

Effectively Increasing Patient Adherence as a 360 Degree Approach

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The Eighth
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Track H - Quality, Communication and Patient Adherence



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Presenter Background

- Founder & CEO, Intelecare Compliance Solutions, Inc.
 - Intelecare develops notification and communication systems aimed at increasing medical adherence
 - Patient-centric services for consumers, business & industry
- Sales and marketing executive at Epocrates
- Founder of E-Health firm that developed and streamed patient education and professional CME videos
- Management consultant with boutique public policy firm

Presentation Overview

- Impact engagement, connectivity and retention
- Improve provider interaction and integration
- Support repeated positive behavioral changes
- Provide for flexible, scalable patient-centric solutions
- Drive sustainable results

45%

**The percentage of Americans taking
at least 1 prescription medication**

50%

The percentage of Americans not taking medications as prescribed

DiMatteo MR.

Variations in patients' adherence to medical recommendations: A quantitative review of 50 years of research

\$300 Billion

**The estimated annual cost to the
healthcare system**

DiMatteo MR.

Variations in patients' adherence to medical recommendations: A quantitative review of 50 years of research

\$47 Billion

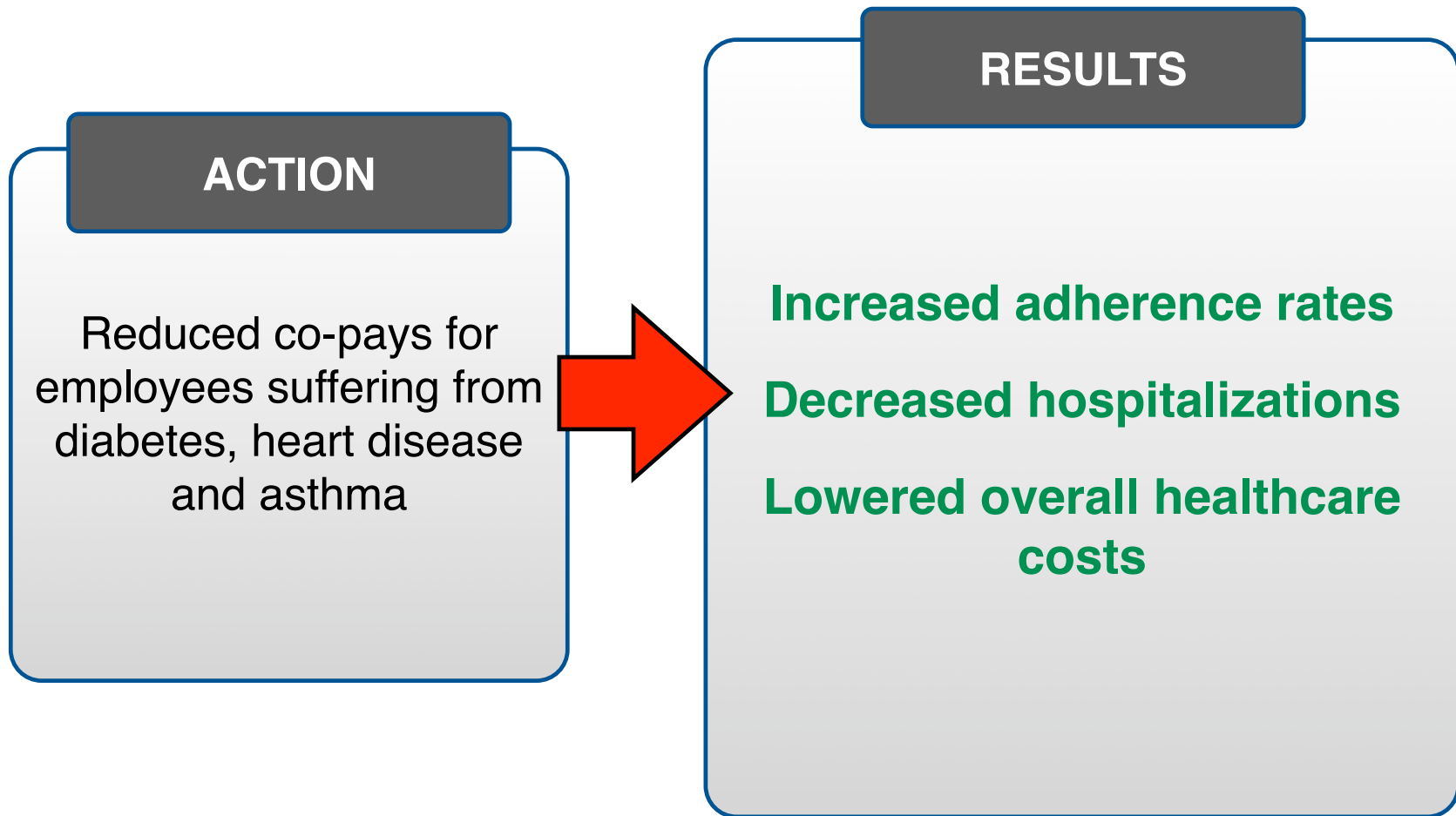
**The portion of hospitalizations
directly linked to non-adherence**

