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Disease Management at Anthem West

Or: what have we learned in trying to design these programs?

Lisa M. Latts, MD, MSPH
Regional Medical Director

May 12, 2003

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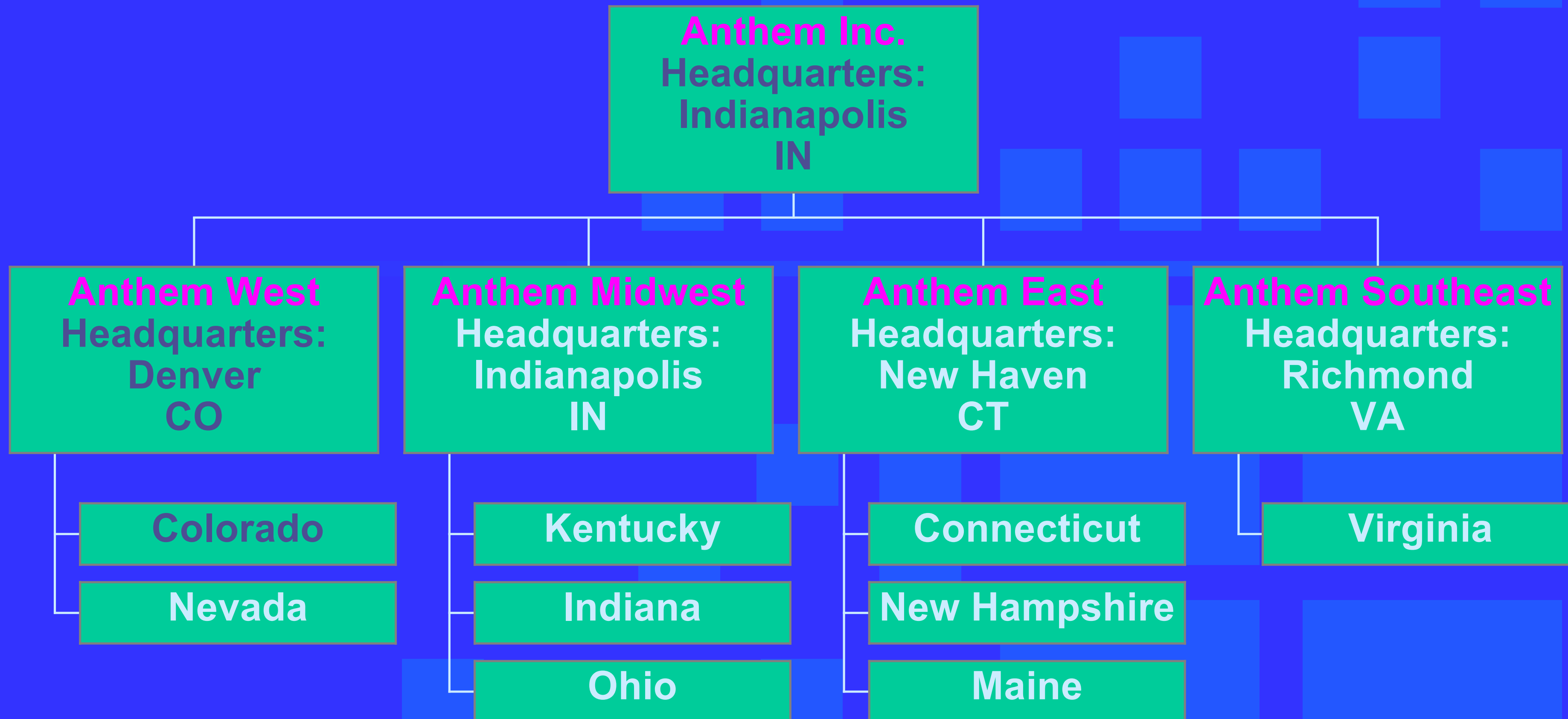

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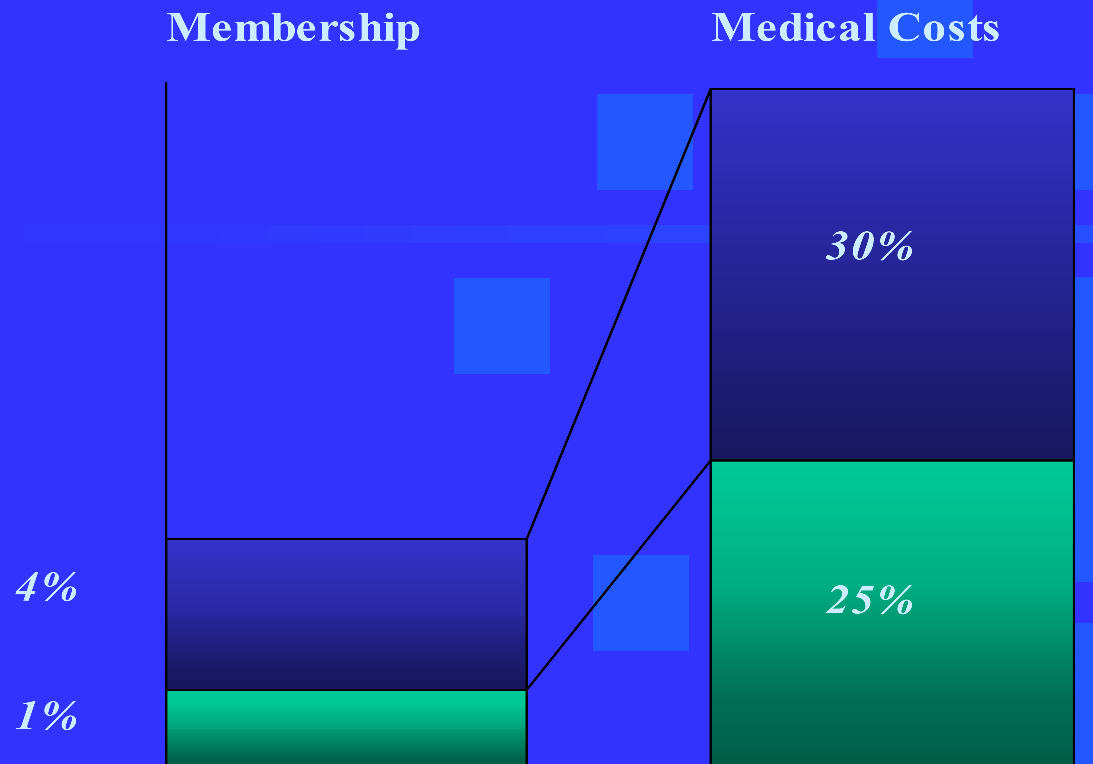
Health Plan Expenditures

Distribution of Medical Expenditures



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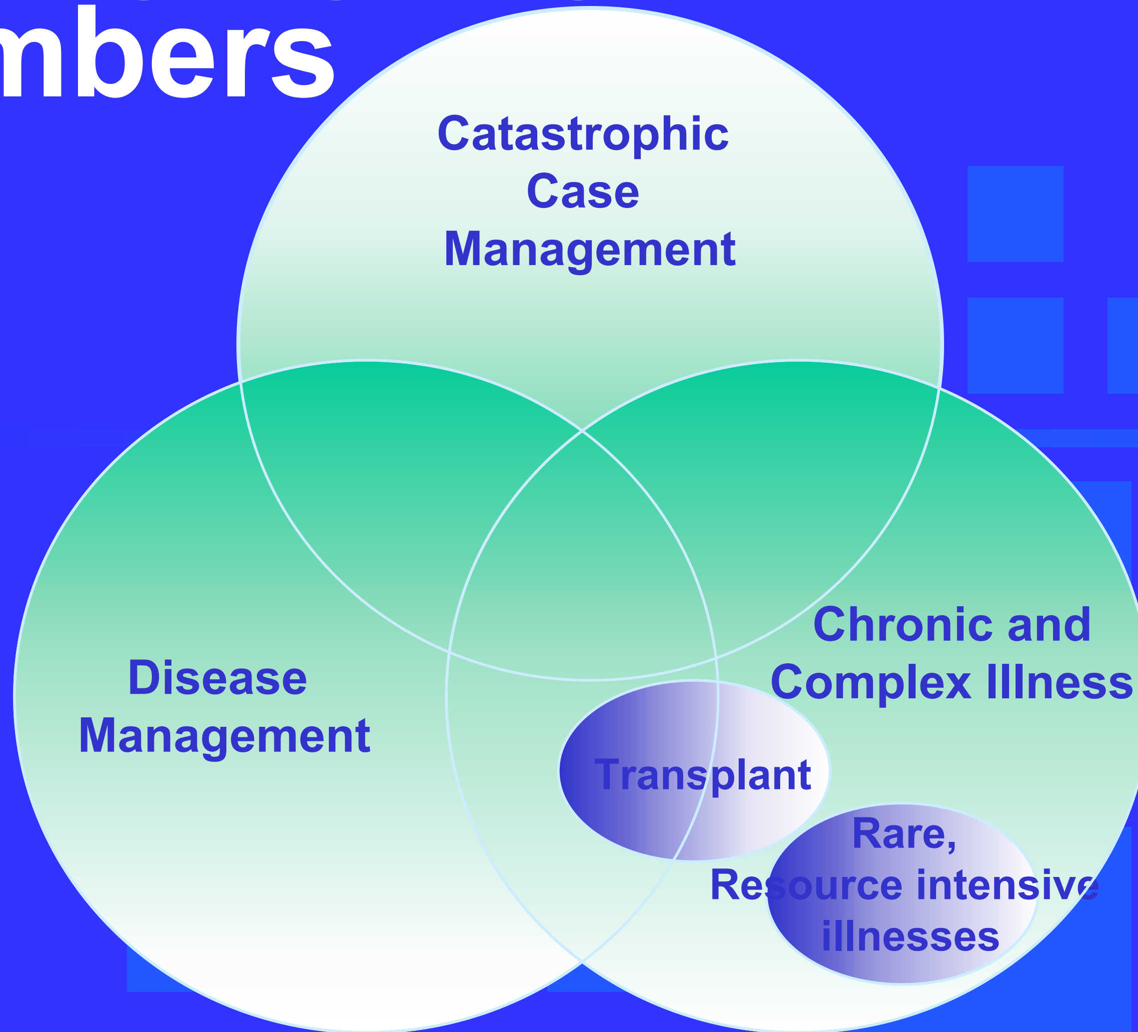
Managing High Cost Members



