Workplace-Based Chronic Condition Management

WAYNE N. BURTON M.D.

FORMER GLOBAL MEDICAL DIRECTOR

AMERICAN EXPRESS

Workplace-based Chronic Disease Management

- Overview
- Objectives
- Components
- Outcomes
- Q & A

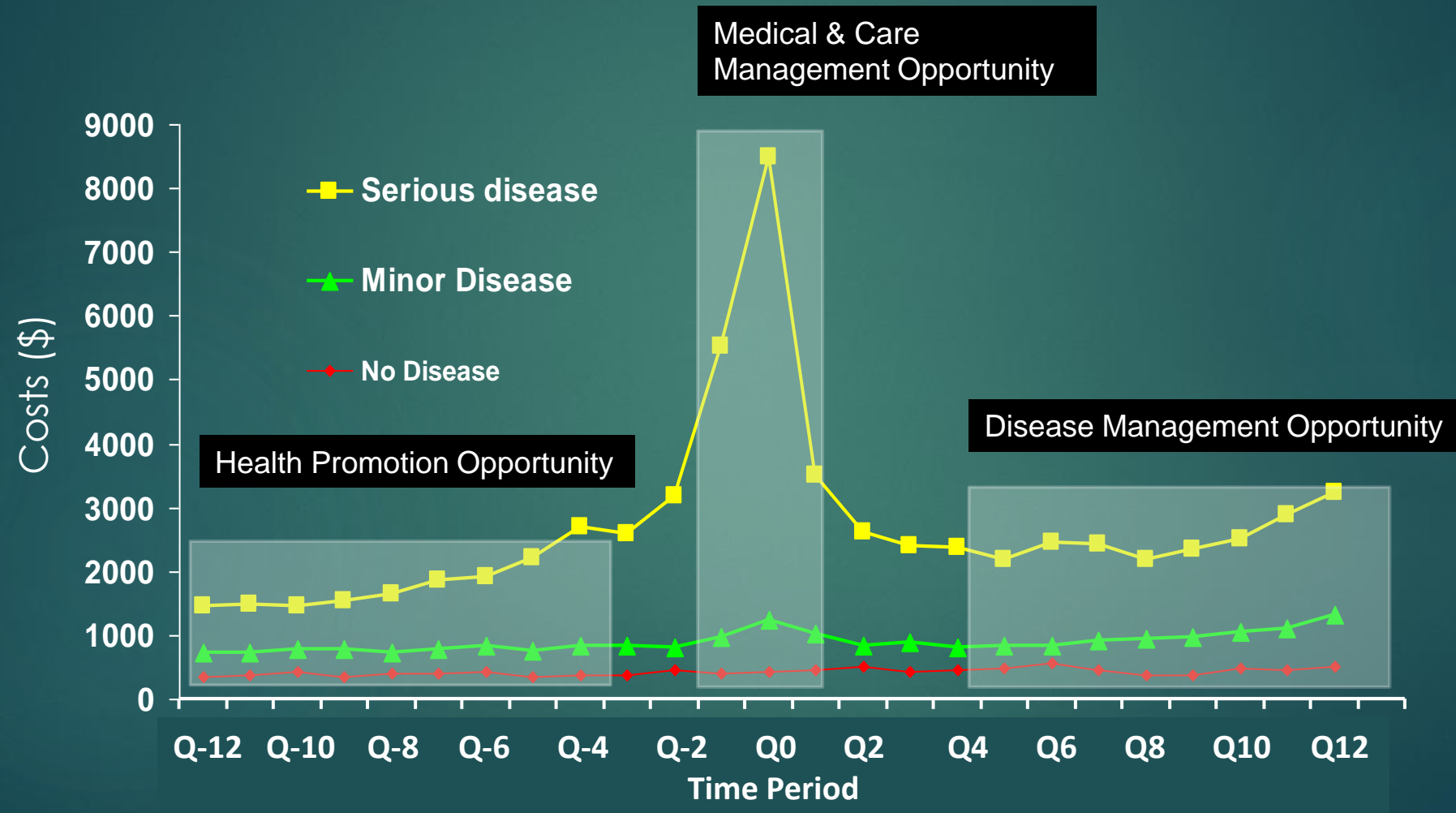# The costs to treat chronic diseases are estimated to account for 86% of US healthcare costs[1]

* About half of Americans have a chronic condition[2]
* Productivity costs often exceed direct healthcare costs[3]

