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# **Using Technology to Connect Acute Care and Community Services to Reduce Costs and Improve Outcomes for Older Americans**

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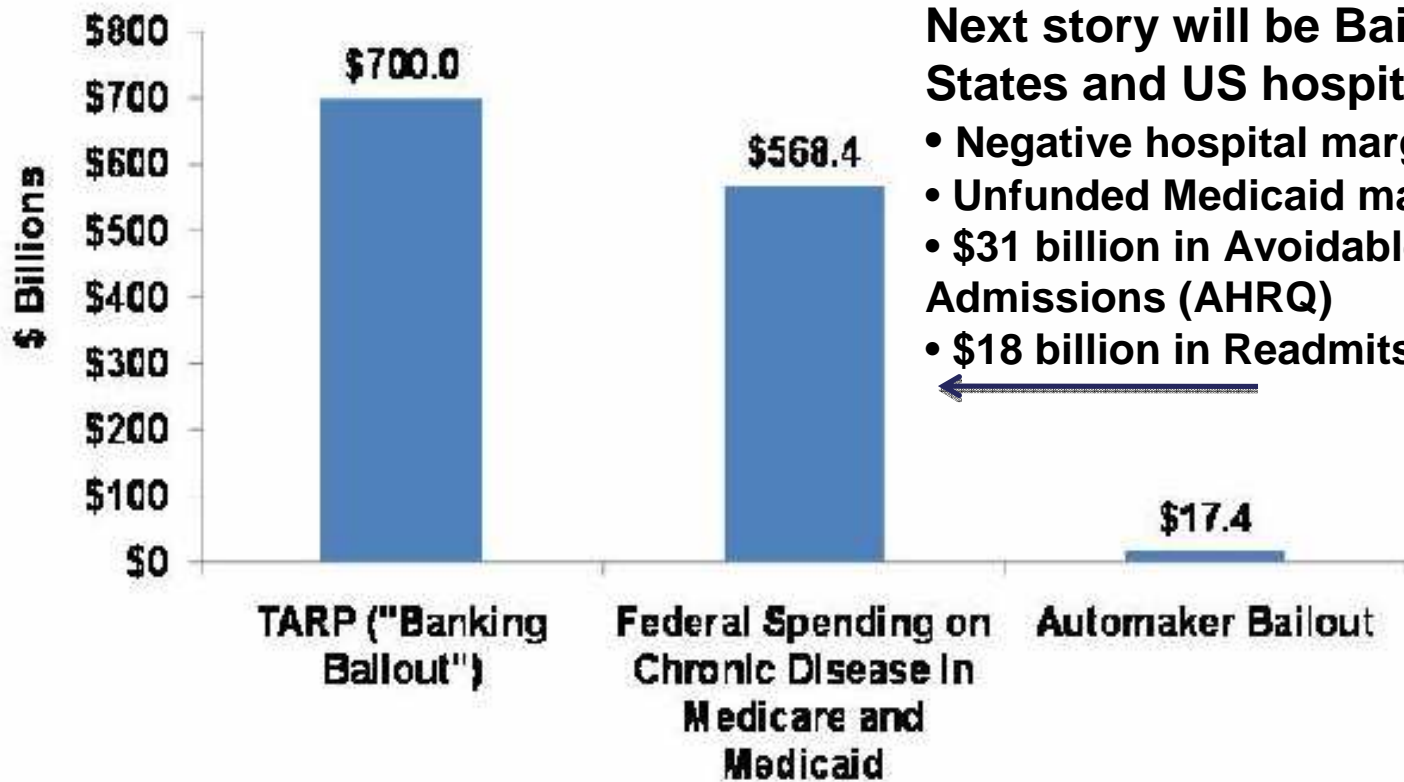
**December 4, 2009**

# Bending the Curve in Managing Chronic Illnesses – Is It Possible?



"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

## Federal Spending in Billions in 2008 TARP, Chronic Disease and Auto Bailout



Next story will be Bailout of States and US hospitals:

- Negative hospital margins
- Unfunded Medicaid mandates
- \$31 billion in Avoidable Admissions (AHRQ)
- \$18 billion in Readmits (NEJM)