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Medical Management

Complexity and Investment (High / Low)

Member and Purchaser Value (High / Low)

Potential for Significant Cost Savings (Low → High)

Episode of care analysis

Advanced Care Management

Hospital Quality Program

Disease Management

Concurrent Review

Preventive Health Care

Referral Management

eHealth

Formulary Management

Pre-certification

Traditional Approach

Innovative Approach

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Disease Management in Managed Care

- Next generation of “Managed Care”
  - Disease Management for populations
  - Advanced Care Management for Individuals
- What kind of DM?
  - Analyze populations
    - Find out what your opportunities are
    - Diseases with high prevalence and medium to high cost, or maybe low prevalence and very high cost
    - Quality is lagging behind best practice

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Disease Management in Managed Care

- What makes a good disease for management?
  - Consensus on treatment recommendations
  - Course of disease is modifiable
  - Gap between best and current practice
  - Large populations can be cost-effectively managed
- Most common DM programs:
  - Diabetes, CHF/CAD, Asthma/COPD
  - Rare diseases, cancer, neonatal, ESRD

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Blue*Cares* for You Disease Management Programs

- Available to all Anthem West members as of 9/02
  - Diabetes
  - Coronary Artery Disease
  - Congestive Health Failure
  - End Stage Renal Disease (with sub-vendor)
- Goal: treat the WHOLE Person, rather than one specific disease with integrated programs
- Contracted through a vendor, HMC, now an Anthem sister company

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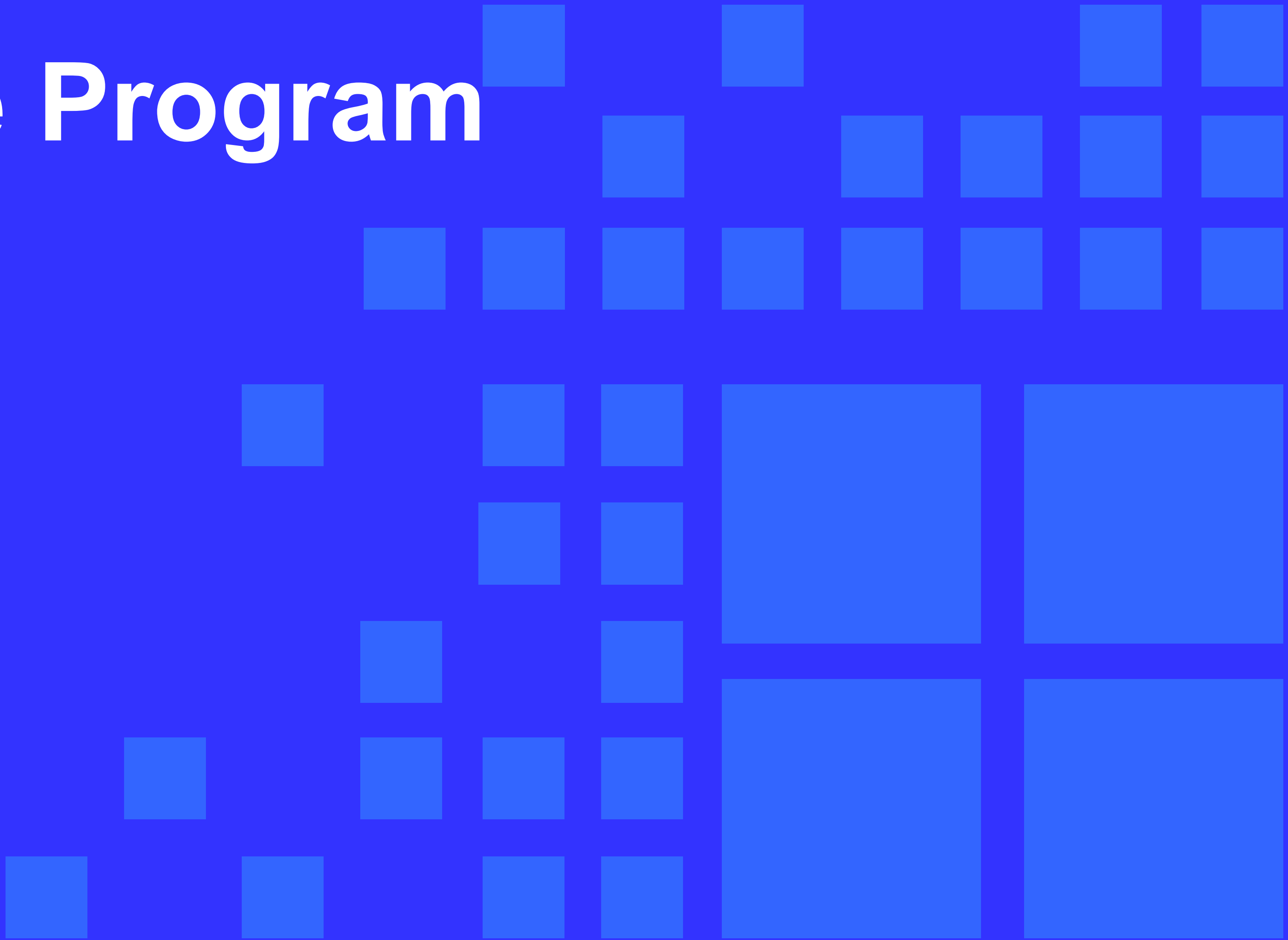
The Program



Blue*Cares* for You Program Highlights

- Offered to members at no additional charge
- Completely confidential and voluntary
- Delivered primarily through telephonic RN contact with the member
- Provides nurse access 24-hours, 7 days per week

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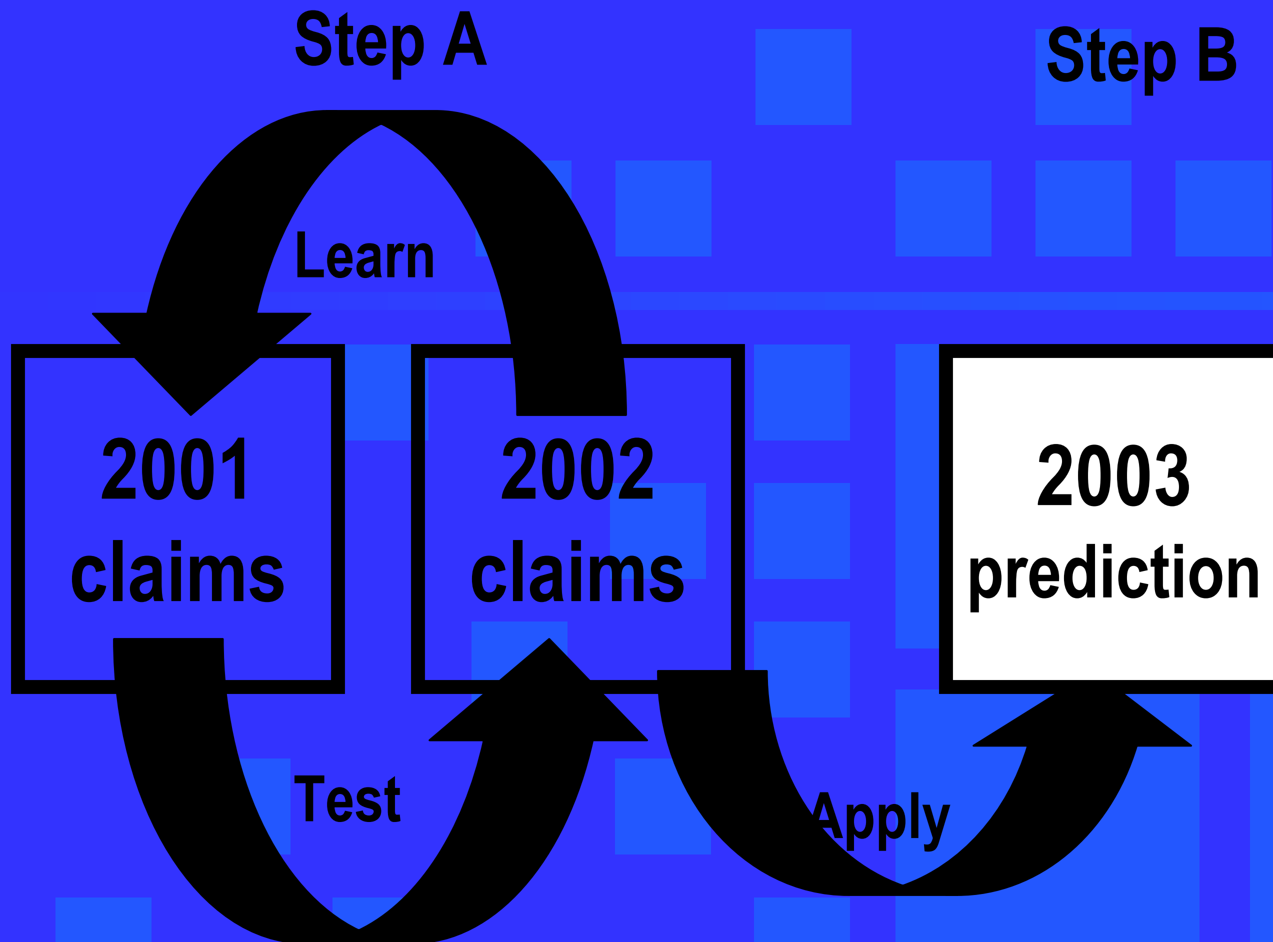
AccuStrat Predictive Model



