SUPPORTING DOCUMENT 6:

ILLUSTRATIVE AGENCY REPORTS

in Volume 3 of the report series entitled:

OASIS and Outcome-Based Quality Improvement in Home Health Care:
Research and Demonstration Findings, Policy Implications,
and Considerations for Future Change

for the three interrelated studies:

The National Medicare Quality Assurance and Improvement Demonstration
The New York State Outcome-Based Quality Improvement Demonstration
A Project to Assist Home Care Providers to Effectively Use Patient Outcomes

February 2002

OVERVIEW

In the first component of Outcome-Based Quality Improvement (OBQI), as implemented in the National and New York State Demonstrations, OASIS data were collected, transmitted, and analyzed to produce a set of five reports for each participating home health agency. Report sets (consisting of outcome, case mix, patient tally, adverse event, and consumer response and satisfaction reports) were distributed to each National Demonstration agency in 1997, 1998, and 1999. New York State Demonstration agencies received reports in 1997, 1998, 1999, and 2000.

This supporting document contains OBQI reports and accompanying instructional material for *Faircare Home Health Services*, a fictitious home health agency. The reports cover two time periods: January 1, 1999 through December 31, 1999 and January 1, 2000 through December 31, 2000. These reports (and the associated documentation) are illustrative of those provided to demonstration agencies (in a notebook with a summary and dividers) each report year.

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SECTION A

Illustrative First Year Outcome and Case Mix Reports, and Guidelines/Instructions for Understanding and Using Outcome, Case Mix, and Patient Tally Reports

First Year Outcome and Case Mix Reports

for Faircare Home Health Services

National Medicare Quality Assurance and Quality Improvement Demonstration

Outcome-Based Quality Improvement

February 28, 2000

Florence Nightingale, Administrator
Faircare Home Health Services
100 Main Street
Centerville, USA

Dear Ms. Nightingale:

This summary letter has two sections. The first section is essential to understanding how and why your Outcome Reports contain certain information and are produced in a specific format. While you are already familiar with several of these "hows and whys," several are new because it was not appropriate to present them until these reports were produced and underwent final review here at the Research Center. Section 2 of this summary letter contains comments and observations regarding your outcomes and case mix. These comments are tailored uniquely to your agency. This section concludes with some recommendations from us on what you might consider next. Of course, the final decision on what to do and how to change is yours.

**SECTION 1: BASIC INFORMATION REGARDING
YOUR OUTCOME AND CASE MIX REPORTS**

The single most important principle to keep in mind is that the true test of your agency's effectiveness in enhancing outcomes begins in February 2000. You will use the enclosed Outcome Report(s) to select one (or at most two) additional target outcomes that you wish to improve along with your hospitalization rate. It is your 2000 performance in terms of the target outcome of hospitalization and the additional target outcome you select that will be compared with your 1999 results (in the current report) in 2001. Please review your outcome results using the criteria in our Demonstration Manual so you might <u>choose an additional target outcome where you know there is ample room for improvement</u>.

It is critical that you not let yourself or others in your agency become preoccupied with your performance relative to the reference sample of patients from all demonstration agencies. As you know, this is a sample of patients from a group of carefully screened agencies selected for the OBQI demonstration because we judged <u>all</u> agencies to be well qualified and have highly motivated staff. If you consider your performance below average relative to this comparison group, do not allow yourself or anyone else in your agency to make assumptions about what your agency's effectiveness would be relative to a nationally representative sample of agencies. Also, recall that approximately 50% of the demonstration agencies must be below average and 50% above average. Just as important, if you consider your performance above average, do not allow yourself or anyone else to conclude there is little or no room for improvement because there are now approximately 8000 other certified agencies in the United States. A number of these agencies undoubtedly would have results for selected outcome measures that rival or exceed yours. Thus, this first round of outcome reports should not be cause for discouragement or, worst of all, complacency. **Rather, those reports should be viewed as a major and pervasive accomplishment by all at your agency.** In particular, your reports should serve primarily as a benchmark or baseline for comparing the impacts of the plans of action resulting from the process-of-care investigations that you will conduct for hospitalization and your other target outcomes.

Before reviewing your Outcome and Case Mix Reports found in Dividers B, C, and D, we suggest you first review the guidelines in Divider A and familiarize yourself with the following points:

1. Every agency has a global or "All Patients" Outcome and Case Mix Report. If your agency had more than 30 orthopedic and/or 30 cardiac discharges in your 1999 database of discharged patients, then you also have Outcome and Case Mix Reports for your orthopedic and/or cardiac patients found in Dividers C and/or D, respectively. Owing to a more refined method of risk adjusting, we were able to lower the sample size requirement from 60 to 30 patients for producing an Outcome Report.

2. In both the Outcome and Case Mix Reports, the findings pertaining to your agency are compared with a reference group. The reference sample of 11,183 cases for the outcome reports was selected from all data collected in the national demonstration. It consists of approximately 50% of all discharged patients for whom we had "clean" data in 1999. No agency was allowed to contribute more than 5% of the patients to this reference sample. This was the sample of patients used to develop our multivariate models to risk adjust all outcome measures that appear in your Outcome Reports. We used only 50% of the cases because the remainder were set aside to validate the effectiveness of the risk adjustment methodologies. The reference sample for the case mix reports (29,983) consists of all "clean" data collected in 1999, again with the same stipulation that no agency contributed more than 5% of the total sample.

3. In order to incorporate as many cases as possible on your behalf, we continued to update our data files until January 7, 2000. Therefore, the number of cases from your agency used in your Outcome and Case Mix Reports was as large as possible, starting from the time you began data collection.

