

# Using TeleHealth to Create Take-Home Elderly Nutrition Therapy



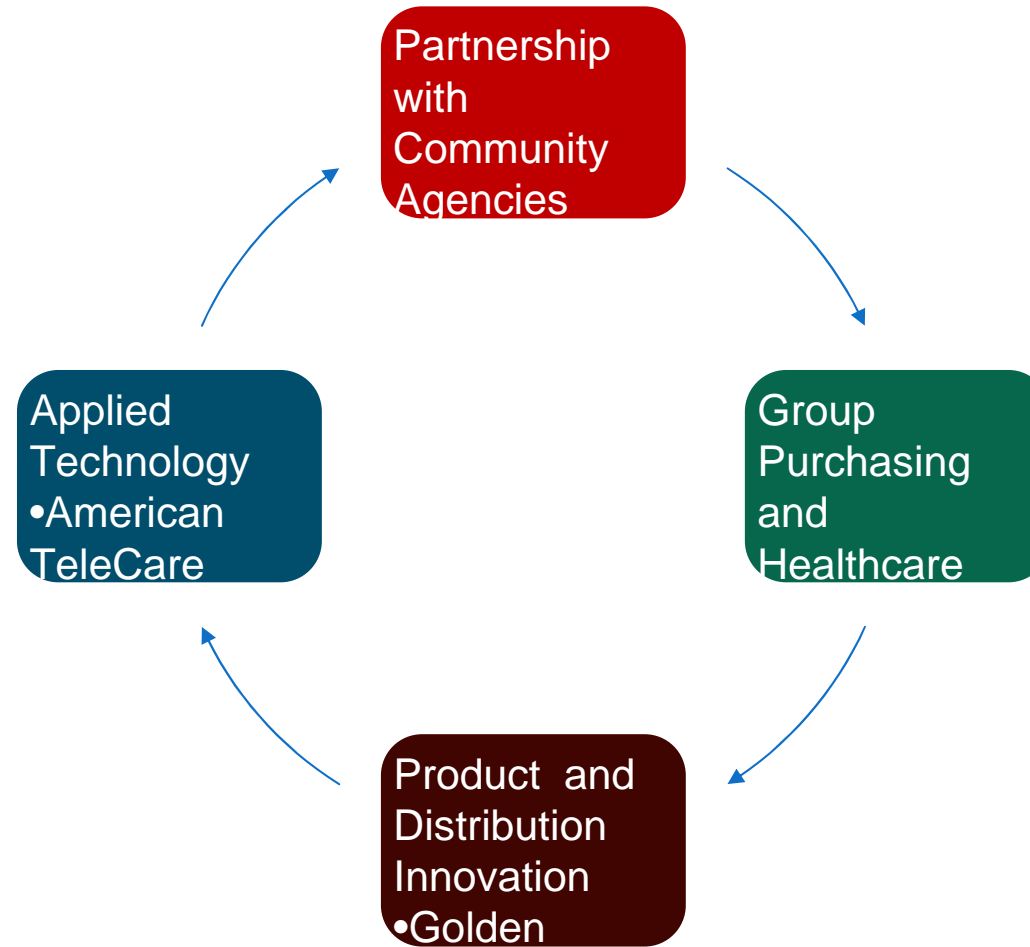
# Introducing Homeplate Group

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- Our vision is to ensure that no senior goes to bed hungry and thinking that no one cares about their health and well-being
- Our mission is to enhance the resources available to community-based nutrition providers to serve the needs of older Americans through a network of strategic partnerships with healthcare suppliers