Sources: CMS, Pulitzer, Associated Press

# What Does It Really Take to Bend the Curve?

- **Evidence-based Best Demonstrated Practices**
- **Strong statistically-significant data supporting better outcomes at lower cost**
- **Expert physician-to-physician interface backed by strong data**
- **Clinician behaviors must CHANGE to achieve outcomes**
- **Technology tools focused on doing the RIGHT THING for the patient at a reduced cost**
- **Success requires that physicians “buy in” to a new approach**

# Lessons Learned About Changing Healthcare Costs

## Kinetic Concepts (1986-1993)

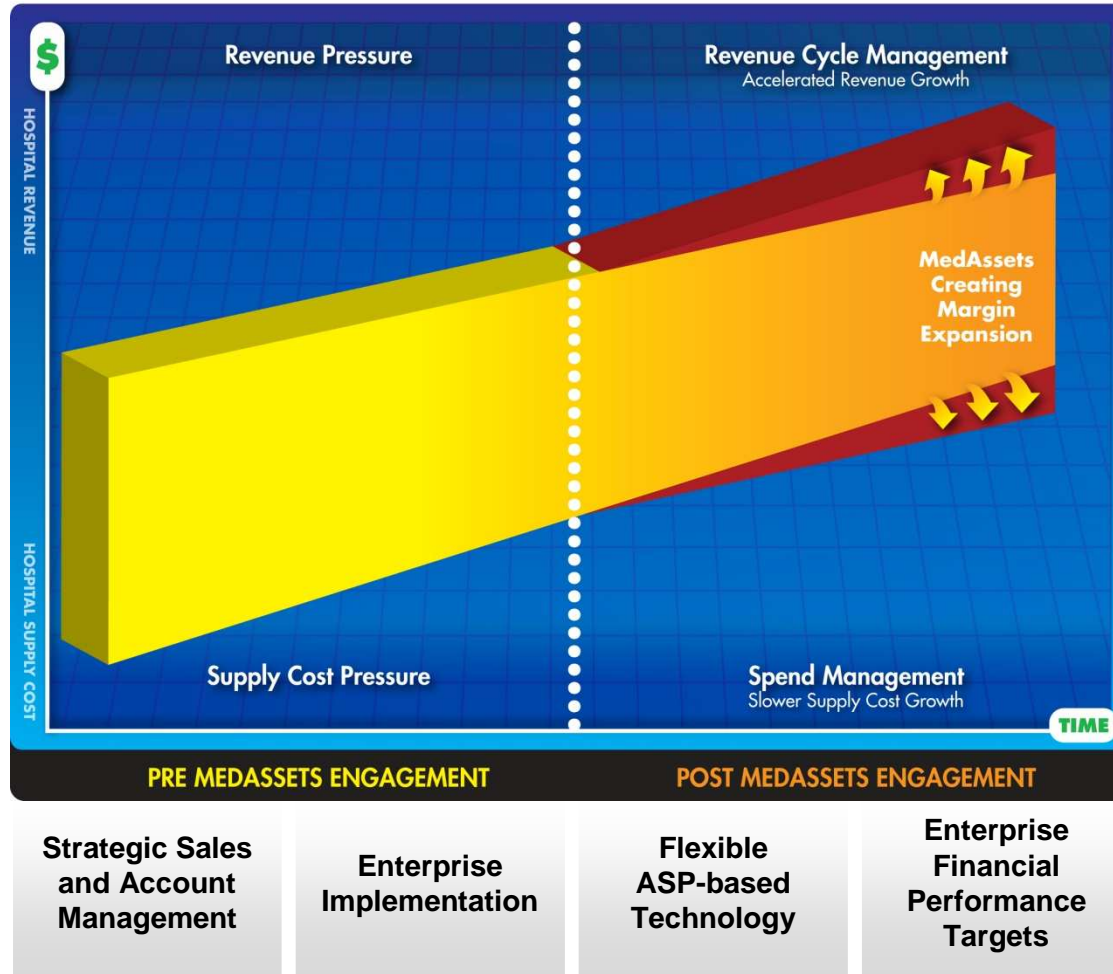
- Rental of high tech pressure relief surfaces
- Pro-active prevention of pressure ulcers for at-risk patients = Improved Outcomes
- Interventions to significantly reduce healing time and LOS for Stage 2-4 ulcers and diabetic ulcers
- New approaches to prevent pneumonia in immobile patients = Improved Morbidity, Lower Cost and Reduced LOS