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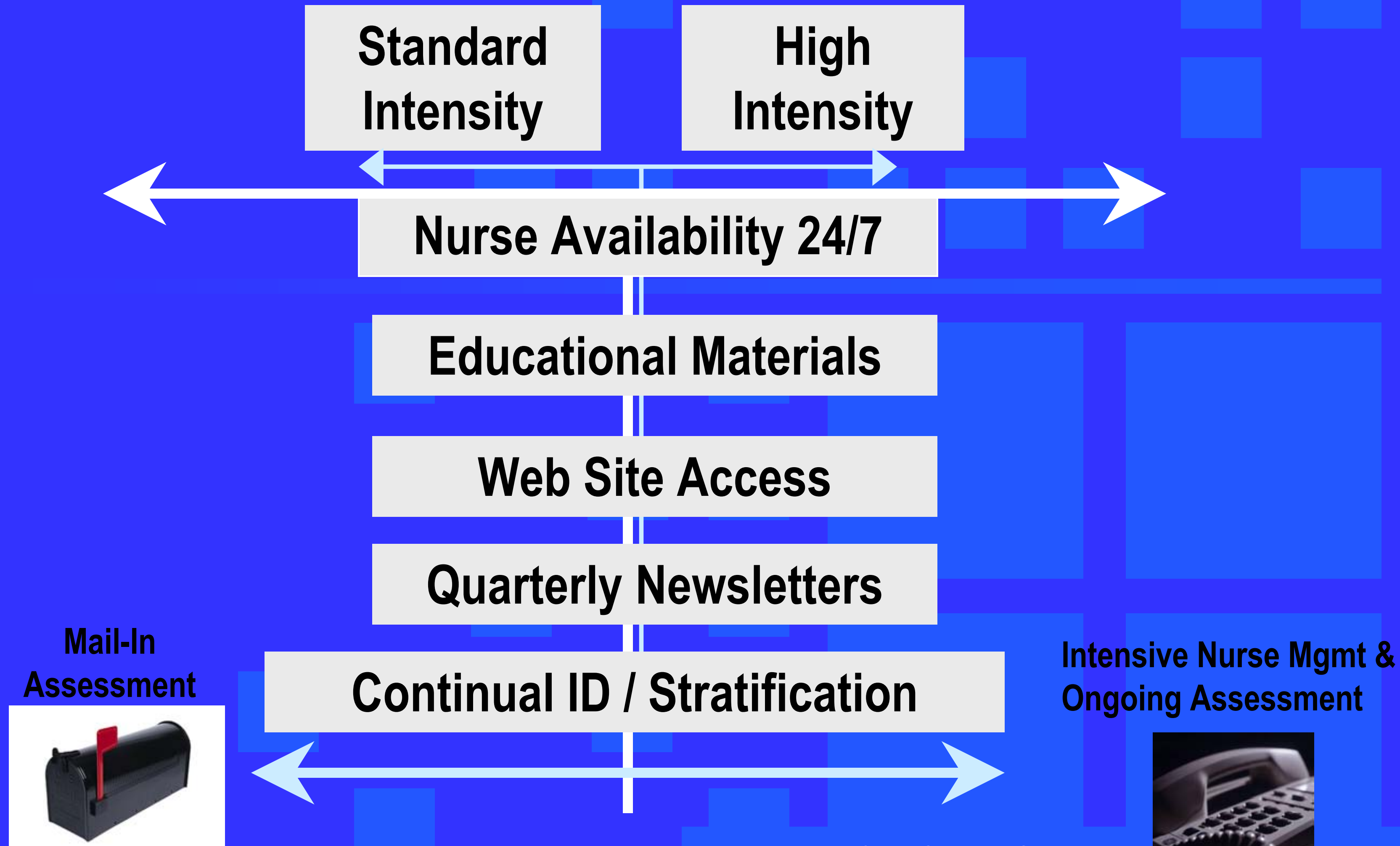
Patient Management



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How Do Members Enter the Program?

- Predictive Model utilizing claims data
- Medical Management (CM, UM) referrals
- Physician referrals
- Self-referral
- Authorization referrals

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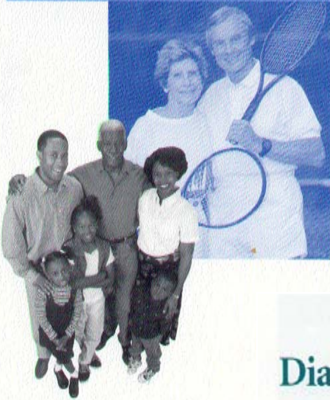
Patient Communications

Diabetes Care



TOPICS

1. What is Diabetes?
2. Types of Diabetes
3. Signs and Symptoms
4. Risk Factors
5. Medical Care
6. Self-Care
7. Other Health Problems Related to I
8. Diabetic Emergencies

This brochure is not meant to take the place of ex care or treatment. Follow your health care provid differs from what is given in this guide.

Diabetes Care Diary

To speak to a nurse
24-hours a day call
1-800-551-6923

- Broad-based communications
- Frequent delivery
- Content to impact outcomes
- Address co-morbids
- Prevention-focused

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Intervention Plan

- Starts with thorough patient assessment
- Integrates the physician's plan of care
- Incorporates all dimensions of participant condition
- Focuses on participant barriers to adherence
- Establishes participant goals
- Targets interventions to achieve outcomes

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Physician Communication

- Physician notified of member's participation in the program
- Nurses will work with the physician to promote and reinforce plan of care
- Program is a coordinated effort between physician and program Care Manager

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Actionable Information for the Physician

- Physician Communication Tool
- Quarterly Actionable Reports
- Exception Reports
- Urgent Fax and Phone Alerts

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Benefits to Physician

- Reinforces physician plan of care and improves compliance
- Provides additional resource for physicians and their patients
- Results in improved patient health outcomes

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The Finances

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Financial Models

- Payment of vendors vary from 0 risk to 100%+
  - Case rate
  - PPPM rate
  - PMPM rate
  - Gain share
- Generally the higher the risk, the higher the cost
- Financial and quality targets
- Align incentives between plan and vendor

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Financial Analysis

- If no risk, internal ROI analysis
- If any risk, vendor/plan reconciliation
  - How to compare baseline and intervention group?
  - Claims: what's in/what's out
  - How to adjust for rising health care costs
  - Adjust for any changes in benefits/population etc.
- Best advice: KISS!

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Analyzing the Results

Defining a Return on Investment

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ROI Methodology

- Study Population
- Data Sources
- Timeframe of study
- Use of control/comparison group
- Program savings (outcomes)
- Program costs
- ROI calculation

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Study Population

- **Identification of intervention group**
  - All members with a condition (population-based)
  - Members who meet specific criteria (high cost)
- **Program enrollment process**
  - Voluntary / Recruitment / MD Referral
- **ROI Study population:**
  - All members or continuously enrolled
  - All participants or with minimum level intervention

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Study Population- CHF Example

- **Identification of intervention group:**
  - Members who had been hospitalized or referred by MD (chart review confirmed diagnosis)
- **Program enrollment process:**
  - Voluntary
- **ROI study population:**
  - Only program participants

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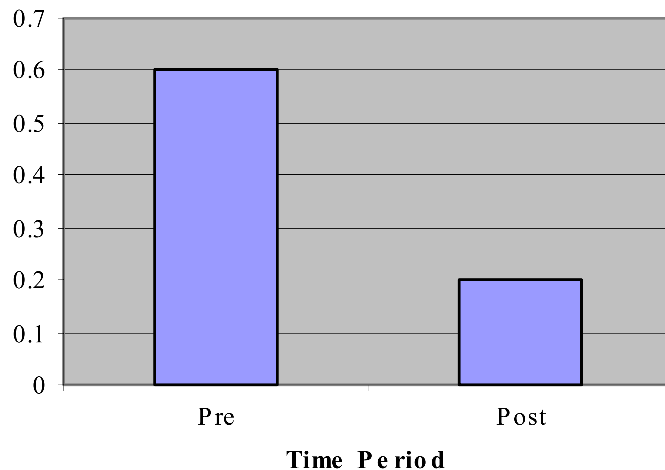
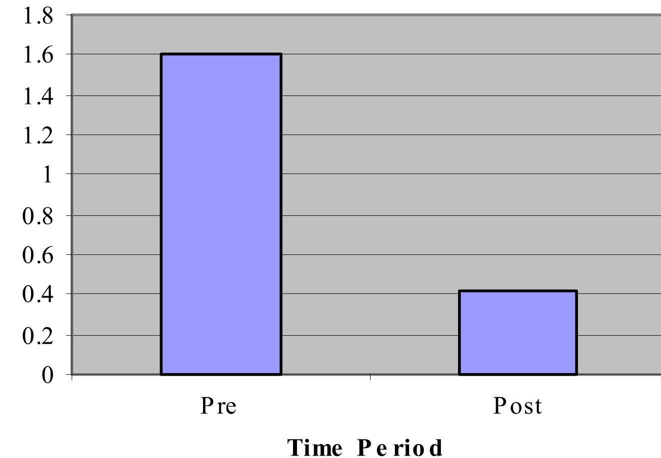
Study Population - CHF Example

Changes in ED and Hospital Utilization





Regression to the Mean

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Study Population - Exclusions

- Member may not benefit by DM program
  - examples: Alzheimer's, psychiatric, substance abuse
- Member has another condition that drives treatment
  - examples: HIV/AIDS, transplants, cancer, dialysis
- Member is a very high cost patient
  - examples: spending over 3 SD from mean, residential treatment, death)

*** May conduct analyses with and without such members.**

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Data Sources

- Claims / encounter data
- Self- reported data
- Medical record review data

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Timeframe of Study

- Example: Pre/Post Study Design
  - The baseline period: number of years?
  - The intervention/program period: number of months/years?
    - Enrollment process
    - Program intervention
    - Program influence utilization/spending
  - When does the clock start ticking for an enrolled member
    - With the defining event? After the event?
    - Calendar Year?

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Timeframe – Other Questions

- When to extract medical claims/encounter data (claims run out/ IBNR factors) ?
- Adjust for inflation? By service?
- How do you want to handle changes that occur during the study time periods?
  - ex: claims system/ programs/provider/population)

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Timeframe - Example Maternity

- January 2000 - Program start /enroll
- October 2000 - Participants start deliveries
- April 2001 - Minimum number of members deliver (expected LBW)
- August 2001 - Extract claims data (4 month run out -think NICU ??)

