G. Thomas Welsh – Director HR Benefits and Services

The Clinical and Economic Aspects of Health Management at PPG
Presentation Objectives:

- Describe the information management process
- Detail specific engagement goal metrics and tactics

Primary focus will be on U.S. health care for active employees and dependents
Information Management

Complex / Intangible

Simple / Tangible

High

Low

Accurate
Available
Responsive
Pertinent
Insightful
Advisor

Satisfiers
Dissatisfiers
# Importance of Cost

<table>
<thead>
<tr>
<th>1. BEHAVIORS</th>
<th>2. PREVENTION</th>
<th>3. PLAN DESIGN</th>
<th>4. CARE EFFICIENCY</th>
<th>5. WORK PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Best in class</td>
<td>Consumer driven</td>
<td>Challenge Waste</td>
<td>Total burden on</td>
</tr>
<tr>
<td>Participation</td>
<td>Promotion</td>
<td>Accountable</td>
<td>Misuse</td>
<td>Health and</td>
</tr>
<tr>
<td>Incentives</td>
<td>Protection</td>
<td>Transparent</td>
<td>Overuse</td>
<td>Productivity</td>
</tr>
<tr>
<td>Motivation</td>
<td>Screenings</td>
<td>Coordinated</td>
<td>Underuse</td>
<td>Lost days</td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td>PPOs/HMOs</td>
<td>Up-coding</td>
<td>Absenteeism</td>
</tr>
<tr>
<td>Skills</td>
<td></td>
<td>Pay for value</td>
<td>Late Care</td>
<td>Presenteeism</td>
</tr>
<tr>
<td>HRA expand</td>
<td></td>
<td></td>
<td>Business alliances</td>
<td></td>
</tr>
<tr>
<td>Measure</td>
<td>HRA participation rate</td>
<td>Preventive screening rates</td>
<td>Health Care Cost and Utilization Scorecard (PEPY)</td>
<td>Quality indicators</td>
</tr>
<tr>
<td></td>
<td>Risk reduction</td>
<td>Avoidable admissions</td>
<td>Comprehensive financial metrics</td>
<td>Avoidable “re-work”</td>
</tr>
<tr>
<td></td>
<td>Know your numbers</td>
<td></td>
<td>Head to head plan comparison</td>
<td></td>
</tr>
<tr>
<td>Aim</td>
<td>Shrink Prevent</td>
<td>Shift upstream</td>
<td>Share</td>
<td>Clear waste</td>
</tr>
</tbody>
</table>

![Diagram](https://via.placeholder.com/150)

Copyright 2008 PPC Industries, Inc
2008 Burden on Health & Productivity $500MM
Y=f(X)

Non-ergo Injuries

Direct Costs

Indirect Costs

Lost time

Productivity

Screening

H. Care Risk/Utilization

Non-ADI Impairment

ADI

Fatigue

Exposed

Force

Repetition

Posture

Hours of work

Job Content

Non-ego Injuries

Ergo Injuries

Direct Costs

Indirect Costs

Direct Costs

Lost time

A&S

SC

Health Care

LTD

Benefit Design

Care variance

Screening

Risk reduction score

HRA participation

Occupational

Non-Occupational

Current Measure

Additional Measure

2008 Burden on Health & Productivity $500MM

Y=f(X)
To inform and motivate employees, their dependants and retirees to prevent disease, stay healthy and become better health care consumers in order to reduce overall costs.

To use SMART goals and measures to achieve success.

To reduce burden on health and productivity cost to half of the prevailing national average change over 5 years.
1. Annual net cost per participating employee will be on average (five years) 50% of the rate experienced by companies of like size

2. Total net cost to the company for health care will be maintained at 2003 level

3. HRA participation rate will be maintained at 80% of the employee population on the three year average

4. The employee population at low or no risk will be at 70%

5. At least 80% of the population will know their key health metrics (BMI, cholesterol, blood pressure)
In 2008, health plan growth was held at 6 percent, but it exceeded workers’ earnings and the general Consumer Price Index.

