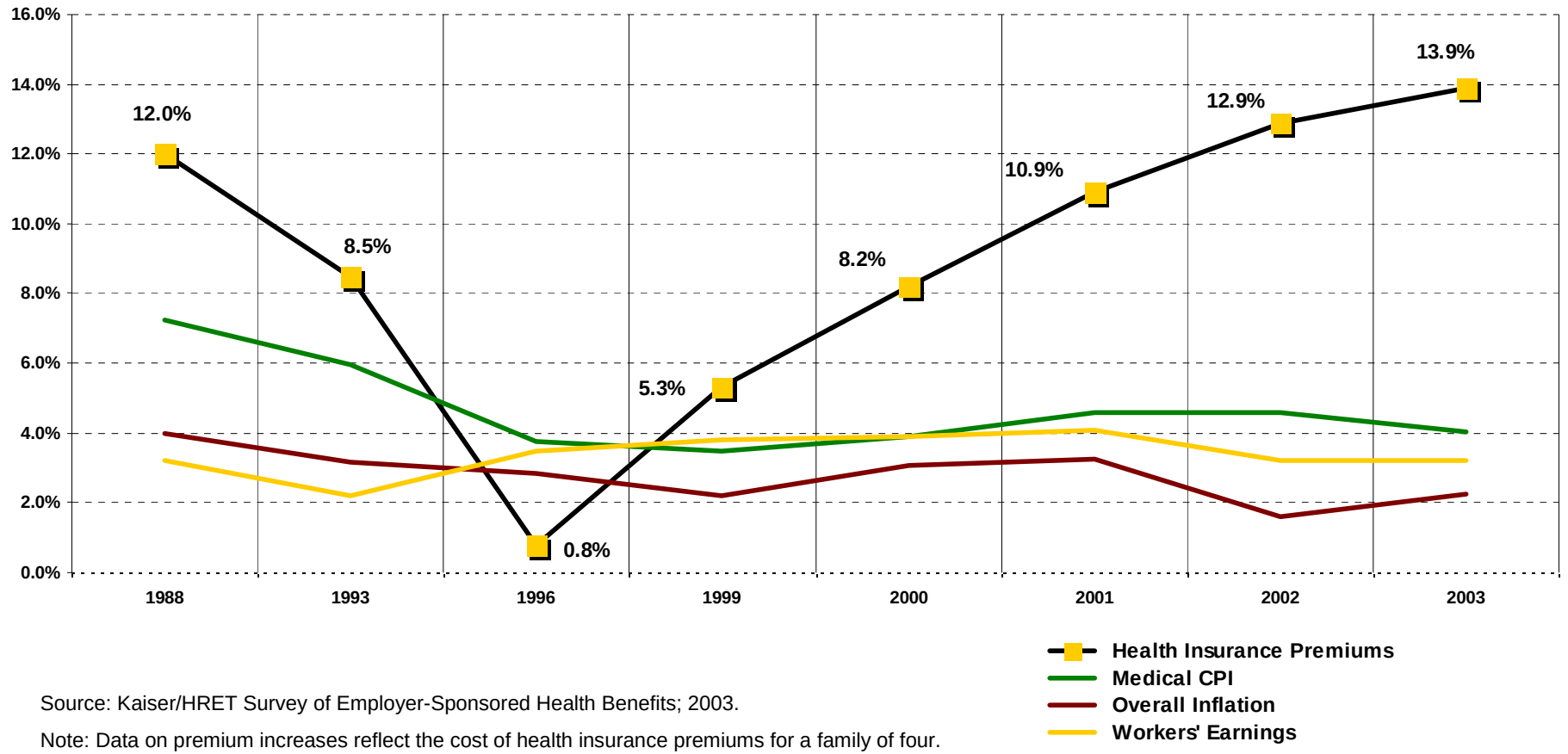
THOMSON MEDSTAT

AMA National Summit on Obesity

Costs of Obesity and Communications Implications for the U.S. Healthcare System

Louis H. Diamond, MD
Kreg Sherbine
October 20, 2004

Rising Health Costs Are Serious Issue For Employers



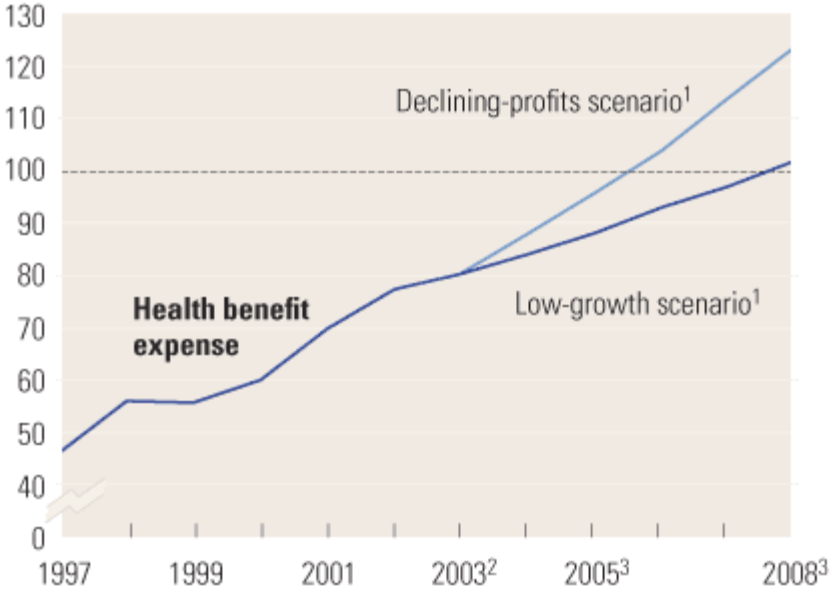
Source: Kaiser/HRET Survey of Employer-Sponsored Health Benefits; 2003.

Note: Data on premium increases reflect the cost of health insurance premiums for a family of four.

THOMSON MEDSTAT

Significantly Impacting Profitability

Health Benefit Expense as % of Corporate After-Tax Profits



[1]Declining-profits scenario assumes 2% annual decline in profits; low-growth scenario assumes 2% annual growth in profits; both scenarios assume 7% annual growth in health benefit expense.
[2]Estimated.
[3]Forecast.

Source: US Bureau of Economic Analysis; US Bureau of Labor Statistics; CMS; McKinsey analysis

"By the year 2008, the average Fortune 500 company may be spending as much on health benefits as it earns in profits."

