



**STRATEGY  
RESEARCH  
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**THE NEED FOR MEDICAL NUTRITION THERAPY  
AS MEDICARE/TRICARE BENEFITS**

**BY**

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by

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## ABSTRACT

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Medical nutrition therapy is a medically necessary and cost-effective means of treating, controlling, and preventing diseases. Current interpretation of TRICARE and CHAMPUS regulations specifically excludes coverage of outpatient medical nutrition therapy, leaving many Military Health Services System and Medicare beneficiaries without access to this vital care. Extensive technological advances in the science of nutrition during the last thirty years are evident in outcome studies that reveal the cost effectiveness of medical nutrition therapy. A conservative study from a DOD committee places estimated cost savings with implementation of medical nutrition therapy at \$13.3 million per year. With this knowledge, efforts are being made to change the law and regulations so that medical nutrition therapy can consistently be used as a benefit to help lower the cost of health care.

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## THE NEED FOR MEDICAL NUTRITION THERAPY AS MEDICARE/TRICARE BENEFITS

Today's health care market is cost conscious, competitive, entrepreneurial, and constantly changing. New methods of health care delivery are replacing traditional, open access, fee-for-service delivery systems. Following the national trend toward managed care, the Department of Defense (DOD) is implementing TRICARE, a managed health care program for all military service beneficiaries. Containing costs while maintaining quality health care presents an extremely difficult challenge for ensuring the future of military medicine. One means of lowering the cost of medical treatment is to incorporate medical nutrition therapy (MNT) into the treatment plans for patients. Recognized as a first line treatment for many costly chronic diseases, MNT is medically necessary and cost-effective in treating, controlling, and preventing diseases. However, the current interpretation of the TRICARE and Civilian Health and Medical Program of the Uniform Services (CHAMPUS) regulations excludes coverage for outpatient MNT, leaving many Military Health Services System (MHSS) beneficiaries without access to this vital care.



## THE EVOLUTION OF MNT

In 1965 when Medicare was initiated, the impact of nutrition intervention for treating and preventing disease was not fully recognized. In fact, heightened public awareness of preventive nutrition and its effect on wellness has evolved during the past fifteen years. Extensive technological advances in the science of nutrition during the last thirty years are evident in outcome studies that reveal the cost effectiveness of MNT.<sup>1</sup> With the proliferation of managed care organizations (MCOs) and the establishment of TRICARE, and their strong emphasis on containing costs, more patients are receiving treatment in outpatient settings. When patients are hospitalized, the cost of nutrition intervention is usually incorporated into the hospital treatment. With the current shift of patient care to the outpatient setting, and the lack of reimbursement for MNT, patients often must personally bear the costs or do without the care. The outdated reimbursement policies of Medicare and CHAMPUS have failed to provide the fiscally advantageous and enhanced health benefits that are currently available through MNT.

### Laws And Regulations

The Medicare and CHAMPUS regulations and their parent law 10 United States Code Annotated, Section 1079 (U.S. Title 10) are vague as they describe in very general terms who is eligible for care and what types of care are reimbursed. The current interpretations of the wording in the manual have excluded all nutritional counseling. Per CHAMPUS Reg 6010.8-R, Program Benefits, Chapter 4, Exclusions and Limitations - Counseling (Paragraph G.39):

counseling services that are not medically necessary in the treatment of a diagnosed medical condition; for example, educational counseling, vocational counseling, nutritional counseling, counseling for socioeconomic reasons, diabetes self-education programs, self-education programs, stress management, life style modifications, etc.<sup>2</sup>

Thus, payment is not authorized for non-surgical treatment of obesity or morbid obesity, for dietary control, or for weight reduction. The morbid obesity benefit is limited strictly to gastric bypass, gastric stapling, or gastroplasty. Chapter 5 of the regulation outlines the coverage for the handicapped, and institutional charges are all inclusive, covering the cost of Total Parenteral Nutrition and enteral supplements. However, educational counseling to instruct the patient in the use of these nutritional supplements is not covered. The lists of health care providers in Chapter 2 does not include dietitians. As the law is currently interpreted, no nutritional counseling is considered medically necessary unless it is provided in support of the terminally ill.<sup>3</sup>

#### MNT Definition

To realize the impact of MNT, it is important to first examine and explore the definition.

The American Dietetic Association (ADA) defines MNT as:

the assessment of the nutritional status of patients with a condition, illness, or injury that puts them at risk. This includes review and analysis of medical and diet history, laboratory values, and anthropometric measurements. Based on the assessment, nutrition modalities most appropriate to manage the condition or treat the illness or injury are chosen and include the following:

- *Diet modification and counseling* leading to the development of a personal diet plan to achieve nutritional goals and desired health outcomes.
- *Specialized nutrition therapies* including supplementation with medical foods for those unable to obtain adequate nutrients through food intake only; enteral nutrition delivered via tube feeding into the gastrointestinal tract for those unable to ingest or digest food; and parenteral nutrition delivered via intravenous infusion for those unable to absorb nutrients.<sup>4</sup>

With these vast areas of involvement, it is important that MNT be incorporated as part of the case management and treatment protocols for many diseases, and be utilized to promote wellness and readiness. Therefore, it is extremely critical that MNT be a covered benefit through the TRICARE and Medicare programs.



## TRICARE AND ITS GOALS

The DOD MHSS is one of the world's largest managed care systems. A comprehensive managed care network of facilities and providers, TRICARE is being established for DOD personnel to enhance access to medical care. Its purpose is to preserve the MHSS capabilities with the downsizing of the DOD.<sup>5</sup> The goals of TRICARE are to:

- improve beneficiaries access to care, while ensuring a high quality, customer- focused, consistent health care benefit for all beneficiaries at no or low cost;
- preserve choice for all non-active duty participants;
- contain overall DOD health care costs while maintaining medical readiness for all contingency operations.<sup>6</sup>

To accomplish these goals, TRICARE offers beneficiaries a choice of three different health-care packages. The "TRICARE Prime" is a plan that simulates a Health Maintenance Organization (HMO)-type option. It focuses on military hospital health care which is augmented by preferred providers and is organized by a regional TRICARE contractor. The second option is "TRICARE Extra" which is the voluntary utilization of a network of preferred providers by beneficiaries, at discounted rates established by a preset agreement. The third option is "TRICARE Standard" which is similar to CHAMPUS, DOD's current fee-for-service insurance program.<sup>7</sup> Presently, all three of the options include MNT only at Medical Treatment Facilities (MTFs) and do not permit reimbursement for MNT provided elsewhere.<sup>8</sup> With the goals of TRICARE and these health care options, why is MNT not provided to the MHSS beneficiaries? To help answer this question, it is important to examine the civilian health care market.