National Council on Patient Information and Education
Enhancing Prescription Medicine Adherence: A National Action Plan

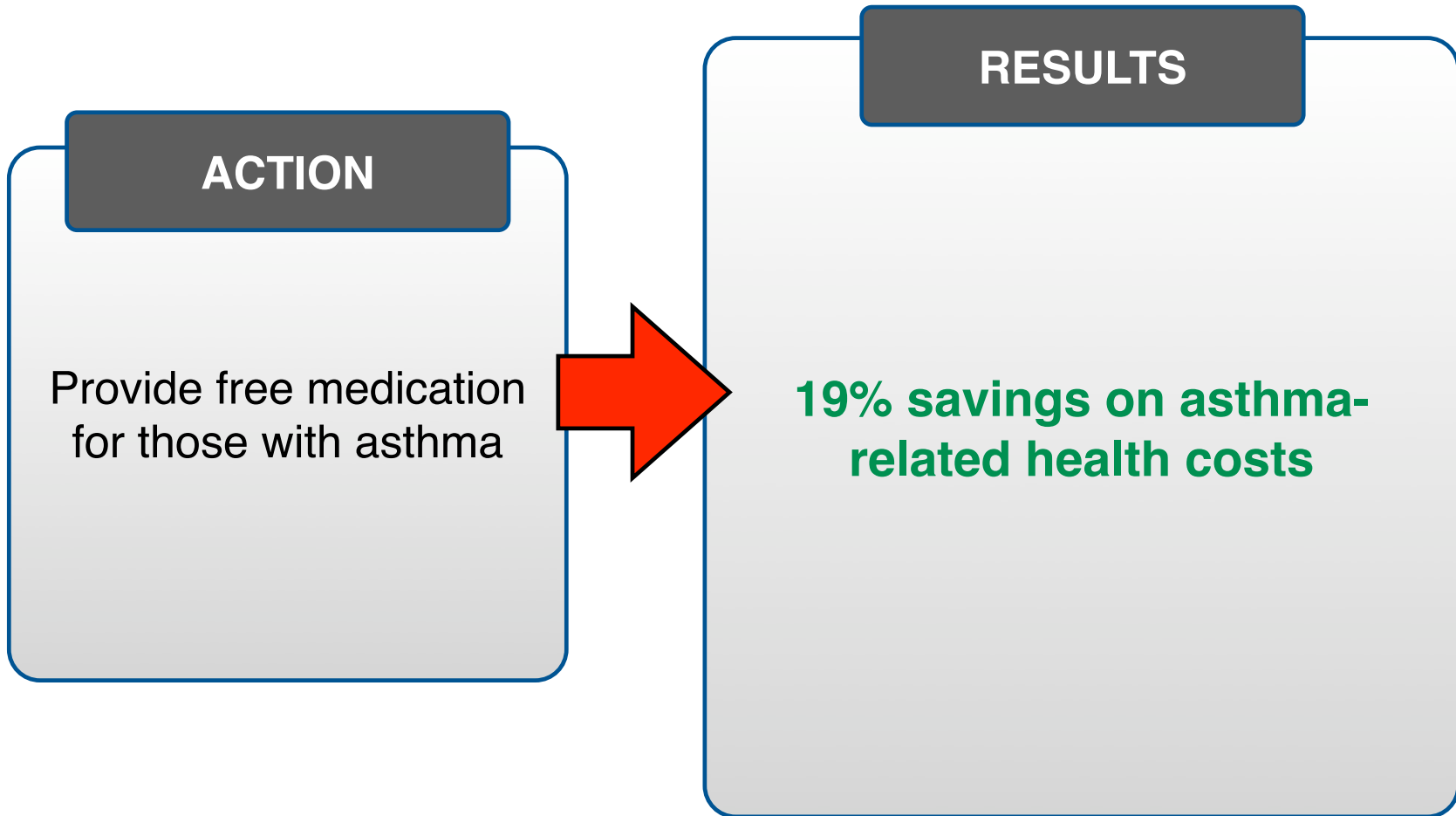
Lacking Engagement and Continuity

- Indeed a problem of pandemic proportion
- Affects all chronic diseases and demographic profiles
- Hundreds of factors hypothesized over 30 years of research
- Few consistent generalizations
- Fewer interventions yielding viable results to date
- Too many over-thinking/over-complicating the solutions

Case Study: Marriott



Case Study: Pitney Bowes



Predicated Upon the Masses

Question 1 - Let's Get Started!

Enter your Height and Weight to find out your Body Mass Index (BMI), a number that represents your risk for health conditions such as heart disease, diabetes, and hypertension.