- McKinsey

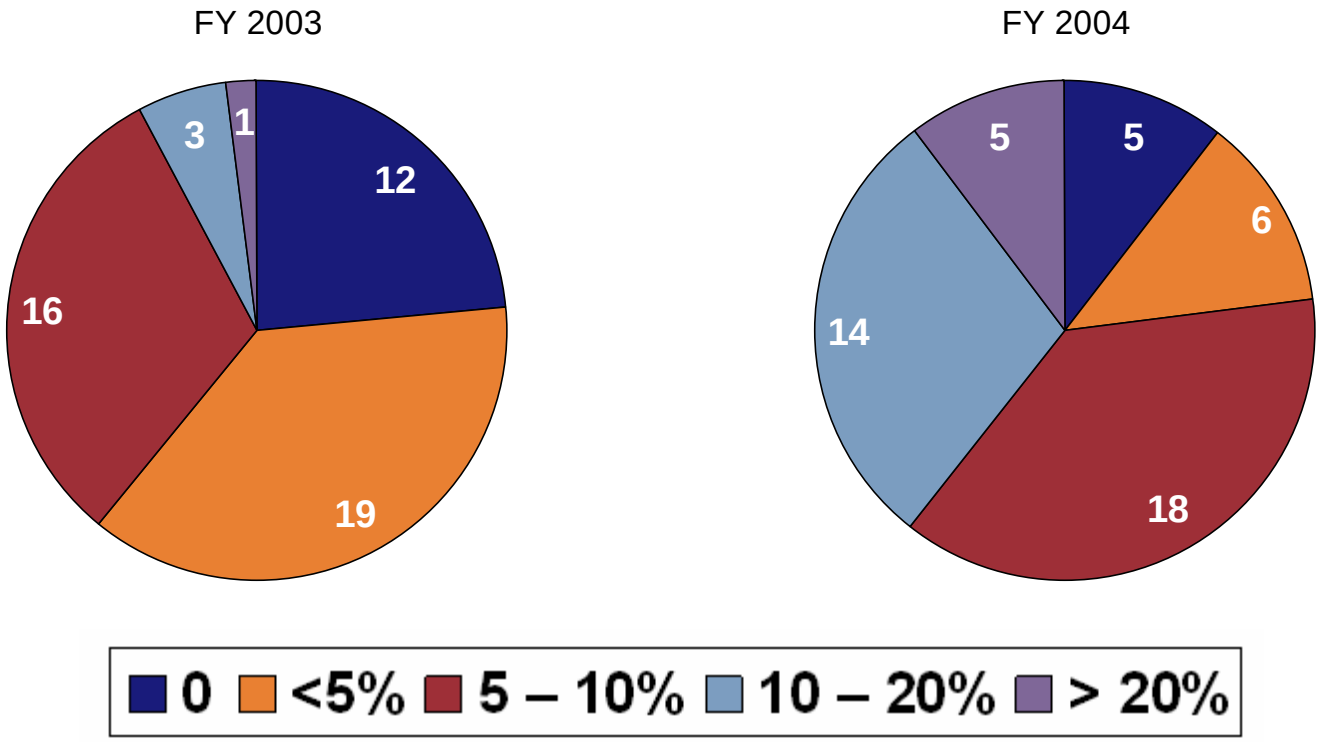
"May 3, 2004 – General Motors spent $4.5 billion on care for its 1.2 million U.S. employees and retirees last year. That's more than the car giant made in profits."

- Time Magazine

Rising Medicaid Costs Contribute to State Fiscal Crises

State Budget Gaps

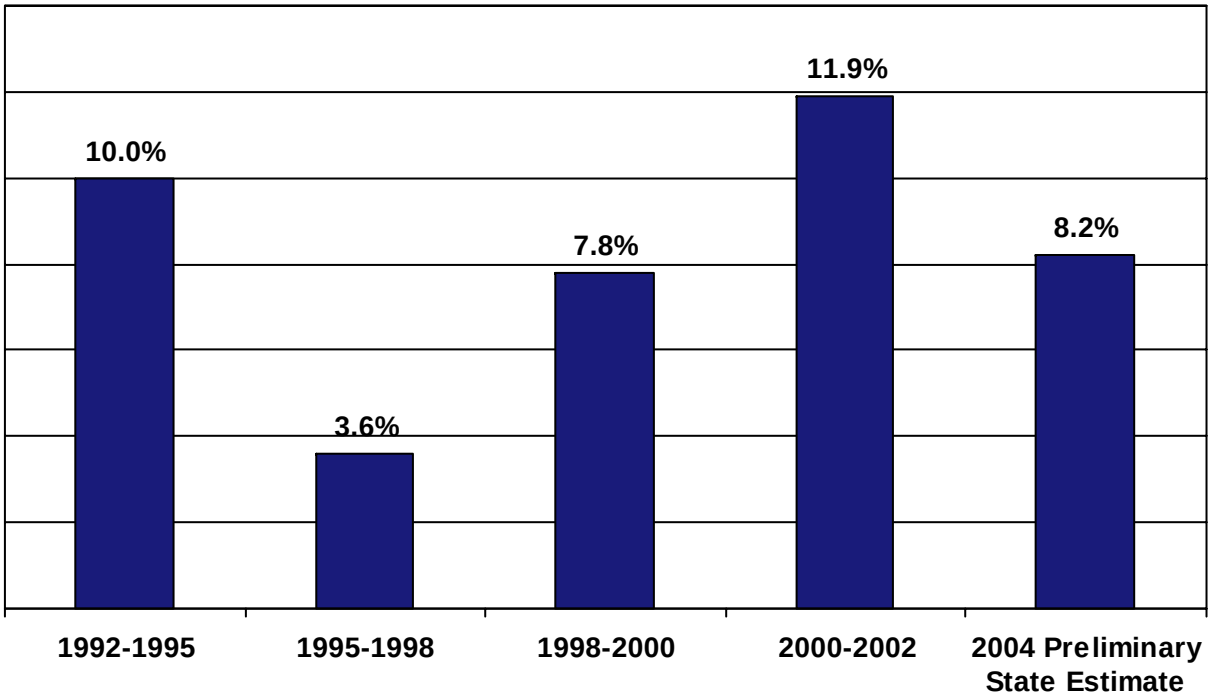
(as a percent of total state budget)



Source: National Conference of State Legislatures. State Budget Update: April 2003.