4. Your Case Mix Reports reflect your patient profile <u>at start of care</u> for all (discharged) patients in your agency's sample. This profile is compared with an analogous profile for the entire reference sample using over 100 different case mix factors. The Case Mix Reports enable you to determine differences between your case mix and that of the other agencies participating in the demonstration program. Please bear in mind that these differences were taken into consideration in producing risk-adjusted Outcome Reports.

5. Your Outcome Reports also are based on the reference sample for comparative purposes, but in a different way from the Case Mix Reports. For each outcome measure, a bar graph is presented. The first of the two bars reflects the actual percentage of your patients that attained the outcome in your "current" sample for 1999. The second bar is based on the reference sample and reflects what your expected outcome rate would be given your case mix or risk factor distribution for that outcome. In short, the white bars in the Outcome Report represent your actual outcome rates and the darkened bars represent your expected outcome rates based on the reference sample.

6. Utilization outcomes pertaining to discharge to the community, hospitalization, and emergent care were computed for all patients in your agency sample. Results for these measures appear on the final page of your Outcome Report. The results for improvement and stabilization measures (end-result outcomes), appearing in the beginning of your Outcome Report, were computed only for those patients not discharged to an inpatient facility. Therefore, the results for these end-result outcome measures are based on smaller samples than the results for the utilization outcome measures.

7. A large number of outcome measures can be computed using the OASIS. Those included in your Outcome Report were selected as the most relevant and useful measures for this first round of Outcome Reports for your patient population. Within the Outcome Reports, results and significance

levels are presented for each measure as long as the sample size corresponding to the measure is at least 10. If you had nine or fewer patients on whom the outcome measure could be computed validly, the Outcome Report contains only the percentage of patients who attained the outcome for your current agency sample and for the reference comparison (expected value).   Statistical significance is not provided in this case because you do not have an adequate number of patients for a valid statistical comparison.   Also, some outcome measures were excluded altogether because we are not yet satisfied with the risk-adjustment methodology or models for such outcomes. Nonetheless, as you can see from the reports, you have a number of outcomes that provide valid and useful results for you to analyze.

8.   Your focus should be on using the Outcome Reports to select a target outcome in addition to hospitalization. Please remember, as we have discussed in training and other communications, that it is natural to be disappointed with outcomes in areas where your performance appears inferior -- to the point of trying to explain away the inferior performance by pointing to case mix differences or other factors.   This is a very natural reaction.   When this occurs, recall that the outcome measures are risk adjusted for case mix differences.

9.   Although this is your Outcome Report to circulate or disseminate as you wish, we would encourage a controlled and circumscribed dissemination this year. We absolutely will not publicize reports on individual agencies or publicize any information about the entire demonstration showing which agencies might be ranked higher than other agencies. This is not what we are about -- as you well know. Analogously, since your main goal is to use these reports for CQI purposes, it is important to move into the process-of-care investigation as soon as possible. At this time not enough people understand and can interpret Outcome Reports. We advise carefully educating those in your own agency to whom you provide the Outcome Reports.   As time goes on, it will be much more commonplace and straightforward for other individuals to read and interpret such reports.

10.   A final point on sample size: the Case Mix Reports have a very large reference sample. Therefore, you will observe a relatively large number of significant differences between your case mix profile and that of the reference sample -- simply because of the sheer number of patients contributing to the reference sample. For the Case Mix Reports, we used lower significance levels than those presented in the training materials (a single asterisk [*] corresponds to the .01 level and a double asterisk [**] corresponds to the .001 level in the Case Mix Reports). Nevertheless, even relatively small case mix differences are sometimes asterisked as statistically significant because of the large reference sample size.   Therefore, you should not "overinfer" about relatively small case mix differences simply on the basis of statistical significance.

Other information and guidelines on interpreting the definitions and statistics in your Outcome and Case Mix Reports are found in Divider A.

**SECTION 2: SPECIFIC INFORMATION AND SUGGESTIONS REGARDING
YOUR AGENCY'S OUTCOME AND CASE MIX REPORTS**

The comments in this section constitute an overview of what we perceive to be the more important findings from your Outcome Reports. Case mix results are discussed only briefly, if at all. As you are aware, the Case Mix Reports can serve multiple purposes independent of Outcome Reports, such as providing a descriptive overview of the types of patients you admit, monitoring the extent of changes in the population you serve over the course of time, aiding public relations, and marketing to payers in terms of the types of information you collect and can display. The Outcome Reports can serve several such purposes as well. Our concern here focuses on your Outcome Reports with a view toward suggestions that might assist you in determining the target outcome you will choose in addition to hospitalization.

The sample sizes upon which each report is based are found in the upper left-hand corner. The number of patients from your agency that contributed to the report is presented first and the reference sample size is presented below that of your agency. For your Outcome Report, the total sample sizes are in the upper left-hand corner, but the measure-specific sample sizes appear next to each measure.

With respect to the Outcome Reports, please remember that improvement measures are based only on patients who can improve (therefore, your outcome results for improvement measures exclude patients who were at the "zero level" or were independent at start-of-care according to the functional or health status scale used to compute the outcome measure). Analogously, stabilization measures are not computed for patients who cannot worsen (i.e., were at start-of-care at the most dependent extreme of the functional or health status scale used to compute the stabilization measure). Therefore, every end-result outcome measure is based on an agency-specific sample size that is lower than that provided in the upper left-hand corner of each report, since all improvement and stabilization outcome measures typically entail exclusions.

Your agency-specific sample sizes for utilization outcome measures at the end of each Outcome Report, however, are based on all patients. The only reason these sample sizes might differ from those in the upper left-hand corner would be missing data for the utilization outcome measure under consideration -- for relatively few patients. Please remember, as indicated earlier, that the utilization outcome measures were computed for all discharged patients whereas the improvement and stabilization measures were computed only for those patients not admitted to an inpatient facility. Because of this, the sample sizes given for the end-result outcomes (i.e., improvement and stabilization measures) in your Outcome Reports are smaller than those that appear for the utilization outcomes. In discussing your agency's Outcome Reports, we use the term "favorable" for end-result outcome rates and discharge-to-the-community rates that are <u>higher</u> for your agency than the reference group, and for hospitalization and emergent care rates that are <u>lower</u> for your agency than the reference group. We use "unfavorable" to denote the opposite results.

