



UPMC | University of Pittsburgh
Medical Center



**Integrated Employee
Scorecards and
Predictive Modeling:
Promoting a Culture of
Health and
Productivity**



Introducing Our Panel



John Galley

VP - Compensation Benefits & HRIS

UPMC HEALTH PLAN
Where you belong.

Pamela Peele, Ph.D.

VP - Health Economics

Diane P. Holder

President, UPMC Health Plan

UPMC

- Over 46,000 employees
- Region's largest not-for-profit employer
- Revenues were nearly \$7 billion in FY2007
- Cancer Treatment Planning Services-offered in more than 70 locations nationwide
- Worldwide recognition of pioneering accomplishments: Sicily, IsMeTT offers organ transplants



Employment Challenges

- Very competitive market for key clinical jobs
- High utilization by healthcare workers
- Cost-shifting not a good employment strategy
- Required solutions to preserve attractive affordable benefits programs while reducing our long-term medical trends



MyHealth Partnership

- Properly designed health and productivity programs can help curb medical costs
- Created a system-wide partnership between employer, employees, providers, and our health plan
- Partnership began with a deep dive into our integrated data, standardization of measures through EMPAQ®, industry benchmarking, and a new predictive modeling tool

Identifying Health Conditions by Data Source

Condition ↓	Data Source (separate) n = 31,204			
	Claims Only	Rx Only	HRA Only	Screenings/Labs Only
Diabetes	1,596	1,578	1,438	483
Hyperlipidemia	4,086	3,283		1,687
Hypertension	4,324	4,749		1,711
Asthma	982	2,428		
Depression	2,200	5,695	3,563	
Low Back Pain	2,738			
Smoking		1,442	4,892	1,672
Obesity	132		8,582	2,048
All Conditions	11,795	12,196	14,074	6,257

Value of Integrating Data Sources

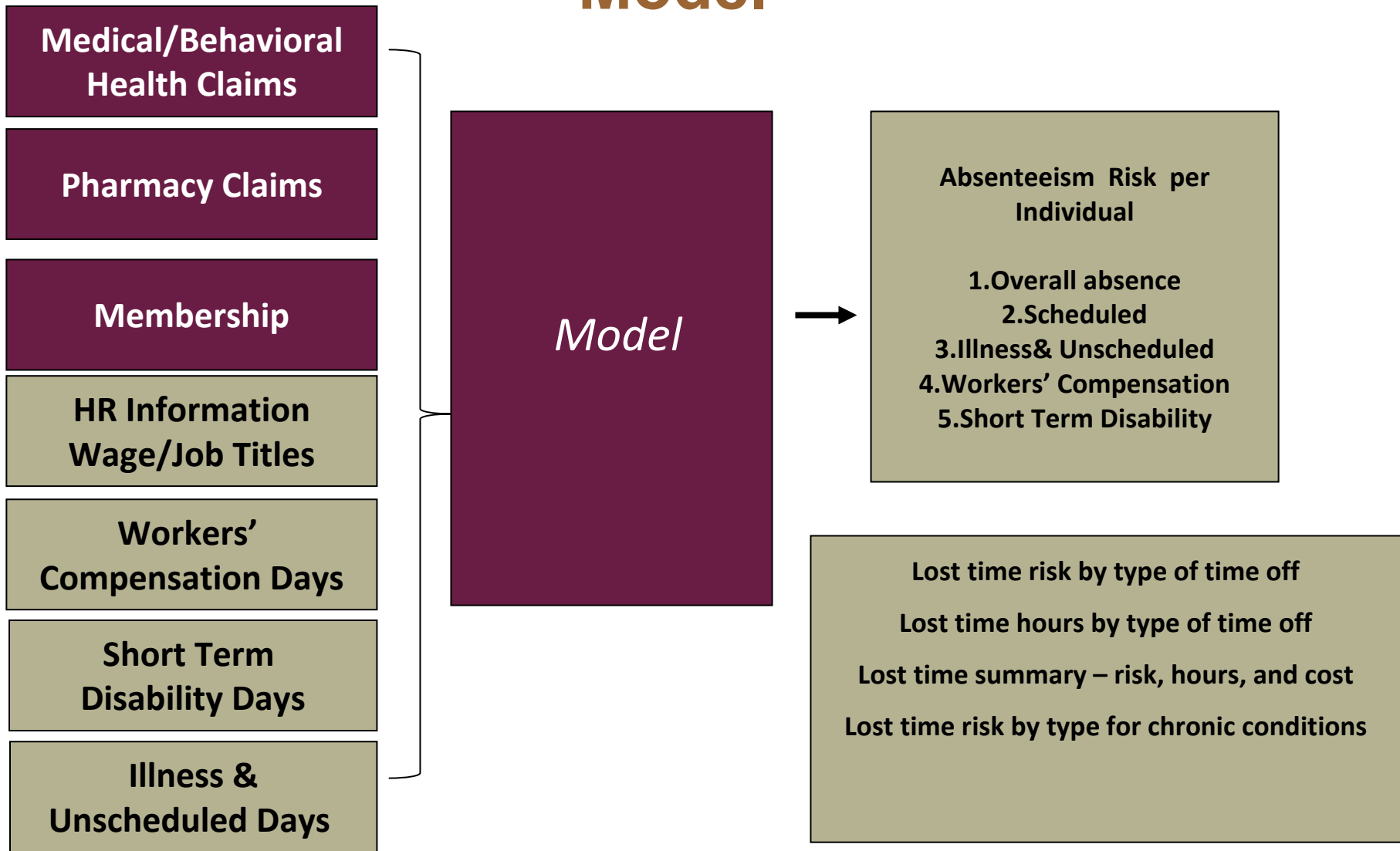
N = 31,204	No Diabetes	Presence of Diabetes
Claims	n = 29,608 ?	n = 1,596
Claims & Rx	n = 29,210 ?	n = 1,994
Claims, Rx & HRA	Motivation: n = 29,007 ? Low Medium High	Motivation: n = 2,197 Low Medium High
Claims, Rx, HRA & Screening/Labs	Motivation: Medium n = 28,860 ? Low High PreDiabetes	In Control n = 2,344 Not Controlled