## REIMBURSEMENT PRECEDENCE

Coverage for MNT by MCOs is inconsistent and diverse (TABLES I, II). Contract dietitians offer both preventive and MNT services to the customers of managed care programs such as Cigna, Harvard Community Health Plan, Health Insurance Plan of Greater New York, and US Healthcare.<sup>9</sup> Other insurers such as Aetna, Blue Cross/Blue Shield, Humana, John Hancock, MetLife, Mutual of Omaha, Provident, Principal Mutual, Prudential, and Travelers cover MNT in some states with certain types of policies.<sup>10</sup>

Of 17 major MCO plans surveyed, eight reported using some type of nutrition screening program. Most plans provide MNT as part of chronic disease management or as part of a treatment plan for a specific disease or condition. More than half of the MCOs surveyed offered nutrition screening and/or nutrition therapy or nutrition programs to employers and members as part of their marketing plan.<sup>11</sup> In a recent survey, the ADA found that 29 of 32 managed care plans offered some MNT coverage to members.<sup>12</sup> Most of these plans required a physician referral and covered only medically necessary nutrition therapy, while frequently excluding weight control counseling. Some plans limited the number of nutrition visits.<sup>13</sup> In most cases, insurers or self-insured employers make coverage decisions on a case-by-case basis resulting in inconsistent coverage. Nearly identical claims are accepted in one instance, then rejected at another.<sup>14</sup> The information in TABLE I was compiled through personal and telephonic interviews conducted by ADA from February through April 1995.<sup>15</sup> The information in TABLE II was compiled by the ADA Reimbursement Team.<sup>16</sup>

TABLE I

## MANAGED CARE COVERAGE OF MEDICAL NUTRITION THERAPY

| STATE          | MCO   | MODEL<br>TYPES<br>*       | SUBSCRIBERS<br>** | MNT COVERAGE FOR<br>OFFICE VISIT TO RD<br>***  |
|----------------|---|---------------------------|-------------------|--|
| CA             | FHP, Inc  |                           | 885,000           |  |
|                | (Northern and<br>Southern CA)   | Staff/IPA                 |                   | Diabetes, hypercholesterolemia,<br>hypertension, prenatal, weight control  |
|                | (Southern CA)   | IPA                       |                   | Therapeutic diet counseling  |
| CA             | Kaiser Foundation<br>Health Plan, Inc,<br>Northern<br>California Region       | Group                     | 2,442,000         | AIDS, cancer, cystic fibrosis, diabetes<br>kidney or liver failure, prenatal care;<br>no visit limits as long as medically<br>necessary  |
| DC<br>MD<br>VA | George Washington<br>University Health<br>Plan, Inc                           | IPA/<br>Staff/<br>Group   | 73,000            | Nutrition counseling (e.g., for AIDS,<br>cancer, cardiovascular disease, diabetes,<br>eating disorders, IBS, pregnancy)  |
| DC             | Humana Group<br>Health Plan, Inc<br>(formerly Group<br>Health<br>Association) | IPA/<br>Network           | 120,000           | Physician-referred nutrition counseling for<br>abnormal weight changes, cancer, coronary<br>artery disease, diabetes, eating disorders, food<br>allergies, GI disorders, HIV infection, high-risk<br>pregnancy, hypercholesterolemia, hypertension,<br>lactose intolerance, obesity/overweight, poor<br>weight gain/failure to thrive, renal insufficiency,<br>stroke, vegetarianism |
| FL             | CAC-United<br>HealthCare Plans<br>of FL, Inc                                  | IPA/<br>Staff/<br>Network | 204,000           | For any condition referred by primary<br>care physician  |
| FL             | CIGNA<br>HealthCare of<br>Florida   | IPA/<br>Staff             | 360,000           | Not covered except for diabetic counseling   |
| FL             | Health Options,<br>Inc (BC/BS)  | IPA                       | 392,000           | None; nutrition services are provided<br>in physician's office by nurse  |
| FL             | HIP Health Plan<br>of Florida, Inc  | IPA                       | 44,000            | Physician-referred, medically necessary<br>MNT (e.g., diabetes, heart conditions)  |
| FL             | Prudential Health<br>Care Plan, Inc,<br>PruCare of<br>Orlando                 | Group                     | 85,000            | Any nutrition concerns; patients can<br>self-refer, unlimited visits   |
| IL             | CIGNA<br>HealthCare of<br>Illinois  | IPA                       | 103,000           | Upon physician referral; 2 visits usual,<br>but more can be approved   |
| IL             | Rush/Prudential<br>HMO, Inc   | Staff/<br>Network         | 179,000           | Any medically necessary nutrition<br>therapy, patients can self-refer  |
| IL             | United HealthCare<br>of Illinois, Inc   | IPA/<br>Network           | 102,000           | Physician-referred MNT for any<br>condition (e.g., allergies, hypertension,<br>weight loss); 3-visit limit   |