Height

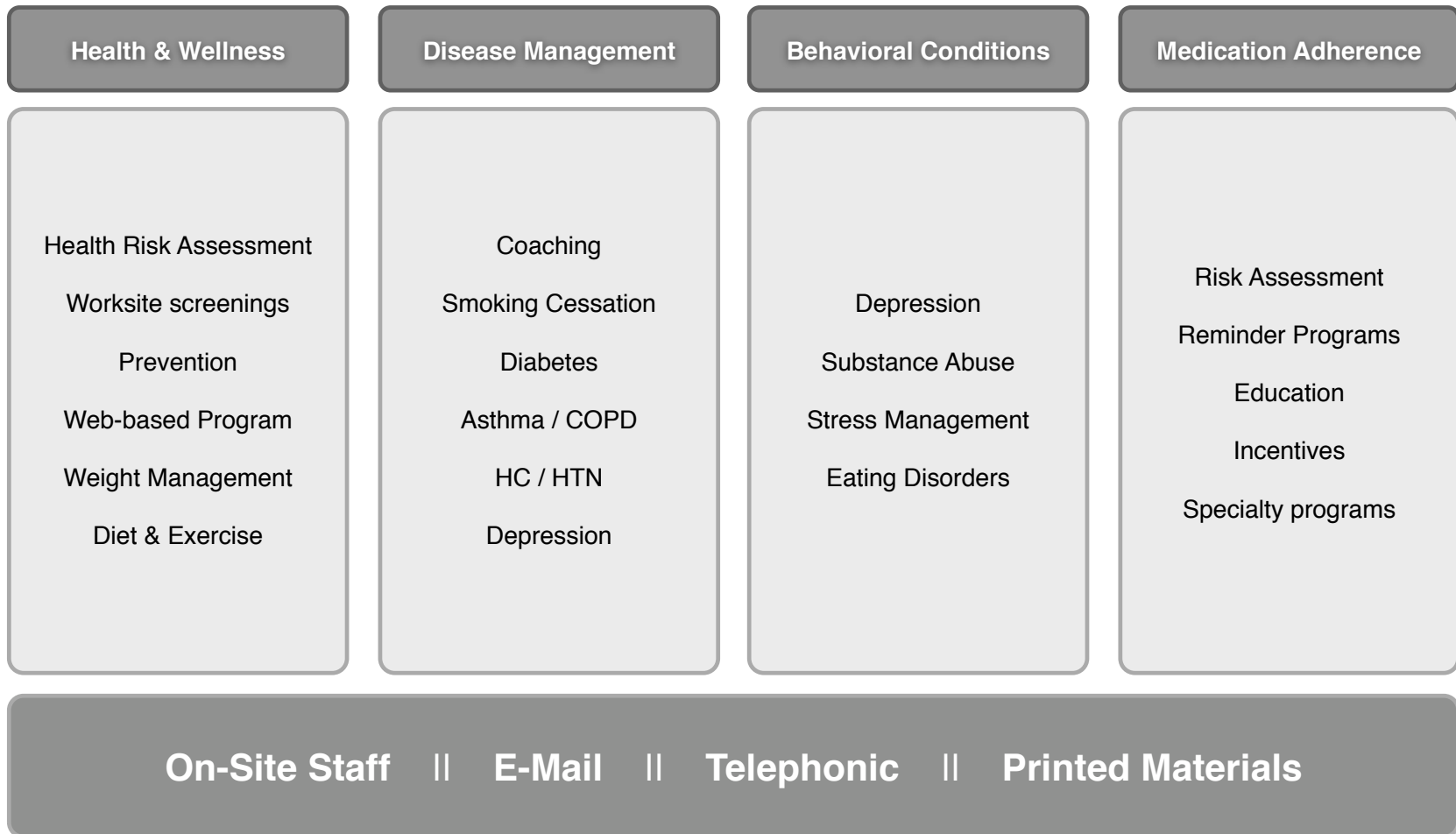
Weight

▶ Calculate my BMI

Weight

▶ Calculate my BMI

A Modicum of Personalization



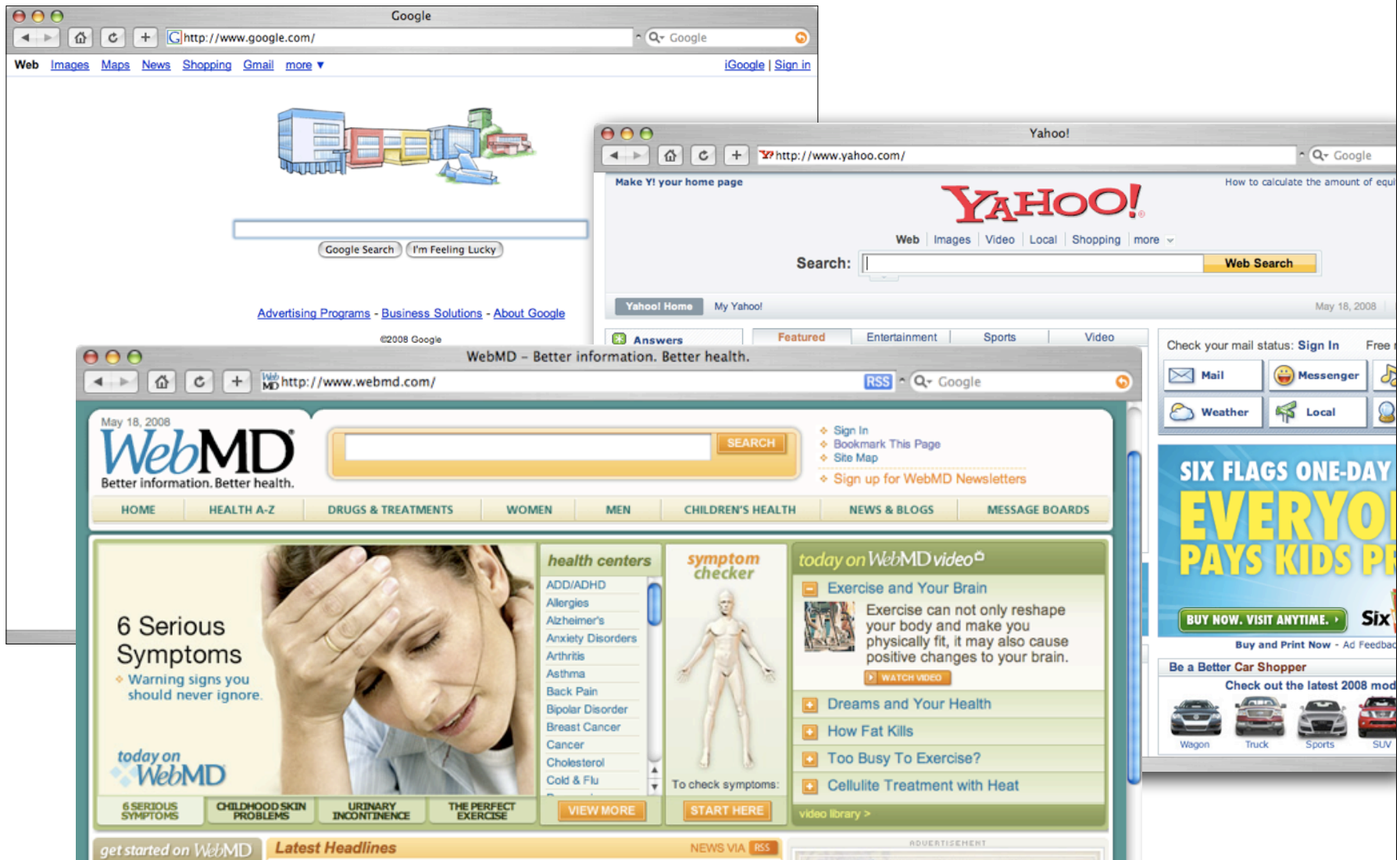
A Failed Strategy

- One-size-fits-all approach doesn't even work for baseball hats
- Approximately 160 million patients with unique needs
- Postal mail medication and appointment reminders are already late
- Refill-only email and postal mail capabilities lack broad appeal
 - If patients are not compliant on a daily basis, the refill is moot
- Switching medications at patient request
- Programs with “single-source” business rules lack efficacy

Today's Patients and Caregivers

- Like today's recommended approach, no longer can we see patients as silos if we want to make a bona-fide impact
 - "Sandwich Generation" totals 50 Million thus, mobile communications are key
 - Socio-economic hardships leading to increased behavioral health issues; behavior compounds difficulty in maximizing adherence programs
- To increase engagement, the offer must resonate on a more parochial level
- To retain active participation, incentives should continue for the duration of the program
- Adherence for asymptomatic conditions being fundamentally ignored

Upon Diagnosis



32%

**The percentage of prescriptions that
were never filled in 2007**

Wilson Rx and Boehringer Ingelheim
Pharmacy Satisfaction Digest 2007

1 in 8

**Number of heart attack victims that
stop taking medication after 1 month**

Wilson Rx and Boehringer Ingelheim
Pharmacy Satisfaction Digest 2007

Provider Interaction Must Be Improved

- Logical and there is applicability/adaptability, but not practical today
 - Data shows that physicians do not want to be involved in non-clinical tasks
 - Providers spend, on average, 3.2 minutes discussing medications with patients
 - 38% do not know why they are taking a particular medication
- Provider automation may curb reluctance to engage
 - Appointment reminders
 - Bi-directional communication
 - All integrated into main systems architecture for continuity