## Paradigm Health (93-2000)

- Data / algorithm based modeling for catastrophic injuries
- At-risk single payment to deliver a specific clinical / social outcome
- Expert PhD Case Management following best practices and use of certified Centers of Excellence
- Net result = 30 - 50% reduction in total medical cost and maximized outcome for patient

# MedAssets Value Proposition

MedAssets business proposition improves customer operating margins by 1.5% to 5.0% (compared to non-MedAssets customers)



- Hospitals facing declining revenue growth / increasing supply cost growth
- MedAssets' tools successfully mitigate this trend
- Behavior change measured through financial targets
- Low-cost implementation
- Sustainable, measurable results
- Moving toward use of technology and clinical pathways to achieve better outcomes at lower costs.

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# Starting Point – There's No Option Other than Change

- **Acute-care hospitals cannot make money treating chronic diseases of old age**
- **Hospitals are not compensated to provide convalescent care**
- **Community providers lack the resources to provide a clinical standard of care at home:**
  - Limited access to specialized dietetic meals
  - Lack tools and expertise to support medication synchronization
  - No comprehensive strategy to educate, screen and diagnose ailments

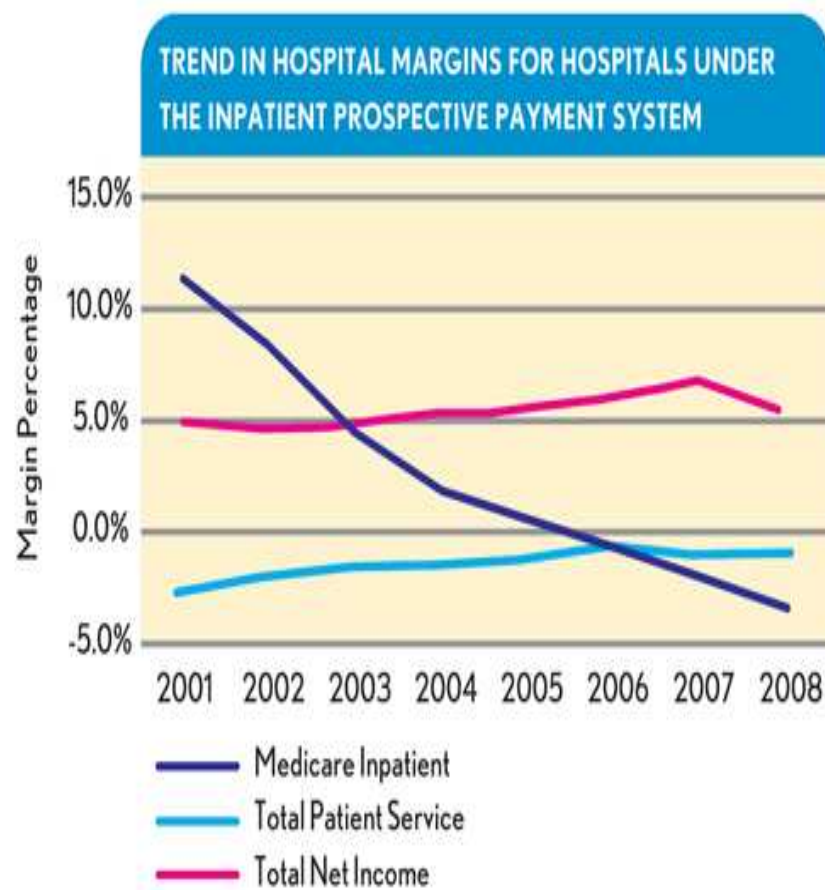
# Chronic Ailments are Driving Medicare Costs – and Medicaid Waiver (Community Care)