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| <i>STATE</i> | <i>MCO</i>   | <i>MODEL<br/>TYPES</i><br>* | <i>SUBSCRIBERS</i><br>** | <i>MNT COVERAGE FOR<br/>OFFICE VISIT TO RD</i><br>***   |
|--------------|--|-----------------------------|--------------------------|---|
| MD           | MD IPA/<br>Optimum Choice,<br>Inc  | IPA                         | 423,000                  | Nutrition services for treatment of cancer,<br>cardiovascular disease, cerebral vascular,<br>diabetes, kidney disease, and malnutrition;<br>PPO patients can self-refer; 6-visit limit  |
| MA           | Harvard<br>Community<br>Health<br>Plan/Pilgrim<br>Health Care, Inc<br>(merged) | Mixed                       | 1,100,000                | Patients can self-refer for weight loss<br>or medically necessary MNT   |
| MN           | BLUE PLUS<br>(BC/BS)   | Network                     | 70,000                   | Changing requirement from physician-<br>supervised to physician-referred MNT; no<br>visit limit as long as medically necessary  |
| MN           | Health Partners  | Staff/<br>Group/<br>Network | 471,000                  | Patients can obtain referral forms through<br>clinic receptionists for chronic disease,<br>chronic pain, diabetes, eating disorders,<br>enteral/parenteral feedings, failure to thrive,<br>feeding problems in children, food allergies<br>or sensitivities, GI disorders, HIV infection,<br>AIDS, hyperlipidemia, hypertension,<br>hypoglycemia, lactation, lactose intolerance,<br>liver disease, oncology, PMS, preconception<br>nutrition, pregnancy, pulmonary disease,<br>renal failure/insufficiency, seniors at<br>nutritional risk, teens at nutritional risk,<br>weight management, weight loss<br>(undesirable), vegetarianism |
| MN           | United HealthCare<br>Corp  | IPA                         | 3,700,000                | Physician-referred, medically necessary<br>MNT; usually 3-visit limit   |
| NY           | Health Insurance<br>Plan (HIP) of<br>Greater New York                          | Group                       | 1,200,000                | MNT (e.g., for diabetes, hypercholesterolemia,<br>hypertension, malabsorption, obesity,<br>oncology, prenatal care); patients can<br>self-refer   |
| PA           | CIGNA<br>Employee<br>Benefits<br>Companies                                     | IPA                         | 3,309,000                | Examples include, but are not limited to,<br>anorexia, bulimia, celiac disease, Crohn's<br>disease, diabetes, liver disease,<br>malabsorption, morbid obesity (200% IBW),<br>renal failure, ulcerative colitis; 12-visit limit  |
| PA           | Keystone Health<br>Plan East, Inc<br>(BC/BS)                                   | IPA                         | 561,000                  | Home care nutrition counseling for<br>diabetes-related problems and HIV   |
| PA           | Mercy Health Plan<br>(Medicaid<br>managed care)                                | Network                     | 127,000                  | Physician-referred MNT to hospital staff<br>RD; no limit as long as medically necessary   |

| <i>STATE</i> | <i>MCO</i>   | <i>MODEL TYPES</i><br>* | <i>SUBSCRIBERS</i><br>** | <i>MNT COVERAGE FOR OFFICE VISIT TO RD</i><br>***   |
|--------------|--|-------------------------|--------------------------|---|
| PA           | US Healthcare, Inc   | IPA                     | 2,200,000                | Nutritional counseling upon physician referral for complicated entities in which dietary adjustment may have a therapeutic role, such as diabetes and chronic renal failure or inborn errors of metabolism; Medicare plan participants may also receive dietary advice and counseling in dentist's office |
| TX           | Aetna National Health Plans of Texas, Inc                  | IPA/ Network            | 23,000                   | Physician-referred MNT for conditions such as diabetes, IBS, malnutrition during pregnancy; 1-visit limit   |
| TX           | CIGNA HealthCare of Texas, Inc (Houston Division)          | IPA/ Staff              | 94,000                   | Physician-referred, medically necessary MNT; 2-visit limit  |
| TX           | Harris Methodist Health Plan                               | IPA                     | 172,000                  | Physician-referred, medically necessary MNT; 3-visit limit  |
| TX           | MetLife (now MetraHealth) HealthCare Network of Texas, Inc | IPA                     | 35,000                   | Most plans limit coverage to nutrition counseling as a part of diabetes education; 2-visit limit  |
| TX           | PCA Health Plans of Texas, Inc                             | IPA/ Network            | 168,000                  | Physician-referred MNT for diabetes, IBS; home nutrition services for HIV; 2-4 visit limit  |
| VA           | Aetna Health Plans of the Mid-Atlantic, INC                | IPA                     | 71,000                   | Physician-referred, medically necessary MNT; 1-visit limit  |
| VA           | Blue Cross & Blue Shield (Trigon, Richmond)                | Indemnity               |                          | None; nutrition counseling is specifically <i>excluded</i> except in home health care   |
| VA           | HMO Virginia, Inc/HealthKeepers (Trigon BC/BS)             | IPA                     | 67,000                   | Unlike the above plan, there is no specific exclusionary language (except for weight control services)  |

**\*Definitions:**

**Group:** An MCO that contracts for services separately with hospitals and with physician group practices and other health care professionals.

**Indemnity:** Traditional fee-for-service medicine in which providers are paid according to the service performed.

**IPA:** Similar to the network model, except most physicians in an independent practice association are solo practitioners.

**Mixed:** An MCO that offers several different types of plans.

**Network:** A group of physician and other practices that are bound together and contract with affiliated providers for medical services.

**POS:** An open-ended arrangement in which patients can receive care either from physicians who contract with the MCO or from those offering service for a fee.

**PPO:** Organizations that have contractual arrangements with insurers to offer medical services to a specific population on a discounted fee schedule.

**Staff:** Physicians and other health professionals who work in a facility owned and operated by the MCO.

\*\*Rounded to nearest thousand; from latest available data (1994-1995).

\*\*\*Some MCOs also conduct classes and/or have centers of excellence composed of multispecialty groups.

**TABLE II**  
**ADA REIMBURSEMENT DATA**

| Nutrition Services Claims Paid by Service or Revenue Code<br>(Codes with number of records > 20) |   |                                     |  |                              |
|--|---|-------------------------------------|--|------------------------------|
| <u>Code*</u>   | <u>Brief Description</u>  | <u>Average<br/>Payment<br/>(\$)</u> | <u>Average %<br/>schedule**<br/>reimbursed</u> | <u>Number<br/>of records</u> |
| 942  | Education/Training  | 39.65                               | 68   | 385                          |
| 99205  | Eval. & Mgmt (E&M)--new patient--<br>comprehensive--high complexity | 82.64                               | 78   | 192                          |
| 99213  | E&M--established patient--expanded--<br>low complexity              | 30.94                               | 68   | 163                          |
| 99201  | E&M--new patient--problem focused--<br>straightforward              | 47.02                               | 87   | 146                          |
| X0188  | (Unique state Medicaid code)  | 15.71                               | 100  | 111                          |
| 99244  | Consultation--comprehensive--moderate complexity                    | 86.59                               | 87   | 68                           |
| 99203  | E&M--new patient--detailed--low complexity                          | 39.77                               | 73   | 68                           |
| 99499  | Unlisted E&M service  | 31.00                               | 88   | 65                           |
| 99214  | E&M--established patient--detailed--<br>moderate complexity         | 32.66                               | 73   | 63                           |
| 99211  | E&M--established patient--minimal                                   | 20.02                               | 65   | 59                           |
| 99202  | E&M--new patient--expanded--straightforward                         | 33.52                               | 84   | 50                           |
| 99215  | E&M--established patient--comprehensive--<br>high complexity        | 54.24                               | 85   | 49                           |
| 99212  | E&M--established patient--problem focused--<br>straightforward      | 30.47                               | 76   | 46                           |
| 99262  | Follow-up inpatient consultation--expanded                          | 37.67                               | 74   | 27                           |
| Z9310  | (Unique state Medicaid code)  | 19.57                               | 100  | 23                           |
| 581  | Other Visits (Home Health)--Visit Charge                            | 165.22                              | 100  | 23                           |
| W9404  | (Unique state Medicaid code)  | 32.00                               | 100  | 21                           |
| W9402  | (Unique state Medicaid code)  | 26.00                               | 100  | 21                           |
| 510  | Clinic  | 46.60                               | 78   | 21                           |
| <i>Average for all records</i>   |   | <i>45.28</i>                        | <i>85.04</i>                                   | <i>(n=2039)</i>              |