# 4 Areas of Focus – Strong Affiliations Create Leverage and Scale



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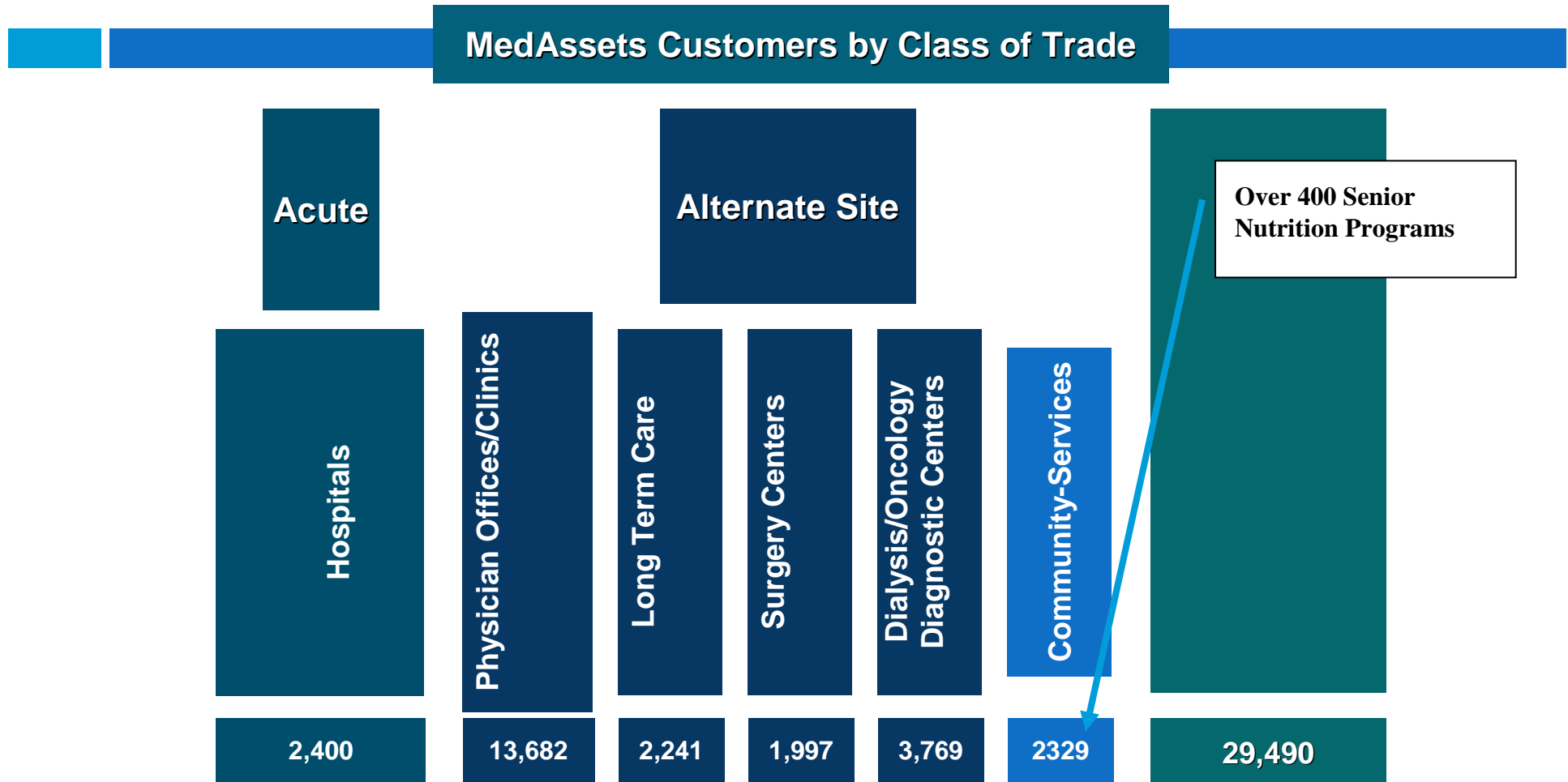


# MOWAA Connects Seniors Services Community

- Largest membership organization in community-services (5,000+)
- Serve over 3 million seniors per day
- Largest volunteer pool in aging
- Public / private partnership:
  - ▣ Older Americans Act
  - ▣ Medicaid Waiver
  - ▣ Private or religious organizations



# MedAssets Provides Resources and Connection to Healthcare



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# Senior Nutrition Key to Containing Healthcare Costs

- Malnutrition is curable chronic disease affecting the elderly:
  - ▣ High cost to treat
  - ▣ Low cost to prevent
- 65% of seniors (>70) have 2-3 diet-impacted chronic ailments
- Proper diet and synchronization with medication are keys to controlling chronic ailments



