how to get them to lose weight?
- The solution may or may not be only in your clinic.
- To make progress, you may need a few different things to be happening at the same time.
  - Involve different kinds of staff
  - Involve different divisions in an agency
  - Involve partner agencies
  - Commit some time, energy & resources
  - Set up incentives/rewards!!!



**I'm an MD and had never heard of DPCA.**

- **Primary care physicians or any traditional clinic providers were not really a part of this intervention.**
- **Who was involved?**
  - Health Insurance Company (United Health Group)
  - Employers/HR Departments who purchase health plans for their employees
  - Unions? Advocates for benefits for employees
  - Retail outlets/Pharmacies
  - YMCA – offering the Diabetes Prevention Program
  - CDC – governmental public health – grants for pilot projects

## Finding Solutions: Thinking with 3 “Hats”

- **Primary care family physician/internist**
- **Preventive medicine**
  - Population-based healthcare (ACO/PCMH/panel management)
  - Clinical Quality Improvement (CQI)
  - Research/pilot projects – ex. obesity group visits
- **Public health & health policy**
  - Media campaigns
  - Healthy food environments – schools, workplaces, hospitals, parks/rec facilities
  - Employers, unions & health insurance companies – coverage for preventive health services like the DPP
  - Regulation/standards/\$\$\$ – Joint Commission, HEDIS measures, Meaningful Use, Pay for Performance, ACO, Medicare/Medicaid

## Closing the Care Gap: Solutions

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## Solutions: Understanding the Problem

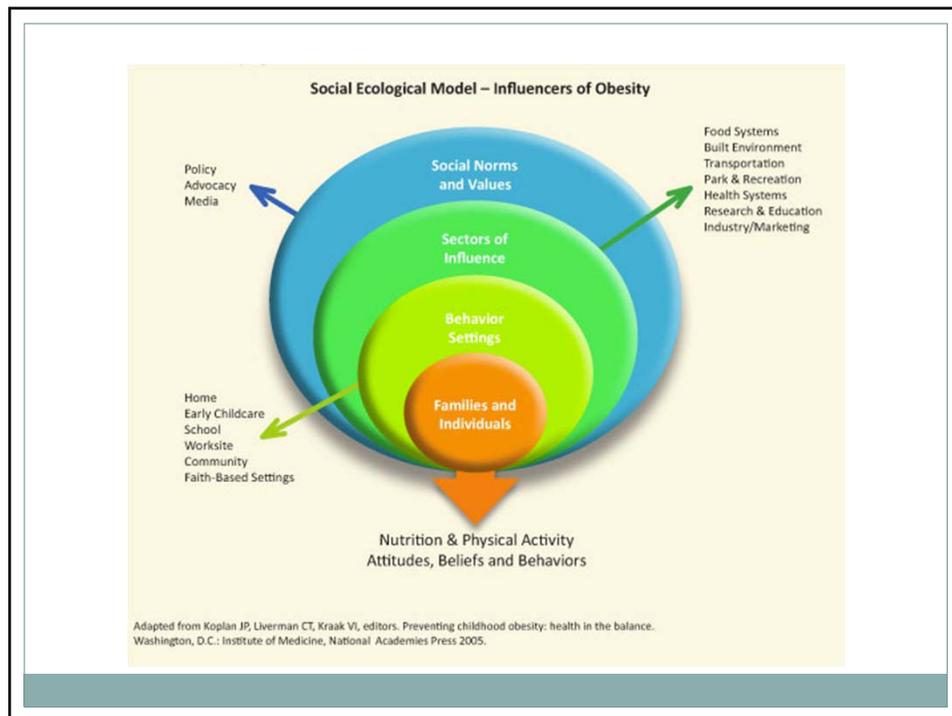
- To address a problem, you need to understand it well.
- If you it's just you thinking alone, or everyone in the room has your same job title, then you're probably not going to understand the problem as well as you might, and your solution might not be that effective.
- Get a team together than can think with a multi-disciplinary mind:
  - Various professionals: medical directors, physicians, mid-levels, nurses, MAs, RDs, WIC staff, YMCA staff, quality improvement staff, billing staff, administrators, public health staff
  - Patients & family members
  - Stakeholders: health insurance plans, employers, etc.

## One Viewpoint – Primary Care Physician

- It's not why the patient came to the office.
- I don't have time to add on yet another screening.
- I don't have time to counsel patients about weight loss, and I don't think it's effective. Do I know how to do this?
- I certainly can't track these patients and follow-up with them about their goals & challenges/successes.
- We still don't really proactively manage patients.
- Can I bill for obesity/prediabetes? How?
- What kinds of referrals do we give? RD? DPP?
- Is an RD even appropriate? # of patients???
- What does their insurance cover? (ex. LA Care managed Medicaid covered Weight Watchers.)