In the following comments, we attempt to synthesize the most important outcome findings from your All Patients', Orthopedic, and Cardiac Outcome Reports. Your reports include a mix of favorable and unfavorable outcomes, as well as those that do not significantly differ from the reference values. Such a pattern always occurs when many outcomes are examined.

All Patients: Of the 41 outcomes in your All Patients' Outcome Report, 28 are not significantly different from the reference values, four are significantly different and favorable, and nine are significantly different and unfavorable. The following are the results for the major subcategories of outcome measures:

1. For the 14 **functional improvement** measures, seven are not significantly different from the reference values, three are significantly different and favorable, and four are significantly different and unfavorable.

2. For the nine **functional stabilization** measures, six are not significantly different from the reference values, none is significantly different and favorable, and three are significantly different and unfavorable.

3. For the 12 **physiologic, cognitive, emotional, or behavioral improvement** measures, 11 are not significantly different from the reference values, none is significantly different and favorable, and one is significantly different and unfavorable.

4. For the three **physiologic, cognitive, emotional, or behavioral stabilization** measures, two are not significantly different from the reference values, one is significantly different and favorable, and none are significantly different and unfavorable.

5. For the three **utilization** measures, two are not significantly different from the reference values and one is significantly different and unfavorable.

The reports for your **Orthopedic Patients** show a similar pattern of results with 14 of the outcome measures not significantly different from the reference values. For the **Cardiac Patients**, 18 of the measures are not significantly different from the reference values.

<u>Case Mix:</u> In view of the large number of factors in the Case Mix Reports, as well as the large size of the reference sample, it is natural that a variety of differences will appear between your case mix and the average case mix of the total reference sample. For example, compared with the reference group, your patients are younger, are more impaired in functional status (IADL) at SOC, and have a longer LOS. It is important to note, however, that case mix differences were taken into account in risk adjusting your patient outcomes.

Your case mix report shows a significantly higher percentage of patients with contagious/communicable diseases. If this is not consistent with your impressions of your patient population, you might investigate whether appropriate ICD coding is occurring. Remember that surgical procedure codes are not appropriate responses for OASIS items requesting ICD codes. When these procedure codes are mistakenly inserted, the contagious/communicable population appears to be larger.

<u>Selecting Target Outcomes</u>: In addition to the target outcome of Acute Care Hospitalization, we usually encourage agencies to focus their attention on those statistically significant unfavorable outcomes that show large differences from the reference group. Two potential candidates for this investigation are **Improvement in Dyspnea** and **Any Emergent Care Provided**. Alternatively, you might focus on reinforcing already exemplary care behaviors for any of those outcomes that were statistically significantly different and favorable.

These outcomes are suggestions. You may wish to select others as your target outcomes. You should consider all of the criteria discussed in Section 9 of your Demonstration Manual when selecting target outcomes. Your process-of-care investigation should be conducted within the next two to three weeks. Your plans of action should be sent to us within four to six weeks of receipt of these reports.

We now encourage you to spend a reasonable amount of time reviewing Divider A and then your Outcome and Case Mix Reports. Try to remember to be "businesslike" and not emotionally distracted as you undertake your review and embark upon selecting your additional target outcome, proceeding with your process-of-care investigation, and writing your plans of action. The more objectively (and industriously) you approach this, the more likely you are to improve patient outcomes. We wish you every success.

Sincerely,

Peter Shaughnessy, Ph.D.   Kathryn Crisler, M.S., R.N.
Project Director   Project Co-Director

Karin Conway, M.B.A., R.N.   Lecia West, M.S.
Study Manager   Study Manager

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[Note: Agency staff received training in how to use the outcome reports for the outcome enhancement component of OBQI -- before they received their first year reports.]

Recommendation: If you copy or circulate your Outcome Reports or Case Mix Reports for anyone else (in your agency or elsewhere), <u>always</u> copy or circulate the Summary Letter and Guidelines in Divider A with them.

Divider A:

GUIDELINES FOR REVIEWING OUTCOME AND CASE MIX REPORTS

Guidelines for Reviewing
Outcome and Case Mix Reports

Sample Outcome and Case Mix Reports are presented in this document. The following definitions of several key terms may help you to better understand the reports. Thereafter, "How to Read" instructions are presented for each report.

KEY TERMS

Global Measures

The "All Patients' Outcome Reports" contain results for "Global Measures." *Global (Outcome) Measures* are those that are computed for all patients combined. For example, "Improvement in Ambulation/Locomotion" is a Global Outcome Measure when it pertains to all patients.

Improvement and Stabilization

In these reports, a patient *improves* if he/she is less disabled or dependent at discharge than at start of care. A patient has *stabilized* if he/she is no <u>more</u> disabled/dependent (that is, <u>has not worsened</u>) at discharge than at start of care. For example, a patient who was disabled in ambulation at start of care and became less disabled at discharge has <u>improved</u> in ambulation/locomotion. If the patient did not worsen (but either improved or remained at the same level), then he/she <u>stabilized</u>. Thus, the opposite of stabilization is <u>decline</u> or worsening.

