

Promising Results of a Weight Management Program:

First Year Analysis of Outcomes

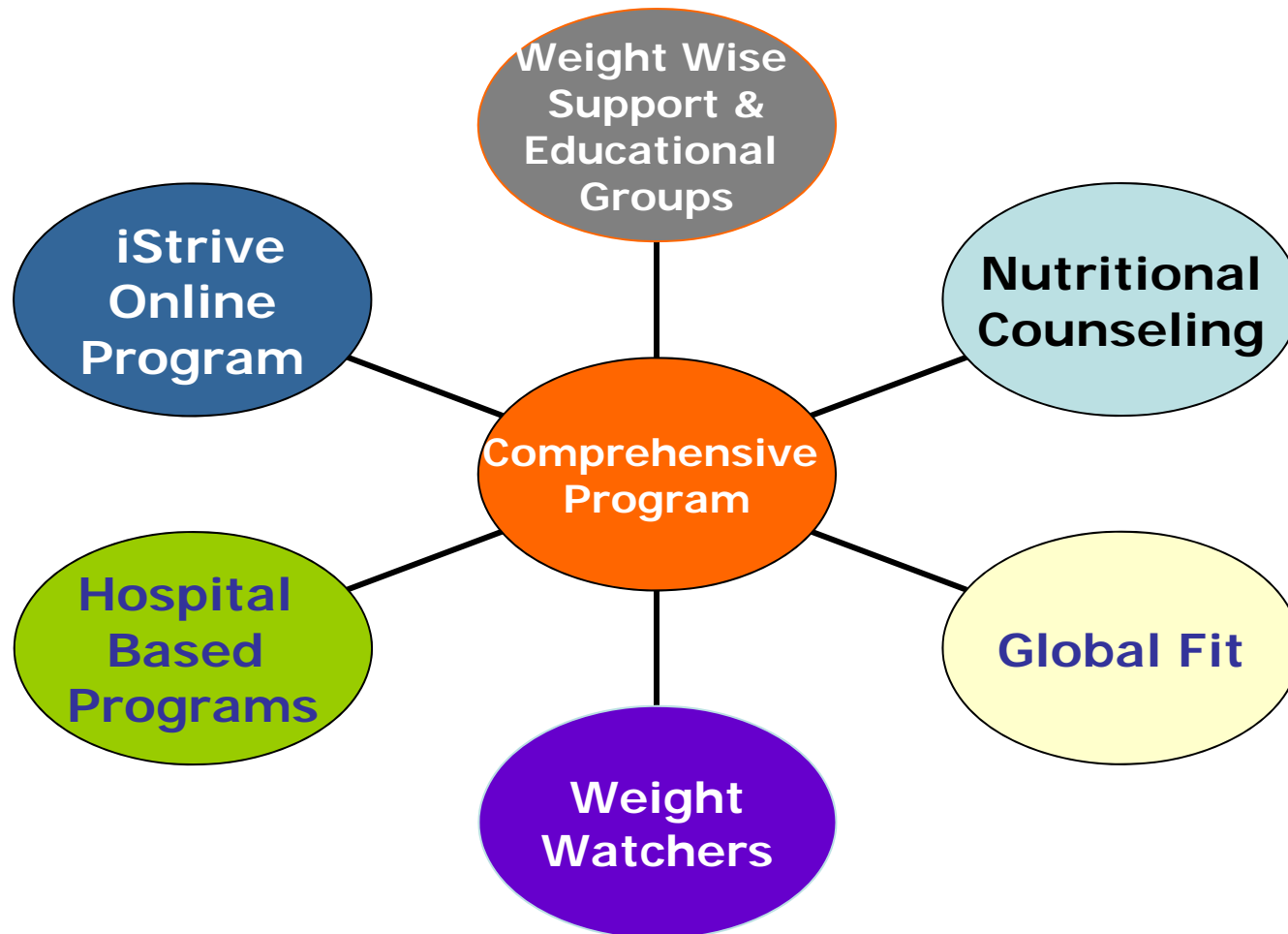
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Presentation Overview

- Collaborative partnership
- Background
- Expected outcomes
- Participant demographics
- Outcomes: weight loss, clinical, utilization
- Member satisfaction

HAP's Comprehensive Weight Management Program



Why Support a Weight Management Program?