\*3-digit RVS/UB-92 codes are for hospital-based services only. 5-digit HCPCS codes listed above are for outpatient services unless otherwise described. A complete discussion of codes can be found in "Coding for nutrition services: Challenges, opportunities, and guidelines," by Gordon Schatz, *Journal of the American Dietetic Association*. 1993; 93:471-477. ADA neither recommends nor provides lists of codes, which are obtainable from established sources.

\*\*Fee schedule for that payer, may be a prenegotiated discount rate.

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**TABLE II CONTINUED**  
**ADA REIMBURSEMENT DATABASE**

| <b>Nutrition Services Claims Paid</b><br><i>(Payers with number of records &gt; 20)</i> |                             |                                       |                          |
|---|-----------------------------|---------------------------------------|--------------------------|
| <u>Payer</u>  | <u>Average Payment (\$)</u> | <u>Average % schedule* reimbursed</u> | <u>Number of records</u> |
| Medicaid  | 26.35                       | 95                                    | 288                      |
| Harris Health Plan  | 49.06                       | 69                                    | 235                      |
| Medicare  | 31.73                       | 59                                    | 189                      |
| Prucare   | 42.46                       | 98                                    | 114                      |
| Blue Cross  | 62.62                       | 77                                    | 114                      |
| US Healthcare   | 32.54                       | 73                                    | 74                       |
| Travelers   | 45.58                       | 84                                    | 63                       |
| Medicare/Blue Cross**   | 54.83                       | 56                                    | 50                       |
| Aetna   | 38.73                       | 86                                    | 49                       |
| Qual Choice   | 20.25                       | 100                                   | 48                       |
| Pilgrim Health  | 42.96                       | 98                                    | 45                       |
| Prudential  | 44.67                       | 82                                    | 42                       |
| Medicaid--Preventive Services   | 29.00                       | 100                                   | 42                       |
| Medi-Cal  | 55.85                       | 70                                    | 40                       |
| Blue Cross/Blue Shields   | 62.31                       | 76                                    | 38                       |
| Medicare/Medicaid**   | 27.67                       | 82                                    | 33                       |
| Title V   | 65.19                       | 100                                   | 31                       |
| Prudential Community Care   | 40.00                       | 100                                   | 29                       |
| Blue Cross/Blue Shields Health Options  | 41.30                       | 100                                   | 27                       |
| Optimum Choice  | 52.04                       | 90                                    | 24                       |
| Matthew Thornton Health Plan  | 55.83                       | 81                                    | 22                       |
| Blue Shield of King County  | 34.15                       | 83                                    | 21                       |
| PacifiCare  | 40.52                       | 90                                    | 21                       |
| Mohawk Valley Physicians  | 45.00                       | 100                                   | 21                       |
| <i>Average for all records</i>  | <i>50.00</i>                | <i>81.10</i>                          | <i>(n=2711)</i>          |

| <b>Nutrition Services Claims Denied vs. Claims Paid by Payer</b><br><i>(Payers with records for claims denied &gt; 10)</i> |                      |                    |                            |
|--|----------------------|--------------------|----------------------------|
| <u>Payer</u>   | <u>Claims denied</u> | <u>Claims paid</u> | <u>Percent paid claims</u> |
| Blue Cross   | 96                   | 114                | 54                         |
| Medicare   | 40                   | 189                | 83                         |
| Medicaid   | 36                   | 288                | 89                         |
| Medicaid   | 14                   | 50                 | 78                         |
| Medicare/Blue Cross**  | 12                   | 38                 | 76                         |
| <i>Average percent paid claims (all payers) (n=416)</i>  |                      | <i>(n=2711)</i>    | <i>87</i>                  |

\* Fee schedule for that payer; may be a prenegotiated discount rate.

\*\* Primary payer/secondary payer.

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**TABLE II CONTINUED**  
**ADA REIMBURSEMENT DATABASE**

**Nutrition Services Claims Paid by Diagnosis**  
*(Diagnosis with number of records  $\geq$  20)*

| <u>Primary Diagnosis</u>                                | <u>Average Payment (\$)</u> | <u>Average % schedule* reimbursed</u> | <u>Number of records</u> |
|---|-----------------------------|---------------------------------------|--------------------------|
| Diabetes Mellitus Type II                               | 38.99                       | 75                                    | 585                      |
| Obesity   | 41.15                       | 84                                    | 231                      |
| Gestational Diabetes Mellitus                           | 48.02                       | 86                                    | 187                      |
| Hypercholesterolemia                                    | 48.38                       | 82                                    | 183                      |
| Hyperlipidemia  | 43.46                       | 84                                    | 125                      |
| Diabetes Mellitus Type                                  | 55.75                       | 80                                    | 121                      |
| Hypertension  | 39.68                       | 81                                    | 111                      |
| Diabetes Mellitus without complications                 | 67.75                       | 83                                    | 45                       |
| Diabetes Mellitus                                       | 46.94                       | 83                                    | 43                       |
| Hypoglycemia  | 49.70                       | 83                                    | 37                       |
| Abnormal weight gain                                    | 45.80                       | 69                                    | 27                       |
| Failure to thrive                                       | 37.19                       | 83                                    | 25                       |
| Weight Loss   | 33.59                       | 84                                    | 22                       |
| Diabetes Mellitus Type I with unspecified complications | 42.07                       | 83                                    | 21                       |
| <i>Average for all records</i>                          | 52.48                       | 85.78                                 | <i>(N=2689)</i>          |