The actual <u>measures</u> that correspond to improvement or stabilization simply <u>quantify</u> the above concepts. Consider again the improvement measure for ambulation/locomotion. The ambulation/loco-motion <u>scale</u> used for data collection takes on values between 0 and 5, with higher values indicating progressively more disability or dependence. A patient whose ability on this scale at start of care is 4, and whose value at discharge is 2, has <u>improved</u> in ambulation/locomotion--and therefore the <u>improvement measure</u> is 1 (if the patient had <u>not</u> improved, the improvement measure would be 0). Note that this outcome measure does not apply to patients who are initially independent in ambulation/locomotion (i.e., at a level 0 on the scale), because they cannot improve. Such patients are excluded from the calculation.

A patient has <u>stabilized</u> in ambulation/locomotion if, from start of care to discharge, the value on the ambulation/locomotion scale decreases or moves toward 0 (reflecting improvement) <u>or</u> remains the same. When stabilization occurs, the <u>stabilization measure</u> is 1 (when it does <u>not</u> occur, the stabilization measure is 0). Patients are excluded from the calculation of the measure if they cannot worsen (that is, if they are at the most dependent level at start of care--i.e., at a level 5 on the scale for ambulation/locomotion).

The number of patients excluded from the outcome calculations varies depending on the specific measure. For this reason, the number of patients included in the calculations also varies. The precise number of patients used in a calculation for any measure is presented in the column called "Cases" in the Outcome Report.

Taking the average of the values for an improvement measure (or stabilization measure) for a group of patients yields the improvement rate (or stabilization rate) for that group. These rates are presented in the Outcome Reports.

It should be noted that stabilization rates are typically higher than improvement rates. This is due to the fact that improvement rates only include patients that improve in the outcome measure, while stabilization rates include both patients that improve and patients that stay the same. Care providers should not think in terms of a "grading system" for improvement rates; e.g., one must be above 90% (to receive an 'A'), above 80% (to receive a 'B'), etc. Improvement rates are often below 50% and usually in

the range from 25% to 60%, depending on the health status attribute of interest and the particular condition or subgroup if one is examining focused measures (that pertain to specific types of patients only, such as orthopedic patients). On the other hand, stabilization measures typically tend to be above 75% and some are even above 90% (Shaughnessy and Crisler, 1995, p. 6-8).

Significance

Statistical significance is relevant when comparing the "current" and "reference" values in the outcome and case mix reports. It can be understood as the probability that a difference between two rates or averages is due to chance. If the statistical significance value is greater than .10, then we consider it likely that the difference is due to chance. Thus, in reviewing outcomes, you should <u>not</u> focus your energy on outcomes with significance values greater than .10. Rather, you should look very closely at outcomes with a significance of .10 or less, as the probability that the difference between the "current" outcome and the "reference" outcome rate is due to chance is quite low.

Acute Conditions, Chronic Conditions, Diagnoses

On the second page of case mix reports, values are given for patients categorized within acute conditions, chronic conditions, and diagnostic groups for which patients are receiving home care. The following definitions of the categories may be helpful as you interpret the case mix reports.

<u>Acute Conditions or Quality Indicator Groups</u>

The inclusion of patients in these groups is based on the following criteria. The categories are not mutually exclusive.

Orthopedic Conditions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of start of care/resumption of care (SOC/ROC), or who experienced a medical or treatment regimen change within 14 days of SOC are included if the medical diagnosis pertaining to those events is related to the musculoskeletal system, including disorders of cartilage or other connective and soft tissues.

Neurologic Conditions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to the nervous system.

Open Wounds or Lesions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to an open wound or skin lesion. Patients not meeting these criteria are also included if they have an open wound or skin lesion.

Terminal Conditions
Patients who have a life expectancy of six months or less are included. These patients are receiving palliative care for terminal illnesses such as malignant neoplasms, end-stage cardiopulmonary disease, or end-stage renal disease.

Cardiac/Peripheral Vascular Conditions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to the circulatory system.

Pulmonary Conditions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to respiratory function.

Diabetes Mellitus
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events is diabetes mellitus.

Acute Gastrointestinal Disorders
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC if the medical diagnosis pertaining to those events is related to the digestive system.

Contagious/Communicable Conditions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events is related to infections and parasitic diseases.

Acute Urinary Incontinence/Catheter
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the patient is incontinent of urine or if the patient has a new indwelling catheter.

Acute Mental/Emotional Conditions
Patients receiving psychiatric nursing services at home are included.

Oxygen Therapy
Patients receiving either intermittent or continuous oxygen at home are included.

IV/Infusion Therapy
Patients receiving intravenous or infusion therapy at home, such as hydration, or intravenous, subcutaneous, or intrathecal therapy for pain control, are included.

Enteral/Parenteral Nutrition Therapy
Patients receiving enteral or parenteral nutrition at home, such as gastrostomy tube feedings or hyperalimentation, are included.

Ventilator Therapy
Patients receiving continuous or intermittent ventilation therapy at home are included.

Other Acute Conditions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events falls into diagnostic categories other than the categories previously listed. Excluded are diagnoses for mental disorders or senility.

Chronic Conditions

The inclusion of patients in these groups is based on the following criteria. These categories are not mutually exclusive.

Criteria for Chronic Conditions

Patients who were <u>not</u> discharged from an inpatient facility (hospital, rehabilitation facility, or nursing home) within 14 days of SOC/ROC, or who did <u>not</u> experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic condition if they meet specified levels of dependency (or conditions for membership) for that condition. Patients who <u>were</u> discharged from an inpatient facility within 14 days of SOC/ROC or who <u>did</u> experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic condition if and only if they met the specified levels of dependency/conditions for membership for that condition <u>prior</u> to the inpatient stay/medical regimen change.

Dependence in Living Skills
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they are unable to prepare main meals on a regular basis <u>and</u> require the assistance of another person for at least two of the following: laundry, transportation, housekeeping, shopping, or ability to use the telephone. The assistance required is necessary for routine or normal performance of the activity.