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Use of a Control or Comparison Group

- **Control group**
  - Randomize enrollment
    - (at the patient level or MD level)
  - Different geographic region
- **Comparison group:**
  - Projection of baseline rates
  - Trends of entire plan population without intervention group
- **Data for persons who chose not to enroll ???**

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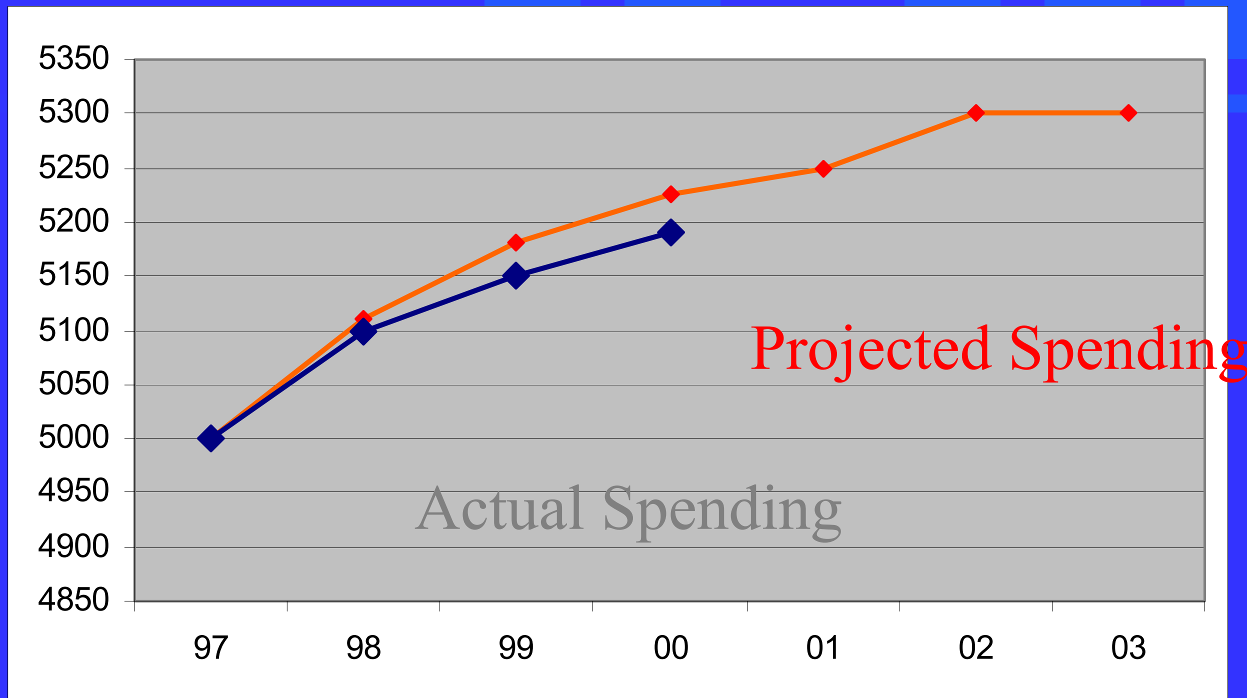
Comparison – Project Baseline Rate

Interventions implemented over 3 yr period.

How to project spending from baseline?



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Baseline and Program Period Costs for Intervention and Comparison Group

Compare:

$$\frac{(\text{Baseline Costs} - \text{Program Costs})_{\text{Intervention}}}{(\text{Baseline Costs} - \text{Program Costs})_{\text{Comparison}}}$$

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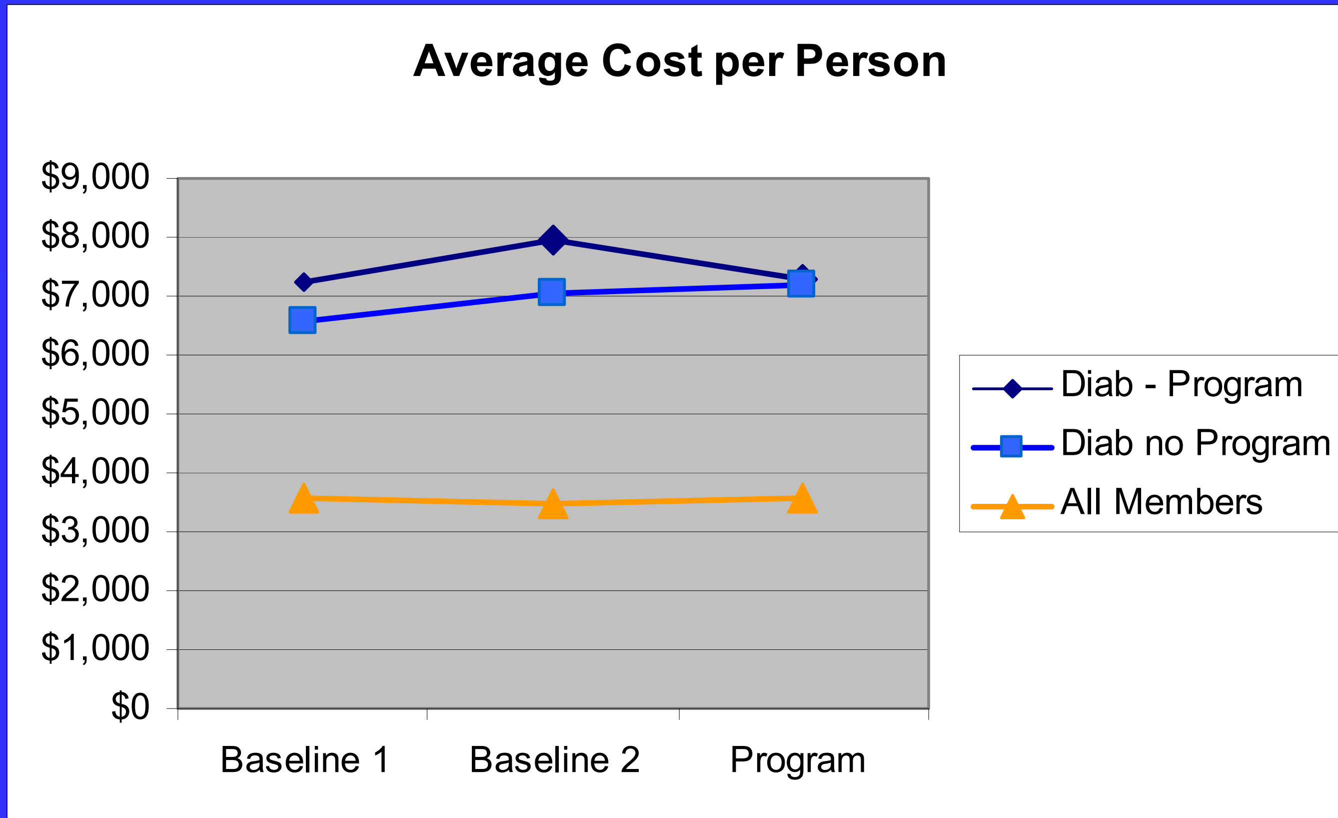
Comparison: Non-Respondents



Be Careful!!!

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For Program Participants:

$$\frac{\text{Projected Baseline} - \text{Program}}{\text{Projected Baseline}} = -17\ \%$$

For Non Participants:

$$\frac{\text{Projected Baseline} - \text{Program}}{\text{Projected Baseline}} = +3\ \%$$

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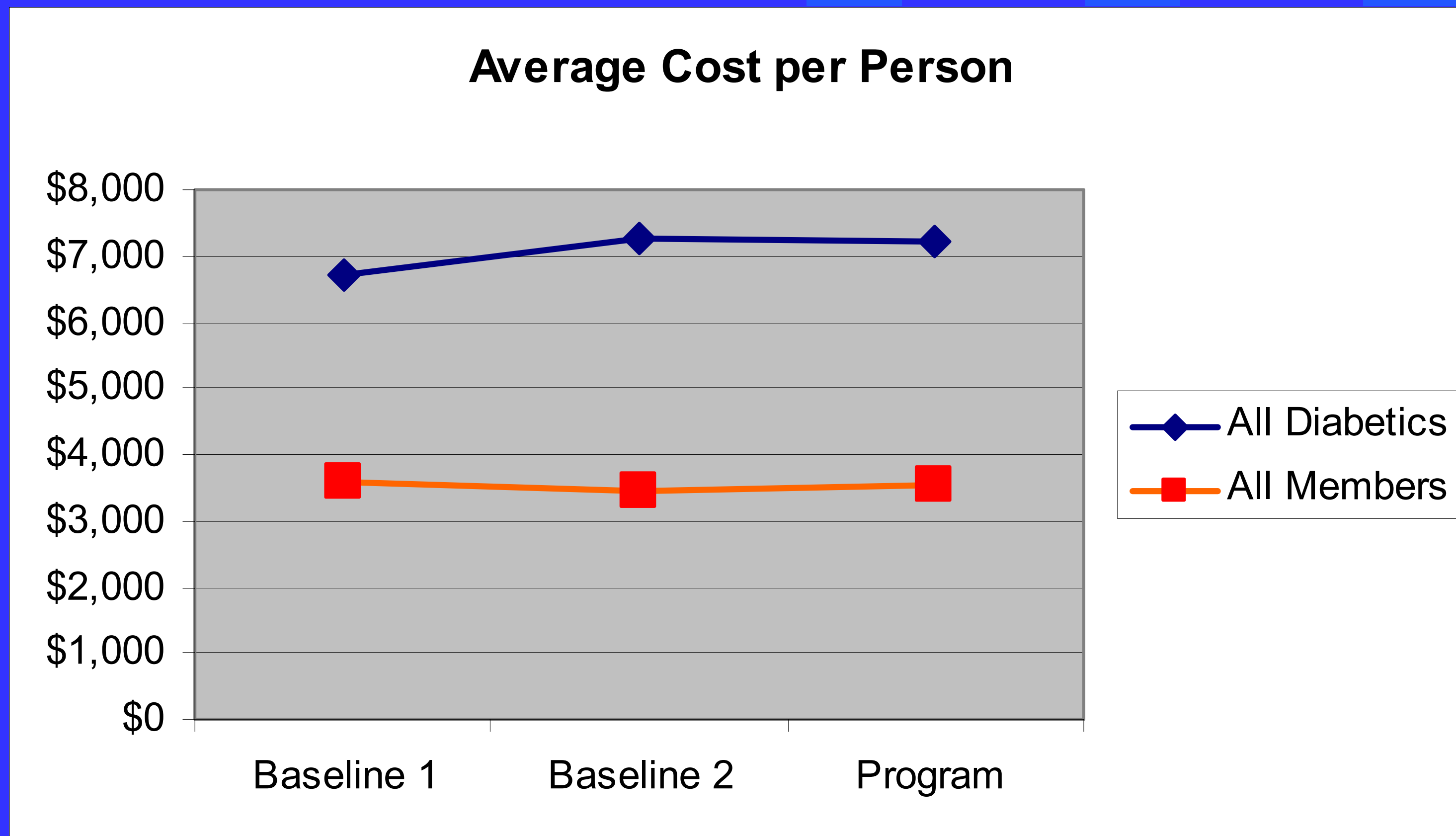
Comparison: All Diabetics to All Members

- Diabetes Study 3



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Use of Control/Comparison Group

- How comparable is intervention/comparison group?
- Who are the participants?
- Who are the non-participants? Are they ALL the same?
- How do you project spending over time of each group?