Medicaid Cost Trends Difficult To Manage Given Declining Tax Revenues

Average Annual Growth Rates of Total Medicaid Spending



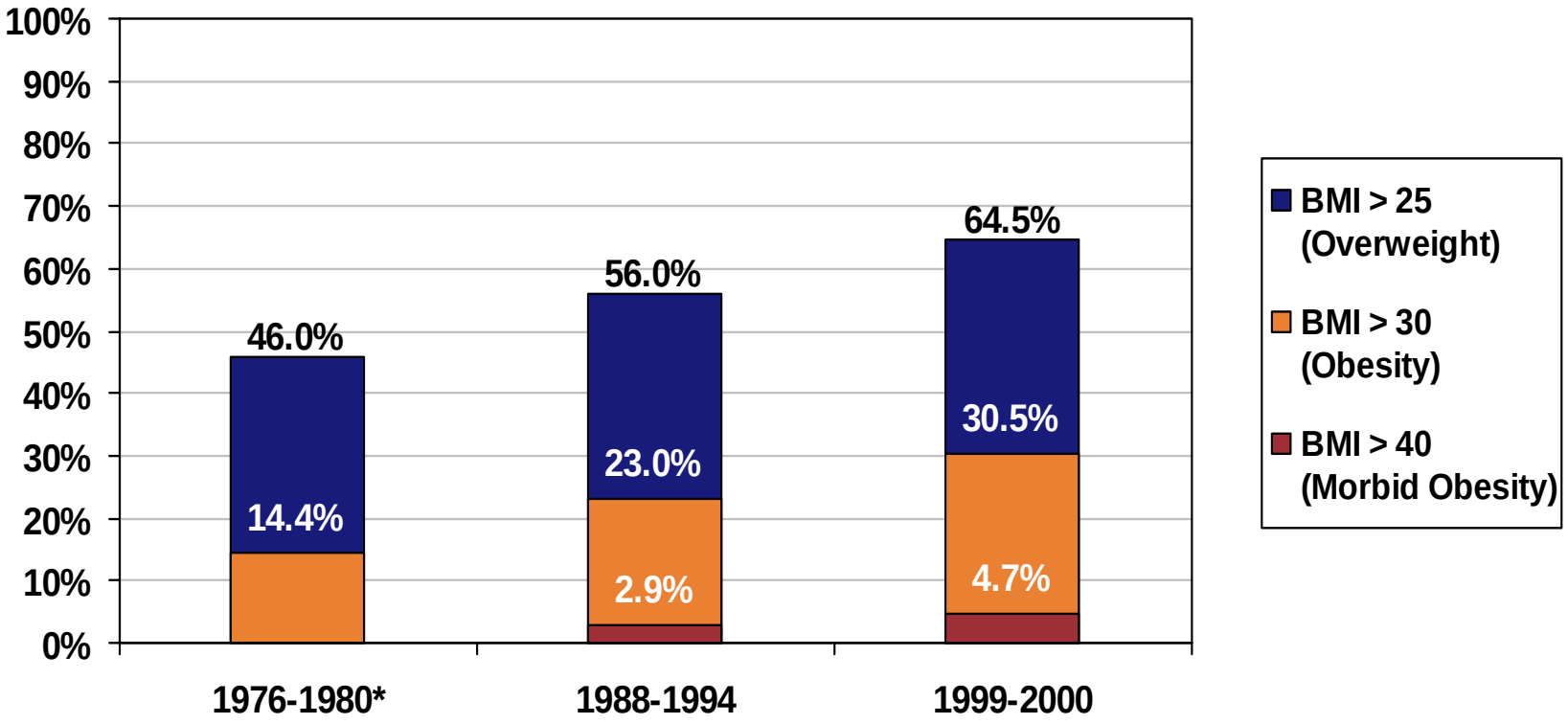
- **12 states collected less revenue in FY 2003 vs. FY 2002**
- **40 states collected less revenue in FY 2002 vs. FY 2001**
- **9 states reported back-to-back years of revenue declines**

Source: For 1992 – 2002: Urban Institute estimates based on data from Medicaid Financial Management Reports (HCFA/CMS Form 64); For 2003: Health Management Associates estimates based on estimates provided by state officials.

THOMSON MEDSTAT

Obesity Is Major Cost Driver & Reached Epidemic Proportions

Obesity Prevalence Among U.S. Adults

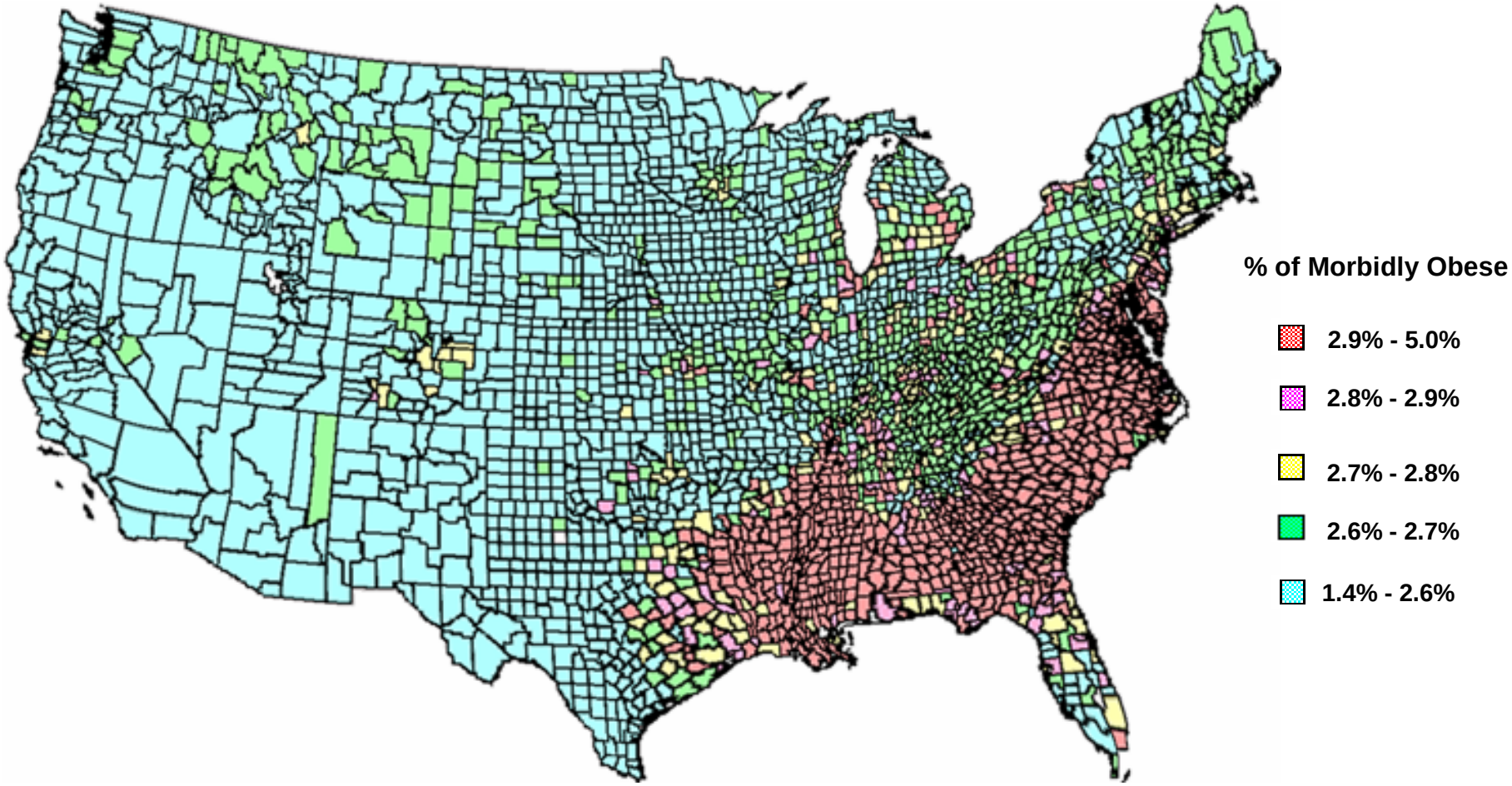


* No data was available for BMI > 40 for 1976 – 1980

Source: CDC, National Center for Health Statistics, National Health and Nutrition Examination Survey.