Gross: PPG payments to TPAs + employee out of pocket $XXX MM
   – Best measure of overall change

   Less: Employee out of pocket (deductibles/co-pays) YY MM
       Employee contributions (pay withholdings) XY MM

Net: PPG payments less employee contributions $ZZZ MM
   – Good bottom line number, but

Employees: 15,500 (US)
Employees – participating: 13,700 (US)
Participants: 31,500 (US)
Total health benefit cost for active employees up 6.3% for 2008

Large employers

Source: Mercer
Net Active Health Care Cost
% Change Per Participating Employee

Source: Mercer
Net Active Health Care Cost % Change Per Participating Employee (without incremental 2007 high cost claims)

Source: Mercer
Net Active Health Care Cost
% Change Per Participating Employee

Cumulative Savings
2002– est 2008 = $145 million

Benchmark Source: Mercer
## Top 10 Locations - Active Employees
For the Twelve Month Period Ended December 31, 2008

### COST

<table>
<thead>
<tr>
<th>Location</th>
<th>YTD Q4 2008 Gross Expense (In 000's)</th>
<th>% Change from YTD Q4 2007</th>
<th>YTD Q4 2008 Participating Employee Count*</th>
<th>% Change from YTD Q4 2007</th>
<th>YTD Q4 2008 Net Cost Per Employee</th>
<th>YTD Q4 2007 Net Cost Per Employee</th>
<th>% Change from YTD Q4 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant A</td>
<td>$xxxx</td>
<td>6%</td>
<td>306</td>
<td>-8%</td>
<td>$xxxx</td>
<td>$xxxx</td>
<td>17%</td>
</tr>
<tr>
<td>Plant B</td>
<td>xxxx</td>
<td>7%</td>
<td>555</td>
<td>-2%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>10%</td>
</tr>
<tr>
<td>Plant C</td>
<td>xxxx</td>
<td>7%</td>
<td>657</td>
<td>2%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>4%</td>
</tr>
<tr>
<td>Plant D</td>
<td>xxxx</td>
<td>6%</td>
<td>838</td>
<td>0%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>4%</td>
</tr>
<tr>
<td>Plant E</td>
<td>xxxx</td>
<td>5%</td>
<td>193</td>
<td>2%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>1%</td>
</tr>
<tr>
<td>Plant F</td>
<td>xxxx</td>
<td>-8%</td>
<td>121</td>
<td>-3%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>-6%</td>
</tr>
<tr>
<td>Plant G</td>
<td>xxxx</td>
<td>0%</td>
<td>364</td>
<td>-1%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>-1%</td>
</tr>
<tr>
<td>Plant H</td>
<td>xxxx</td>
<td>10%</td>
<td>475</td>
<td>-5%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>21%</td>
</tr>
<tr>
<td>Plant I</td>
<td>xxxx</td>
<td>17%</td>
<td>394</td>
<td>-4%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>30%</td>
</tr>
<tr>
<td>Plant J</td>
<td>xxxx</td>
<td>-5%</td>
<td>102</td>
<td>-3%</td>
<td>xxxx</td>
<td>xxxx</td>
<td>-8%</td>
</tr>
<tr>
<td>Total high cost locations</td>
<td>$xxxx</td>
<td>6%</td>
<td>4,004</td>
<td>-2%</td>
<td>$xxxx</td>
<td>$xxxx</td>
<td>19%</td>
</tr>
<tr>
<td>Total PPG</td>
<td>$xxxx</td>
<td>1%</td>
<td>13,700</td>
<td>-4%</td>
<td>$xxxx</td>
<td>$xxxx</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Note: The top 10 locations identified above were based on the calendar year 2008 report.

* Employee count is based on the number of those participating in PPG's medical plans.
# Top 10 Locations - Active Employees
For the Rolling Three Year Period Ended December 31, 2008 (Jan 2006 - Dec 2008)