**Nutrition Services Claims Denied vs Claims Paid by Diagnosis**  
*(Diagnosis with records for claims denied  $\geq$  10)*

| <u>Primary Diagnosis</u>                           | <u>Claims Denied</u> | <u>Claims Paid</u> | <u>Percent paid claims</u> |
|--|----------------------|--------------------|----------------------------|
| Diabetes Mellitus Type II                          | 77                   | 585                | 88                         |
| Hypercholesterolemia                               | 61                   | 183                | 75                         |
| Obesity  | 39                   | 231                | 86                         |
| Hypertension                                       | 22                   | 111                | 83                         |
| Hyperlipidemia                                     | 17                   | 125                | 88                         |
| Hypoglycemia                                       | 12                   | 37                 | 76                         |
| Diabetes Mellitus Type I                           | 11                   | 121                | 92                         |
| <i>Average percent paid claims (all diagnoses)</i> | <i>(n=382)</i>       | <i>(n=2689)</i>    | 88                         |

\*Fee schedule for that payer may be a prenegotiated discount rate.

Note: Variations on the diagnosis of diabetes represent separate ICD-9-CM codes.

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## COST EFFECTIVENESS OF MNT

Findings from both randomized controlled clinical trials and from case studies show that MNT can save health care dollars and improve outcomes when provided to patients with diseases or injuries that place them at risk of malnutrition (Table III).<sup>17</sup> Nearly 17 million patients each year are treated for illnesses or injuries that stem from or place them at risk of malnutrition. Whether patients are in hospitals, long-term care institutions, or the community, medical professionals now recognize that MNT is a key element in improving outcomes and speeding recovery for at least 40 % of hospital patients in the United States who are determined to be malnourished by clinical nutrition evaluations.<sup>18</sup> MNT has been shown to save, on average, more than \$8 thousand per case, according to an internal case study analysis conducted by the ADA. The saving is the result of reduced length of hospital stay, fewer complications, decreased need for costly medications, and decreased need for high-technology treatment.<sup>19</sup> The ADA analyzed nearly 2400 case studies and documented the following annual or one-time per patient cost savings possible when MNT was appropriately provided for diseases and conditions:

TABLE III  
COST EFFECTIVENESS OF MNT

| DISEASE/CONDITION                       | CASE SAVINGS | MNT BENEFIT   |
|---|--------------|---|
| CANCER                                  | \$10,535     | ENHANCES THE EFFECTIVENESS OF CHEMOTHERAPY AND RADIATION THERAPY                      |
| HEART DISEASE                           | \$9,134      | REDUCES THE NEED FOR DRUG THERAPY AND OTHER ARTERY-CLEARING PROCEDURES AND/OR SURGERY |
| INSULIN-DEPENDENT DIABETES MELLITUS     | \$9,049      | REDUCES OR ELIMINATES THE NEED FOR INSULIN OR ORAL AGENTS                             |
| NON-INSULIN-DEPENDENT DIABETES MELLITUS | \$1,994      | REDUCES OR ELIMINATES THE NEED FOR INSULIN OR ORAL AGENTS                             |
| RENAL DISEASE                           | \$18,467     | POSTPONES THE NEED FOR DIALYSIS   |
| HIGH CHOLESTEROL                        | \$2,709      | REDUCES THE NEED FOR DRUG THERAPY   |
| HYPERTENSION                            | \$4,075      | REDUCES DRUG USE AND PREVENTS COMPLICATIONS   |
| ACUTE OR TRAUMA CONDITIONS              | \$7,051      | TRANSITIONS THE PATIENT TO LESS INVASIVE AND LESS EXPENSIVE NUTRIENT SOURCES          |

Information adapted from Journal of The American Dietetic Association, 1995; 95:974.

In a survey of 2,337 patient records at 19 hospitals, early nutritional intervention and regular clinical nutrition services decreased hospital stays for malnourished and at-risk patients. This translates into \$8,200 per bed per year average cost savings according to *Cutting Hospital Cost with Clinical Nutrition Services*, a report by the Nutritional Care Management Institute of Tucker, Georgia.<sup>20</sup>

The Diabetes Control and Complications Trial (DCCT), a multicenter 10-year study of insulin-dependent diabetes mellitus, demonstrated that optimal glycemic control reduced the risk of diabetes complications by 60%.<sup>21</sup> Another study compared patients who were treated by only an internist with patients treated by a diabetes team, consisting of an endocrinologist, nurse diabetes educator, and a dietitian. The team approach helped reduce the length of hospital stays by 56% for patients hospitalized with a primary diagnosis of diabetes. Since cost estimates for hospitalizing patients with diabetes run \$65 billion per year, the potential five day reduction in hospitalization found by this study could mean billions of dollars per year in health care savings.<sup>22</sup> Registered dietitians as key members of the DCCT diabetes management teams were able to identify and promote specific diet-related behaviors associated with improved glycemic control.<sup>23</sup>

Managed Care Organizations now provide health care to more than one-third of the United States population.<sup>24</sup> Current health care payment and managed care systems have decreased the length of hospital stays, and the MHSS experience reflects this trend. Furthermore, increasing numbers of Medicare beneficiaries are enrolling in managed care programs. As the inpatient census in acute-care settings declines, and length of hospitalization decreases, the predominant setting for MNT will shift from inpatient to ambulatory-care settings. Medical nutrition therapy has taken on increased importance as

patients are discharged sooner and require continued nutrition care in other settings--long-term-care facilities and rehabilitation centers, community and outpatient facilities, hospice, and home care.<sup>25</sup> Many MCOs recognize the cost savings of MNT and have already incorporated some form of nutrition therapy into their plans.

### Medicare

The Medicare Program was established by Title XVIII of the Social Security Act of 1965 and, with 34 million beneficiaries, is the largest health care insurer in the United States.<sup>26</sup> Medicare is governed by federal law and is administered by the Health Care Financing Administration (HCFA) which is part of Health and Human Services.