1) Gerteis, J et al. Multiple Chronic Conditions Chartbook. AHRQ Publications No. Q14-0038.
2) Ward, BW et al. Multiple Chronic Conditions Among US Adults: A 2012 Update. Pre Chronic Dis. 2014
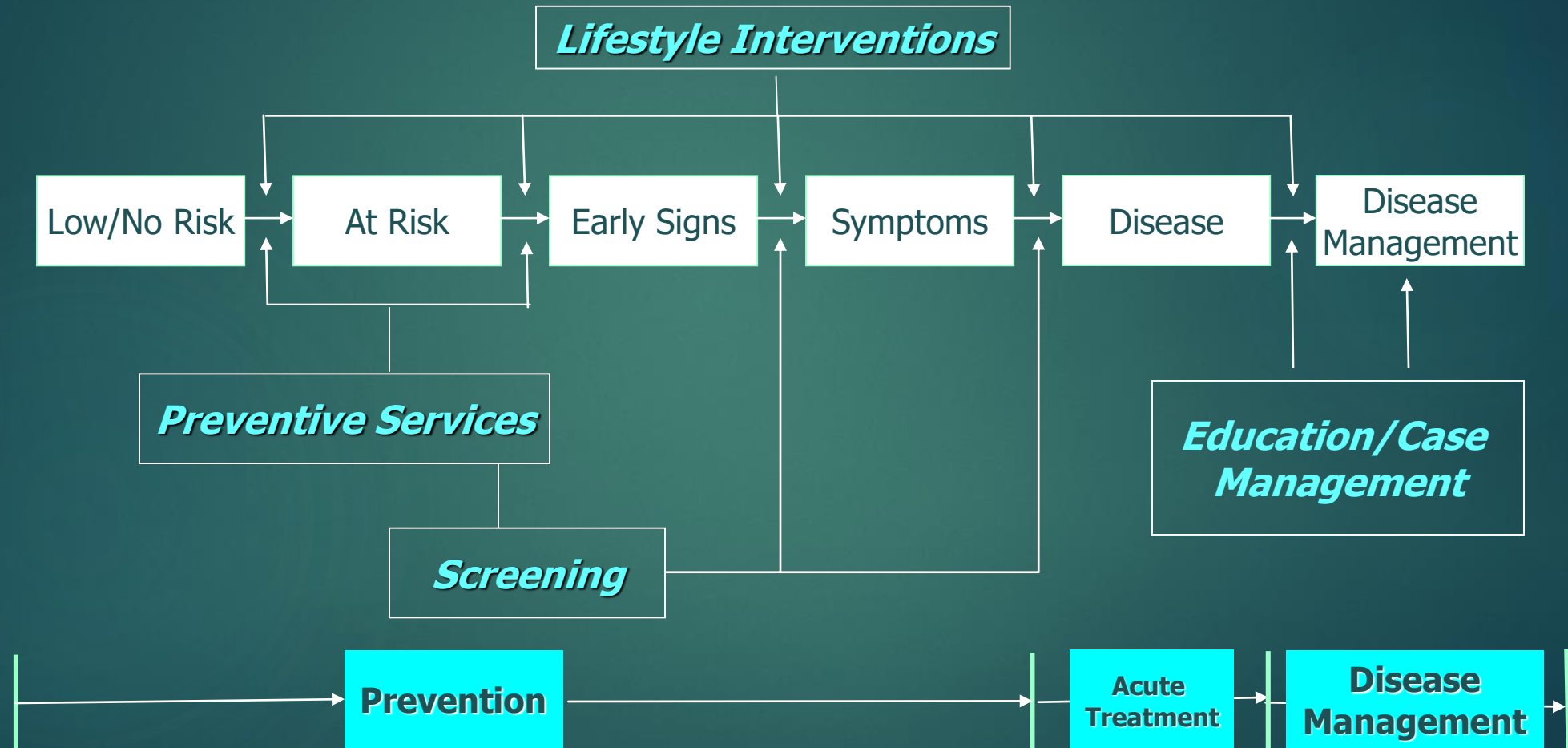3) Loeppke, R, et al. Health and Productivity as a Business Strategy. JOEM 2007, 712-718.
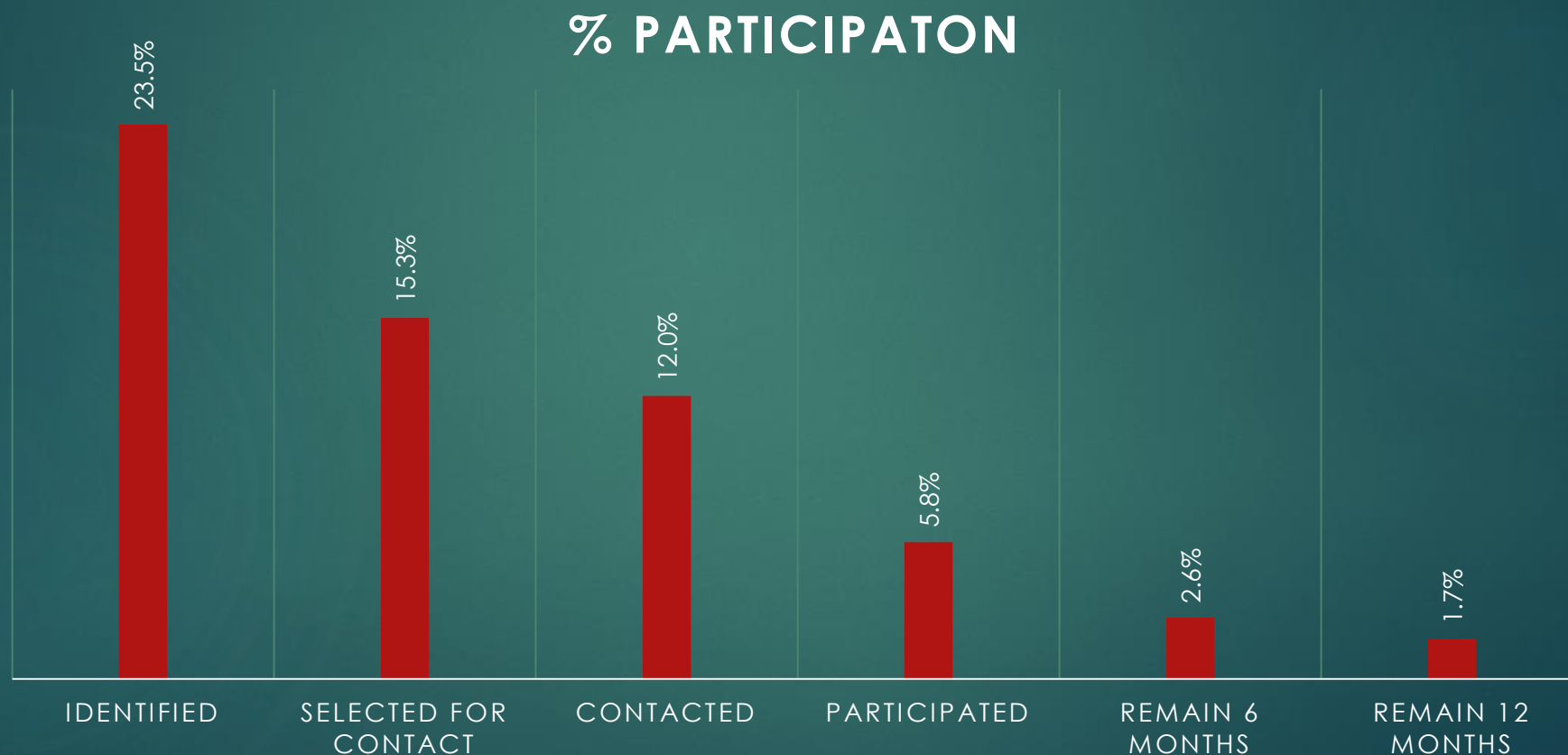
Opportunities for Health Management