# Nutrition Impact on Healthcare

- Standard of care prescribed and funded in institutions is not available in community-based care
- 11% of US seniors are at-risk for malnutrition (5% are at severe risk)
- US policy is already shifting to bring resources to community-based service providers:
  - ▣ Expanded use of Medicaid Waiver for home-delivered meals
  - ▣ Unification of HHS Older Americans Act and CMS
  - ▣ Reimbursement of “Assistive Devices” added to Older Americans Act



# Where Does Senior Care Fit on Healthcare Scale?

## Patient Outcomes

- P4P Trade-offs / Negative Cash Flow

## Cost Management Steps

- Clinical / Financial Coordination

## •Outpatient Treatment

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# Applied Technology is a Solution

Australian Study Reached Key Conclusion on high US healthcare use by seniors

..... the underlying problem is a disjunction between the multiple systems involved in hospital discharge planning, primary medical care, disability-oriented community health services, and informal community services.

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# Aging in Place is Forcing Change on Community-providers

- ▣ **Over-care.** Dependent care provided in an institution is more expensive due to costs of professional staff and overhead.
- ▣
- ▣ **Impact:**
  - ✓ Seniors are 12% of population and 54% of hospitalizations
  - ✓ 40% of senior admissions are for chronic ailments that do not have a “cure” – but can be managed with proper diet and medication
  - ✓ Treating chronic ailment DRGs result in high outlays for Medicare and insurers, BUT reimbursement rates do not fully cover hospitals’ cost – resulting in a major system inefficiency



# Community-providers Need Tools to Replicate Standard of Care

- § **Under-care.** Seniors remaining independent in their own homes without the healthcare interventions and support necessary to stay healthy, get healthy and live with chronic illness.
- **Impact:**
  - ü Over 50% of seniors with DRGs calling for on-going nutrition therapy are sent home without skilled-nursing supervision, proper diet, access to products and devices to monitor compliance.
  - ü Over 66% of seniors in community have a nutrition-related condition that requires dietary intervention.
  - ü Untreated illnesses or “self-managed convalescence” results in a more costly admission or re-admission to an acute care facility or being forced to live in a higher cost long-term care facility



# Top 10 Elderly Ailments Requiring Admission

| Number of discharges in thousands (percent of elderly discharges) |                                |                                |                                |
|---|--------------------------------|--------------------------------|--------------------------------|
| Principal diagnosis   | 1997                           | 2000                           | 2004                           |
| Congestive heart failure (CHF)                                    | 799<br>(6.3)                   | 786<br>(6.2)                   | 820<br>(6.3)                   |
| Pneumonia   | 727<br>(5.7)                   | 743<br>(5.8)                   | 713<br>(5.5)                   |
| Coronary atherosclerosis (hardening of the heart arteries)        | 825<br>(6.5)                   | 751<br>(5.9)                   | 641<br>(4.9)                   |
| Cardiac dysrhythmias  | 410<br>(3.2)                   | 455<br>(3.6)                   | 477<br>(3.7)                   |
| Acute myocardial infarction (AMI) (heart attack)                  | 456<br>(3.6)                   | 472<br>(3.7)                   | 416<br>(3.2)                   |
| Osteoarthritis  | 315<br>(2.5)                   | 293<br>(2.3)                   | 405<br>(3.1)                   |
| Acute cerebrovascular disease (stroke)                            | 484<br>(3.8)                   | 426<br>(3.3)                   | 375<br>(2.9)                   |
| Chronic obstructive pulmonary disease (COPD)                      | 381<br>(3.0)                   | 413<br>(3.2)                   | 365<br>(2.8)                   |
| Rehabilitation care   | 299<br>(2.3)                   | 330<br>(2.6)                   | 341<br>(2.6)                   |
| Fluid and electrolyte disorders                                   | Not a top 10 condition in 1997 | 289<br>(2.3)                   | 294<br>(2.3)                   |
| Fracture of neck of femur (hip fracture)                          | 312<br>(2.4)                   | Not a top 10 condition in 2000 | Not a top 10 condition in 2004 |

Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Inpatient Sample, 1997, 2000, and 2004.