## Solutions: Understanding the Problem

- **To address a problem, you need details.**
  - You need to think small – like what is happening in your clinic at every step of patient care.
  - And then you need to think big – like what is happening outside the clinic, in your patient's home, in their kitchen...
  - And then you need to think even bigger – like what is happening in their community, where the patient spends time – where they live/work/shop/eat/play...
- **Think about concentric circles surrounding your patient or your clinic. Ecologic model.**
- **Work smarter, not harder. Process maps.**



## Why?

- **Providers**

- Why aren't we screening for prediabetes?
- Why aren't we referring patients to DPPs?
- Why don't people know that they have this diagnosis? Or understand its significance?

- **Patients**

- Why don't women who have had gestational/pregnancy diabetes ask me to be screened for prediabetes and/or type 2 diabetes?
- Why doesn't anyone ask to be screened?

## Why?

- **Health Delivery Systems**

- Why isn't this a quality metric?
- Why isn't this a part of our care protocols or
- Why isn't it built into our EHR health maintenance or preventive services menu/list?
- Why isn't this on our patient portal?

- **Health Insurance Plans & Employers**

- Aren't they interested in preventing diabetes and all its expenses?
- Why don't they incentivize weight loss?
- Why don't they pay for the DPP?

## Solutions: Understanding the Problem

- Ask “why” something is or is not happening 5 times in a row. → “5 Why’s” → root cause analysis
- Ask who is doing what, when, where, how, with what tools? Then what happens? Ask this for each step in the process. → Draw a process map.
- Put pen to paper.
- Write it out. Draw it out.
- Talk through it.

## Solutions: Choosing an Intervention

- Replicate successful interventions.
- It is not always best to be “innovative” or “creative” → often amounts to poor quality experimentation...
- *When do you want your doctor to give you a proven drug or treatment for a problem?*
- *And when do you want to be in a research study?*

## Solutions: Choosing an Intervention

- **Professional research & program evaluation → evidence based medicine/public health practice.**
  - CDC's "Community Guide"
  - United States Preventive Services Task Force (USPSTF.org)
  - Clinical Practice Guidelines (Guidelines.gov)
  - Agency for Healthcare Research & Quality (AHRQ.gov)
  - Institute for Healthcare Improvement (IHI.org)
  - National Institute for Children's Health Quality (NICHQ.org)
  - Professional societies: Preventive Medicine (ACPM), Family Medicine (AAFP), Internal Medicine (ACP), Pediatrics (AAP), Public Health (APHA) & Local Health Depts (NACCHO)

## Solutions: Choosing an Intervention

- **Understand the problem.**
- **Looked at evidence/guidelines/recommendations regarding previous successful interventions.**
- **Decided how you are going to address the problem.**
- **Write down your goal and how your plan is going to address that goal – justification, logic model, etc.**

## Solutions: Implementing an Intervention

- Write a program plan.
- Write out a process map of what you are going to do or to change. Write a protocol.
- Set SMART objectives. Measurable. Realistic. Time.
- Track what happens. Evaluate.
- Make small changes. Do PDSA cycles.
- If it isn't working, make adjustments.
- Try something else.

## Solutions: Implementing an Intervention

**PDSA (plan-do-study-act) Worksheet**  
(NOTE: Modified from IHI's worksheet)

**PROCESS MAP STEP:**  
**PDSA CYCLE #:**

**PLAN**

**I plan to:**

**I hope this produces:**

**Steps to execute:**

**DO**

**What happened when you actually did it? What did you observe?**

**STUDY**

**What are the numbers? Did you meet your measurement goal? What did you learn?**

**ACT**

**What did you conclude from this cycle? What are we going to do differently in the next cycle?**

## Closing the Care Gap: Solutions

### Examples:

- **Clinic – identify a staff prediabetes champion; invite local DPPs to staff meeting; invite local DPP to offer their program in your clinic; hang posters; play videos in waiting room; add diabetes risk assessment to waiting room questionnaire; standing orders for all clinical preventive services/screening tests; write protocols for screening & referrals that relies on team-based care; do a QI project (PDSA cycles) on protocol implementation – track your outcomes, offer incentives, get a med/nursing/grad student to help facilitate!**

## Closing the Care Gap: Solutions

### Examples:

- **Medical Director/Quality Improvement Manager: set up a grand rounds, require training/webinar, train staff how to do QI, set goals, facilitate QI projects, track outcomes, offer incentives/rewards, designate a QI manager for each clinic site**
- **IT/EHR/PHR/patient portal – add a banner to outgoing emails or patient portal communications, add the risk assessment to the patient portal's homepage; add links to local DPPs**

## Closing the Care Gap: Solutions

### Examples:

- **Public relations** – website banner, post PSA, add a link to risk assessment and local DPPs, publish articles in staff/patient newsletters, sponsor clinic and/or community screening events
- **Community outreach/community benefits (non-profit hospitals)** – fund/host screening events; fund DPP scholarships for low-income residents
- **Human Resources** – add it to employee wellness outreach and annual health assessment; give \$ incentive to participate in DPP