Dependence in Personal Care
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they require the assistance of another person for bathing; <u>or</u> if they require assistance for grooming (combing or brushing hair, shaving or applying makeup, cleaning teeth or dentures, or trimming fingernails) <u>plus</u> dressing upper or lower body.

Impaired Ambulation/Mobility
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they require the routine assistance of another person for toileting, transferring, or ambulation.

Eating Disability
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they are unable to feed themselves without constant supervision/assistance, or if they receive nutrients through a nasogastric or gastrostomy tube.

Urinary Incontinence/Catheter Use
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they are incontinent of urine or have an indwelling/suprapubic catheter.

Dependence in Medication Administration
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they require the assistance of another person for taking oral medications, inhalant medications, or injectable medications.

Chronic Pain
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they are experiencing intractable pain.

Chronic Cognitive/Mental/Behavioral Problems
Patients who meet the criteria for inclusion in chronic conditions are assigned to this chronic condition if they demonstrate one or more of the following behaviors at least once a week:
1)   memory deficit,
2)   impaired decision making,
3)   verbal disruption,
4)   physical aggression,
5)   disruptive, infantile, or socially inappropriate behavior (excludes verbal actions), or
6)   delusions, hallucinations, or paranoid ideations.

Chronic Patient with Caregiver
Patients are included in this chronic condition if they have been assigned to one or more chronic conditions and an assisting person (caregiver) resides in the home.

Diagnoses for Which Patients Are Receiving Home Care

Patients are assigned to these diagnostic categories if they are receiving home care for the diagnosis, and if symptoms corresponding to the diagnosis are not well controlled.

Reference

Shaughnessy PW and Crisler KS (1995). *Outcome-Based Quality Improvement: A Manual for Home Care Agencies on How to Use Outcomes*. Washington, DC: National Association for Home Care.

How to Read the Outcome Reports

The key features of the Outcome Reports are listed below. Each feature is numbered and corresponds to a pointer in the sample report on the next page. This is a hypothetical All Patients' Outcome Profile Report for "Illustrative Home Health Care."

1. **Key to Shading Used in the Bar Chart:** "Current" values reflect the actual or observed outcomes for Illustrative Home Health Care and are calculated from data collected during the report period noted in the upper right (in the example, this is 07/01/1999-06/30/2000). The white bars denote the current values or actual outcomes. "Reference" values are actually expected values (for Illustrative Home Health Care) and are calculated using a risk-adjustment model based on the reference sample whose sample size is given to the left of the darkened bar for each measure.

2. **Outcome Header:** Describes the type of outcome measures listed below the heading. Two types of outcome measures are used in the reports: end result outcomes and utilization outcomes. No utilization outcomes are shown on the example report. Results are provided for more end result outcomes than utilization outcomes in the reports.

3. **Bar Graphs:** Indicate the percentage of patients that achieved the outcome for the given measure. As noted above, for each measure two bars are presented corresponding to "current" and "reference" groups.

    Example: For the measure "Improvement in Dressing Upper Body" the first bar shows 66.1% of the "current" patients improved, and the second "reference" bar shows that 65.8% of these patients would be expected to improve in view of the case mix of Illustrative Home Health Care.

4. **Cases:** The number of patient cases included in the group for which the outcome was computed.

    Example: For the measure "Improvement in Dressing Upper Body," there were 360 cases from "current" data, 66.1% of which improved in dressing upper body. There were 16732 cases that contributed to the reference sample upon which the risk-adjustment model is based. This model was used to compute the 65.8% expected value for Illustrative Home Health Care that takes into consideration the unique case mix attributes of this agency.

5. **Significance:** This is relevant when outcomes are <u>compared</u> between two patient groups (for example, "current" vs. "reference" or expected). It indicates the level of statistical significance for the comparison. This value is always between 0.00 and 1.00, and can be thought of as a percentage. The percentage is the probability that the result (the difference between the two outcome rates being compared) occurred by chance.

    Example: For the measure "Improvement in Dressing Upper Body," 66.1% of the "current" patients improved while 65.8% of the "reference" patients improved -- or equivalently, the expected improvement rate is 65.8%. The ".90" value in the significance column means there is a 90% probability that this difference (between 66.1% and 65.8%) is due to chance. Consequently, there is a 10% probability that the difference is <u>not</u> due to chance.

    When a significance level is high (for example, .90), the difference should be disregarded because there is a strong likelihood that the difference is due to chance (90% likelihood, in this case). When a significance value is low (for example, .01), the difference should be considered important because there is almost no likelihood (1% in this case) that the difference is due to chance. We suggest you concentrate on differences for which the significance value is 10% or less, as indicated by asterisks (two asterisks [**] indicate the significance level is .05 or less, while one asterisk [*] indicates that the significance level is between .05 and .10).

Agency: Illustrative Home Health Care
Number of Cases in Report (Current) Period: 818
Number of Cases in Reference Sample: 35789

Date Report Printed: 08/01/2000
Report Period: 07/01/1999-06/30/2000

All Patients' Outcome Report
Risk Adjusted

(1)

(2)

(4) Cases (5) Signif.