Significance of Short-Term Disability Repeater Claims

- Non-maternity STD claims
 - 16% present with another STD claim within 12 months
 - Increased probability of a repeat claim
 - 85 % if first claim is Respiratory condition
 - 44 % if first claim is Digestive condition

Workforce Health and Absenteeism Model



Absenteeism and Health Conditions

- Model inputs
 - Clinical Classification Software for diagnosis
 - www.ahrq.gov
 - Berenson-Eggers Type of Service (Betos) for CPT and HCPCS codes
 - www.cms.gov
 - Pharmacy Therapeutic Class Code (TCC)
 - First DataBank

Promoting a Culture of Health and Productivity

**UPMC Health Plan/
Work Partners' Programs**

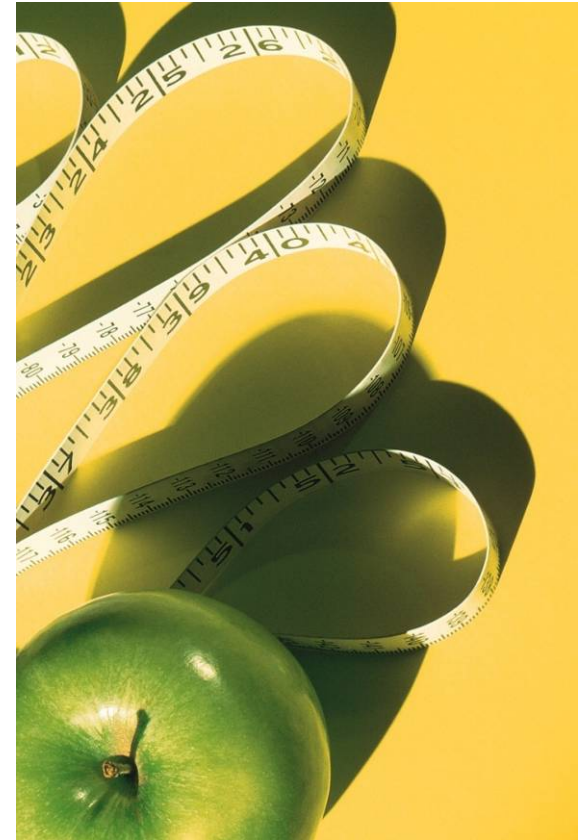


**Primary Care
(Medical Home,
Clinic/Physician)**

**Workplace
Wellness
(Employer based)**

MyHealth Questionnaire: The Cornerstone to Employee Engagement

- Captures ~180 data points, including family history, lifestyle, and readiness to change
- Evaluates 11 serious health conditions
 - Heart disease, diabetes, stroke, etc.
 - Based on analysis of 12 modifiable risk factors (BP, weight, stress, etc.)