- Rising prevalence of chronic disease among HAP members (mirrors national trend)
 - The CDC reports that diabetic prevalence rates increased from 4.4% in 2000 to 5.6% in 2006.
- Efforts to *enhance the health and well being of the lives we touch*
- Even minimal weight loss is known to improve the health status of those with chronic illness

Background

- In July 2007, HAP launched an unprecedented partnership with Weight Watchers®, a proven weight loss program.
- HAP remains the only Michigan health plan to offer its members up to four, 12-week Weight Watchers sessions per lifetime for **\$25** per session – a significant savings to members.

Collaborative Partnership



This strategy has:

- Reduced the *time* and *cost barriers* for members
 - Very inexpensive
 - Can attend meetings at work
- Engaged over 23,000 members to date whom have lost over 215,000 pounds
- Provided regular data on members' weight loss

Expected Clinical Outcomes

- We expected most members to lose some weight, which would benefit their health in the long-term.
- According to the literature, some of the expected short-term results were:
 - Improvements in blood pressure
 - Improvements in chronic condition management
 - Reduced need for routine medications
 - Improvement in laboratory results (Cholesterol, HbA1c)

Research Findings

- Published studies showing actual medical cost savings for weight management are **very limited:**
 - Kaiser Permanente: \$400 savings per member per year (PMPY) for obese members only
 - Blue Cross Blue Shield NC: \$187 savings PMPY
- The latest research in *Health Affairs* states that obese members cost \$1429 more per year than normal-weight people (Finkelstein, Trogon et al, 2009).

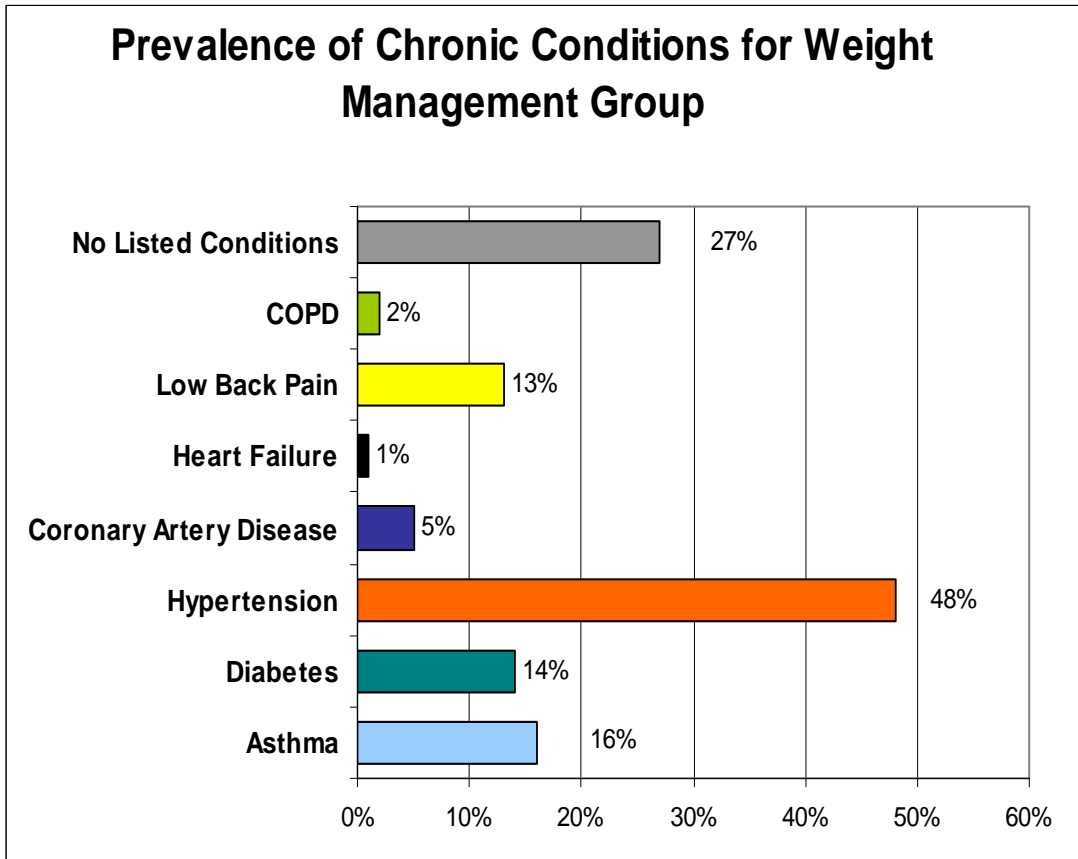
Gaps in Research – Real World Application