THOMSON MEDSTAT

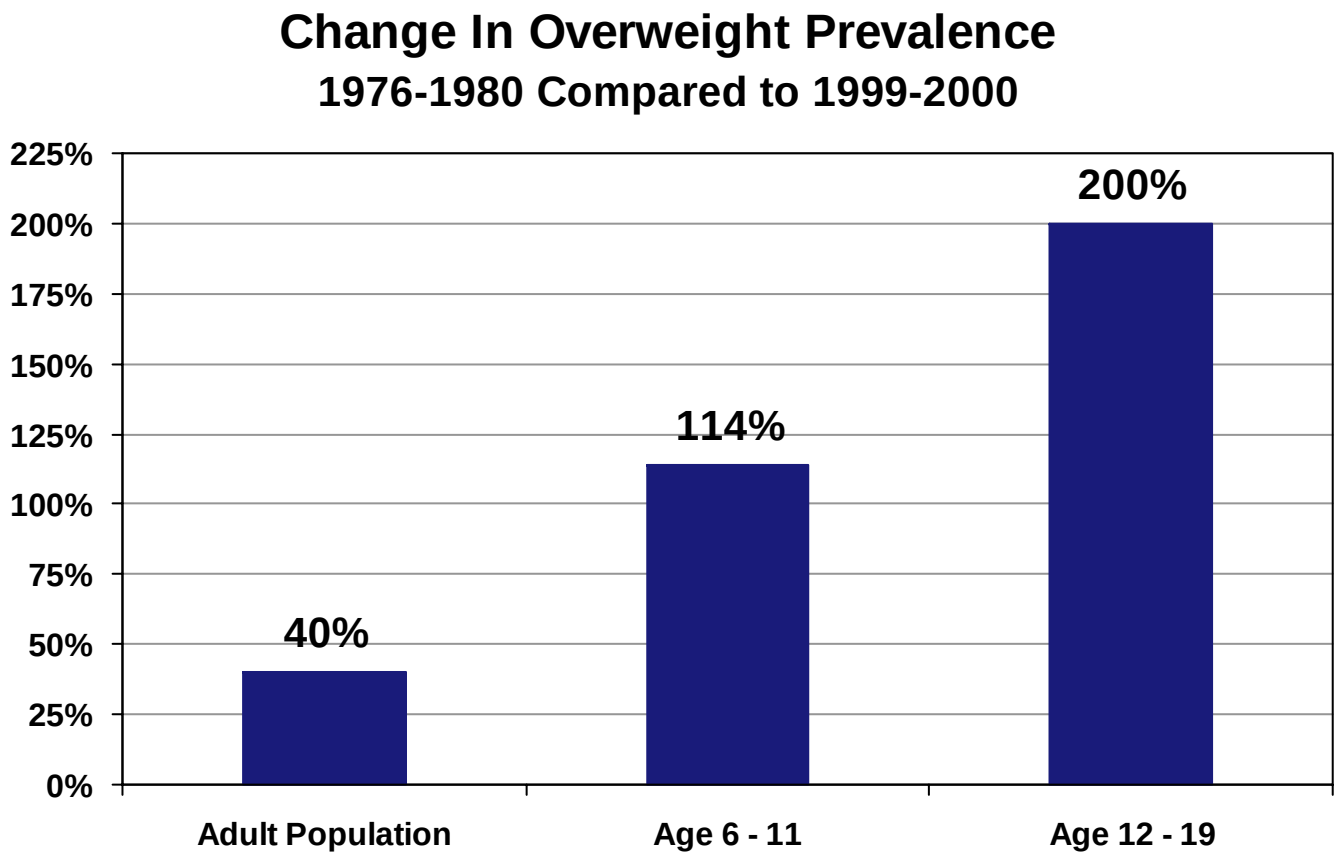
Morbidly Obese Rates Vary By Location



Source: National Health Interview Survey (NHIS) and Medstat

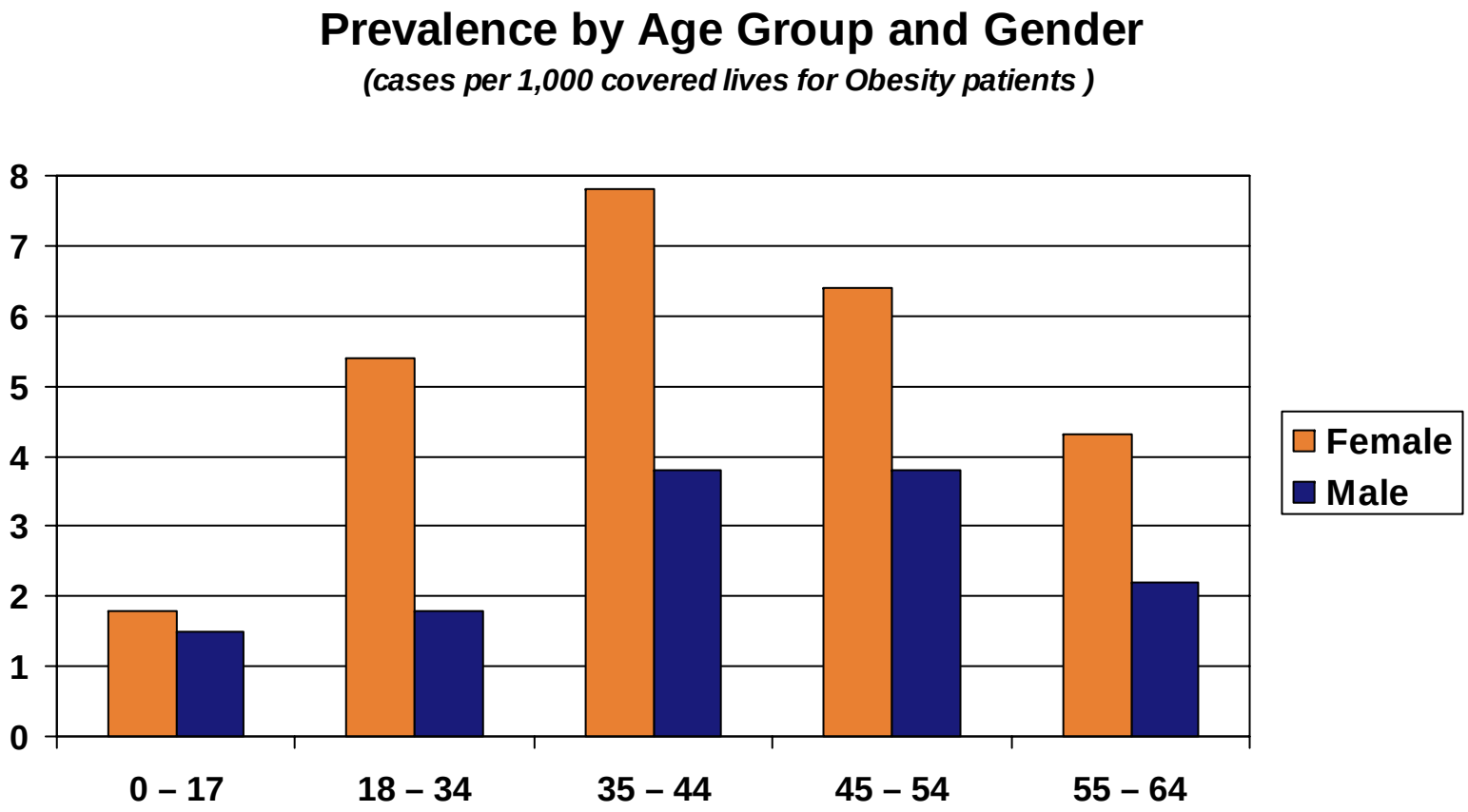
THOMSON MEDSTAT

Obesity Rates For Children Suggest Accelerating Trend



Source: CDC Web site

Obesity Profile — By Age



Source: MarketScan Database, 2002; Medstat, Ann Arbor, Michigan

Obesity Profile — By Place of Service

Annual Healthcare Utilization and Payments by Place of Service

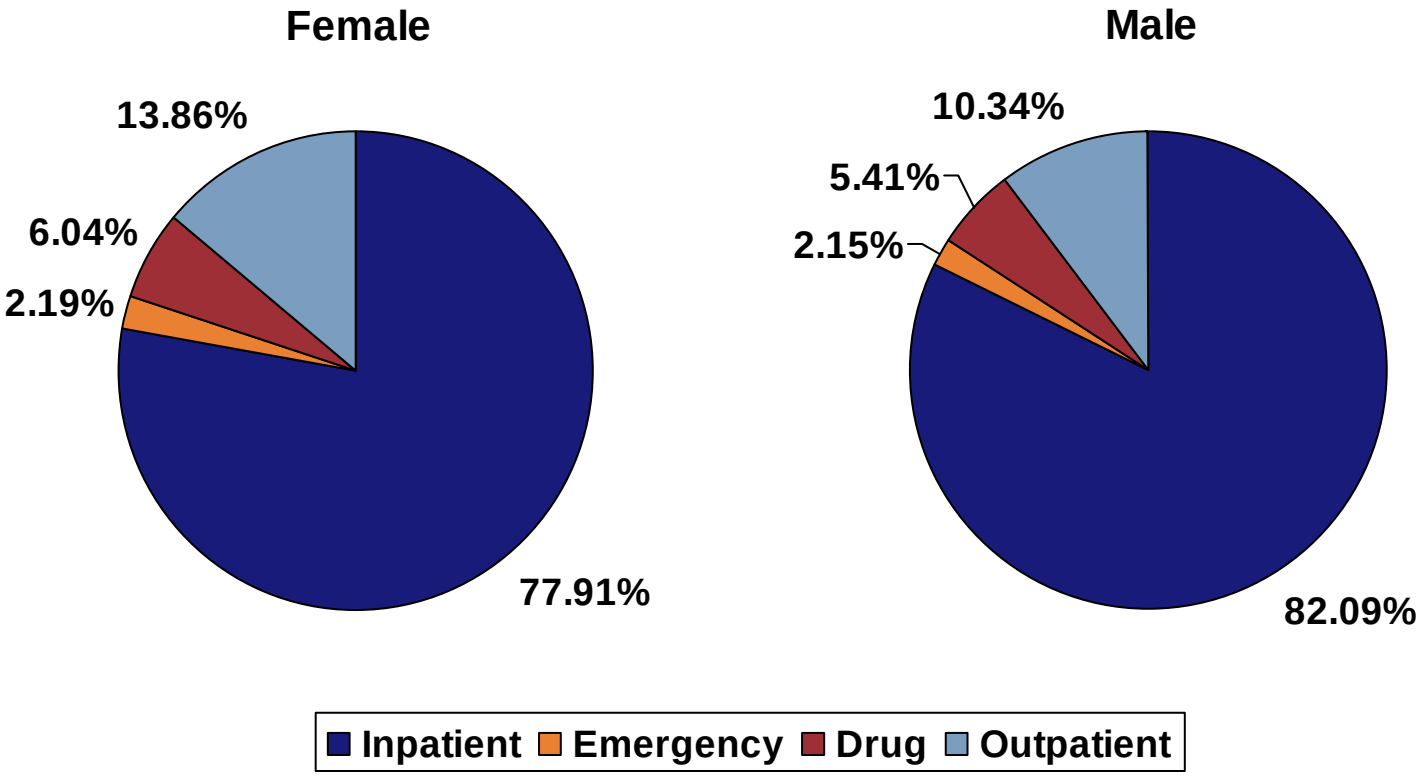
(for Obesity patients, for all services delivered)

Place of Service	Percent Incurring Any Services	Mean Number of Visits/Scripts per Patient	Mean Payments per Patient
Inpatient	**22%**	**1.28**	**$22,669**
Outpatient	**99%**	**15.51**	**$3,711**
Emergency Room	**25%**	**1.69**	**$630**
Prescription Drugs	**91%**	**24.76**	**$1,691**

Source: MarketScan Database, 2002; Medstat, Ann Arbor, Michigan

THOMSON MEDSTAT

Obesity Profile — By Gender



Source: MarketScan Database, 2002; Medstat, Ann Arbor, Michigan

Obesity Profile — Prescriptions by Therapeutic Class

Top 5 Therapeutic Classes

Mean number or prescriptions and payments for Obesity patients

Therapeutic Class	Mean Number of Scripts per Patient	Mean Payments per Patient
Anal/Antipyr, Opiate Agonists	3.3	$121
Analg/Antipyr, Nonsteroid/Antiinflam	3.4	$292
Psychother, Antidepressants	6.5	$614
Antihistamines & Comb, NEC	3.4	$257
Antibiot, Penicillins	1.5	$65