MyHealth Questionnaire Results: Do People Want to Make Changes? Yes!

Actionable Lifestyle Risk	At Risk % of Employees	Ready to Change* % of At Risk Employees
Tobacco Use	13.6%	60.0%
Obesity or Extreme Obesity	27.4%	82.2%
Overweight	32.9%	64.5%
Physical Inactivity	58.7%	80.6%
Poor Diet	94.3%	59.1%
Stress	19.0%	80.0%
Blood Pressure	26.4%	45.4%
Cholesterol	24.7%	49.5%

* Participant plans to change within the next 6 months, within the next month, or has been for less than 6 months.

Percentage of Employees with At Least One Lifestyle Risk = 98.9%

MyHealth Workplace Biometric Screenings Real Time Results

Screening Measurements

- Body Mass Index
- Carbon Monoxide
- Blood pressure
- Lipid panel
- Fasting blood sugar

Benefits

- Immediate results
- High Satisfaction (97%)
- Identifies high-risk conditions
- On-site coaching
- Physician mailed result

Your Health Screening Results

Name



Date

Screening	Your Levels	Desirable Levels
Total Cholesterol		Below 200mg/dl
HDL Cholesterol		At or above 45 mg/dl
LDL Cholesterol		At or below 100 mg/dl
Triglycerides		Below 150 mg/dl
Glucose		Fasting 70-99 mg/dl Non-fasting below 140 mg/dl
Blood pressure		Systolic below 120 Diastolic below 80
Body Mass Index (BMI)		≥ 18.5 and < 25
Carbon Monoxide		< 10 parts/million

What can you do now?

See Your Doctor – Your doctor can be your valued partner in helping you understand and manage any of the abnormal results you may have uncovered by this screening. Remember, only your physician can diagnose or rule out the presence of disease. Please let your physician know about any abnormal levels and begin working on a treatment or a healthy lifestyle plan that works best for you.

My Health Tools & Resources – UPMC Health Plan members have access to many valuable health promotion tools and resources through the My Health program. If you have any questions, or would like further information about My Health tools and resources, log on to <http://www.upmchealthplan.com>, select the "Member" button, and follow the "Member OnLine" link to access the My Health webpage. You can also call Member Services at 1-888-676-2756.

- The EMR is the gold standard, however . . .
- Claims payment based electronic data (PHR) offers:
 - Diagnosis
 - Procedures
 - Dates and timelines
 - Prescriptions
 - Lab results
 - Reminders for better health and links to self-management tools

MyHealth Health Record: Empowers Members with Integrated Data

Health Summary

The following information was gathered from UPMC Health Plan claims and additional information you provided.

Age: 42*	Allergies: 4 recorded*
Last Physical: 01/12/2006*	Chronic Conditions: 1 recorded*
Height: 5' 4"*	Prescription Medications: 25 recorded
Weight: 200*	Advanced Directives: 1 recorded*
Body Mass Index: 34.33	
Blood Type: B-*	
PCP: Dr. Smith	

Last Updated: 08/21/2007
[Update Personal & Family History](#)

* Based on self reported data

Recent Health Care

Below are the five most recent health care services based on your providers' submitted claims. Select a date for more information about that claim. A complete list is available in your [Health Care History](#). Details on all claims are available in [MyClaims](#).

Date	Provider	Specialty	Care Type
07/22/2007	UPMC PRESBYTERIAN SHADYSIDE	HOSPITAL	Outpatient Surgery

MyHealth Record

Store your personal health information and print reports.

[View and Customize your MyHealth Record](#)
[Print a report of your MyHealth Record](#)

Reminders for Better Health

Below are suggested tests, programs, and/or procedures based on your health care history as reported to UPMC Health Plan. This is not to be medical advice. You are encouraged to discuss this with your physician.