□ Current   ■ Reference

End Result Outcomes:

Outcome	Cases	Signif.	Current	Reference
Improvement in Grooming	333 / 15242	.81	65.5%	66.1%
Stabilization in Grooming	781 / 33936	.46	93.9%	93.2%
Improvement in Dressing Upper Body	360 / 16732	.90	66.1% (3)	65.8%
Improvement in Dressing Lower Body	433 / 19851	.27	62.8%	65.4%
Improvement in Bathing	624 / 26947	.29	61.2%	63.3%
Stabilization in Bathing	785 / 34256	.00**	90.1%	95.2%
Improvement in Toileting	194 / 8879	.78	62.9%	63.8%
Improvement in Transferring	381 / 16648	.43	55.9%	57.9%
Stabilization in Transferring	808 / 35386	.73	93.8%	93.5%
Improvement in Ambulation/Locomotion	566 / 24840	.16	40.3%	37.4%
Improvement in Eating	164 / 7937	.80	61.6%	60.6%
Improvement in Light Meal Preparation	489 / 22198	.34	57.9%	60.0%
Stabilization in Light Meal Preparation	610 / 26600	.59	92.1%	91.5%
Improvement in Laundry	758 / 32498	.87	45.8%	45.5%
Stabilization in Laundry	286 / 13050	.52	86.7%	85.4%
Improvement in Housekeeping	766 / 33498	.90	48.6%	48.3%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

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How to Read the Case Mix Reports

The key features of the Case Mix Reports are listed below. Each feature is numbered and corresponds to a pointer in the sample report on the next page. As with the prior Outcome Report, this is a hypothetical All Patients' Case Mix Profile Report for "Illustrative Home Health Care."

1. **Current Mean:** Values in this column reflect case mix averages (means) based on data collected by Illustrative Home Health Care during the report period indicated in the upper right (in the example, this is 07/01/1999 to 06/30/2000). These values correspond to case mix means or averages at <u>start of care</u> (SOC) for all patients admitted <u>and</u> discharged during the report period.

2. **Reference Mean:** Values in this column reflect case mix averages based on a sample of eligible patients from all agencies participating in the third year of the National Medicare Quality Assurance and Improvement Demonstration.

3. **Sig:** Indicates whether or not a statistically significant difference exists between the "current" and "reference" means. Significance levels of .01 or lower are marked with a single asterisk (*) and levels of .001 or lower are marked with a double asterisk [**]. When a significance value is low (for example, .01), the results may be important because there is only a small likelihood (in this case, 1%) that the difference is due to chance. We suggest you examine only differences where the significance value is 1% or less, as indicated by the asterisks.

    In fact, purely because of the large reference sample, Case Mix Reports may contain a substantial number of significant differences. When this occurs (as it frequently does), you should be attentive only to <u>large</u> differences between the means within the total group of asterisked differences.

4. **Case Mix Attributes Measured Using Scales:** Results for attributes measured using a health status scale (for example, a scale that takes on values between 0 and 5 -- as indicated by "0-5" after the attribute name) are expressed in terms of the average scale value for the attribute. **The scale values are determined by the answer options provided for the specific data item in the OASIS.**

    Example: Under the section on ADL Disabilities at SOC/ROC (start of care/resumption of care), the sample report shows that for Bathing, which is measured on a 0-5 scale, the average scale value for the current mean for Illustrative Home Health Care is 2.20, compared with an analogous mean of 2.20 for the reference sample.

5. **Case Mix Attributes Measured as Prevalences:** Results for attributes that are measured not by scales, but by simply presence or absence, have a "%" next to them. The values in the "Current Mean" and "Reference Mean" columns provide the percentage of patients with a given attribute.

    Example: Under "Pain" the percentage of patients with intractable pain at start of care for Illustrative Home Health Care is 10.0% compared with 9.8% in the reference sample.

Agency: Illustrative Home Health Care
Number of Cases in Report (Current) Period: 1103
Number of Cases in Reference Sample: 65597

Date Report Printed: 08/01/2000
Report Period: 07/01/1999-06/30/2000

All Patients' Case Mix Profile at Start/Resumption of Care

	Current Mean	Reference Mean	Sig.
Demographics			
Age (average in years)	73.35	72.86	
Gender: Female (%)	60.5%	61.5%	
Race: Black (%)	11.9%	13.0%	
Race: White (%)	83.7%	82.5%	
Race: Other (%)	4.5%	4.6%	
Payment Source			
Any Medicare (%)	79.3%	80.0%	
Any Medicaid (%)	11.3%	12.0%	
Any HMO (%)	12.4%	13.2%	
Medicare HMO (%)	5.3%	5.7%	
Private third party (%)	28.0%	28.2%	
Current Residence			
Own home (%)	80.5%	79.4%	
Family member home (%)	14.4%	13.9%	
Current Living Situation			
Lives alone (%)	26.4%	28.2%	
With family member (%)	67.6%	64.5%	
With friend (%)	1.8%	1.6%	
With paid help (%)	4.3%	5.3%	
Assisting Persons			
Person residing in home (%)	57.9%	56.3%	
Person residing outside home (%)	53.2%	53.5%	
Paid help (%)	13.6%	14.0%	
Primary Caregiver			
Spouse/significant other (%)	34.6%	33.0%	
Daughter/son (%)	29.0%	26.1%	
Paid help (%)	5.3%	6.6%	
No one person (%)	18.0%	22.0%	**
Primary Caregiver Assistance			
Freq. of assistance (0-6, scale avg.)	4.20	4.02	*
Inpatient DC w/in 14 Days of SOC/ROC			
From hospital (%)	66.1%	67.4%	
From rehab facility (%)	10.2%	8.5%	
From nursing home (%)	3.0%	2.9%	
Med. Reg. Chg. w/in 14 Days of SOC/ROC			
Medical regimen change (%)	77.7%	79.8%	
Prognoses			
Moderate recovery prognosis (%)	88.0%	88.7%	
Good rehab prognosis (%)	73.7%	72.1%	
ADL Disabilities at SOC/ROC			
Grooming (0-3, scale average)	0.83	0.82	
Dress upper body (0-3, scale avg.)	0.91	0.89	
Dress lower body (0-3, scale avg.)	1.16	1.14	
Bathing (0-5, scale average)	2.20	2.20	
Toileting (0-4, scale average)	0.59	0.55	
Transferring (0-5, scale average)	0.76	0.72	
Ambulation (0-5, scale average)	1.09	1.10	
Eating (0-5, scale average)	0.34	0.34	