Source: MarketScan Database, 2002; Medstat, Ann Arbor, Michigan

THOMSON MEDSTAT

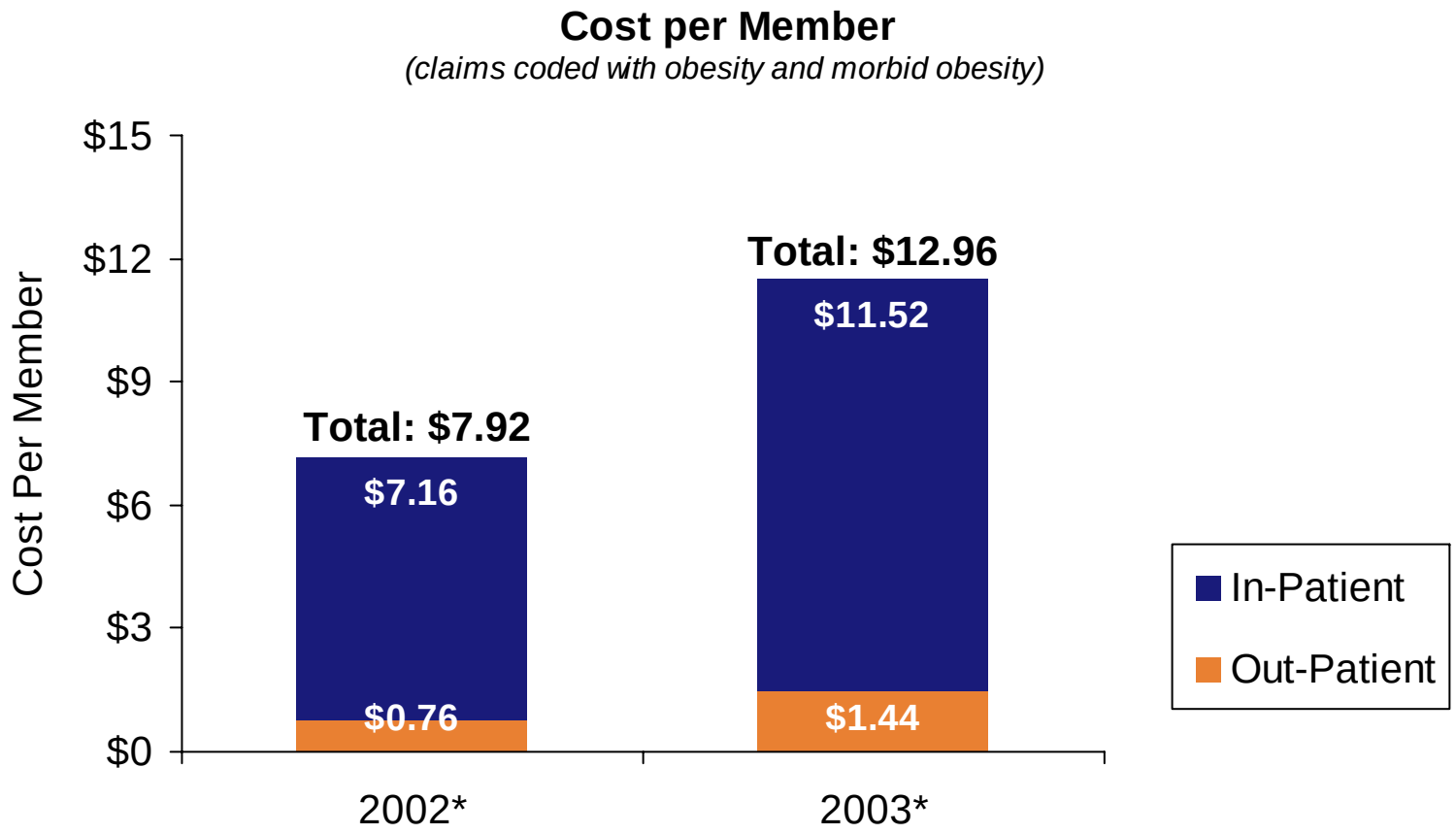
Obesity Profile — Comorbidities

Top 10 Comorbidities for Obesity Patients	% of Patients with Comorbidities	Mean Annual Any Drug Payments	Mean Annual Medical/Surgical Payments
Essential Hypertension	27.29%	$2,362	$13,037
Nutritional, Immune, and Metabolic Disorders, NEC	27.07%	$1,997	$11,016
Diseases of Ear, Mastoid Process, Nose or Throat, NEC	24.12%	$1,868	$9,573
Disorders of the Gastrointestinal Tract, NEC	20.81%	$2,166	$19,803
Back Disorders, NEC	18.10%	$2,217	$13,189
Nonspecific Disease: Respiratory System, Excluding Upper Respiratory	17.02%	$2,503	$19,185
Diseases and Disorders of Skin and Subcutaneous Tissue, NEC	16.10%	$2,101	$10,586
Joint Degenerations and Disorders, NEC	15.42%	$2,268	$12,633
Sinusitis	14.38%	$2,128	$9,055
Diabetes Mellitus	13.83%	$3,354	$16,882