Reminder	Completed
Spirometry Testing for COPD	Yes
Cholesterol LDL Screening	Yes
Persistence of Beta Blocker Tx	Yes
Diabetic Monitor	Yes

UPMC Wellness – *MyHealth* is born

MyHealth Partnership with staff was forged:

- Focus Groups
- Open and honest messaging around Medical Cost Trends
- Partnership urged to preserve robust benefits package by working together to lower healthcare cost trends
- New Wellness Design and Incentive introduced within all Medical Plan options

MyHealth Program

- Set Goals & Objectives
- Program Design (Benefits; Incentives; Structure)
- Assessment Intervention/Services
- Condition/Care Management Integration
- Implementation and Communication Strategy
- Results Reporting



MyHealth Overview

- Online HRA and voluntary screening offered around Open Enrollment.
- Employees were able to partner in one of two ways:
 - Participations received the richer plan design, learned about their own risks, and were given tools to take action
 - Non-participants shared in more of the costs of the medical plan, when they used it
- Additional incentives were offered
- High-risk respondents received follow-up involving their physician to further reduce risks

Online HRA Results

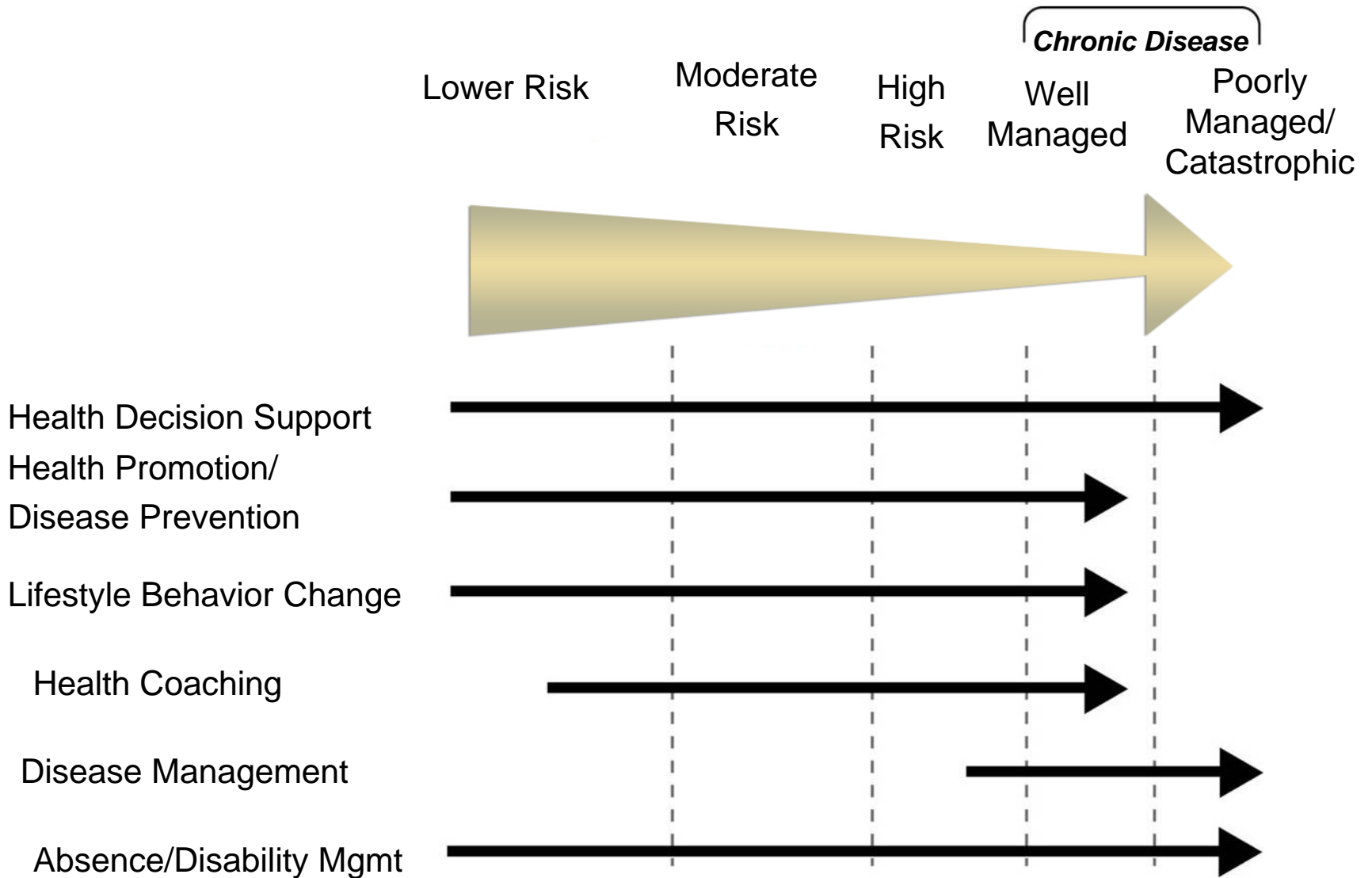
Readiness to change

Condition	No Plans	Ready 6m	Ready 30d	Acting <6m	Acting >6m
Tobacco	25.90%	51%	13.10%	5.60%	4.30%
Poor Nutrition	7.50%	14.60%	21.90%	22.10%	33.80%
Obesity	2.50%	15.20%	25.50%	24.70%	32.10%
Sedentary Lifestyle	7.30%	24.60%	28.90%	19.50%	19.70%
Stress	33.50%	20.10%	19.50%	12.10%	14.80%

MyHealth – Biometric Screenings

- Screening on-site at work or via the employee's physician office over a 9-month period
- Screenings included:
 - BMI (Height/Weight ratio)
 - Blood Pressure
 - Blood Sugar
 - Cholesterol Levels (Overall, HDL, LDL, Triglycerides)
 - Smoking (CO Monitor)

Population-Based Solutions



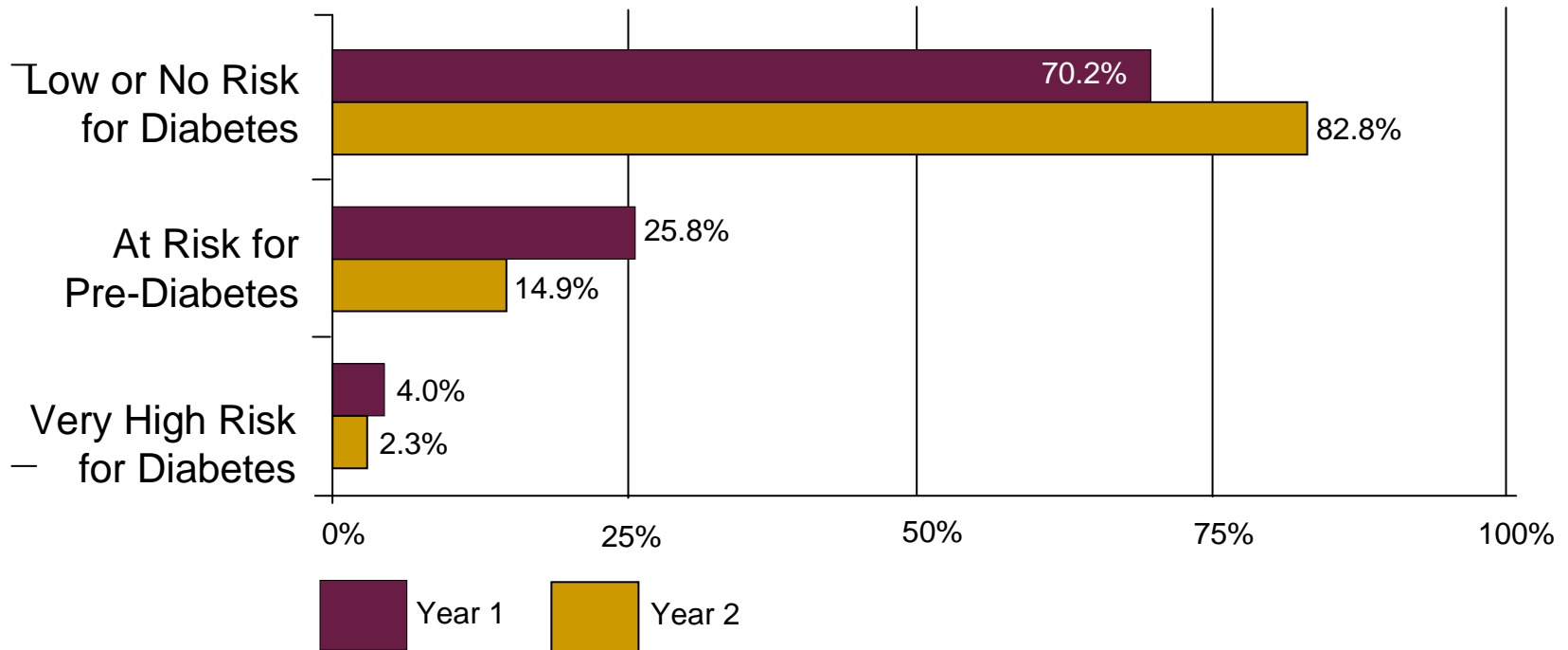
Results by Year

- October 2004
 - Introduction of MyHealth
 - 93% of eligible population completed the initial online HRA
- 2005
 - 92% updated the initial online HRA and gave permission for the Health Plan to share their data with providers
- 2006
 - 92% compliance with MyHealth deductible requirement by going through a biometric screening (55% at work)