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# Revolving Door Discharges is Starting Point

| Condition Name                    | Inlier Volume | Average Charge (Inliers only) | Average Reimb. (Inliers only) | Discharge Status | Discharge Status Volume (Inliers only) | Discharge Status to Selfcare% |
|-----------------------------------|---------------|-------------------------------|-------------------------------|------------------|--|-------------------------------|
| Hypertension/hypertensive disease | 5,611,079     | \$25,376                      | \$7,690                       | Home             | 3,139,874                              | 56.0%                         |
| Diabetes                          | 3,308,027     | \$26,857                      | \$7,893                       | Home             | 1,763,122                              | 53.3%                         |
| CHF                               | 2,755,685     | \$32,479                      | \$9,039                       | Home             | 1,134,363                              | 41.2%                         |
| Pneumonia                         | 1,674,356     | \$36,911                      | \$9,993                       | Home             | 597,014                                | 35.7%                         |
| Arthritis                         | 1,484,887     | \$26,950                      | \$8,017                       | Home             | 669,819                                | 45.1%                         |
| Obesity                           | 543,893       | \$26,997                      | \$7,870                       | Home             | 335,114                                | 61.6%                         |
| Asthma                            | 362,099       | \$23,796                      | \$7,094                       | Home             | 241,639                                | 66.7%                         |
| COPD                              | 395,336       | \$18,071                      | \$4,743                       | Home             | 251,930                                | 63.7%                         |
| Malnutrition                      | 386,526       | \$46,062                      | \$12,216                      | Home             | 77,697                                 | 20.1%                         |
| Morbid Obesity                    | 207,824       | \$27,388                      | \$8,015                       | Home             | 117,296                                | 56.4%                         |
| Diabetic Foot Ulcer               | 165,357       | \$37,249                      | \$10,619                      | Home             | 46,540                                 | 28.1%                         |
| Dysphagia/swallowing disorders    | 186,881       | \$30,052                      | \$9,092                       | Home             | 48,598                                 | 26.0%                         |
| Hyperglycemia                     | 87,243        | \$25,684                      | \$7,720                       | Home             | 50,987                                 | 58.4%                         |
| Unintentional Weight Loss         | 52,207        | 20892                         | 6217                          | Home             | 28,589                                 | 54.8%                         |
| Disease-related anorexia          | 44,498        | \$20,992                      | \$6,571                       | Home             | 17,958                                 | 40.4%                         |
| Reduced appetite                  | 44,498        | \$20,992                      | \$6,571                       | Home             | 17,958                                 | 40.4%                         |
| Inflammatory bowel disease        | 14,568        | \$21,852                      | \$5,806                       | Home             | 11,095                                 | 76.2%                         |
| Hypoglycemia                      | 13,803        | \$21,595                      | \$6,549                       | Home             | 6,826                                  | 49.5%                         |
| Joint Fractures                   | 53,714        | \$15,392                      | \$4,931                       | Home             | 4,547                                  | 8.5%                          |
|                                   | 17,392,481    | \$28,401                      | \$8,228                       | Home             | 8,560,966                              | 49.2%                         |

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# Take-Home Elderly Nutrition Therapy is Evolving

- **Vision:** Technology-based solution that provides homebound seniors with a standard of dietary care and medication synchronization that replicates institutional standard of care
  
- **Net result:**
  - Provide a “one-stop shop” set of tools to healthcare providers and community-based elderly service organizations to cost-effectively manage chronic illnesses
  
  - Utilize existing relationships with leading senior-care organizations and healthcare
  
  - TeleHealth technology links the care-givers and healthcare professionals while upgrading client services:
    - § Room Service Meal Selection
    - § Access to Community activities
    - § Desk-top communication
  
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# Connecting the Dots



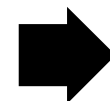
Care Plan

- Clinical
- Diet
- Synchroni
- ze



Community Support

- Home-Delivered
- Prescribe



Applied Technology

- Monitorin
- a



# Cost Estimates for 10-week ENT “To-Go” Program

| ENT Component   | 5-Weeks       | 10-Weeks        |
|---|---------------|-----------------|
| Clinical Dietary and Pharmacy Consultation  | \$ 85         | \$ 85           |
| 3 Meals plus nutritional supplements delivered to client either by Courier or Local Program | \$ 350        | \$ 700          |
| TeleHealth device plus monitoring/ reporting  | \$ 275        | \$ 500          |
| Client Electronic Transaction Management  | \$ 20         | \$ 20           |
| <b>Estimated Total Cost</b>   | <b>\$ 730</b> | <b>\$ 1,305</b> |