Musich. Dis Manage Health Outcomes, 2004; 12(5): 299-326.

Opportunities for Health Management

Lifestyle Interventions

| Low/No Risk | At Risk | Early Signs | Symptoms | Disease | Disease Management |

Preventive Services

Screening

Education/Case Management

Prevention → **Acute Treatment** → **Disease Management**

Musich. Dis Manage Health Outcomes, 2004; 12(5): 299-326.

Traditional disease management program participation

y

Disease and condition management programs are common[1]

…But most employers find them ineffective[1]

1. Aon Hewitt Health Care Survey , 2016.

Barriers to chronic condition management

- ▶ Provider lack of time[1]

- ▶ Poor implementation of disease management guidelines[1]

- ▶ Fragmentation of the health care system[1]

- ▶ Lack of reimbursement benefits for healthcare education[1]

1. Burton. Pop Health Management 2015: 18: 429-436.

Workplace-based chronic condition management: Objectives

- Provide employees with information to enhance self-care
- Educate employees on the value and importance of condition management
- Evidenced based
- Measurable outcomes

Condition Management Programs

▶ Workplace Program Examples

  ▶ Pre-diabetes/ diabetes[1]

  ▶ Asthma[2]

  ▶ Migraine[3]

  ▶ Sleep[4]

References:
1.   Burton. Pop Health Management. 2015: 18; 429-436.
2.   Burton. JOEM. 2001: 43: 75-82.
3.   Burton. JOEM. 2016; 58: 790-795.
4.   Burton. JOEM. 2016; 58: 911-917.

Identification of conditions[1]

- ▶ Medical claims (Inpatient, Outpatient)
- ▶ Pharmacy
- ▶ Medical Leave (STD, LTD, WC, FMLA)
- ▶ Health Risk Appraisal
- ▶ Occupational Medicine Clinic Records

STD = short-term disability
LTD = long-term disability
WC = workers' compensation
FMLA = family medical leave act

1) Burton & Conti. Disease Management; 1998 Vol 1.

Sources of condition management programs

- ▶ Health Plans
- ▶ Pharmacy Benefit Managers (PBMs)
- ▶ Pharmaceutical companies
- ▶ Hospitals
- ▶ Vendors
- ▶ Internet
- ▶ Not-for-Profit organizations
- ▶ Others

Condition management programs

- Target populations
  - High cost and high volume
  - High lost productivity and high volume
  - Preventable complications
  - Preventable ER visits/ hospitalizations
  - High rates of non-compliance