Health Screenings: Cohort Analysis Diabetes

MyHealth Update

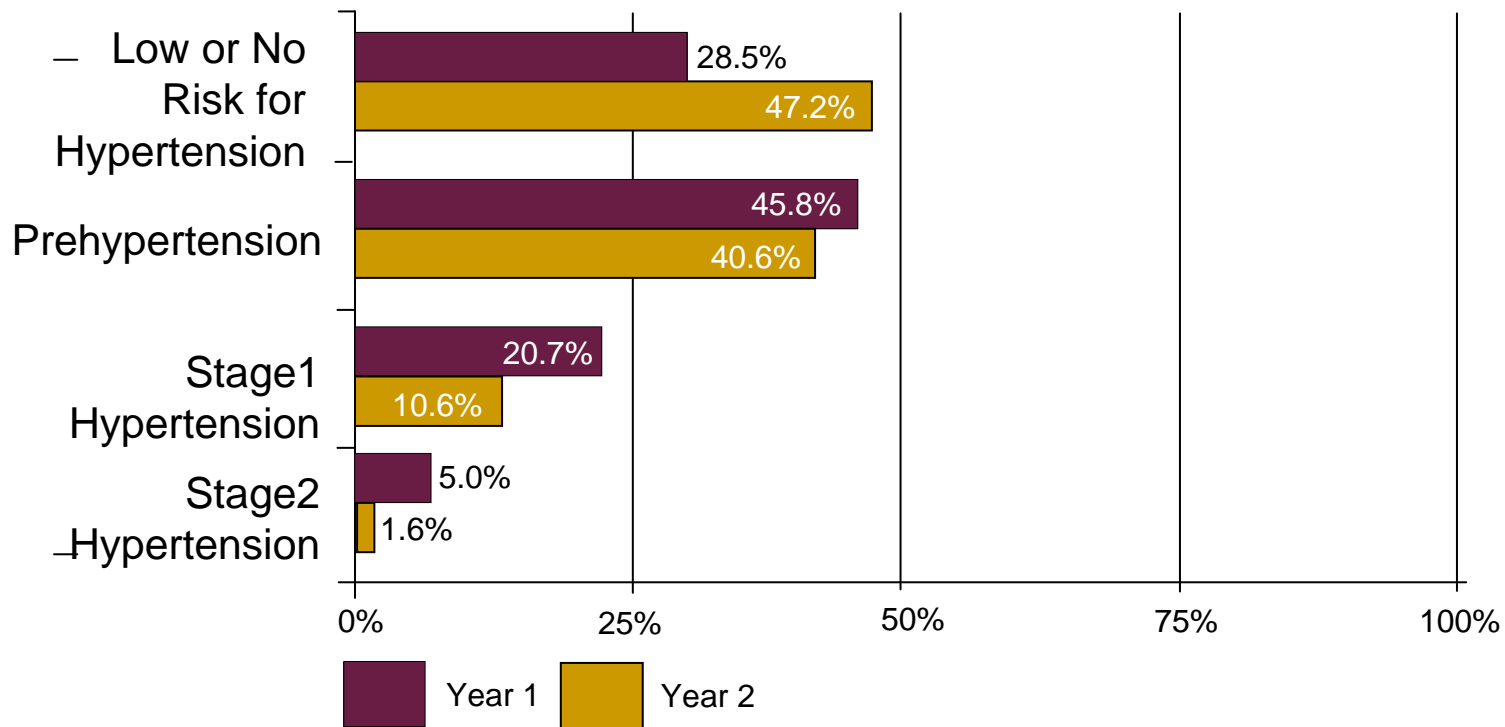
Screening Results of Employees Screened in both Year 1 and Year 2 (n=1,463)