DRG Group codes	Volume	Avg Charge	Avg. Medicare Reimburse	Self-care Discharge	Discharge Status to Selfcare%	Percentage of Home-Delivered Meal Recipients with Ailment
Hypertension	5,611,079	\$ 25,376	\$ 7,690	3,139,874	56.0%	63%
Diabetes and Related	3,574,430	\$ 27,288	\$ 8,010	1,867,475	52.2%	38%
CHF	2,755,685	\$ 32,479	\$ 9,039	1,134,363	41.2%	52%
Pneumonia	1,674,356	\$ 36,911	\$ 9,993	597,014	35.7%	NA
Arthritis	1,484,887	\$ 26,950	\$ 8,017	669,819	45.1%	62%
Malnutrition and Related	1,480,895	\$ 31,787	\$ 9,022	654,305	44.2%	70%
COPD and Asthma	757,435	\$ 20,808	\$ 5,867	493,569	65.2%	35%
<b>Total US Hospitals</b>	<b>17,338,767</b>	<b>\$28,496</b>	<b>\$8,255</b>	<b>8,556,419</b>	<b>49.3%</b>	

- Seniors are 12% of population and 53% of hospital costs
- Chronic ailments are 35% of discharges
- Malnutrition and medication errors are leading causes of re-admissions

Source: MedPar data 2007; Administration of Aging Survey of MOW Recipients, 2005

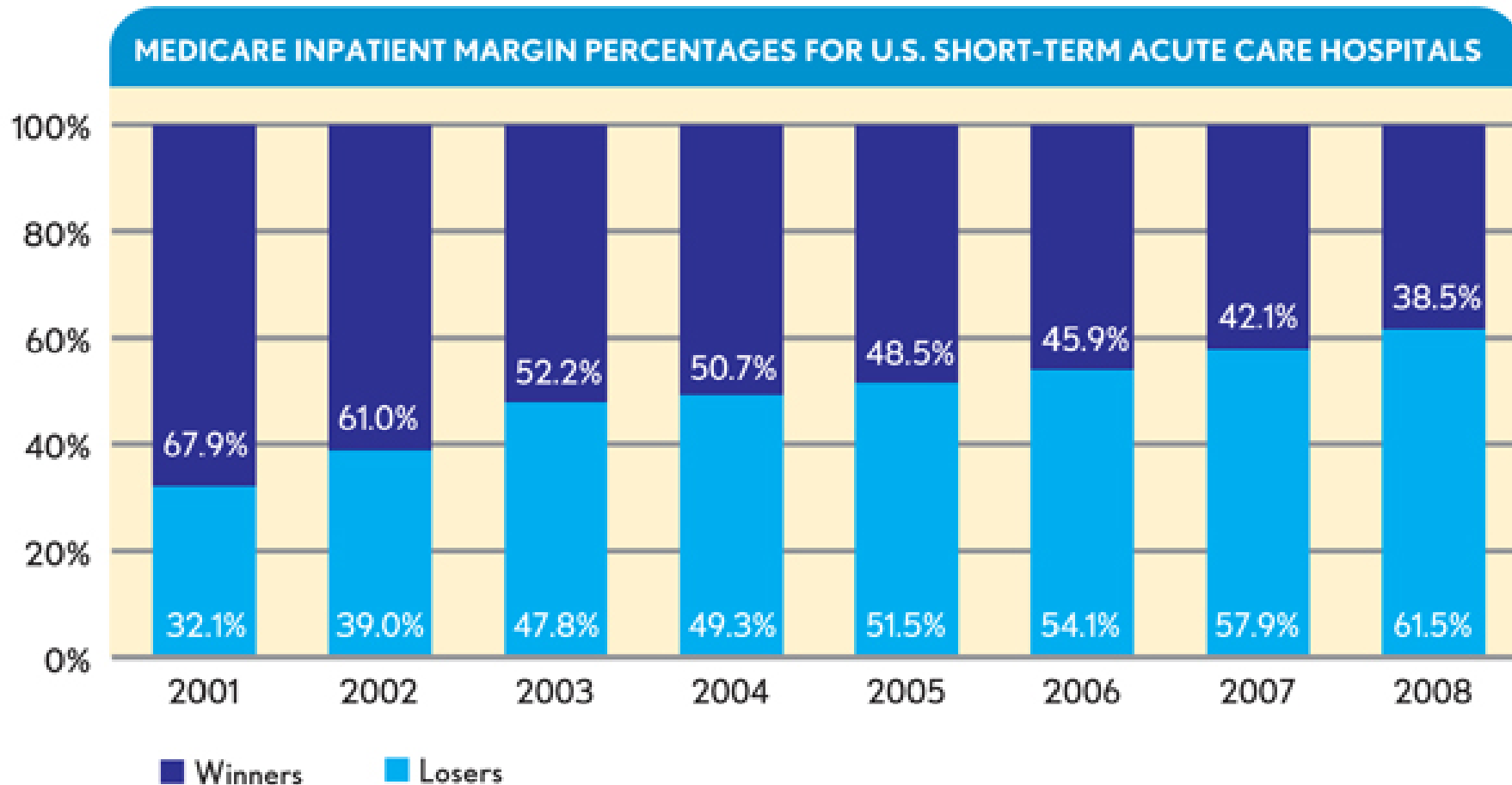
# Operating Profitably with Medicare, Medicare-Like Reimbursement Rates is Key to Survival