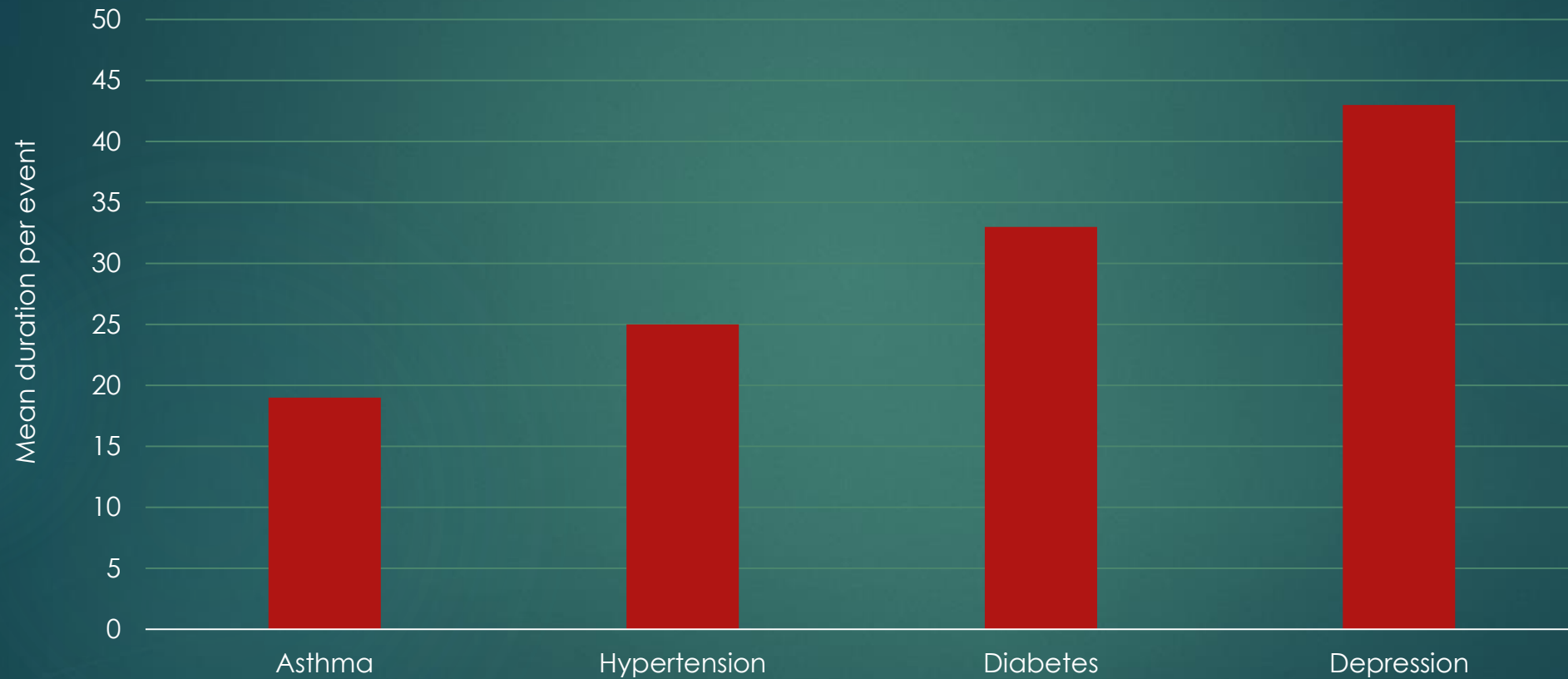# Medical, Pharmacy, Absenteeism & Presenteeism annual costs
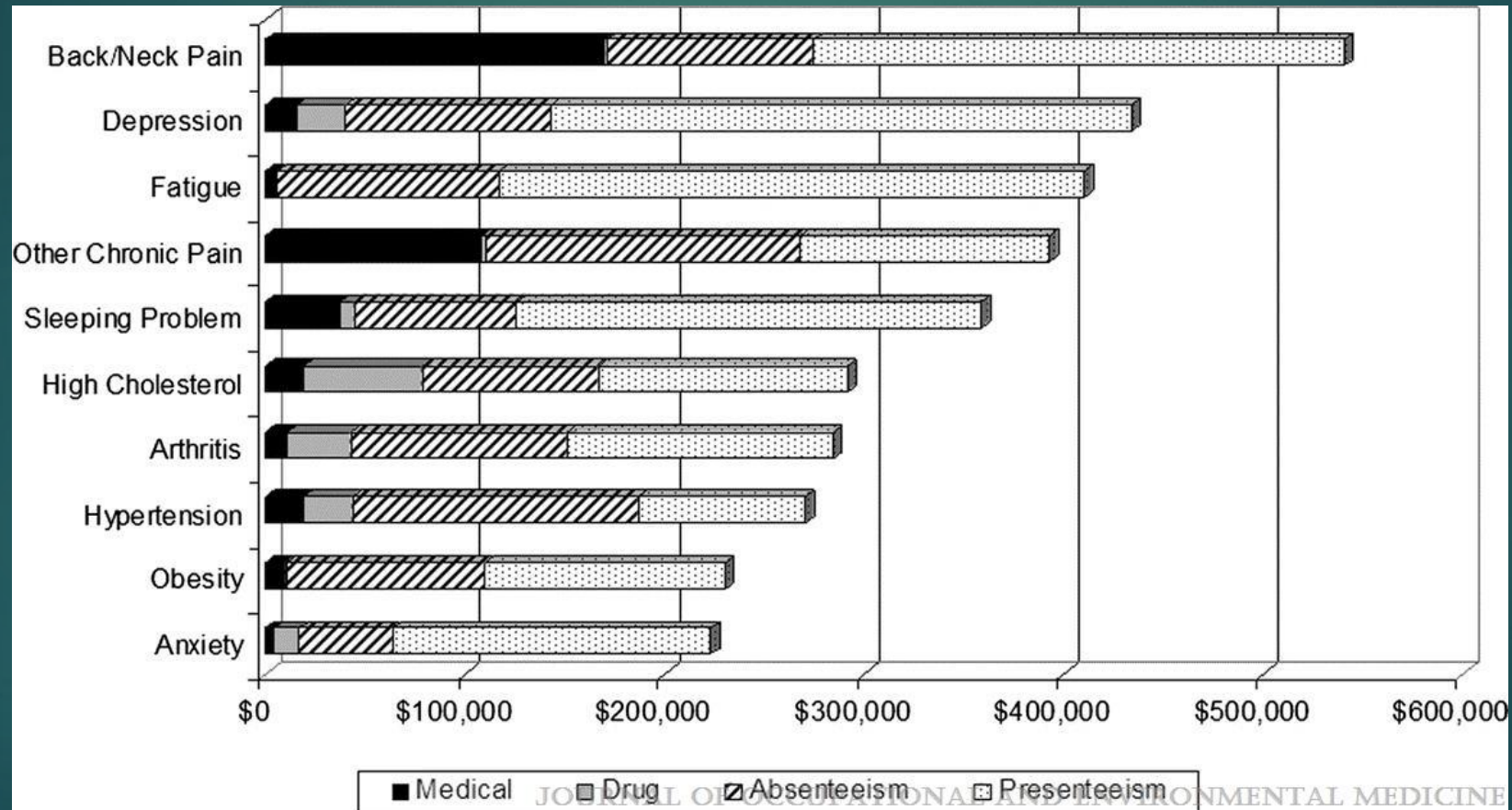
Loeppke. JOEM. 2007; 49:712-721.