Intelecare

Active Subscriber Survey

Technology driven healthcare solutions™

www.intelecare.com



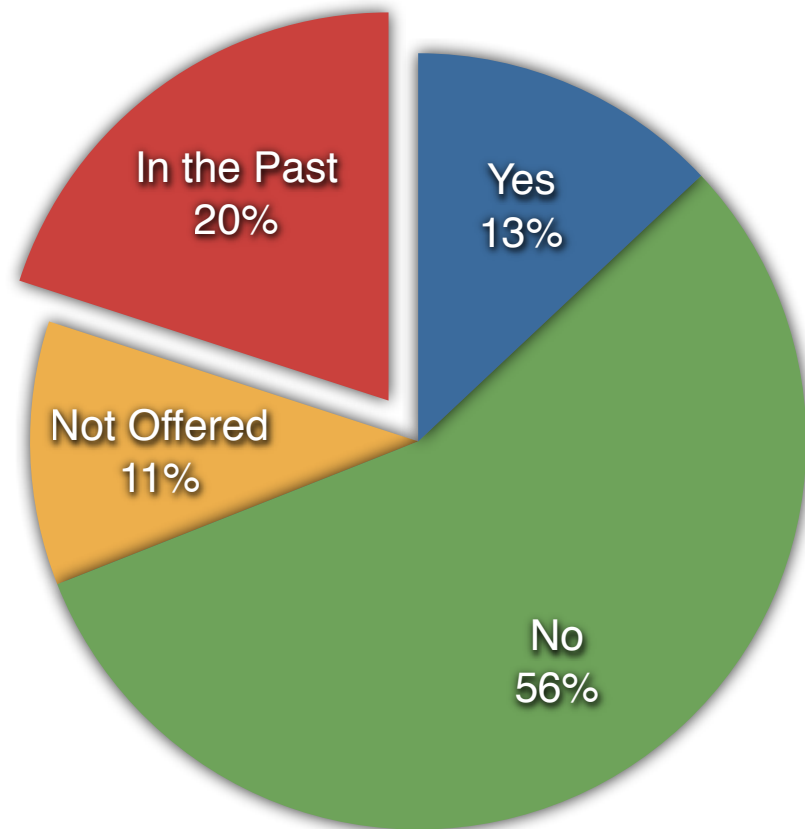
Active Subscriber Survey, May 2008

- Email based survey sent to individuals with at least one (1) active reminder in the system
- Active is defined as a reminder that is scheduled to be sent in the next 30 days
- Respondents: 879
- Proportional to population distribution

Utilization Survey Findings

1. Do you currently use any health or wellness resources provided by your employer or insurance provider?

- Yes
- **No**
- Nothing Offered
- Not Currently, But I have in the Past

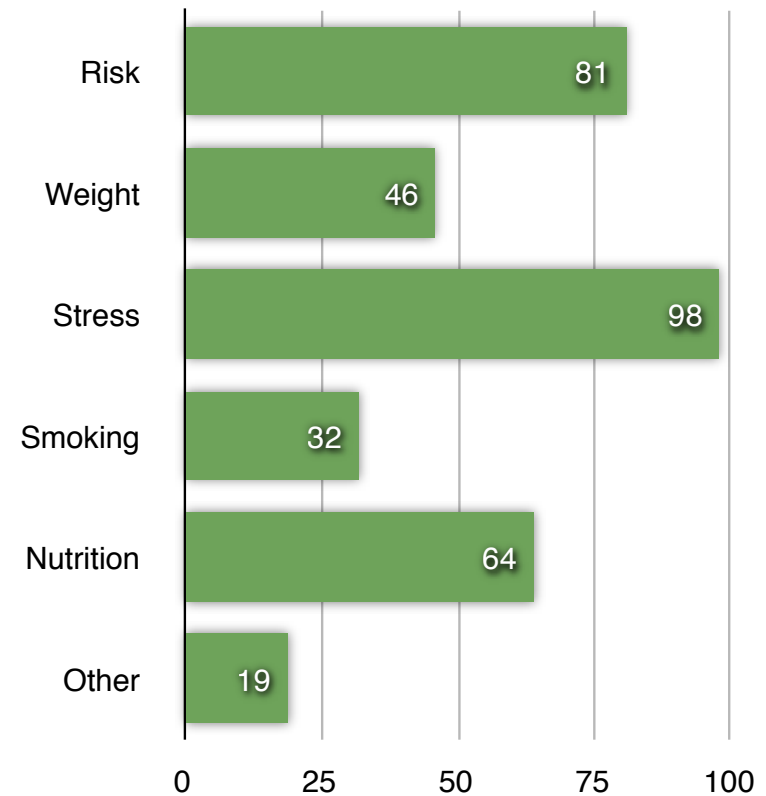


N = 879
May, 2008

Utilization Survey Findings

2. (If Yes to #1) Please tell us which of the following services/program offerings you are currently participating in:

- Health Risk Assessment
- Weight Management
- **Stress Management**
- Smoking Cessation
- Nutrition/Diet/Exercise
- Other disease management program offerings