	Current Mean	Reference Mean	Sig.
ADL Status Prior to SOC/ROC			
Grooming (0-3, scale average)	0.50	0.49	
Dress upper body (0-3, scale avg.)	0.53	0.53	
Dress lower body (0-3, scale avg.)	0.62	0.62	
Bathing (0-5, scale average)	1.24	1.26	
Toileting (0-4, scale average)	0.40	0.38	
Transferring (0-5, scale average)	0.49	0.46	
Ambulation (0-5, scale average)	0.72	0.72	
Eating (0-5, scale average)	0.24	0.22	
IADL Disabilities at SOC/ROC			
Light meal prep (0-2, scale avg.)	0.95	0.96	
Transportation (0-2, scale avg.)	1.02	1.01	
Laundry (0-2, scale average)	1.62	1.60	
Housekeeping (0-4, scale avg.)	2.83	2.81	
Shopping (0-3, scale average)	2.14	2.13	
Phone use (0-5, scale average)	0.72	0.71	
Mgmt. oral meds (0-2, scale avg.)	0.71	0.71	
IADL Status Prior to SOC/ROC			
Light meal prep (0-2, scale avg.)	0.59	0.59	
Transportation (0-2, scale avg.)	0.68	0.68	
Laundry (0-2, scale average)	1.01	0.99	
Housekeeping (0-4, scale avg.)	1.82	1.75	
Shopping (0-3, scale average)	1.34	1.30	
Phone use (0-5, scale average)	0.59	0.59	
Mgmt. oral meds (0-2, scale avg.)	0.55	0.55	
Respiratory Status			
Dyspnea (0-4, scale average)	1.09	1.11	
Therapies Received at Home			
IV/infusion therapy (%)	3.7%	4.2%	
Parenteral nutrition (%)	0.6%	0.4%	
Enteral nutrition (%)	1.4%	1.9%	
Sensory Status			
Vision impairment (0-2, scale avg.)	0.26	0.25	
Hearing impair. (0-4, scale avg.)	0.36	0.40	
Speech/language (0-5, scale avg.)	0.40	0.43	
Pain			
Pain interfer. w/activity (0-3, scale avg.)	1.06	1.06	
Intractable pain (%)	10.0%	9.8%	
Neuro/Emotional/Behavioral Status			
Moderate cognitive disability (%)	9.6%	10.7%	
Severe confusion disability (%)	7.4%	9.3%	
Severe anxiety level (%)	17.2%	17.2%	
Behav probs > twice a week (%)	4.0%	4.3%	
Integumentary Status			
Presence of wound/lesion (%)	35.5%	34.4%	
Stasis ulcer(s) present (%)	3.6%	2.4%	*
Surgical wound(s) present (%)	23.8%	23.5%	
Pressure ulcer(s) present (%)	5.9%	5.2%	
Stage 2-4 ulcer(s) present (%)	5.0%	4.4%	
Stage 3-4 ulcer(s) present (%)	1.8%	1.4%	

Divider B:

ALL PATIENTS'
OUTCOME AND CASE MIX REPORTS

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 374
Number of Cases in Reference Sample: 7717

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

All Patients' Outcome Report
Risk Adjusted

	Cases	Signif.	□ Current ■ Reference

End Result Outcomes:

Outcome	Cases	Signif.	Current	Reference
Improvement in Grooming	169 / 3183	.35	63.3%	66.7%
Stabilization in Grooming	353 / 7267	.03**	89.8%	92.8%
Improvement in Dressing Upper Body	136 / 3225	.29	53.7%	58.2%
Improvement in Dressing Lower Body	203 / 4097	.14	59.5%	64.6%
Improvement in Bathing	262 / 5314	.22	59.5%	63.3%
Stabilization in Bathing	349 / 7358	.34	88.8%	90.3%
Improvement in Toileting	92 / 1856	.19	56.0%	63.2%
Improvement in Transferring	134 / 3333	.06*	63.4%	55.4%
Stabilization in Transferring	365 / 7629	.95	92.9%	92.9%
Improvement in Ambulation/Locomotion	234 / 5129	.07*	43.1%	37.4%
Improvement in Eating	70 / 1558	.76	57.1%	58.9%
Improvement in Light Meal Preparation	229 / 4461	.00**	46.7%	61.0%
Stabilization in Light Meal Preparation	254 / 6071	.00**	83.1%	90.6%
Improvement in Laundry	346 / 6656	.01**	39.3%	46.4%
Stabilization in Laundry	124 / 3279	.00**	76.6%	86.5%
Improvement in Housekeeping	353 / 6996	.01**	43.6%	50.4%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Percent of Cases with Outcome

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Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 374
Number of Cases in Reference Sample: 7717

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

All Patients' Outcome Report
Risk Adjusted

	Cases	Signif.	□ Current ■ Reference

End Result Outcomes:

Outcome	Cases	Signif.	Current	Reference
Stabilization in Housekeeping	182 / 4673	.12	76.9%	81.5%
Improvement in Shopping	354 / 7202	.00**	42.1%	50.4%
Stabilization in Shopping	268 / 5301	.98	86.2%	86.1%
Improvement in Phone Use	60 / 1443	.07*	59.5%	48.3%
Stabilization in Phone Use	360 / 7236	.81	91.4%	91.7%
Improvement in Management of Oral Meds	159 / 3201	.99	34.6%	34.7%
Stabilization in Management of Oral Meds	319 / 6329	.51	91.2%	90.1%
Improvement in Speech or Language	86 / 2038	.56	39.5%	42.7%
Stabilization in Speech or Language	373 / 7709	.61	89.0%	88.1%
Improvement in Pain Interfering with Activity	242 / 4651	.56	51.2%	53.1%
Improvement in Number of Surgical Wounds	99 / 2028	.49	70.7%	73.7%
Improvement in Status of Surgical Wounds	100 / 2043	.27	85.0%	80.6%
Improvement in Dyspnea	208 / 4462	.01**	47.1%	56.7%
Improvement in Urinary Tract Infection	81 / 619	.86	85.2%	84.3%
Improvement in Urinary Incontinence	63 / 1239	.55	50.8%	47.0%
Improvement in Bowel Incontinence	23 / 520	.92	56.5%	57.5%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