In 1997 DOD will implement a Medicare/Military managed care simulation project as part of a continuing effort to provide access to military health care for Medicare-eligible beneficiaries. The project will be conducted at selected medical treatment facilities (MTFs) and will attempt to capture data simulating potential reimbursement from Medicare. The goal of this project is to test a cost-effective alternative for delivering quality care to dual-eligible beneficiaries without increasing the total federal cost for either agency.<sup>27</sup>

As changes in the Medicare program encourage participants to enroll in managed care plans, nutritional screening can identify those at risk, so that early MNT can help avert the higher costs associated with malnutrition. Because malnutrition is seen most often in the elderly, it is understandable then that older people make more visits to the physician. Additionally, elderly malnourished patients are hospitalized more, tend to remain in the hospital twice as long, are more frequently readmitted, and incur hospitalization costs as much as \$10,000 more than well-nourished elderly patients.<sup>28</sup>

## Quality Management Inspections

Health Maintenance Organizations that have Medicare risk contracts are required to report Health Plan Employer Data and Information Set (HEDIS) measures. The new version of HEDIS (3.0) has just been released by the National Committee for Quality Assurance (NCQA), a private, not-for-profit organization dedicated to assessing and reporting on the quality of managed care plans. In 1991, NCQA began accrediting MCOs in response to the need for standardized, objective information about the quality of these organizations. Now dietitians can increase their value to the MCO by illustrating how MNT can help an MCO meet these reporting and testing measures from the NCQA.<sup>29</sup>

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is the leading health care facility accreditation organization. Prior to 20 July, 1995 DOD policy exempted hospitals with fewer than 25 beds and clinics from JCAHO accreditation. However, the DOD regulation DoDD 6025.13 was revised 20 July 1995, and established the accreditation requirement for all fixed hospitals and free standing ambulatory clinics by 20 July, 1998.<sup>30</sup> Again, dietitians and MNT intervention are necessary for hospitals and clinics to meet the many diverse requirements of the JCAHO accreditation, even in the smallest MTFs.

## Dietetic Professionals

Medical nutrition therapy plays an important role throughout the continuum of care in all practice settings and phases of the life cycle from prenatal care through care of the elderly.<sup>31</sup> Provided by dietetics professionals, MNT has been clearly shown to result in enhanced health benefits for the public and reduced health care costs and should be an essential

reimbursable component of comprehensive health care services. The case is strong for designating that nutrition professionals, rather than primary care providers, should deliver nutrition care. The use of other professionals may compromise quality and may actually increase health care costs. Dietitians are not only a more cost-effective means of providing MNT than primary care providers, but are also more qualified to provide the service.

Dietitians are qualified by education, supervised experience, and passage of a national or state examination. They are leaders in nutritional assessment, therapies, and monitoring of quality care and serve as educators of other health professionals in nutrition-related areas.

Healthy People 2000 states the following objective: "Increase to at least 75% the proportion of primary care providers who provide nutrition assessment and counseling and/or referral to qualified nutritionist professional or dietitian".<sup>32</sup> The US Preventive Services Task Force recommends that clinicians who are unable to perform a complete dietary history, understand barriers to changes in eating habits, and offer individualized guidance on food selection and preparation should refer patients to a registered dietitian or qualified nutritionist for further counseling.<sup>33</sup> Healthy People 2000 indicated that only 26% of adults report that eating proper foods was often or sometimes discussed during visits to the doctor or other health professional for routine care. A Healthy People 2000 study revealed that only 35% of Massachusetts primary care physicians reported feeling very prepared to counsel patients concerning nutrition and only 7% felt very successful in doing so.<sup>34</sup> Through the diligent efforts of individual dietitians working to educate the more than 1,500 insurers and thousands of self-insured companies about the cost-effectiveness of MNT, many private insurers are now providing coverage and reimbursement.

## Wellness

Participation in wellness and health promotion programs leads to healthy lifestyles and long term wellness. Wellness is essential to the success of TRICARE as it has been to HMOs. Preventive and wellness nutrition intervention may not show immediate cost savings; however, the incentive in managed care systems is to keep people healthy, as this investment reduces the amount of care beneficiaries will require, thereby increasing the providers' profits. This incentive has emphasized prevention and wellness programs such as MNT. It makes sense to emphasize prevention with the intention of controlling health care costs before conditions require much more expensive treatment.

Health promotion in the military took on an expanded role in 1995 when the U.S. Army Center for Health Promotion and Preventive Medicine (CHPPM) became operational. This new major AMEDD subordinate command, built around the pre-existing Army Environmental Hygiene Agency, provides world-wide scientific expertise and services in clinical and field preventive medicine, environmental and occupational health, health promotion and wellness, epidemiology and disease surveillance, and related laboratory sciences. One of the goals of CHPPM is to keep soldiers fit to fight, while also promoting wellness in their families. Currently, only one dietitian is assigned to this organization, but the recognition of the importance of MNT has led to efforts to increase this number.

## CURRENT ACTIONS

Now that MNT is being recognized as a conservative, non-invasive, and cost-effective means of treating many diseases, people are beginning to challenge the ambiguities of the Medicare and CHAMPUS regulations and the inconsistency of the TRICARE contract.

### Congressional Action

The proposed MNT Act of 1995, House of Representatives (H.R.) 2247/Senate (S.) 1964 was introduced to the House of Representatives in August 1995 by Representative Jose Serrano (D-NY) and to the Senate in July 1996 by Senator Jeff Bingaman (D-NM). It provides for reimbursement of MNT services by registered dietitians and nutrition professionals under Part B of the Medicare program. The bill defines MNT services as:

nutritional diagnostic, therapy, and counseling services which are furnished by or under the supervision of a registered dietitian or nutrition professional who is legally authorized to furnish such services under State law (or the State regulator mechanism provided by State law) of the state in which the services are furnished, as would otherwise be covered if furnished by a physician or as an incident to a physician's professional service.<sup>35</sup>

Before Congress adjourned in September 1996, the bill had 91 co-sponsors in the House and four co-sponsors in the Senate.<sup>36</sup> The bill will be reintroduced in spring 1997 after the new Congress convenes.