Source: MarketScan Database, 2002; Medstat, Ann Arbor, Michigan

THOMSON MEDSTAT

Employer Obesity Costs Increased 64% In 12 Months

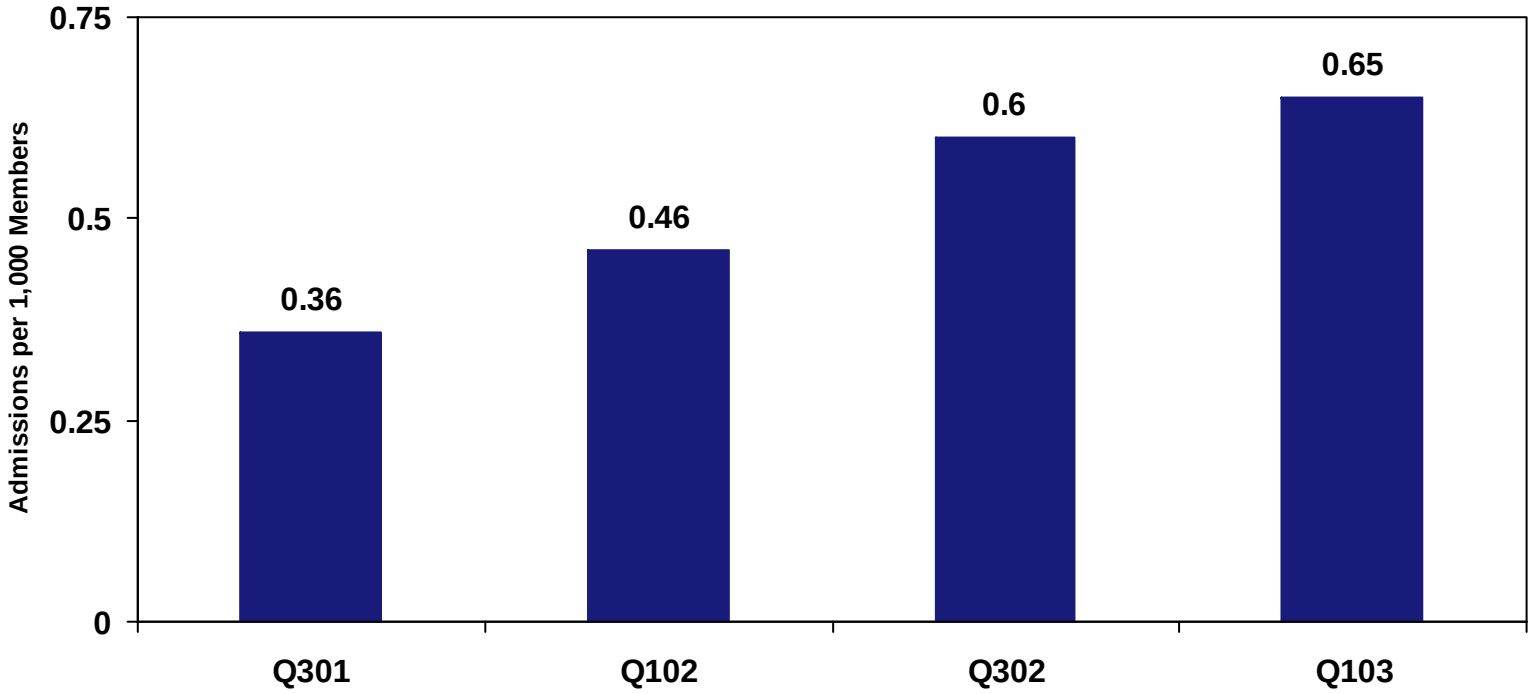


Source: MarketScan Database, Medstat, Ann Arbor, Michigan.
*Years ending, June 30.

Bariatric Surgery Up 81% Over 18 Months

Bariatric Surgery Admission Trends

(Large Employers)

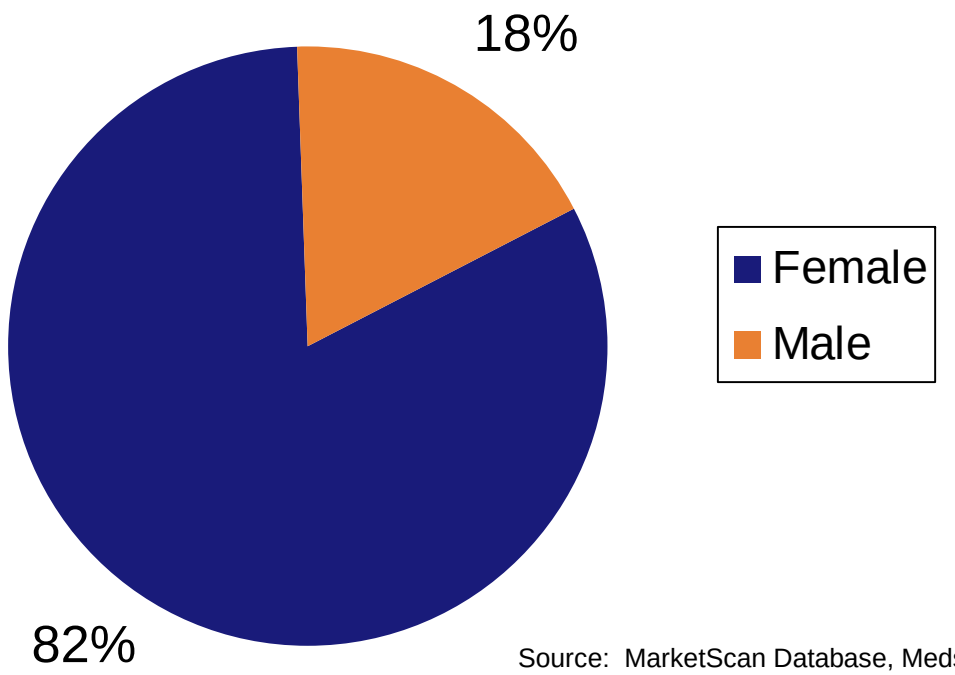


Source: MarketScan Database, Medstat, Ann Arbor, Michigan.

THOMSON MEDSTAT

Majority of Bariatric Surgeries For Females

Distribution of Bariatric Surgery Payments



Source: MarketScan Database, Medstat, Ann Arbor, Michigan.
*Year ending, June 30, 2003.

Higher BMI Increases Risk

Disease	BMI Rates			
	25 or less	25 – 30	30 – 35	35 or more
Arthritis	1.00	1.56	1.87	2.39
Heart Disease	1.00	1.39	1.86	1.67
Diabetes (Type 2)	1.00	2.42	3.35	6.16
Gallstones	1.00	1.97	3.30	5.48
Hypertension	1.00	1.92	2.82	3.77
Stroke	1.00	1.53	1.59	1.75

Source: Centers for Disease Control. Third National Health and Nutrition Examination Survey by the Lewin Group, 1999.

THOMSON MEDSTAT

Co-Morbidities Carry Significant Productivity Costs

Productivity Losses Per Employee — Selected Conditions

	Medical Costs	Productivity*	Presenteeism Costs	Total
Arthritis	$46	$29	$327	$402
Heart Disease	$266	$32	$368	$666
Diabetes	$75	$23	$257	$355
Hypertension	$91	$54	$392	$537

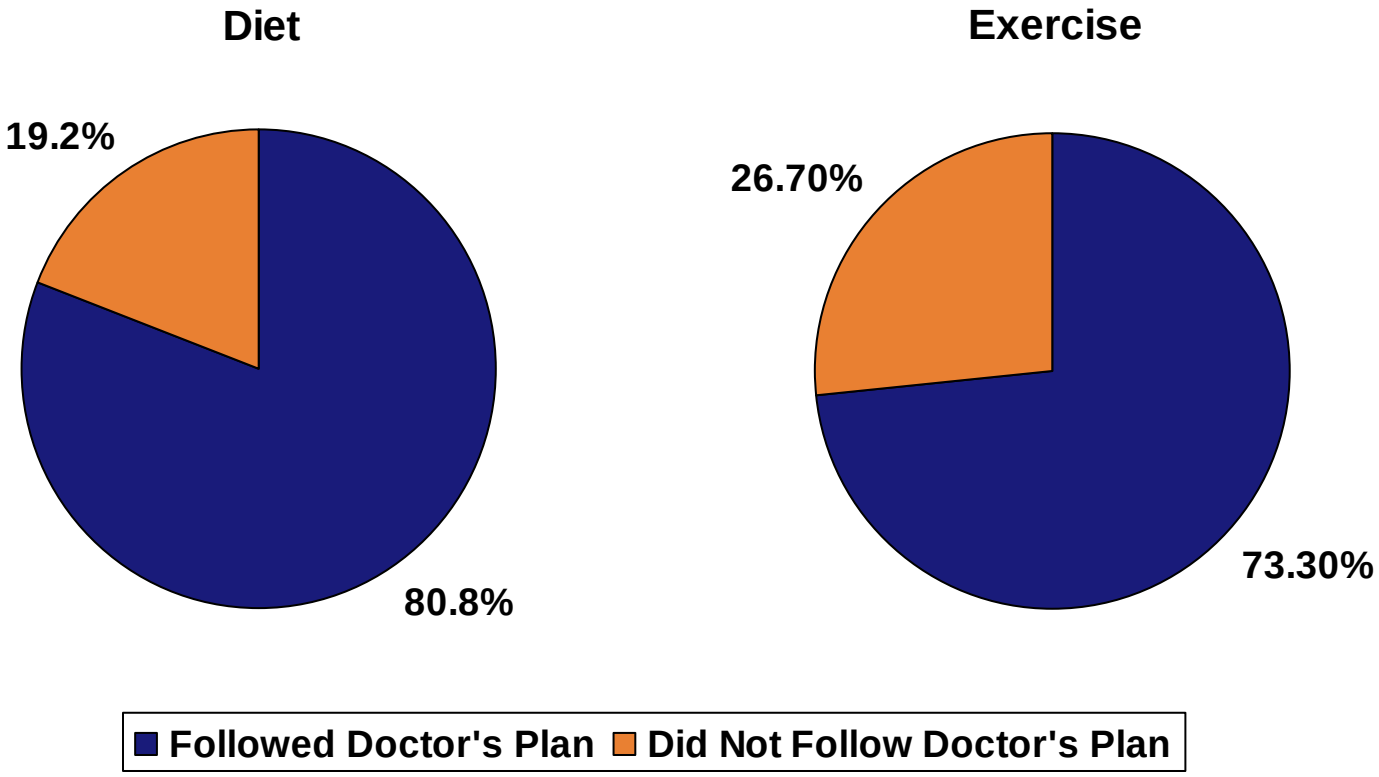
Obesity is associated with 39 million lost work days and 239 million restricted activity days