Short term disability
(mean duration per event)

Mean duration per event

	Asthma	Hypertension	Diabetes	Depression
50				
45				
40				
35				
30				
25				
20				
15				
10				
5				
0				

Asthma ≈ 19, Hypertension ≈ 25, Diabetes ≈ 33, Depression ≈ 43
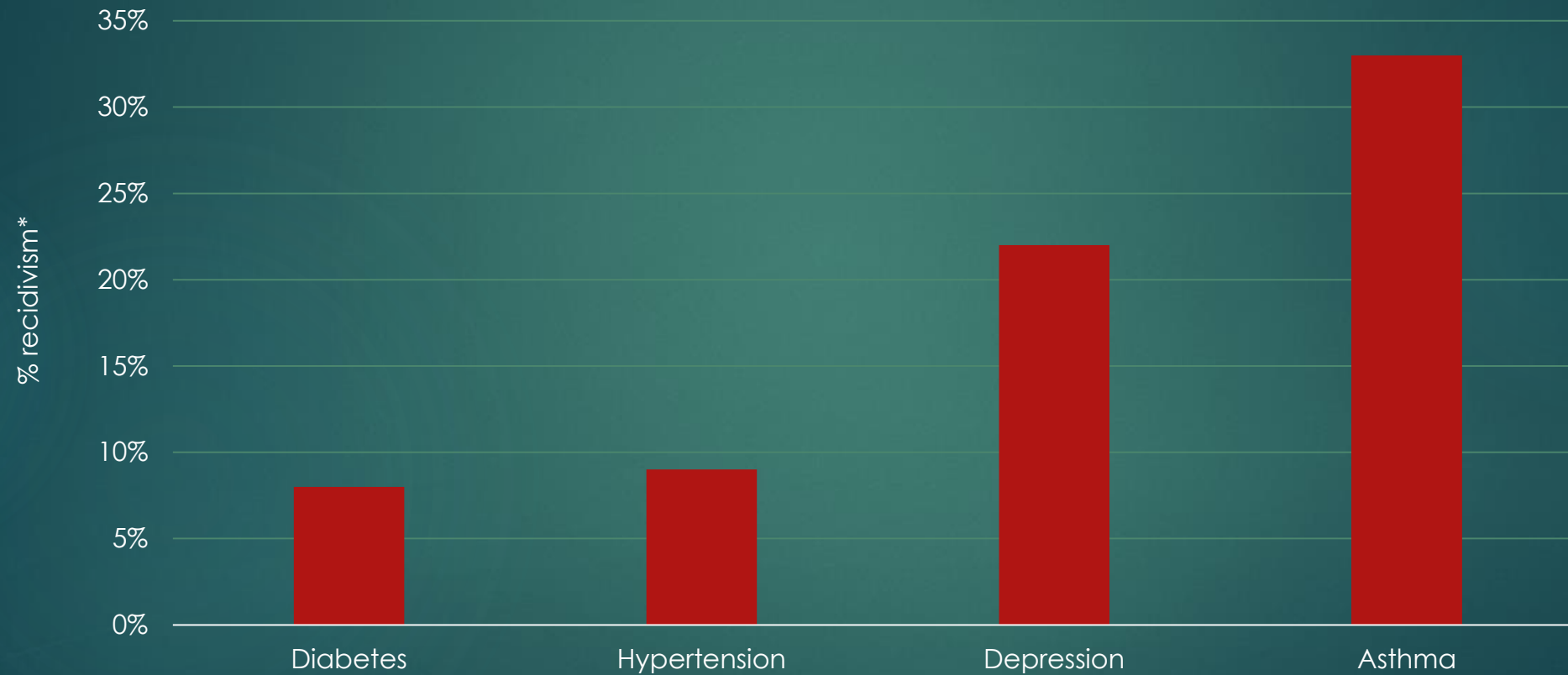
Mean duration per event = mean number of workdays on short-term disability for the condition

Burton. Dis Management. 1998; 1: 17-26.