- HFMA Study has found that U.S. hospitals shift the unreimbursed costs of caring for Medicare inpatients to other payers.
- Hospitals have found other sources of revenue to offset negative margins from patient care, but unlikely with Healthcare Reform measures.
- The number of states in which hospitals were enjoying positive Medicare margins was found to have dropped from 44 to 13 during the study period.

Source: HFMA [www.hfma.org](http://www.hfma.org), "How Long Can Hospitals survive with Negative Margins?"  
Thomas M. Schuhmann.

# Percentage of Hospitals Breaking-Even on Medicare is Dropping Quickly



# Scope of the Problem

## • Medicare Expenditures for Readmissions

- 18-20% (1/5<sup>th</sup>) of Medicare Beneficiaries readmit within 30 days of discharge
- 33% (1/3<sup>rd</sup>) readmit within 90 days
- Readmissions have a 0.6 day longer LOS than other patients in the same DRG
- Medication, Nutrition, Instruction Compliance causes dominate readmissions
- Estimated cost to Medicare: \$15 to \$18.3 billion in annual spending

Jencks, S., Williams, M., & Coleman, E. (2008). "Rehospitalizations among Medicare fee-for-service patients". Unpublished Manuscript.

Medpac (June 2007). "Report to the Congress: Promoting Greater Efficiency in Medicare", pp 103-120.



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# Finding the Solutions Our Customers Need to Manage the Cost and Risk of Chronic Ailments



# Start with Portfolio of Suppliers Around a Business Model That Works

- **In-Patient Stay Cost Management**
  - Supply chain cost-management and analytical tools to control costs
  - Working with Suppliers to bring new products to improve outcomes
- **Care Path for Patient Discharges**
  - Aspen Healthcare Metrics (MedAssets Subsidiary) develops a 360-degree Care-Path for integrated discharges of patients being sent home
- **Address Readmission Drivers – Meds, Nutrition, Adherence to Instructions**
  - Partnering with HCBS providers to deliver a higher standard of care in Post-Discharge trial programs:
  - Specialized diets for chronic ailments
  - Monitoring and adherence
  - Medication synchronization
  - Socialization and physical activity
  - Coordination of Benefits, Third-party billing and EMR

# Put “Take-out” Clinical Nutrition Solutions into Hands of Community Nutrition Providers

Product Group	Chronic Ailment Focus
Cardio-Respiratory	Heart Failure, hypertension, Pneumonia, COPD, Asthma
Diabetes / Renal	Diabetes, Kidney function, hyperglycemia, hypoglycemia, Bowel disorders, auto-immune disorders
Cancer	Pre-chemo, post-treatment. recovery
Weight Management	Obesity, malnutrition, anorexia, Unintentional weight loss
Wound and Joint Healing	Fractures, Osteoporosis, Arthritis, Post-surgery, prevent infections
Dysphasia / Periodontal	Swallowing problems, dental issues