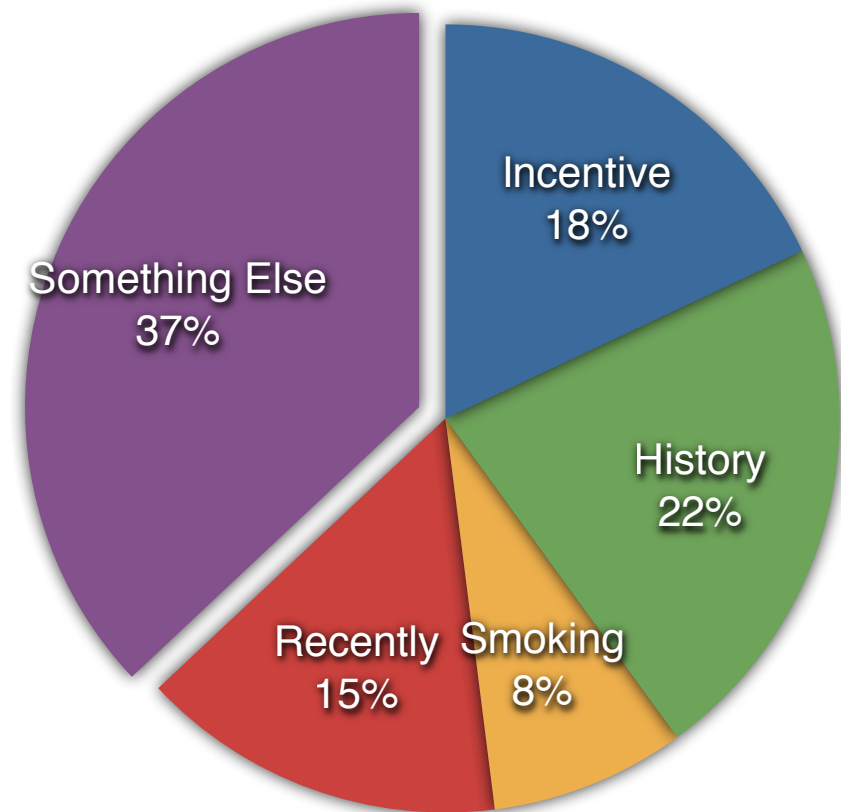


N = 114
May, 2008

Utilization Survey Findings

3. (If ever active) What is the main reason you decided to participate (open ended question; top 5):

- Incentive was offered
- History of medical condition in family / Promote better health
- Wanted to stop smoking
- Recently diagnosed
- **Something else to do at work**



N = 290
May, 2008

Utilization Survey Findings

4. (If ever active) What is the main reason you stopped participating in health and wellness programs?

- Reached the incentive limit
- Lost interest
- Didn't need service any more / Got better
- Didn't work
- Other

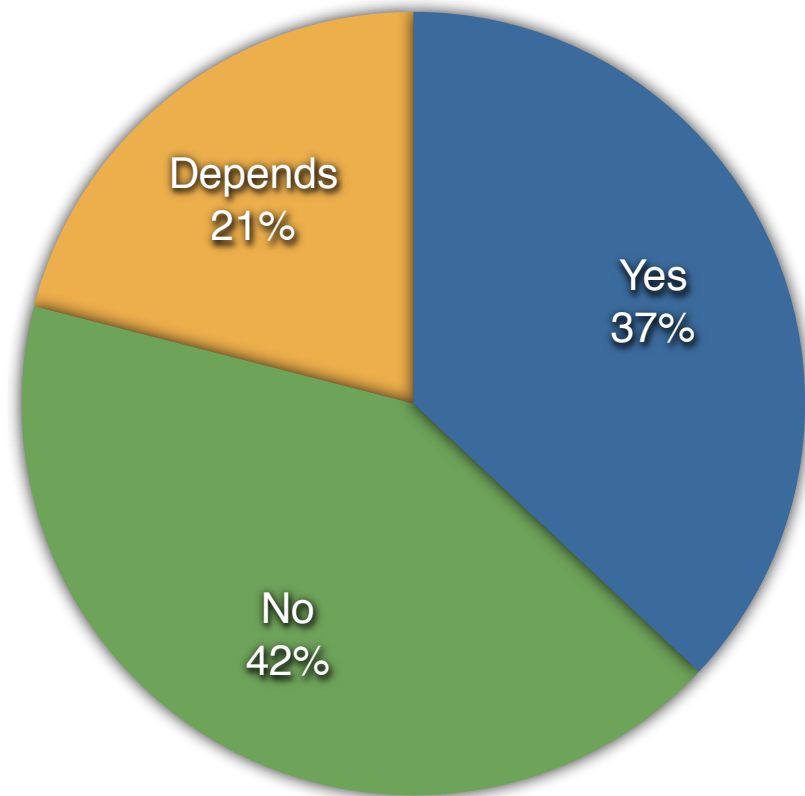


N = 175
May, 2008

Utilization Survey Findings

5. Would it impact your decision to participate in a program if a pharmaceutical company sponsored the program for your employer/insurer?