- Many of the clinically-oriented studies focused on two year time frames with participants who are obese (not simply overweight).
- Can we expect any results for relatively healthy, overweight members without chronic disease?
- The return on investment for avoided costs related to obesity is unknown (Sidorov and Fitzner, 2006)

HAP's Disease Registry

- Our disease registry *is member-centric and is updated monthly* for many conditions using electronic algorithms:
 - ❑ Heart Failure
 - ❑ Low Back Pain
 - ❑ Diabetes
 - ❑ Migraines
 - ❑ Coronary Artery Disease
 - ❑ Hypertension
 - ❑ COPD
 - ❑ Osteoporosis
 - ❑ Asthma
 - ❑ Chronic Kidney Disease
 - ❑ Depression
 - ❑ Obesity

Who Joined?



- Forty-eight percent (48%) of self-selected members had **hypertension**, compared to 21% in our general population.
- Fourteen percent (14%) had **diabetes** compared to 6.9% in our general population
- 33% have known **obesity** per our disease registry.

How much weight did they lose?

| Results | % of Participants |
|---------------------------|-------------------|
| No weight loss | 20% |
| Up to 5% Weight Loss | 48% |
| 6 – 10% Weight Loss | 18% |
| 11 – 15% Weight Loss | 7% |
| 16 – 20% Weight Loss | 3% |
| More than 20% Weight Loss | 2% |

- Twenty percent did not lose weight
- Twelve percent lost 11% or more of their body weight
- Participants lost an average of 8.9 lbs.
- These 9,243 members lost a total of 83,026 lbs.

Clinical Results - Diabetes

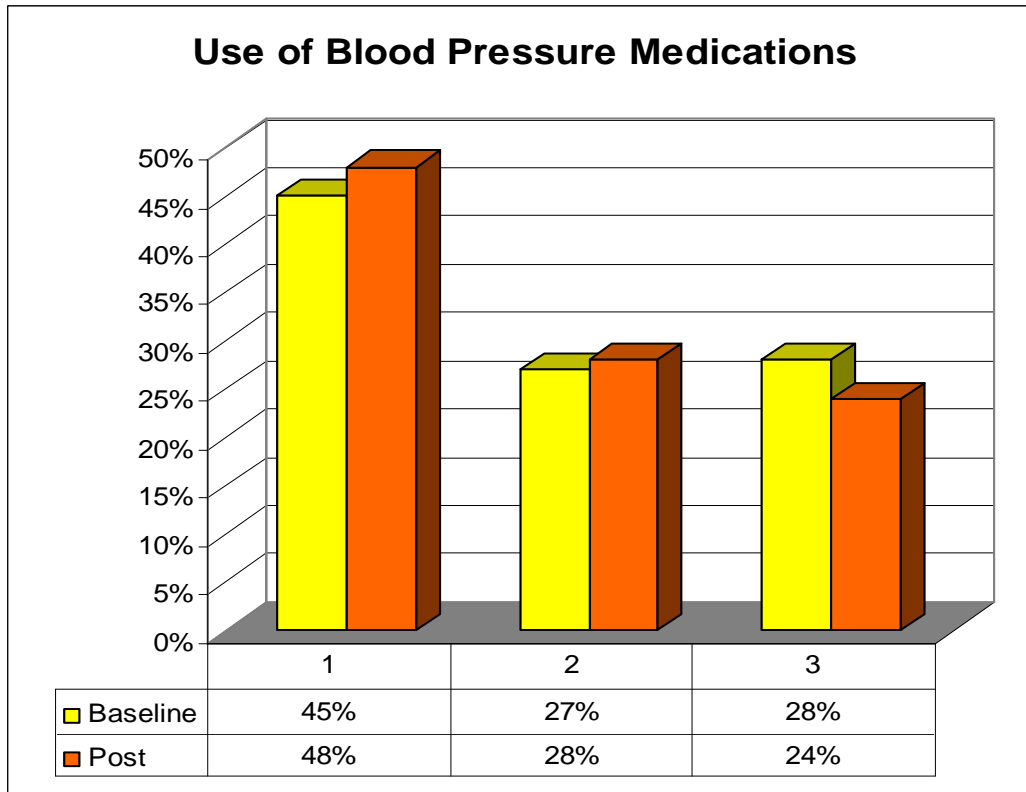
- The proportion of diabetic members with an HbA1C (controlled blood glucose) level less than 7* improved significantly:
 - From 46% (baseline) to 56% (post year)
 - 21% improvement, which is significant at the $p < .01$ level ($p = .0020$; $z = 3.66$)
- Improvements in HbA1C levels as a group were proportionate to the weight loss.