## HEALTH

<table>
<thead>
<tr>
<th>Location</th>
<th>Employee Count* (3 Year Avg)</th>
<th>HRA Participation Rate (1) (1/06 - 12/08)</th>
<th>HRA Participation Rate Change** (1/06 - 12/08)</th>
<th>Percent Low Risk (2) (1/06 - 12/08)</th>
<th>Percent Low Risk Change** (1/06 - 12/08)</th>
<th>Screening Rate (3) (1/06 - 12/08)</th>
<th>Screening Rate Change** (1/06 - 12/08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plant A</td>
<td>328</td>
<td>40%</td>
<td>-33%</td>
<td>64%</td>
<td>8%</td>
<td>72%</td>
<td>19%</td>
</tr>
<tr>
<td>Plant B</td>
<td>572</td>
<td>18%</td>
<td>-1%</td>
<td>51%</td>
<td>0%</td>
<td>81%</td>
<td>1%</td>
</tr>
<tr>
<td>Plant C</td>
<td>700</td>
<td>85%</td>
<td>2%</td>
<td>65%</td>
<td>1%</td>
<td>95%</td>
<td>0%</td>
</tr>
<tr>
<td>Plant D</td>
<td>861</td>
<td>40%</td>
<td>0%</td>
<td>52%</td>
<td>0%</td>
<td>54%</td>
<td>-1%</td>
</tr>
<tr>
<td>Plant E</td>
<td>193</td>
<td>9%</td>
<td>-49%</td>
<td>47%</td>
<td>6%</td>
<td>65%</td>
<td>5%</td>
</tr>
<tr>
<td>Plant F</td>
<td>121</td>
<td>95%</td>
<td>0%</td>
<td>55%</td>
<td>0%</td>
<td>48%</td>
<td>0%</td>
</tr>
<tr>
<td>Plant G</td>
<td>363</td>
<td>9%</td>
<td>1%</td>
<td>53%</td>
<td>1%</td>
<td>64%</td>
<td>4%</td>
</tr>
<tr>
<td>Plant H</td>
<td>541</td>
<td>68%</td>
<td>-56%</td>
<td>45%</td>
<td>6%</td>
<td>90%</td>
<td>2%</td>
</tr>
<tr>
<td>Plant I</td>
<td>413</td>
<td>7%</td>
<td>-2%</td>
<td>50%</td>
<td>10%</td>
<td>73%</td>
<td>9%</td>
</tr>
<tr>
<td>Plant J</td>
<td>105</td>
<td>65%</td>
<td>0%</td>
<td>60%</td>
<td>0%</td>
<td>61%</td>
<td>0%</td>
</tr>
<tr>
<td>Total high cost locations</td>
<td>4,197</td>
<td>44%</td>
<td>-14%</td>
<td>54%</td>
<td>3%</td>
<td>70%</td>
<td>4%</td>
</tr>
<tr>
<td>Total PPG</td>
<td>14,469</td>
<td>47%</td>
<td>-6%</td>
<td>58%</td>
<td>1%</td>
<td>71%</td>
<td>3%</td>
</tr>
</tbody>
</table>

1. Goal is to maintain HRA participation at or above 80% in any three rolling years
2. Goal is to maintain "low risk" for 70% of the population at any point in time
3. Goal is to achieve screening rates of 80% of recommended

* HRA employee count is based on three year average of the actual number of employees at location as of December.
** Represents the change from the prior rolling three year period (October 2005 - September 2008).
PPG Cost Reduction Impact

Impact

Years

1 2 3 4 5

Plan Design

Lifestyle
PPG Cost Reduction Impact

- Plan Design
  - Company Driven
- Lifestyle
  - Individual Driven

Impact

Years

1 2 3 4 5
Five Tactics for Health Management Metrics

1. Establish a database that is accurate, available and responsive to inquiry
2. Make head to head comparisons and measure results
3. Compare spending to peers
4. Tie behavior to cost and compare spending to analogous in house spending
5. Professional and consistently describe initiative (including ROI real and perceived)
1. Information Management

- Complex / Intangible
- High
- Simple / Tangible

- Advisor
  - Insightful
  - Pertinent
  - Responsive
  - Available
  - Accurate

- Satisfiers
- Dissatisfiers
There is nothing like competition to get people into the game and focused.

Some overall indication of success is an excellent measured result. Overall $145 MM savings.
Corporate investment in healthy behaviors as a percent of total net cost:

- Company A: 3%
- Company B: 2%
- Company C: 1.5%
- Company D: 1.6%
- Company E: 1.6%
- Company F: 1.0%
- Company G: 1.0%
- PPG: 0.25%
4. Compare Health Promotion Spending to Analogous other In-House Spending

Price of WORK ACCIDENT Prevention, $1.02

PWA-D, $x.xx

PPE-D-Active, $x.xx

PPE-D-Dependent, $x.xx

PPE-D-Retiree, $x.xx

PPE-I-Dependents, $x.xx

PPE-I-Actives, $x.xx

Non-Occupational: cost/labor hr.

Occupational: cost/labor hr.

Price of PERSONAL EPISODE Prevention, $0.01
Summary message to PPG Management in most recent engagement:

- Significant success has been achieved in mobilization of resources, metrics/reporting and cost mitigation.
- Further success in cost reduction through communications, metrics and spirit seems limited.
- PPG’s investment in prevention and behavioral change in the area of health and wellness is minimal by a number of measures.
- Further cost reduction through investment in health and wellness initiatives is considered viable.
- We will professionally manage and demonstrate return on these investments.
The PPG Industries Story

“Have a Healthy Day”