- Yes
- **No**
- Don't Know / Unsure

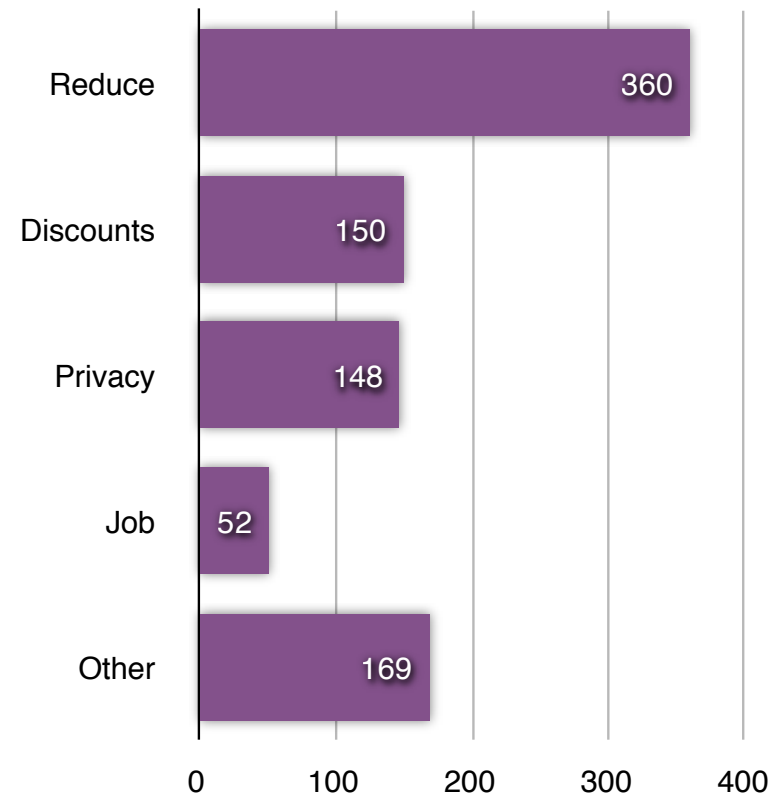


N = 879
May, 2008

Utilization Survey Findings

6. What can your employer or insurance carrier provide for you to participate in its health and wellness program indefinitely?

- **Reduce my health insurance premium (41%)**
- Discounts on medications (19%)
- Privacy (19%)
- Job security
- Other



N = 879
May, 2008

Demographic Profile v. Respondents

Gender		Survey
Male	43%	41%
Female	57%	59%
Ethnicity		
African American	11%	7%
American Indian, Eskimo, Aleut	0%	-
Asian, Pacific Islander	2%	-
Caucasian	86%	93%
Hispanic	1%	-
Active Reminder Splits		
Email	87%	84%
SMS	11%	14%
Voice	2%	2%
Patients with 2 or more Reminders	73%	69%

Age Profile		Survey
Average Age	44	41
18 - 24	3%	-
25 - 35	19%	21%
36 - 45	37%	44%
46 - 55	29%	26%
55 and older	12%	9%