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Use of Control/Comparison Group

- How comparable is the intervention/ comparison group?
  - Total spending
  - Distribution of Hospital admits, ED, MD visits
  - Lab tests
  - Readiness/Willingness to change

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Program Savings

- Health Plan Perspective :
  - Direct - Medical spending
  - Indirect - NCQA, marketing, satisfaction
- Employer Perspective :
  - Direct - Medical spending
  - Direct - Sick leave
  - Direct - Productivity (measurement ?)
  - Indirect - Employee retention, marketing, satisfaction

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Program Savings: How to Strengthen Findings

- Are savings from the expected services?
- Is there a dose-response effect
  - Larger savings if "more" program
- Was there a difference in any specific groups?
  - Did people with the greatest change in clinical metrics have greatest change in care usage?

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Program Savings - Adjustments

- Inflation
  - CPI, Health indicators, non-diseased rate
- Contracting changes (capitation changes)
- Other program changes at heath plan
- Non-health plan changes
  - (legislation, regional changes)

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Program Costs

- **Actual program costs**
  - mailings, education, actual services, equipment (internal or vendor)
- **Administrative costs:**
  - IT costs (example : member identification)
  - Project administration
  - Coordination with other activities (authorizations, providers, etc.)
  - Vendor oversight

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ROI Calculation

- Determine program savings
  - Intervention year - Baseline (adj) year
- Program Savings/Program Costs
- Estimate marginal effect of additional program components
- Compare findings to other alternatives at plan

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ROI Calculation

ROI caculation for pre/post study with 12-month baseline and 12-month program period		
	Baseline year 2000	Program year 2001
PMPM spending (actual)	350	330
PMPM spending (in 2001 dollars)	392	330
Program savings per member month (PMPMs=PMPMb-PMPMp)		62
Total program savings (PMPMs*number member months)		$186,000
Total program spending		$160,000
ROI		16.3%

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Non-Financial Outcomes

1. Behavioral changes
2. Changes in use of services/medicines/tests
3. Changes in health status:
   - lab values, self-reported, quality-of-life: general (SF 12), disease-specific (asthma), mixed
4. Participant and provider satisfaction

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Impact on Outcomes

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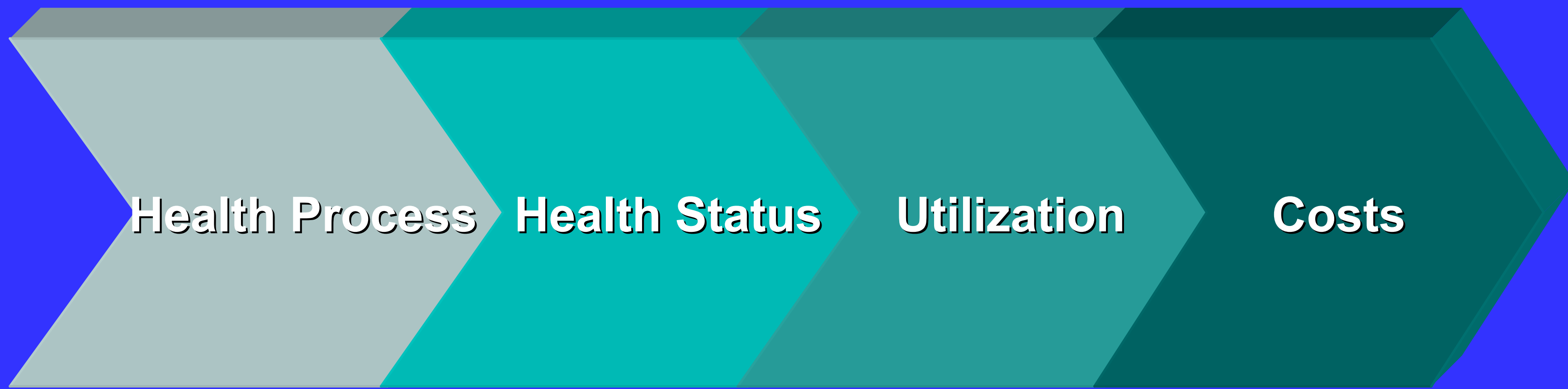
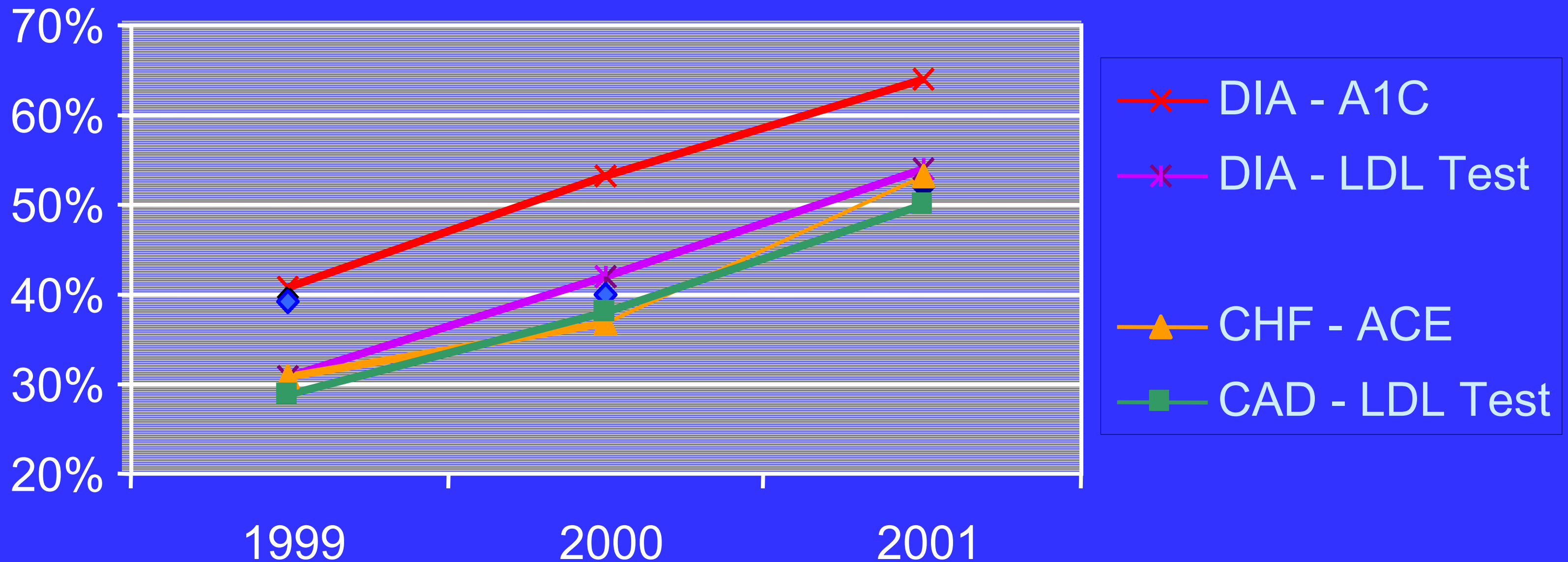
Measuring Results



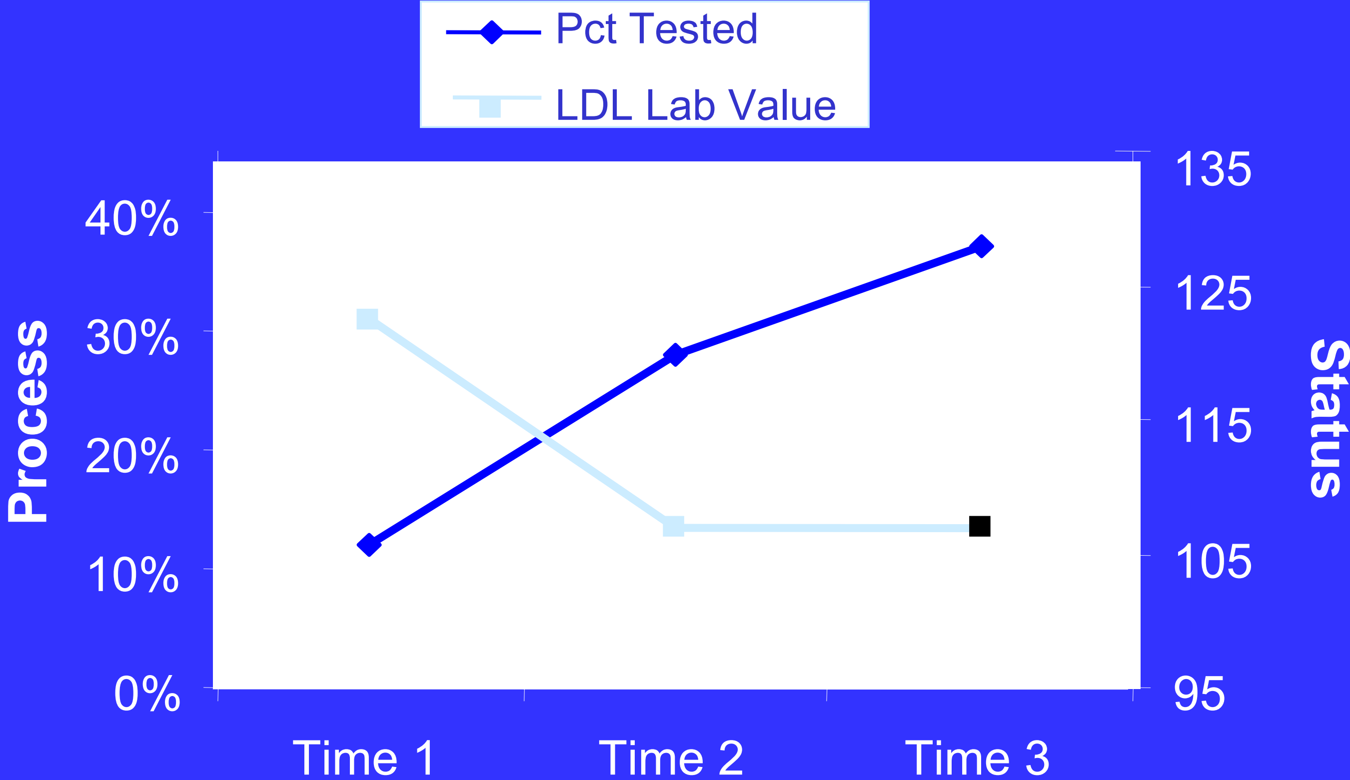
Health Process Improvements Commercial Population