* Absence and Short Term Disability

Source: Medstat, Institute for Health and Productivity Management, and Lynch Consulting; 2004

THOMSON MEDSTAT

Patient Compliance is Significant Challenge



Source: MarketScan Database, 2002; Medstat, Ann Arbor, Michigan

Employers Concerned But No Consensus On Strategy

- Medstat works with approximately 80 employer customers, representing over 11 million covered lives and more than $74 billion in annual healthcare spending including 4 of the Fortune 5 — General Motors, Ford, WalMart, General Electric
- Most are involved in investigating or pursuing care management, wellness, disease management and/or quality care initiatives
  - At least 25 administer health risk appraisals
  - Most cover bariatric surgery
- National Business Group On Health survey found:
  - 85% offer physical activity/fitness facilities, etc.
  - 74% offer nutrition/weight management
  - -81% offer health screening

THOMSON MEDSTAT

Leading Employers Developing Innovative Programs

- Cornell University, in partnership with Dow Chemical Company, Medstat, University of Georgia and NYBGH awarded grant from NIH to develop a four-year program to reduce obesity workplace
- Research and planning phase will consist of assessment of worksites, workforce, and current programs; and program refinement and plan development
- Implementation phase will involve six intervention sites with interventions focused on obesity management
- ROI analysis will be performed for the intervention.

THOMSON MEDSTAT

Medicaid Coverage of Obesity is Variable State to State

- 9 states cover anti-obesity pharmaceutical products including Alaska, California, Kentucky, Montana, North Carolina, Oregon, Rhode Island, Washington and Wisconsin.
- 1 state, Arizona, covers products by specific managed health care plan.
- In 23 states, there is no specific language regarding coverage under Medicaid.
- In 29 states, anti-obesity products are specifically excluded in state Medicaid programs.

Source: American Obesity Association fact sheets accessed Oct 6, 2004 (http://www.obesity.org/subs/fastfacts/Obesity_Medicare.shtml)

THOMSON MEDSTAT

Most Plans Target Obesity — Directly or Indirectly

- Medstat works with 50+ health payer organizations including BCBS, commercial insurance, managed care, TPAs, and reinsurance and WC — representing approximately 30 MM lives
- Examples of programs targeting obesity include:
  - Weight loss surgery supported by behavior modification programs (both telephone-based and experimental Web-based programs)
  - Bariatric surgery programs subject to members meeting certain criteria, i.e. participation in obesity disease management and promoting the measurement of BMI as vital sign among patients
  - Bariatric surgery specialty networks
  - Special programs designed to address obesity in children
  - Exercise promotion with the goal of helping consumers see the connection between lifestyle and health status
- Virtually all health plans offer benefits related to nutrition and exercise programs either as covered benefits or by arranging discounts and other specialized entitlements.

THOMSON MEDSTAT

Issues/concerns across all markets

- Which intervention and treatment services are most effective? Which should be covered by private/public insurance?
- Is bariatric surgery cost-effective? LT implications?
- Which support services (step therapies, weight loss, psychological support) should be integrated in a bariatric surgery program? Should there be greater barriers to entry, e.g. C of E.?
- How can we improve patient compliance?
- What can physicians, employers, government payers and health plans do together to provide support and follow-through of intervention measures?

One Intervention Approach With Successful Track Record-Public Communication Campaigns

- National Cancer Institute
  - Communicating to effect cancer-related behavior change
- Alabama Department of Health
  - Communication planning for disaster preparedness

- Who is the target audience?
- What are they like?
- Where are they located?
- How do we reach them?

THOMSON MEDSTAT

Communicating with Obese Populations

Segment #36

- **Suburban mid-SES younger families**
- **High school education**
- **1.3% of total U.S. population**

- **People in this group are *more likely than average Americans* to…**
  - **Visit a theme park**
  - **Own a video game system**
  - **Read parenting magazines**
  - **Drive a Ford Focus**
  - **Watch track & field events on TV**

  - **Have a body mass index of at least 30**

THOMSON MEDSTAT

Communicating with Morbidly Obese Populations

Segment #63

- **Small-city lower-SES younger families**
- **Elementary or high school education**
- **1.8% of total U.S. population**

- **People in this group are *more likely than average Americans* to…**
  - **Buy children's toys**
  - **Buy contemporary Christian music**
  - **Read *House & Garden***
  - **Watch soap operas**
  - **Drive a Kia Spectra**

  - **Have a body mass index of at least 40**

THOMSON MEDSTAT

Obesity and One-on-One Communication

Segment #39

- **Suburban mid-SES older singles & couples**
- **High school education**
- **1.1% of total U.S. population**

- **People in this group are *more likely than average Americans* to…**
  - **Bowl**
  - **Spend 15+ nights on domestic travel**
  - **Read *Sporting News***
  - **Listen to adult standards radio**
  - **Drive a Mercury Grand Marquis**

  - **Have a body mass index of at least 30 and *NOT* receive weight advice from a health professional**

THOMSON MEDSTAT

Implications

- Segmenting populations is possible and important
- Segment-specific data are available
  - Healthcare data
  - Lifestyle data
  - Communication data
- Social marketing works
  - Mammograms up
  - Breast cancer down
  - Use of Medicare support info up (e.g. 1-800-MEDICARE)
  - Hospital screenings & patient recruitment

THOMSON MEDSTAT

Questions & Discussion