# MedAssets' Relationship with Community-based Services Creates Seamless Link to Over 9,000 Nutrition Sites

- *“Proper nutrition is the key to controlling the cost of chronic disease.”* Sen. Tom Harkin
- Nutrition programs are preferred supplier for Medicaid waiver
- Meals On Wheels supplies 10-day meal supply to over 100,000 seniors under a discharge pilot with Humana
- MedAssets bringing new resources:
  - Supply Chain reduces costs
  - Product Development
  - Clinical dietary support for special diets

Rank	Chain Name	(\$ Billions)		% Change
		US Sales	Purchasing	
1	McDonalds	30.025	9.008	4.4%
2	Yum Brands	16.575	4.973	1.7%
3	Subway	9.600	2.880	17.1%
4	Burger King	9.125	2.738	6.6%
5	Starbucks	8.750	2.625	6.9%
6	Wendy's	8.110	2.433	3.7%
7	Meals On Wheels	4.777	2.222	1.2%
8	Dunkin' Donuts	5.105	1.532	3.9%
9	Applebees	4.503	1.351	3.0%
10	Chili's	3.960	1.188	6.2%
	<b>All US Hospitals</b>	<b>9.720</b>	<b>4.464</b>	<b>2.1%</b>
	<b>Long-Term Care</b>	<b>6.502</b>	<b>2.899</b>	<b>1.5%</b>

- **Links to acute and LTC providers**

Source: Technomic Annual Survey of US Food Service, 2007.



## Reducing Readmission Rate by 3.7%, Funds Full cost of Medical Nutrition Therapy for 100% of Chronic Ailment Patients

Condition Name	Discharges	Average Charge	Average Re-Imburs.	Sent Home (No Care)	Discharge Status to Self care%	30-day Re-Admit Rate	Cost to treat 100%with MNT @ \$500	Break-even Pct in Reduced Re-admissions (Provider Basis)	Break-even Pct in Reduced Re-admissions (Payer Basis)
Hypertension	5,611	\$ 25.4	\$ 7.7	3,140	56.0%	26.9%	\$1,569,937	7.3%	24.2%
Diabetes	3,308	\$ 26.9	\$ 7.9	1,763	53.3%	25.6%	\$ 881,561	7.3%	24.7%
Heart Failure	2,756	\$ 32.5	\$ 9.0	1,134	41.2%	26.9%	\$ 567,182	5.7%	20.6%
Pneumonia	1,674	\$ 36.9	\$ 10.0	597	35.7%	20.1%	\$ 298,507	6.7%	24.9%
Obesity	544	\$ 27.0	\$ 7.9	335	61.6%	19.2%	\$ 167,557	9.6%	33.1%
COPD	395	\$ 18.1	\$ 4.7	252	63.7%	20.1%	\$ 125,965	13.8%	52.4%
Asthma	362	\$ 23.8	\$ 7.1	242	66.7%	20.1%	\$ 120,820	10.5%	35.1%
Malnutrition	387	\$ 46.1	\$ 12.2	78	20.1%	24.6%	\$ 38,849	4.4%	16.6%
Hyperglycemia	87	\$ 25.7	\$ 7.7	51	58.4%	25.6%	\$ 25,494	7.6%	25.3%
Diabetic Foot Ulcer	165	\$ 37.2	\$ 10.6	47	28.1%	25.6%	\$ 23,270	5.2%	18.4%
<b>Total or Weighted Avg</b>	14,675	<b>\$ 27.3</b>	<b>\$ 8.1</b>	7,299	49.7%	<b>25.4%</b>	\$3,649,558	4.3%	14.6%
<b>BREAK EVEN IF AVERAGE RE-ADMISSION RATE FALLS TO:</b>								<b>24.3%</b>	<b>21.7%</b>

Break-even calculation assumes that 60% of patients have two or more co morbidities which will be favorably impacted by nutrition management during convalescence.

# Summary

- **MedAssets' #1 priority is to generate positive operating margins for our customers on Medicare services**
- **No “margin for error” on re-admissions, HACs or other non-reimbursed costs**
- **Hospitals, physicians, home-health and community-services must develop seamless capacity to deliver care for chronic illnesses**
- **Initial programs have high ROI – but reimbursement is not clear**
- **No solution will work without technology that connects the patient to the care-givers**



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