Short Term Disability
% recidivism*

% recidivism* (y-axis)
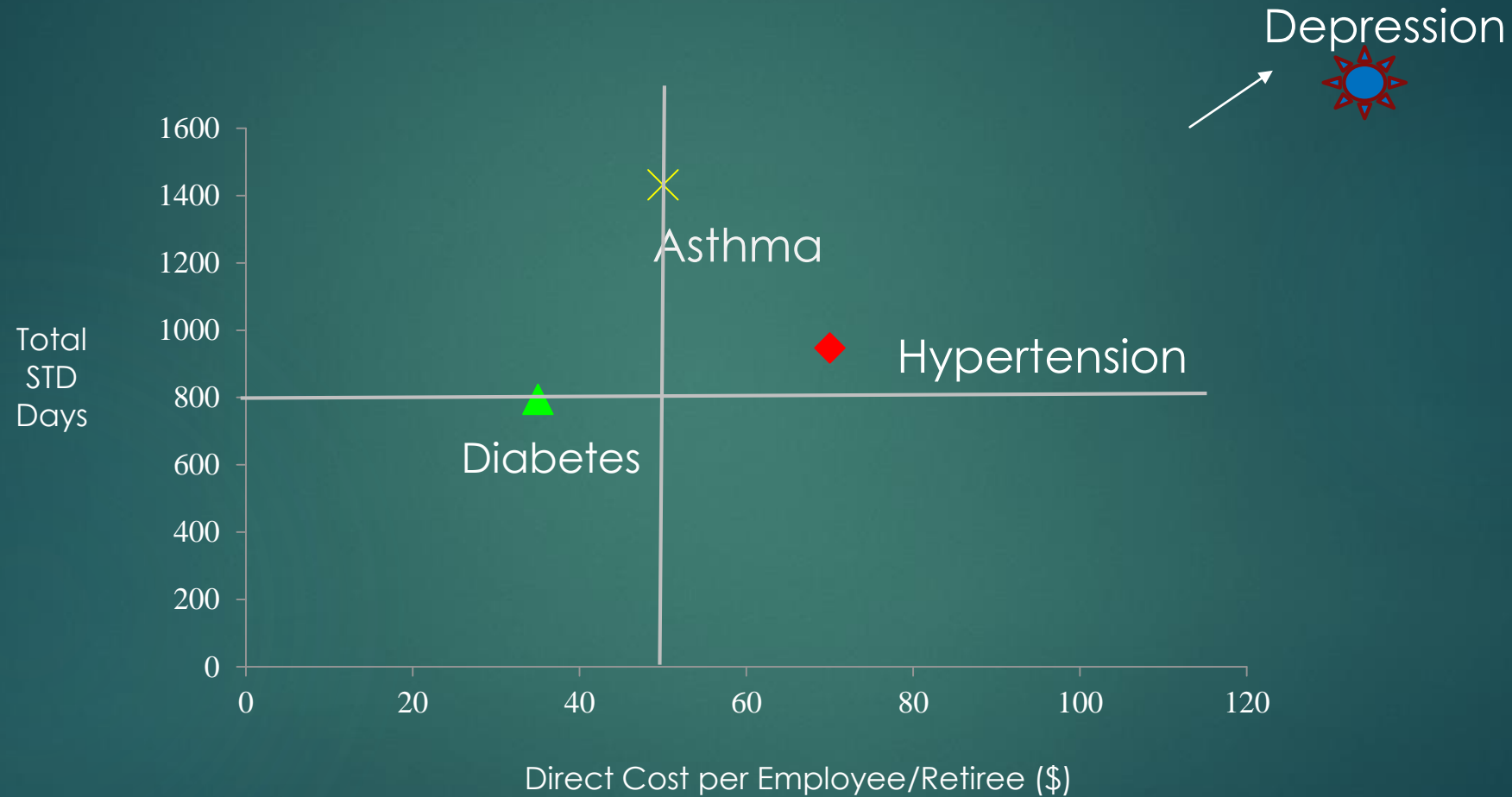
| Diabetes | Hypertension | Depression | Asthma |

Burton. Dis Management. 1998; 1: 17-26.

*Recidivism is defined as a tendency to relapse into a previous condition or mode of behavior

Targeting High Cost Disease States

Depression

Asthma

Hypertension

Diabetes

Total STD Days

1600
1400
1200
1000
800
600
400
200
0

0   20   40   60   80   100   120

Direct Cost per Employee/Retiree ($)

Burton. Dis Management. 1998; 1: 17-26.

Diabetes Condition Management

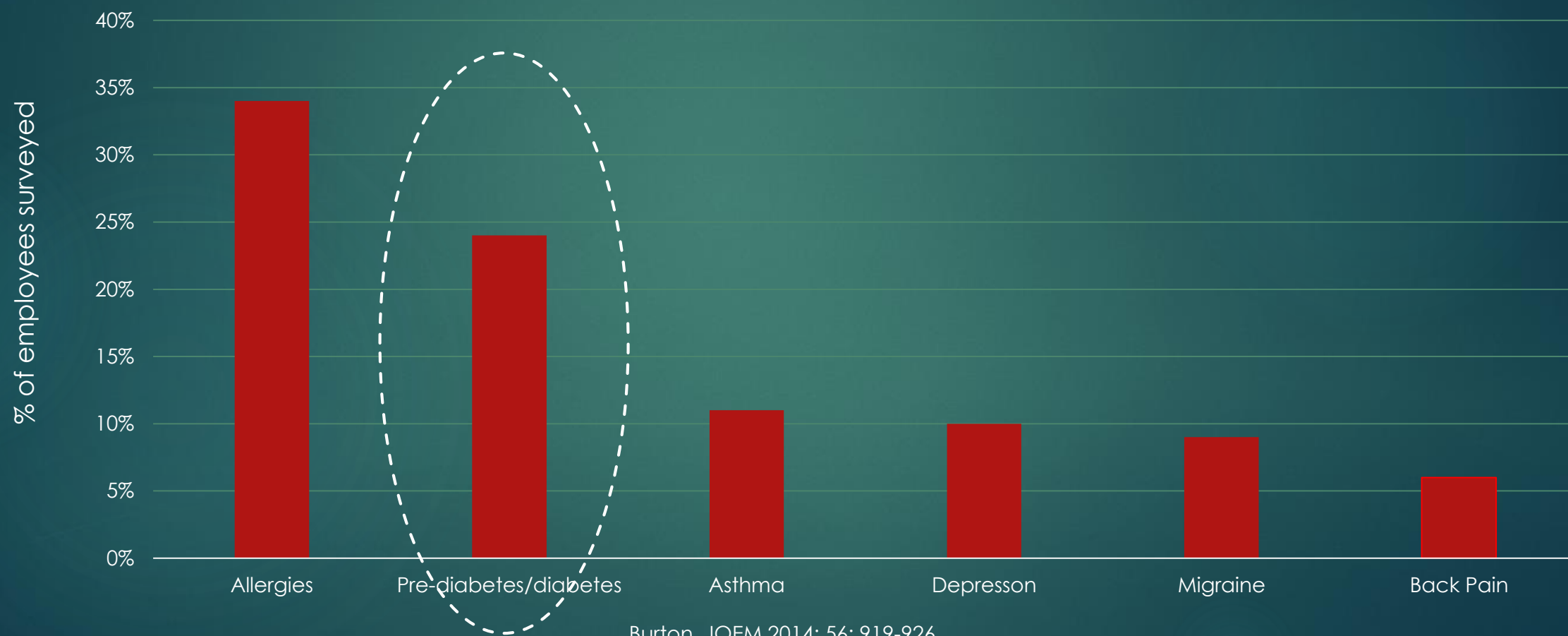# Worksite diabetes/pre-diabetes disease management