Source: Client Study 100222

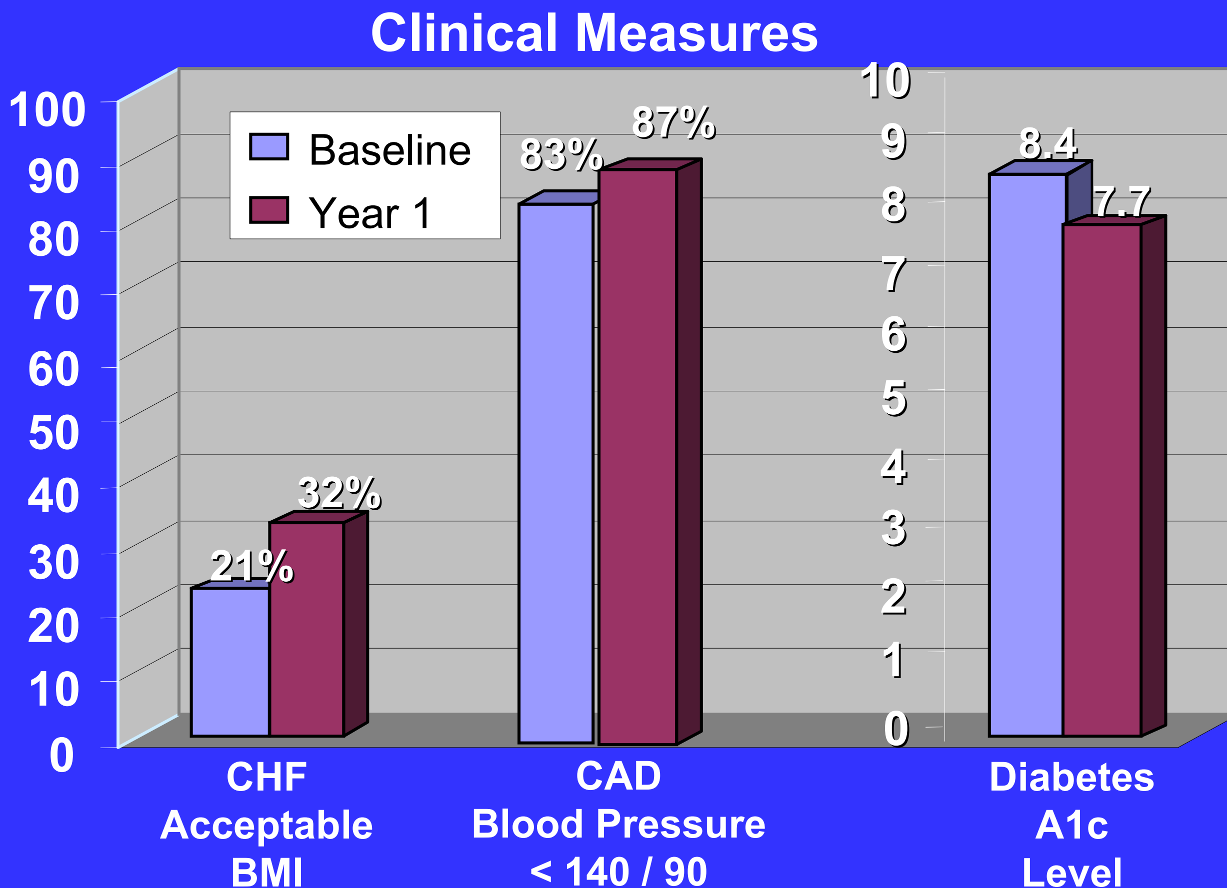
Health Status Improvements

LDL test rates and lab values improved



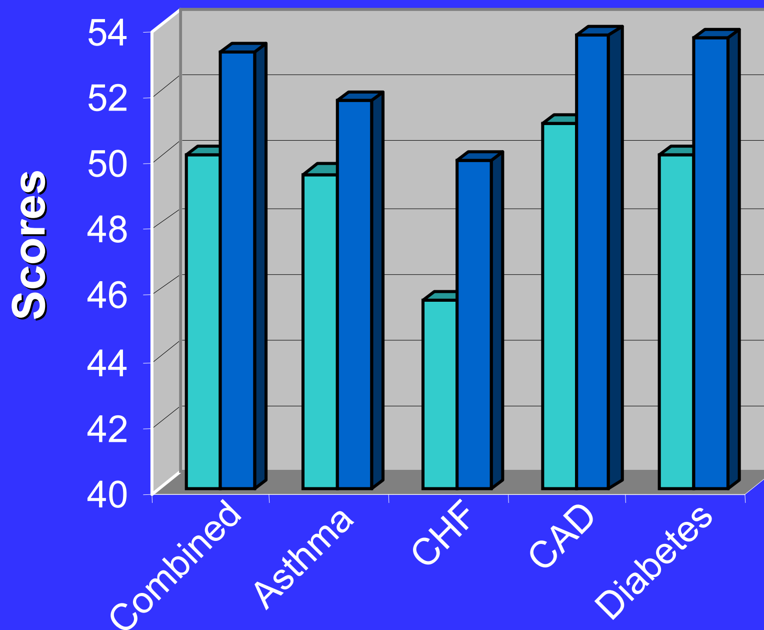
Source: Client Study 100222

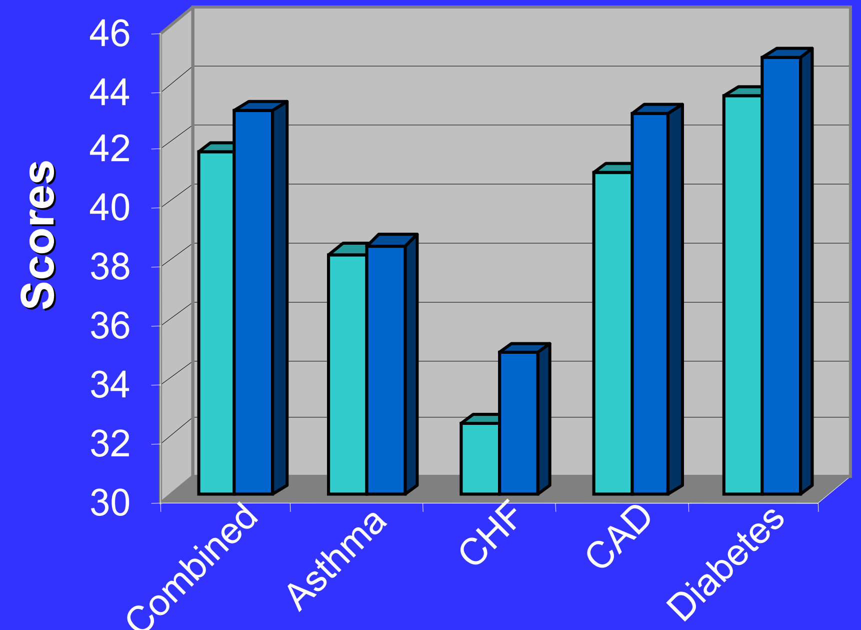
Health Status Improvements Commercial Population