- Meal costs are actual – Products and services currently provided
- “Room-service” interface is also functioning
- TeleHealth platform supports existing patient-management tools
- Four demonstration projects beginning in early 2009



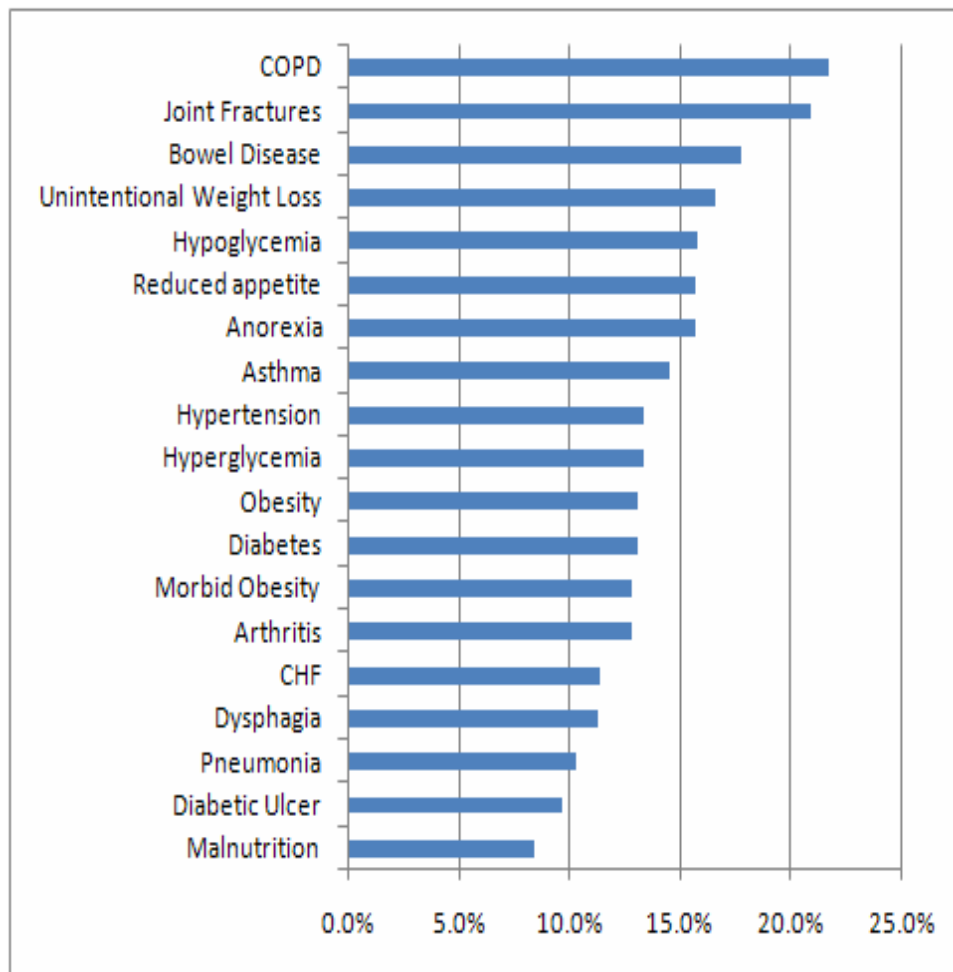
# Selling the Proposition

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- ü Impact of nutrition is becoming hot topic for healthcare providers due to cash-flow effects of chronic senior ailments
- ü Community agencies have capacity to fill need but need compensation
- ü Requirement for clinical dietary services are already here
- ü Adapting telehealth devices for ENT applications is low-threshold step



# Making the Math Work



- “Break-even” rates are difficult to calculate without clinical data
- Results suggest establishing patient profile will drive re-imbbursement decisions
- MOWAA trial showed that re-admissions were reduced with just meals (51.6% - 13.8% within 6 months)

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Thank you

Questions?