## Closing the Care Gap: Solutions

### Examples:

- **Health plans:** send out letters to all patients with risk assessment and info about local DPPs; publish score cards on clinical systems or clinics or providers
- **Health departments or non-profit organizations:** media campaign; community/employer/stakeholder education; sponsor/host grand rounds; grant funds for QI efforts or for pilot projects like group obesity visits & clinical-community linkages; facilitate QI efforts or a “community of practice”; score cards

## TEAM-BASED CARE

- Work smarter, not harder
- Work at the “top of your license”
- Train/empower staff to do motivational interviewing
- Write a protocols re: BMI, diabetes risk & DPP referrals
  - Write a script: “Your BMI is... which is in the overweight/obese category. We offer a diabetes risk assessment to all adults with a BMI over 27... Would you like info on the Y’s weight loss program?”
  - Patient completes all the info on the DPP referral form.
  - MA/provider looks up or orders HbA1c.
  - MA/provider makes the referral to the DPP.
- What can be done over the phone?
  - Panel management
  - Pre-visit planning

## Patient Education Resources

Prediabetes: Could It Be You? (CDC)

English: <http://www.cdc.gov/diabetes/pubs/statsreport14/prediabetes-infographic.pdf>

Prediabetes Paper-Based Risk Assessment/Screening Test (CDC)

English: <http://www.cdc.gov/DIABETES/prevention/pdf/prediabetestest.pdf>

Spanish: [http://www.cdc.gov/diabetes/prevention/pdf/prediabetesquiz\\_sp.pdf](http://www.cdc.gov/diabetes/prevention/pdf/prediabetesquiz_sp.pdf)

Paper risk assessment: web-based & pdf on ADA website: [www.diabetes.org/risktest](http://www.diabetes.org/risktest)

Prediabetes: What You Need to Know (NIH National Diabetes Information Clearinghouse)

Bilingual: [http://diabetes.niddk.nih.gov/dm/pubs/prediabetes\\_ES/Pre\\_Diabetes\\_EN\\_SP\\_508.pdf](http://diabetes.niddk.nih.gov/dm/pubs/prediabetes_ES/Pre_Diabetes_EN_SP_508.pdf)

Prevent Type 2 Diabetes Step By Step

Bilingual: [http://ndep.nih.gov/media/NDEP72\\_4c\\_508.pdf](http://ndep.nih.gov/media/NDEP72_4c_508.pdf)

It's Not Too Late to Prevent Type 2 Diabetes: Tips for Older Adults (National Diabetes Education Program) English: [http://ndep.nih.gov/media/nottoolate\\_tips-508.pdf](http://ndep.nih.gov/media/nottoolate_tips-508.pdf)

Did You Have Gestational Diabetes When You Were Pregnant? What You Need to Know.

English: [http://ndep.nih.gov/media/NDEP88\\_DiabetesWhilePregnant\\_4c\\_508.pdf](http://ndep.nih.gov/media/NDEP88_DiabetesWhilePregnant_4c_508.pdf)

Spanish: [http://ndep.nih.gov/media/NDEP89\\_DiabetesGestacionalEmbarazada\\_4c\\_508.pdf](http://ndep.nih.gov/media/NDEP89_DiabetesGestacionalEmbarazada_4c_508.pdf)

## Clinical Practice Resources



**Summary of ADA 2014 Diabetes Guidelines (National Diabetes Education Initiative)**

[http://www.ndei.org/uploadedFiles/Common/NDEI/Treatment\\_Guidelines/NDEI%20org%20summary%20recommendations%20ADA%202014%20guidelines---012314%20FINAL.pdf](http://www.ndei.org/uploadedFiles/Common/NDEI/Treatment_Guidelines/NDEI%20org%20summary%20recommendations%20ADA%202014%20guidelines---012314%20FINAL.pdf)

**Practice Transformation/Quality Improvement Tools (National Diabetes Education Program)** – Includes resources for practice assessment, information systems, care coordination, team-based care, and clinical decision support: <http://ndep.nih.gov/hcp-businesses-and-schools/practice-transformation/>

**Prediabetes Health Provider Tool Kit (Minnesota Dept. of Health)** – Includes poster, referral forms, and other ideas: <http://icanpreventdiabetes.org/health-provider-toolkit/>

**National Diabetes Prevention Program (CDC):** <http://www.cdc.gov/diabetes/prevention/>

**CDC Diabetes Prevention Program (CDC DPP) Curriculum**

<http://www.cdc.gov/diabetes/prevention/recognition/curriculum.htm> (English)

[http://www.cdc.gov/diabetes/prevention/recognition/spanish\\_curriculum.htm](http://www.cdc.gov/diabetes/prevention/recognition/spanish_curriculum.htm) (Spanish)