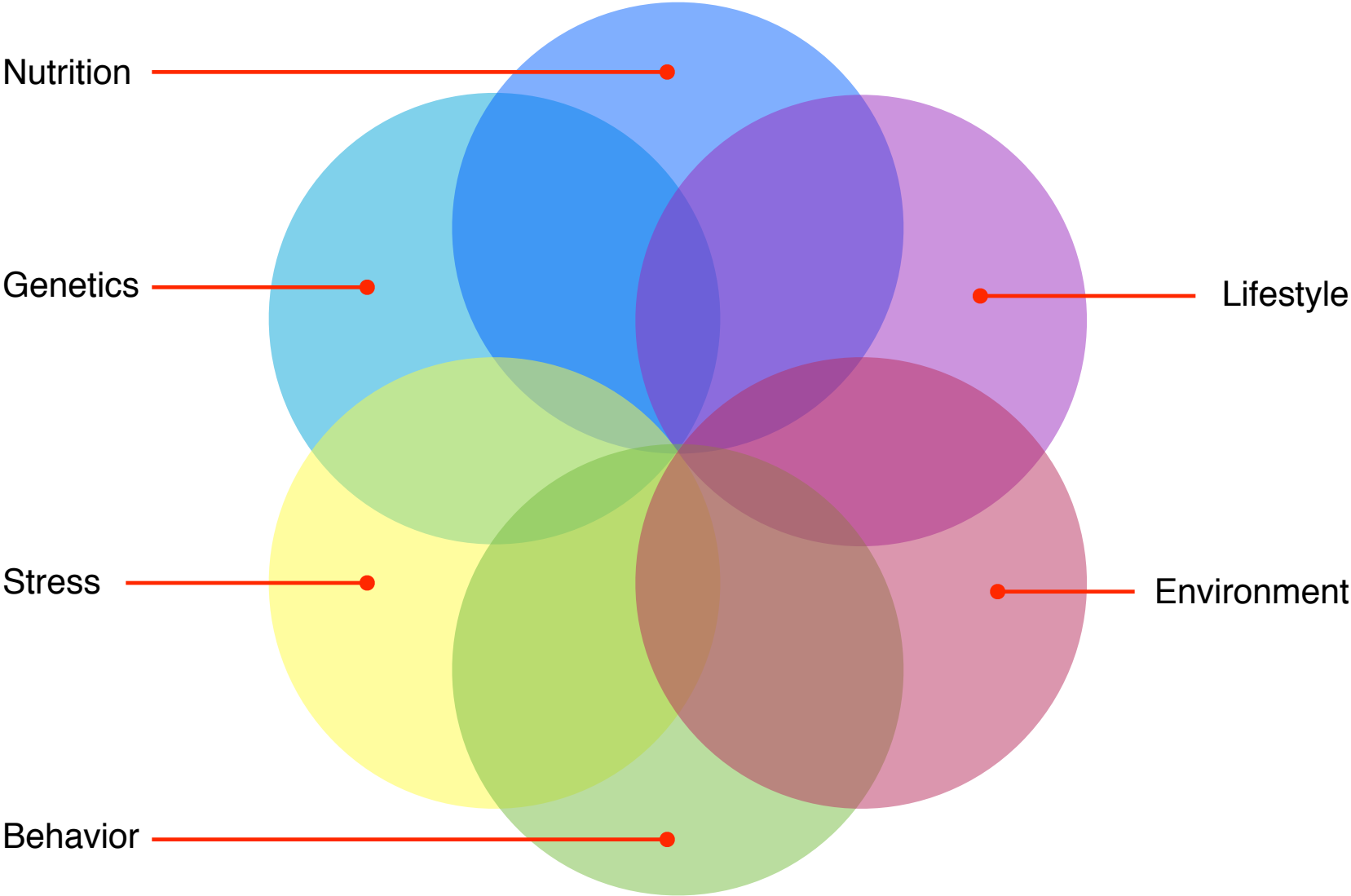
Adherence 2.0

Technology driven healthcare solutions™

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Predicated Upon the Individual



The 360° Approach

- Multi-prong / Multidisciplinary approach
 - Diverse communication channels
- Advent of “Smart” business rules engine that allows for patient-driven customization
 - Content creation (Comorbidity “bundles”)
 - Incentive structure based on individual profiles
- Leverage third party vendor competencies
 - Continual product development keeps programs fresh
- Opt-In by offering, not program
- Simplify offerings (promote utilization, not RM program)

Solution “Selling”

- We all need to sell the program up the chain of command
- You then have to sell any program to your users
- It must be practical, not (just) cool (for the user AND the company)
 - Careful of interactive agencies
- Flexible
- Scalable
- Dependable
- Already part of their daily lives - resist desire to make end user learn anything new

Determining Your Primary End Point

- Ask yourself this question - what do you want to accomplish with an integrated health and wellness program?
 - if it's as benign as "increase adherence," keep thinking...
- Do you want them to utilize the service for X-number of months or do you want them to just opt-in so you can send them information?
- Do you want this program to be highly utilized across the spectrum of consumers, or just among those in high risk categories

Engagement and Continuity

- Adequately engaging a diverse population requires an equally diverse amount of offerings
 - Culturally sensitive
 - Content unique to their patient, not just on a condition by condition basis
- Reminder programs need to be broader notification and communication programs
 - Communication preferences set by the patient
 - Adherence begins on a daily basis
 - Drive incentives and information with reminders
 - On Demand system should be mobile, telephonic and web-based

84%

**Patients who cite forgetfulness as
the reason they are non-adherent.**

Wilson Rx and Boehringer Ingelheim
Pharmacy Satisfaction Digest 2007

Integrated Notification Solutions

- Notification platform should be augment, not supplant
- Communication should drive content, not just reminders
- Bi-directional communication imperative
- Maximize utilization with:
 - Email
 - SMS
 - Voice
 - Native device applications (mobile)
 - Desktop widgets/gadgets

Comprehensive Notification System

- Notification system should be seamlessly integrated into existing web properties
 - Includes Email, SMS and Voice reminders to ensure coverage
 - Private label to reinforce brand and increase loyalty
- Have option for Hosted or Enterprise level integrations
- Breadth of reminder types (daily, refill, appointment, vitals)
 - Reinforces persistency with each reminder
- Features should be able to be fully customized
- Option of back-end management by vendor
- Flat-fee pricing for (at least) hosted solutions

42%

**Percentage of consumers that have
used their mobile phone for SMS**

Forrester Research, Inc.

North American Technographics Technology, Media and Marketing Benchmark Survey, 2007

24%

**Percentage of consumers that have
used their mobile phone for MMS**

Forrester Research, Inc.

North American Technographics Technology, Media and Marketing Benchmark Survey, 2007

Positive Behavioral Drives Adherence

- Positive behavioral change can not be achieved with one program
- An integrated approach is required to provide various solutions that resonate with a diverse participant base
- Integrate with existing tactics that have demonstrable outcomes
- Ensure privacy
- Specific Family Caregiving solution
- Make adherence practical/realistic - Reward Success
 - Manageable milestones and reward once achieved

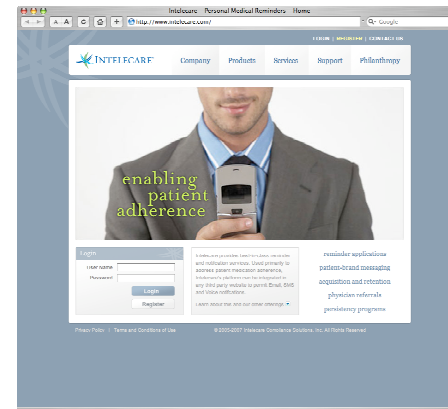
Anatomy of a Successful Program

- Start NOW, amend later
- Outsource when possible
 - IT doesn't have the bandwidth they think they do
- Diversify adherence offerings
 - Integrate into existing wellness offerings; Its easier than you think
- Scrap pilot program - all the work is upfront; accelerate growth
- Incent today / Incent tomorrow
- Reinforce privacy and advocacy

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