| % Improvement in A1C Levels compared to % Weight Loss | |
|---|-----|
| No Weight Loss | 3% |
| 1 – 5% | 19% |
| 6 – 10% | 38% |
| 11 -15% | 35% |
| 16 -20% | 1% |
| Over 20% | 63% |

Note: N = 749 diabetics with lab result data available in two years.

* This is an NCOA standard (National Committee for Quality Assurance) promoted as one of "good control" for diabetics

Clinical Results - Hypertension



- Exact blood pressures were not readily available.
- Members reduced the number of required medications under medical supervision
- Participants using three or more medications declined from 28% to 24% ($p < .0020$; $z = 3.11$).

Baseline N = 2,649; Post N = 2,790

Hypertension: Analytical Challenges

- Analyzing use of blood pressure medications is complex.
- Sheer number of medications
- Some members got completely off of blood pressure medications.

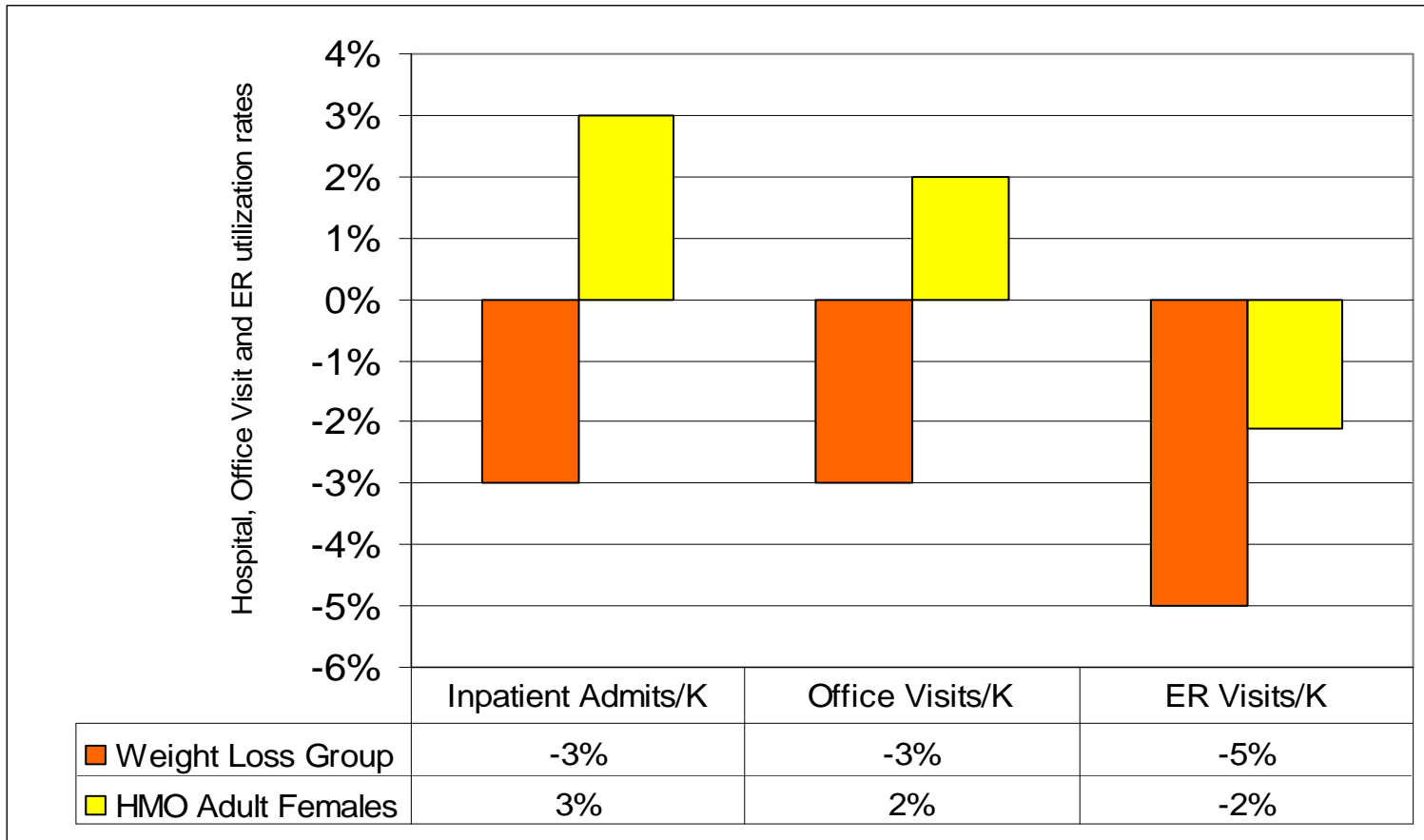
Clinical Results – Cholesterol Levels

- The improvement by group is fairly proportional to the level of weight loss.
- Participants with no weight loss showed minimal improvement.

| % of Members with a Total Cholesterol Level Less than 200 | | | |
|---|----------------|------------|----------|
| | Baseline Group | Post Group | % Change |
| No Weight Loss | 61% | 62% | 2% |
| 1 – 5% | 58% | 67% | 16% |
| 6 – 10% | 63% | 71% | 13% |
| 11 -15% | 55% | 66% | 21% |
| 16 -20% | 56% | 72% | 27% |
| Over 20% | 58% | 67% | 16% |

Note: Cohort group with lab results in both years (N = 2,473)