Health Screenings: Cohort Analysis Hypertension

MyHealth Update

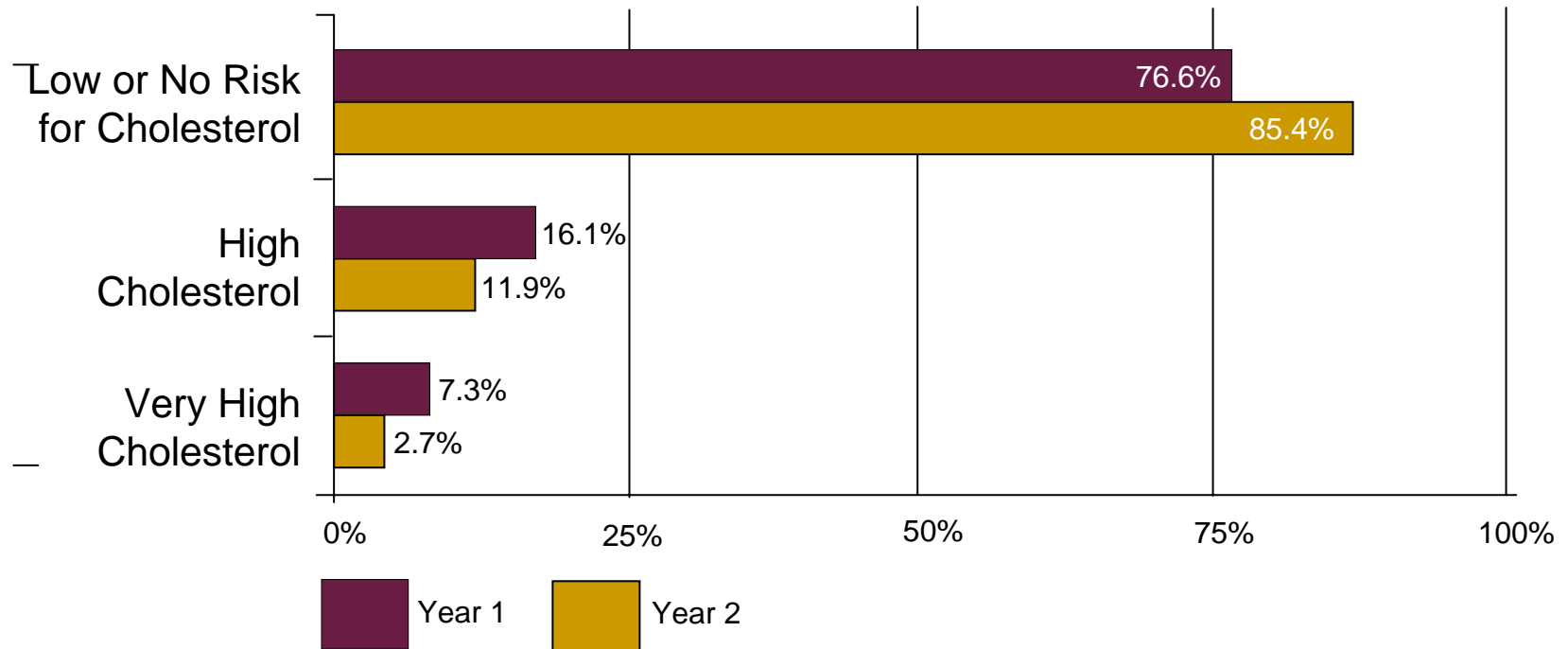
Screening Results of Employees Screened in both Year 1 and Year 2 (n=1,463)



Health Screenings: Cohort Analysis Cholesterol

MyHealth Update

Screening Results of Employees Screened in both Year 1 and Year 2 (n=1,463)



Clinical Disability Management Model

- Moved from claim model to clinical model 1/1/07
 - GATE: Global Assessment Triage and Engagement
 - 100 % Nurse Assessment during intake
 - Allows for immediate patient engagement and referrals to
 - Disease/Care Management
 - ▲ Maternity Program
 - ▲ Behavioral Health
 - Health Promotions
 - SAW/RTW Program
 - EAP Work Transitions Program

Work Transitions Program

- Specially designed EAP Program for staff going through the disability RTW process
 - Mental health screening, assessment, intervention, and referral
 - Regular telephonic monitoring and support
 - Psycho-educational skill building and training
 - Resource identification and referral
 - Formal Work-Life services referral
 - Counseling/coaching on adjustment for RTW