Source: Client Study 100222

Health Status Improvements

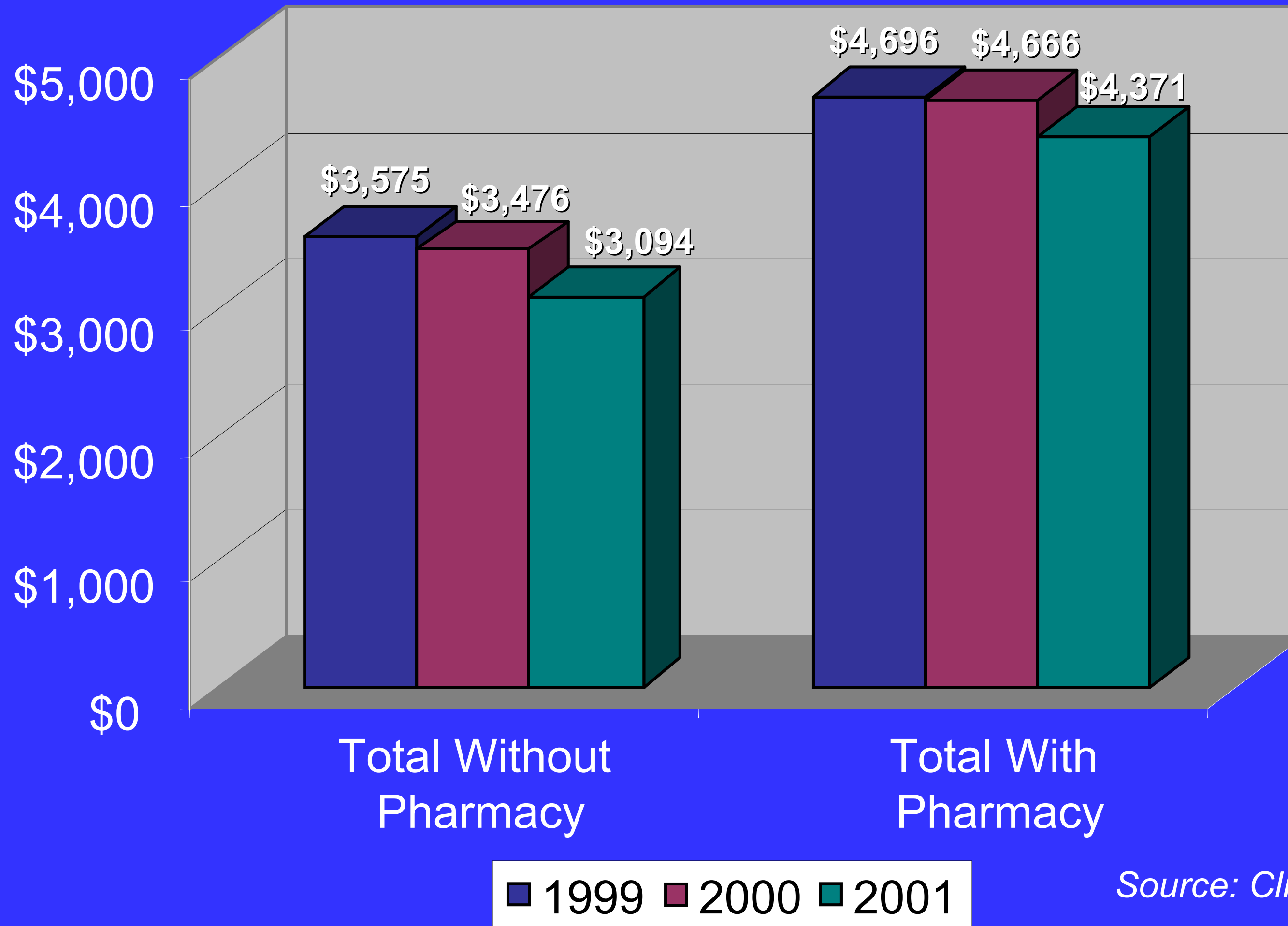




Baseline 1 Year

Source: Client Study 010214

Total Expense Per CAD Member



Source: Client Study 100222

Industry Leading Outcomes HMC Control Group Study

Industry's First PPO Control Group Study

Methodology:

- Blue Cross ASO groups with DM vs. without DM
- Rigorous design – team of actuaries and statisticians

Results:

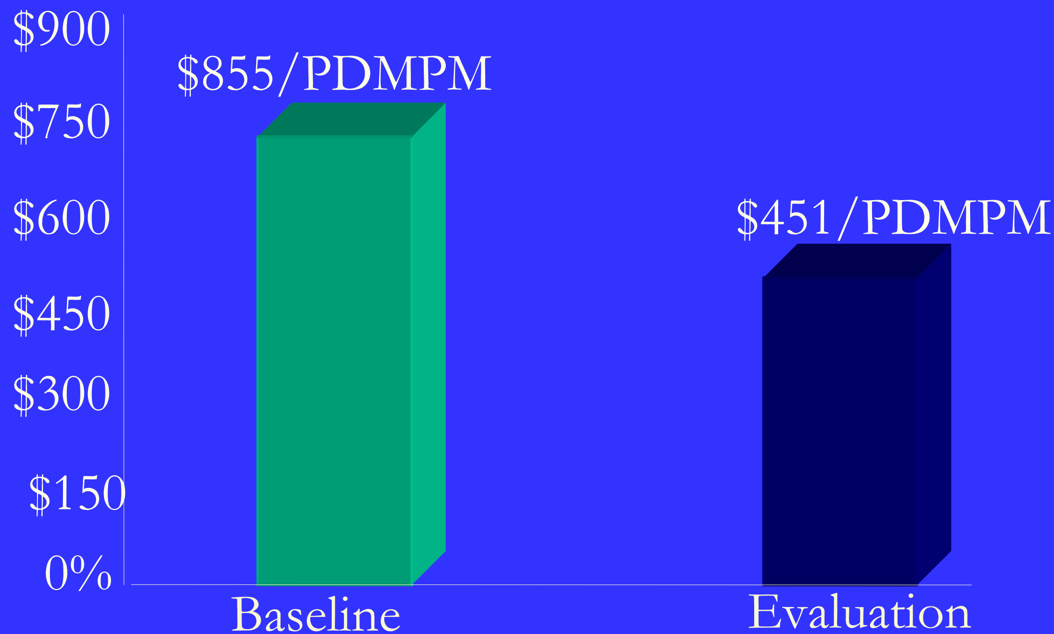
- Gross Savings of 11%
- Net Savings of $0.94 PMPM
- ROI of $2.84 : $1.00