### Military Efforts

In the military senior army, air force, and navy dietitians collaborated their efforts through the Nutrition Benefit Working Group. This working group has made great strides to gain approval through Health Affairs, the lead medical proponent in DOD, to incorporate MNT into the TRICARE contract. Health Affairs has directed this group to

reengineer clinical services to ensure that MNT is an integral part of case management. At a minimum, MNT should be incorporated into the critical pathways and protocols for eight diagnoses: diabetes, high risk pregnancies, hypercholesterolemia, renal disease, hypertension, gastrointestinal disorders, failure to thrive, and malnutrition. Data supports the cost effectiveness and health benefits of early MNT intervention for each of these diagnoses.<sup>37</sup>

### Military Cost Assumptions

The Nutrition Benefit Working Group has estimated that it will cost between \$9.1 - 12.1 million to modify the TRICARE contract and to provide MNT for CHAMPUS users. To determine this amount, the committee used the Center for Disease and Control (CDC) prevalence data for the eight diagnoses and applied it to the number of CHAMPUS users: diabetes 29.9/1000; gestational diabetes 3% of the pregnancies; high risk pregnancies 1-3/1000 live births; elevated cholesterol 200/1000; renal .147/1000; hypertension 108.8/1000; failure to thrive 3-5% of infant admissions. The two diagnoses, malnutrition and gastrointestinal diagnoses were not utilized for the cost analysis. They also made some assumptions: at least 50% of the patients had multiple diagnoses and could be assessed and instructed in the same visit. They recognized that not all beneficiaries return for the full scope of instruction, and they adjusted for those patients who had already been treated, using a civilian external peer-reviewed study as the basis for adjustment. Utilization rates for Andrews Air Force Base were used as the basis for the visits to be purchased. Current utilization rates are indicative of future demands. They also assumed that the military direct care system will be maximized first before patients are sent to a contractor and that this would

be the primary avenue of care for the active duty. They estimated that the DOD would require 544,172 MNT visits/year and that the military treatment facilities direct care system could provide 306,882 visits/year, leaving 237,290 visits/year for TRICARE to purchase. With Medicare Subvention, an additional 39,460 visits would need to be purchased at the estimated cost of \$2 million.<sup>38</sup>

To facilitate the military dietitians in seeing more patients, and thus reducing the need for a contractor, the three services have begun to realign most of their inpatient and production and service dietitians, moving them to the community, outpatient, and health promotion areas. The air force has also begun to realign their enlisted dietetic technicians. The three services are working diligently to ensure that MNT is intrinsic to patient care throughout the direct care system. Medical nutrition therapy is being addressed in physician protocols and incorporated through clinical pathways and case management.<sup>39</sup>

#### Military Savings Assumptions

The DOD committee has also completed a cost study for MNT, and even with extremely conservative patient numbers and results, has shown a 1:2.7 to 1:3.6 return on investment (ROI) over five years for patients under 65. If the Medicare subvention study is approved the estimated ROI would be 1:3.3 to 1:4.4 over five years. If MNT is incorporated, cost savings are estimated at \$13.3 million per year. This savings results from reduced health care costs due to decreased drug treatments, complications, admissions, and length of stays.<sup>40</sup> The three services will collect concise data using the DOD Nutrition Information Management System (NMIS) to measure clinical outcomes of the eight diagnoses beginning in spring 1997. Management software will collect cost and savings data, and utilize the

automated data system for intervention data success rates. The study will at a minimum be conducted at a small, medium and large MTF. The results of these studies will help military dietitians continually improve clinical practice, decrease deviations, and better manage the health of the beneficiaries.<sup>41</sup>

#### The Lewin Group Study

A current study to determine the econometrics of including MNT in the Medicare Part B program was realized when the ADA contracted with the Lewin Group in November 1996. The data base of Group Health Cooperative of Puget Sound was selected by the Lewin Group due to their large data base, and because they had already been offering MNT coverage provided by registered dietitians for more than six years. A sample rich data base, which included 16,000 Medicare patients with diabetes and 38,000 with cardiovascular disease, helped to provide validity to this study. The recent completion of the study in February 1997 determined that MNT could be provided to all Medicare beneficiaries for less than \$370 million over seven years. It also clearly demonstrated that savings are produced, and projected to be greater than cost after the third year of coverage when MNT is provided as a benefit under Part B of the Medicare program. Over a seven year period, savings for patients with heart disease would be close to \$800 million, while patients with diabetes projected an impressive \$1.6 billion in savings. Additional information gleaned from this study documented that MNT may offer a partial solution to the survivability of the Medicare Trust Fund, because MNT is also a source of savings to Medicare Part A.<sup>42</sup>

## RECOMMENDATIONS

Congress is faced with a monumental challenge to reform the Medicare program-- cutting costs while continuing to provide good health care. Concurrently, DOD is faced with the same challenge with the implementation of TRICARE. Services that reduce long-term medical costs, such as MNT, are essential to meeting these challenges.

Changing the law is a laborious, tedious, and time consuming process. Congress, medical practitioners, insurance companies, employers, and the public must be educated concerning the cost benefits of MNT. The MNT Act was first introduced to Congress in August 1995.<sup>43</sup> Because Congress adjourned and a new Congress has been elected, the act must be reintroduced in Spring 1997. If the Act is not persistently advocated and closely followed, another two years could pass without Congressional action.

Health Affairs needs to modify the TRICARE contract so that MNT becomes a mandatory part of the benefits package for MHSS beneficiaries. The military medical commands should re-engineer clinical practices to ensure the MNT is a component of case management and critical pathways for diabetes, high risk pregnancies, renal disease, hypercholesterolemia, hypertension, gastrointestinal disorders, and malnutrition. Clinical practice guidelines must be developed, implemented, and evaluated to establish MNT as a part of comprehensive health care. Cost analysis studies should be ongoing to provide additional evidence that MNT is a cost-effective means of treating, controlling, and medical conditions.

With the drawdown of the military preventing other diseases and forces, and the closing or downsizing of many military hospitals, all three military services should concentrate on realigning their dietetic assets. Dietitians and technician positions should shift into

outpatient clinics, wellness programs, troop units, and the community. More dietitian positions should be utilized in programs such as CHPPM to promote wellness and preventive nutrition and to help educate the troops and the community. Dietitians must continue to market their services and educate not only the physicians and military leaders, but also the military health care beneficiaries concerning the benefits of MNT.

If MNT is not incorporated into the CHAMPUS regulation and the TRICARE contract, the inequity will continue between the military direct care system and TRICARE. Furthermore, the military health care delivery system will not adequately address MNT requirements for the Joint Commission for Accreditation of Hospitals Organization (JCAHO) or the National Committee on Quality Assurance (NCQA). Probably the greatest consequence is that the military will be forced to treat conditions that could have been prevented, potential savings will not be realized, and healthcare costs will continue to skyrocket.