- ▶ Objectives
  - Screen at risk employees for diabetes
  - Provide employees with information to enhance self-care
  - Educate employees on the value and importance of disease management
  - Support the employee's primary care provider
  - Measure outcomes

Prevalence of chronic diseases
Based on survey of 4,345 employees

Burton. JOEM 2014; 56: 919-926.

It's Not Just About The Sugar

► Diabetes condition management program is a free 12-month program

Burton. Pop Health Management 2015: 18: 429-436.

Program Overview

Diabetes Program

Concept

Created a worksite diabetes disease management program integrated with the company's worksite health clinic medical team.

Promotion

Branded the program, developed print and digital promotional materials and then publicized it to all employees..

Registration & Testing

Voluntary participants completed a registration questionnaire and completed biometric screening.

Resources & Services

Existing resources and capabilities and those of external entities were made available and integrated as appropriate to provide a full range of services for program participants

Burton. Pop Health Management 2015: 18: 429-436.

Diabetes Condition Management Program Goals

➤ Educate employees on the value and importance of diabetes management

➤ Provide employees with information to enhance diabetes self-care

➤ Provide a systematic approach to improving diabetes outcomes

➤ Develop sustainable engagement in the employee's management of diabetes

Burton. Pop Health Management 2015: 18: 429-436.

Program Promotion

▶ Brand the program, develop print and digital promotional materials and then publicize it to all employees

▶ Communication plan and graphics developed by internal communications department

▶ Promotion via flyers, posters, intranet and "internal advertising"

▶ No targeted mailings to employees with diabetes other than tailored communications to populations at increased risk (i.e. African Americans and Hispanics)

Diabetes Condition Management Audience

All U.S. Employees with Health Center Access

Employees with Prediabetes

Ethnic Populations at Increased Risk for Diabetes

Employees with Diabetes

Employees at Risk for Diabetes

Burton. Pop Health Management 2015: 18: 429-436.
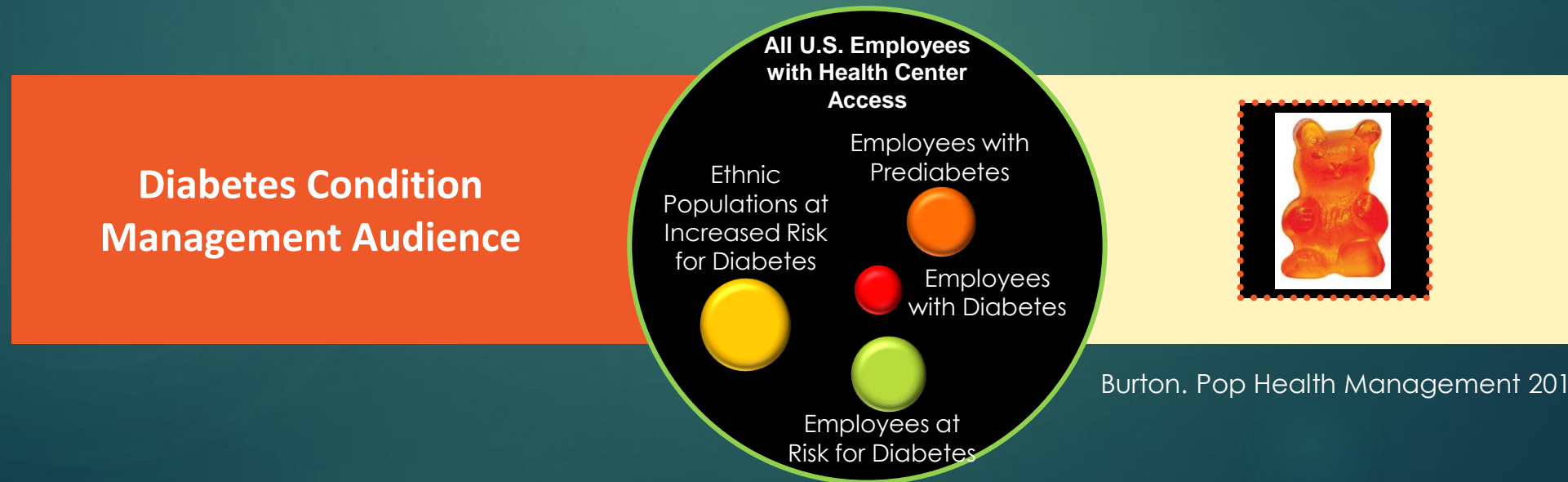
Program Registration & Testing