Source: Client Study 090201

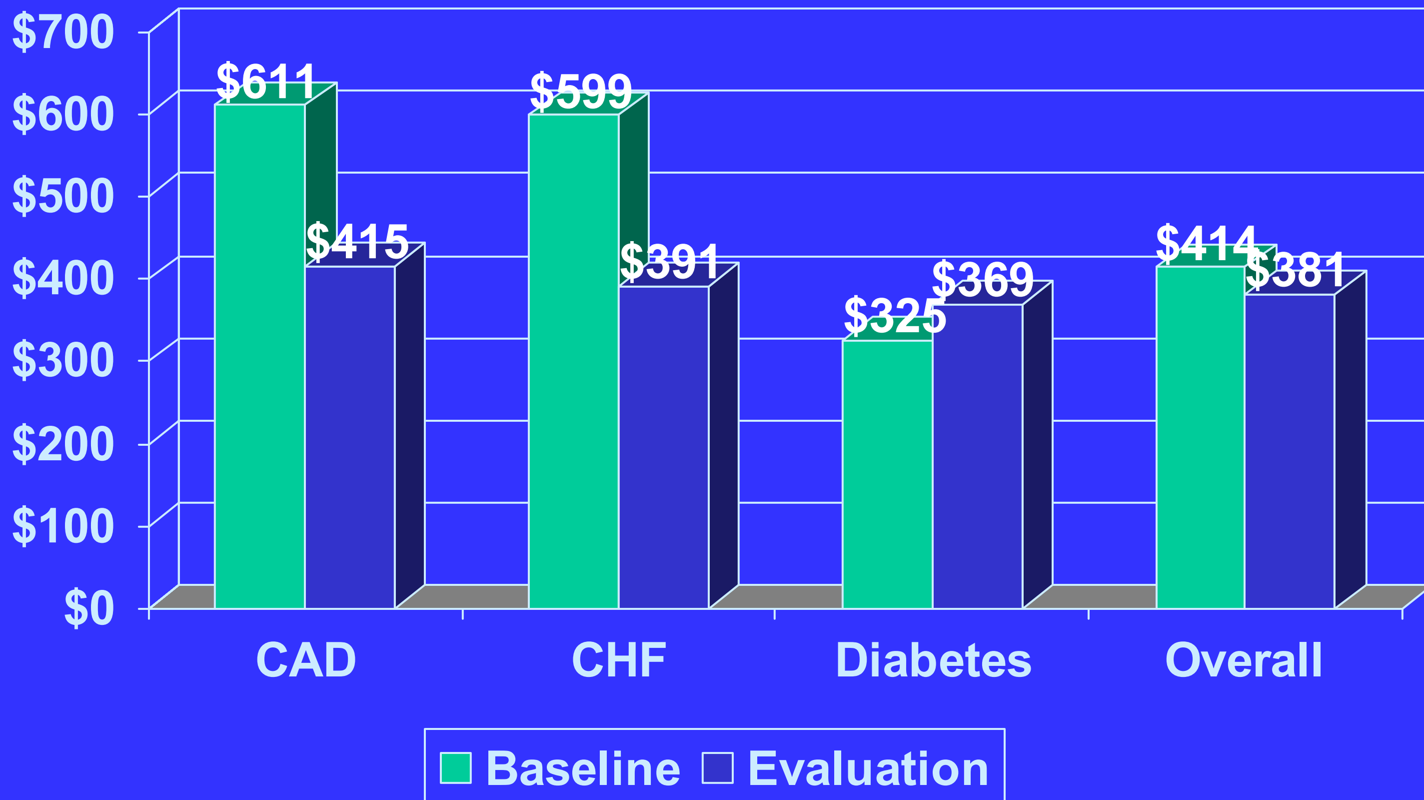
Identified Member Health Care Expense

Total Expense per CAD Member

Identified Member Health Care Expense

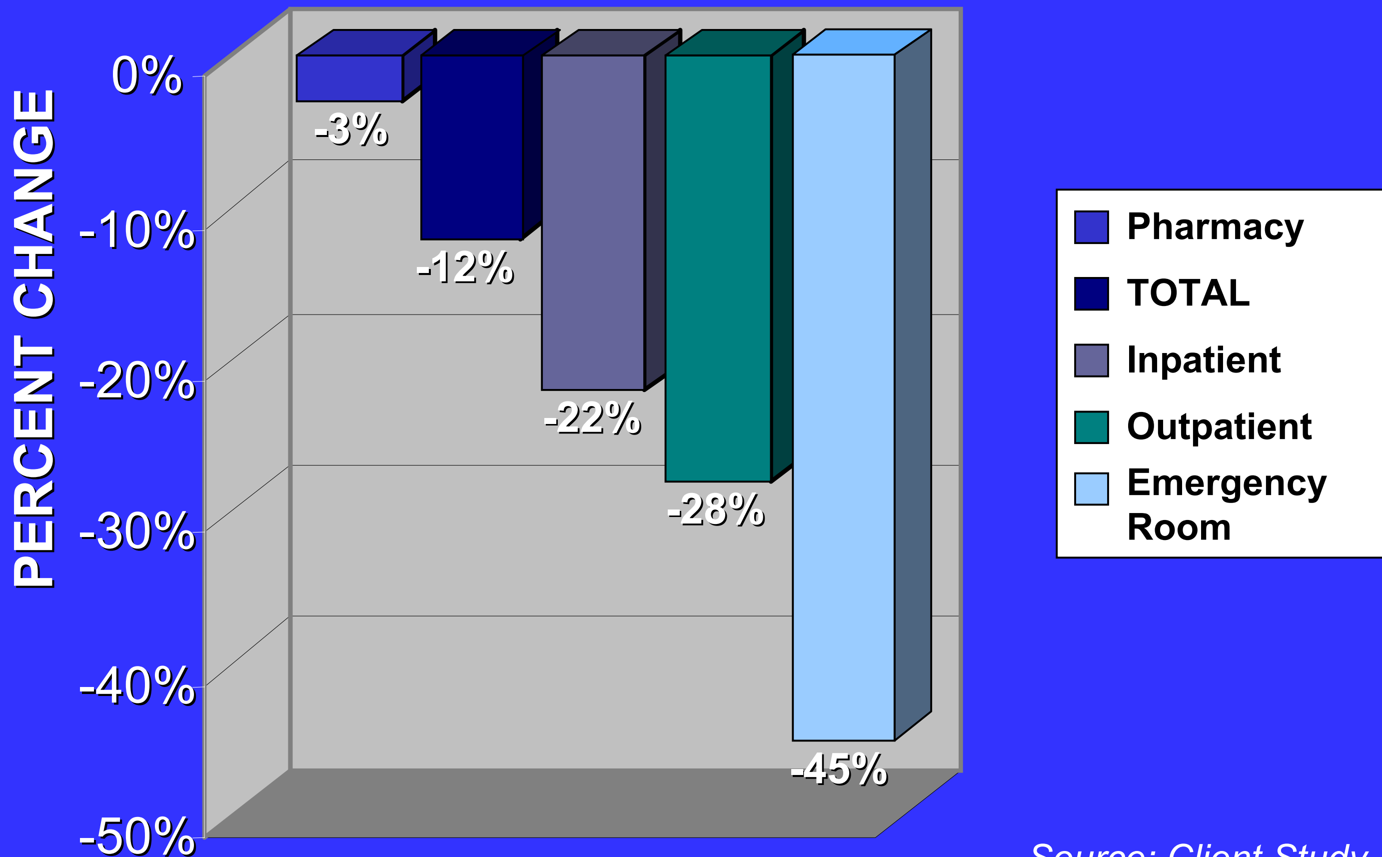


Total PDMPM Expense



Source: Employer Group Annual Report

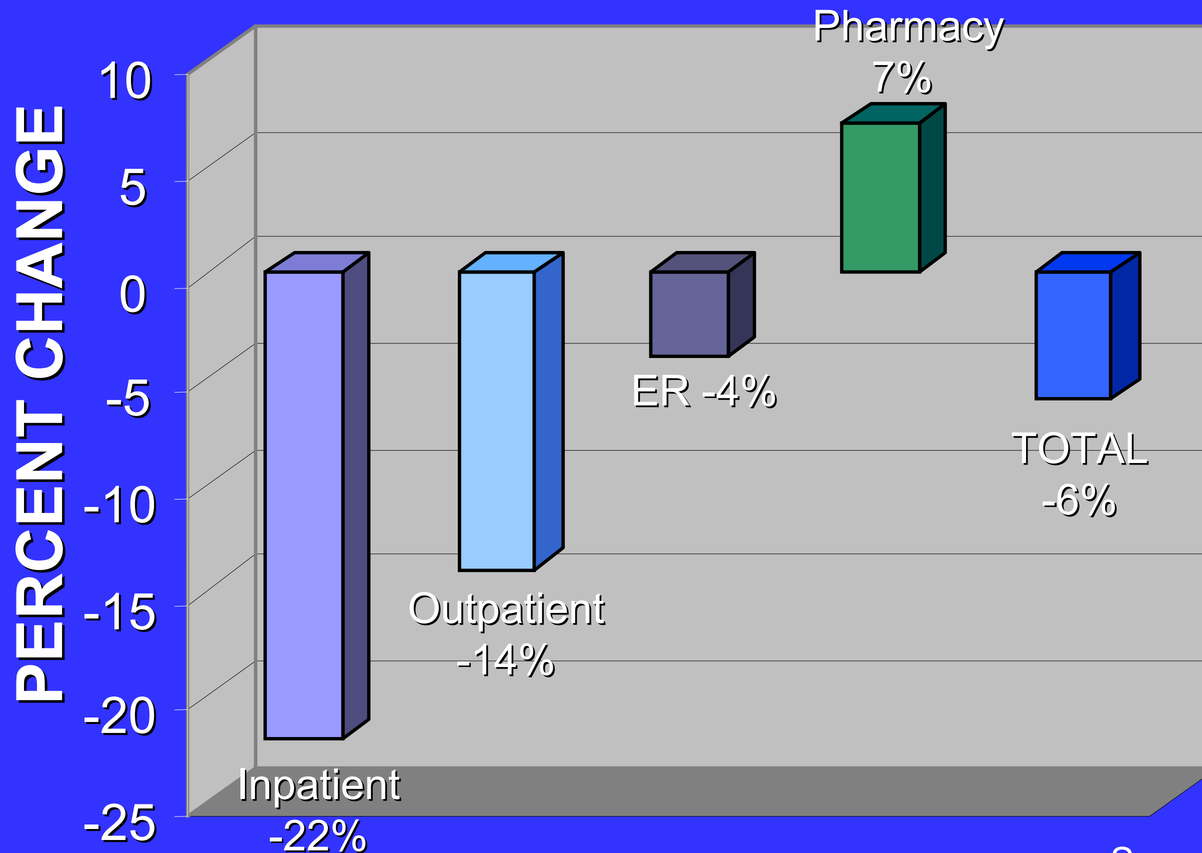
Utilization Changes for Diabetes Commercial HMO 2001 vs. 2000



Source: Client Study 100222

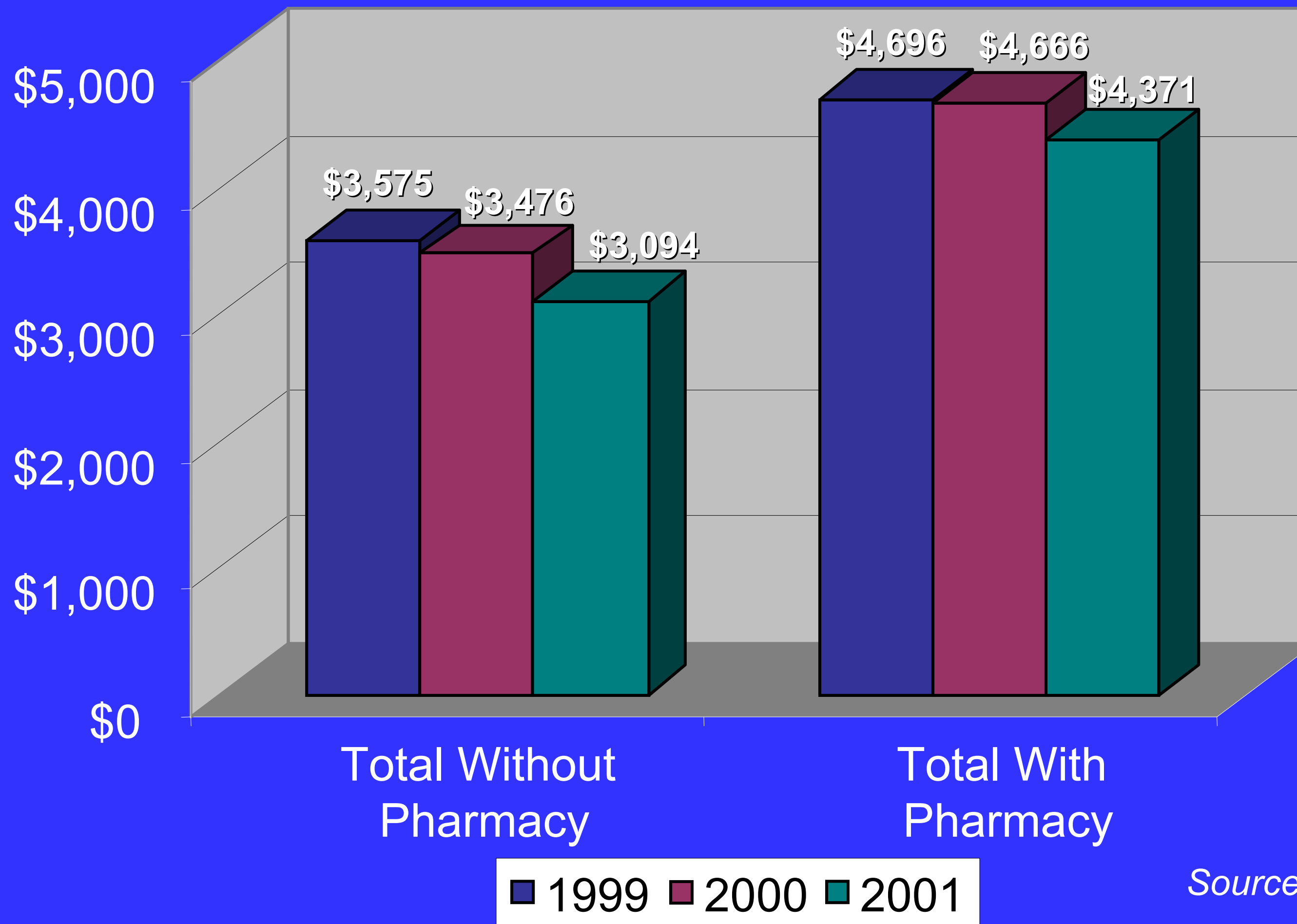
Utilization Changes for CAD Commercial HMO

2001 vs. 2000



Source: Client Study 100222

Total Expense Per CAD Member



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