## CONCLUSION

The Surgeon General's Report on Nutrition and Health (1988) and health objectives outlined in Health People 2000 (1990) clearly illustrates that diet and nutrition are key to preventing and treating the leading causes of death and illness in the United States. As the health care system in the United States continues to move to a system of managed care, dietitians in both the civilian and military arenas have been marketing the value of MNT as a quality, cost-effective intervention.

Because MCOs generate higher profits by keeping their enrollees healthy, they have a greater stake in wellness and prevention programs than traditional fee-for-service plans. By keeping their patients healthy, MCOs can reduce the high costs associated with lengthy hospitalizations and other medical services.<sup>42</sup> This emphasis on cost containment creates opportunities for providers of MNT, as it has been clearly established that MNT saves health care dollars. Given that MCOs have demonstrated the value of utilizing MNT, Congress and DOD should recognize the cost effectiveness and overall health enhancement of this intervention by incorporating MNT into Medicare and CHAMPUS. Then the government, who pays for these programs, can capitalize on the cost savings aspect of MNT as well as the increased productivity of a healthier population.



## ENDNOTES

<sup>1</sup>M. Carey and S. Gillespie, "Position Of The American Dietetic Association: Cost-effectiveness Of Medical Nutrition Therapy," Journal Of The American Dietetic Association 95 1995: 88.

<sup>2</sup>CHAMPUS Regulation 6010.8-R, Program Benefits, Chapter 4, Paragraph G.39.

<sup>3</sup>LTC Sandy Murray, interview by author, 9 October 1996, Andrews Air Force Base, MD.

<sup>4</sup>M. Carey and S. Gillispie, 89.

<sup>5</sup>Jeff Moon, LTC and James T. Walsh, MAJ, "Medicare Simulation: Movement Toward A Health Care Financing Administration and DOD Joint Venture in Managed Care," Army Medical Department Journal PB 8-96-11/12 November/December: 4.

<sup>6</sup>James C. Boxmeyer, CPT, "Marketing/TRICARE: A Private Sector Comparison," Army Medical Department Journal PB 8-96F-11/12 November/December: 11.

<sup>7</sup>Ibid., 11.

<sup>8</sup>Murray, 9 October 1996.

<sup>9</sup>Legislative Highlights, "ADA Urges Congress To Expand Medicare Coverage For Medical Nutrition Therapy," The Journal Of The American Dietetic Association 95 1995: 974.

<sup>10</sup>Ibid.

<sup>11</sup>"Nutrition Screening Initiatives. Challenges And Opportunities: Making Nutritional Status A Vital Sign In Managed Care," Managed Care Medicine 1995: S-1-S-19.

<sup>12</sup>The American Dietetic Association "Pitching Proposals To MCOs: Obtaining Managed Care Coverage For Medical Nutrition Therapy," cassette produced by The American Dietetic Association 1995.

<sup>13</sup>Position Paper, "Position Of The American Dietetic Association: Nutrition Services In Managed Care," The Journal Of The American Dietetic Association 96 1996: 391-395.

<sup>14</sup>Legislative Highlights, 974.

<sup>15</sup>The American Dietetic Association, Medical Nutrition Therapy Across the Continuum of Care (Chicago: The American Dietetic Association, 1996), Appendixes 14-17.

<sup>16</sup>The American Dietetic Association Reimbursement Team "ADA Reimbursement Data," (Chicago: The American Dietetic Association, 1996).

<sup>17</sup>Legislative Highlights, 974.

<sup>18</sup>Ibid.

<sup>19</sup>Ibid.

<sup>20</sup>Position Paper, "H.R. 2247/S.1964 - The Medical Nutrition Therapy Act," The American Dietetic Association, 1996: 2.

<sup>21</sup>The Diabetes Control and Complications Trial (DCCT) Research Group, "The Effect Of Intensive Treatment Of Diabetes On The Development And Progression Of Long-term Complications In Insulin-dependent Diabetes Mellitus," New England Journal Of Medicine 329 1993: 977.

<sup>22</sup>Legislative Highlights, 974.

<sup>23</sup>The Diabetes Control and Complications Trial (DCCT) Research Group, "Nutrition Intervention For Intensive Therapy In The Diabetes Control And Complications Trial: Implications For Clinical Practice," Journal Of The American Dietetic Association 93 1993: 768.

<sup>24</sup>Position Paper, "Position Of The American Dietetic Association: Nutrition Services In Managed Care," 391.

<sup>25</sup>Carey, 89.

<sup>26</sup>Nutrition Entrepreneurs Dietetic Practice Group, "Reimbursement Overview, Government Programs - Medicare," Nutrition Entrepreneur's Guide to Reimbursement Success, (Chicago: The American Dietetic Association, 1996), 1.

<sup>27</sup>Moon, 5.

<sup>28</sup>Position Paper, "Position Of The American Dietetic Association: Nutrition Services In Managed Care," 391.

<sup>29</sup>NCQA "National Committee For Quality Assurance An Overview," (Washington, D.C.: National Committee For Quality Assurance, 1997), 1.

<sup>30</sup>DOD(HA) Quality Management Division, "Department Of Defense 1995 Quality Management Report Direct Care System," October 1996, 7.

<sup>31</sup>Carey, 90.

<sup>32</sup>Healthy People 2000: National Health Promotion And Disease Prevention Objectives, Washington, D.C.: U.S. Dept. Of Health And Human Services, 1990, 95.

<sup>33</sup>Report of the U.S. Preventive Services Task Force, Guide To Clinical Services: An Assessment Of The Effectiveness Of 169 Interventions, 1989: 309.

<sup>34</sup>Murray, 9 October 1996.

<sup>35</sup>104<sup>th</sup> Congress, "H.R. 2247 - A Bill," 4 August 1995: 2.

<sup>36</sup>Todd Ketch, Government Affairs Team, The American Dietetics Association, telephone interview by author, 1 October 1996.

<sup>37</sup>LTC Sue Chaing, interview by author, 10 February 1997, Falls Church, VA.

<sup>38</sup>LTC(P) Esther Myers, interview by author, 10 February 1997, Andrews Air Force Base, MD.

<sup>39</sup>Chaing, 10 February 1997.

<sup>40</sup>Myers, 10 February 1997.

<sup>41</sup>Chaing, 10 February 1997.

<sup>42</sup>Michele Mathieu-Harris, Health Care Financing Team, "The Lewin Group Report," The American Dietetic Association 1997 Legislative Symposium, Washington, D.C.: The American Dietetic Association, 17 March 1997.

<sup>43</sup>Ketch, 1 October 1996.



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