❖ Voluntary Diabetes program participants went through a registration and testing procedure

❖ Brief medical history including questions about current treatment of diabetes

❖ Depression screener questions

❖ Biometric screening

Biometric Screening Tests

- **Total cholesterol, high density lipoprotein cholesterol calculated low-density lipoprotein (LDL) cholesterol, triglycerides, blood glucose, and hemoglobin A1c (HbA1c)**

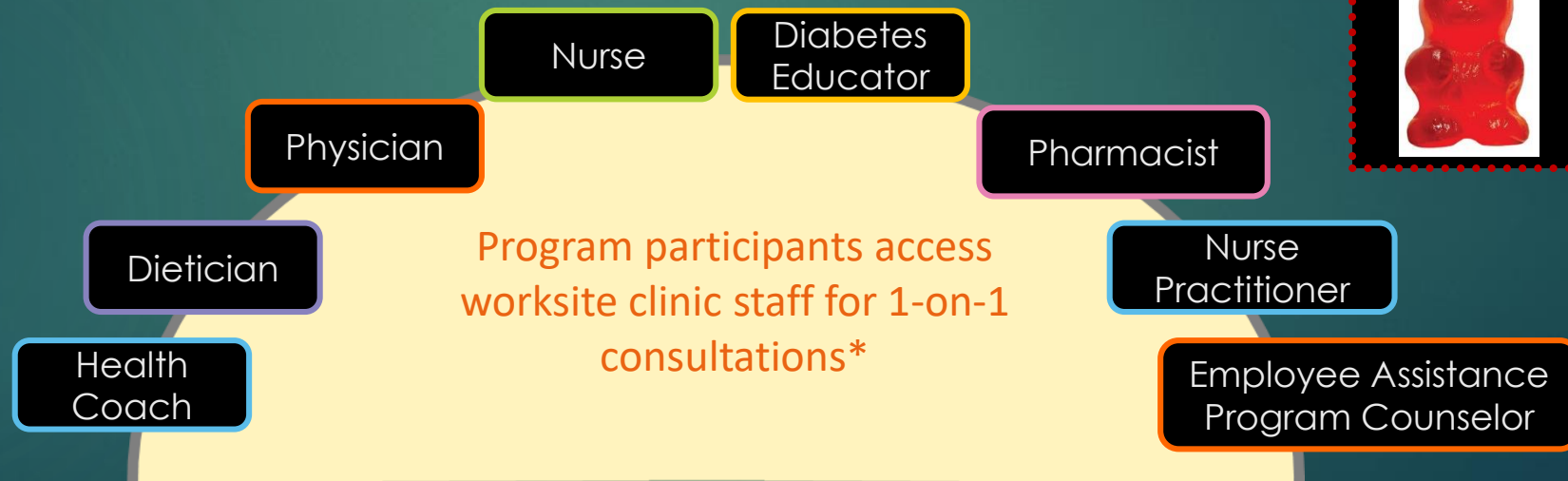- **Blood pressure**

- **Height, weight, waist circumference**

Burton. Pop Health Management 2015: 18: 429-436.

Program Resources & Services

➤ A full range of clinical and support services were made available to program participants at the worksite

➤ Onsite clinics and their staff

➤ High touch, personalized care

➤ Coordinated care and employee worksite accessibility

Nurse

Diabetes Educator

Physician

Pharmacist

Dietician

Program participants access worksite clinic staff for 1-on-1 consultations*

Nurse Practitioner

Health Coach

Employee Assistance Program Counselor

*Depending on the size of the employee population, employees may not have had access to all resources

Burton. Pop Health Management 2015: 18: 429-436.

Program Resources & Services (cont'd)

► Existing resources and capabilities and those of external entities were made available and integrated as appropriate to provide a full range of services for program participants.

Program Resources

- Onsite health clinics and staff
- Onsite program lead nurse
- Employee networking groups
- Corporate health benefits
- Corporate communications
- Corporate EAP
- Value-based insurance design

External Resources*

- PBM
- Government agencies
- National diabetes organizations
- Pharmaceutical manufacturers

*includes financial and non-financial

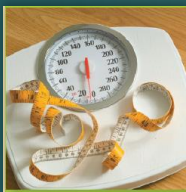Burton. Pop Health Management 2015: 18: 429-436.

Program 1-Year Results

Biometric tests: Maintenance or slight improvement in diabetes-related measures (e.g., blood glucose, HbA1c)

Utilization of onsite clinical care team: 88% met with nurse /nurse practitioner; 72% met with registered dietician; 55% met with health coach

Behavior changes: 54% started an exercise program; 48% lost weight; 16% had medication changed by their doctor; 6% started on medication

Program satisfaction: Over 85% of participants rated the program extremely or very helpful in imparting knowledge about better managing their disease

Burton. Pop Health Management 2015: 18: 429-436.

Lessons Learned

Note to reviewers: These bullets were not specifically referenced, but reflect Dr. Burton's overall learnings from the program

- Existing company resources (programs, materials, etc.) are generally available and just need to be integrated

- A high touch program has the essential ingredients of coordinated care and worksite accessibility

- A program empowers, educates and engages employees with diabetes and organizes them into a community

- One year results show trending improvements in employees reporting good, very good or excellent health (P=0.0833)

- Diabetes management is not a sprint but a long term race

Burton. Pop Health Management 2015: 18: 429-436.