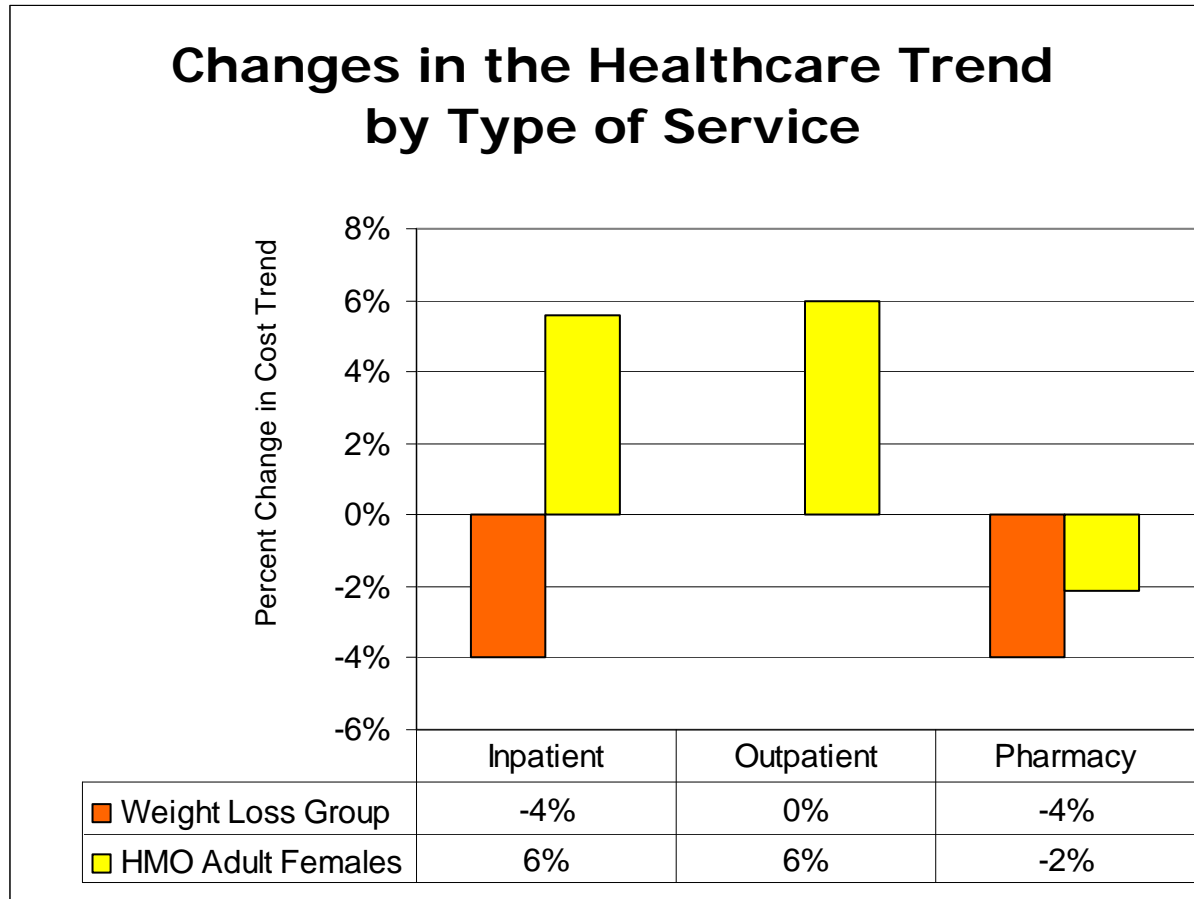
Changes in Utilization Patterns



Changes in Hospitalizations

- Significant declines in cardiovascular hospitalizations:
 - 42% decline for weight loss participants
 - 11% reduction for the HMO adult female group
- Weight loss is known to reduce joint pain and may prevent the need for joint replacements caused by degenerative joint disease:
 - Hospitalizations for muscular/skeletal diagnoses declined by 2%
- *We excluded childbirth claims* from our analysis, as weight management programs attract a significant group of new mothers.

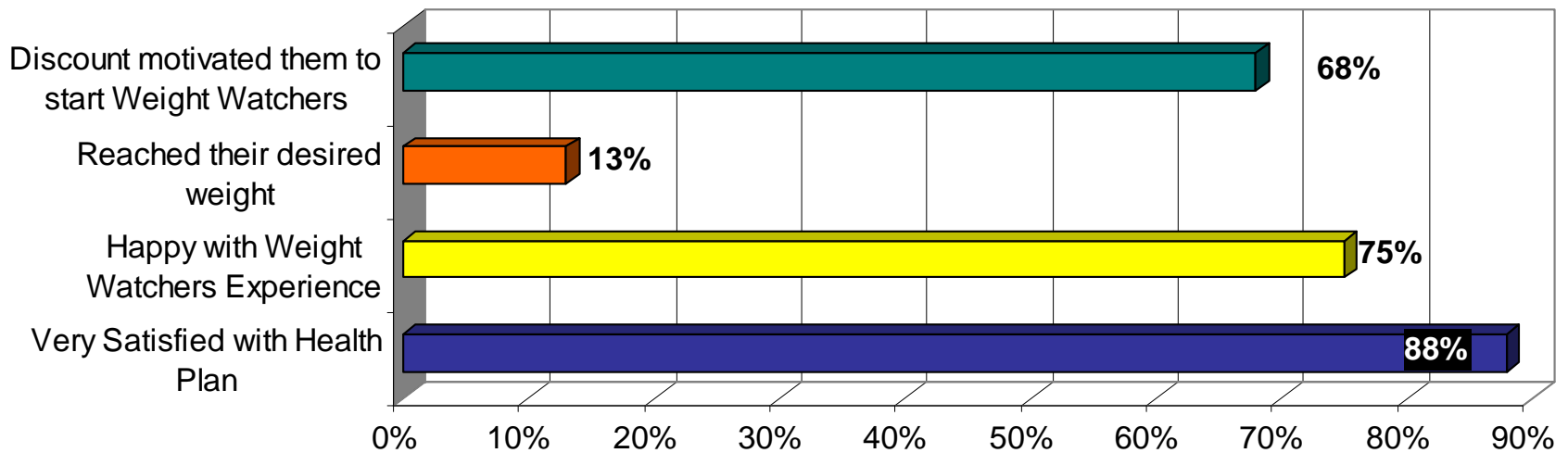
Changes in Trend by Service Type



Note: There is one confounding variable for pharmacy costs in 2007. A number of brand name drugs went generic producing an automatic savings.

Happy Members

Member Satisfaction Survey



HAP consistently ranks among top health plans in Michigan and the United States with high customer service ratings, clinical quality and administrative excellence.

Conclusions

- Our primary goal was to enhance the *health and well-being of the lives we touch*.
- Many favorable outcomes were obtained:
 - ❑ Improvements in HbA1C levels for diabetics
 - ❑ Improvements in Cholesterol for all members
 - ❑ Some reductions in blood pressure medication
 - ❑ Reductions in emergency room visits
 - ❑ Reductions in inpatient admissions
 - ❑ Happy members