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Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 374
Number of Cases in Reference Sample: 7717

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

All Patients' Outcome Report
Risk Adjusted

	Cases	Signif.	□ Current ■ Reference

End Result Outcomes:

Improvement in Cognitive Functioning................. 64 / 1856 .65 — 34.4% / 37.2%

Stabilization in Cognitive Functioning.................. 372 / 7670 .00** — 92.5% / 87.5%

Improvement in Confusion Frequency................. 124 / 2184 .34 — 36.2% / 40.6%

Improvement in Anxiety Level.......................... 219 / 3741 .64 — 40.2% / 38.6%

Stabilization in Anxiety Level........................... 356 / 7515 .77 — 84.8% / 84.2%

Improvement in Behavioral Problem Frequency... 65 / 655 .47 — 66.2% / 70.2%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

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6.33

All Patients' Outcome Report
Risk Adjusted

Cases   Signif.

| □ Current ■ Reference |

Utilization Outcomes:

Any Emergent Care Provided.......................... 591
11183   .00**

       36.0%
       30.1%

Discharged to Community............................. 601
11183   .25

       59.5%
       61.8%

Acute Care Hospitalization............................ 601
11183   .16

       35.9%
       33.2%

0%   10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Percent of Cases with Outcome

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Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 601
Number of Cases in Reference Sample: 29983

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

All Patients' Case Mix Profile at Start/Resumption of Care

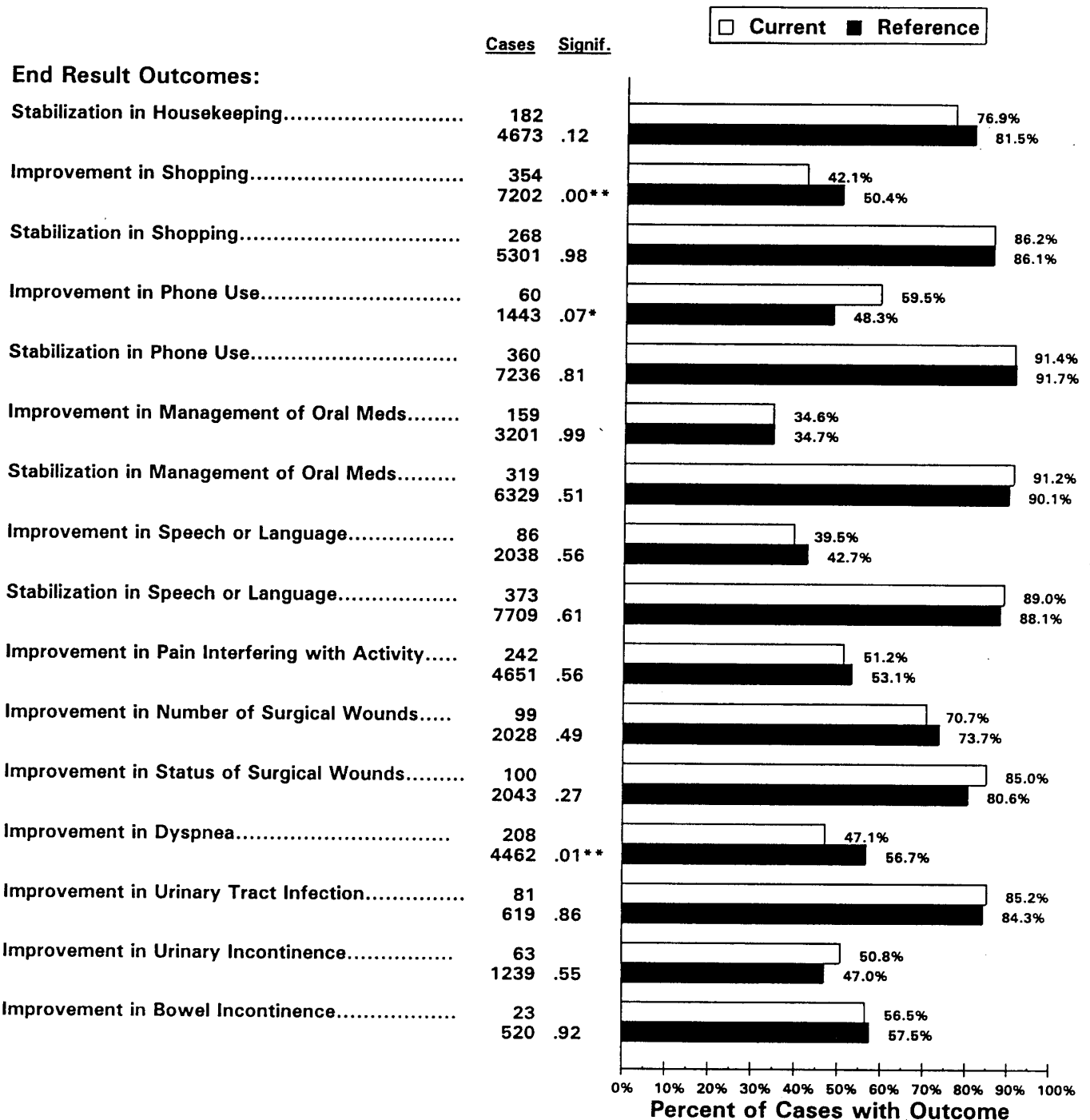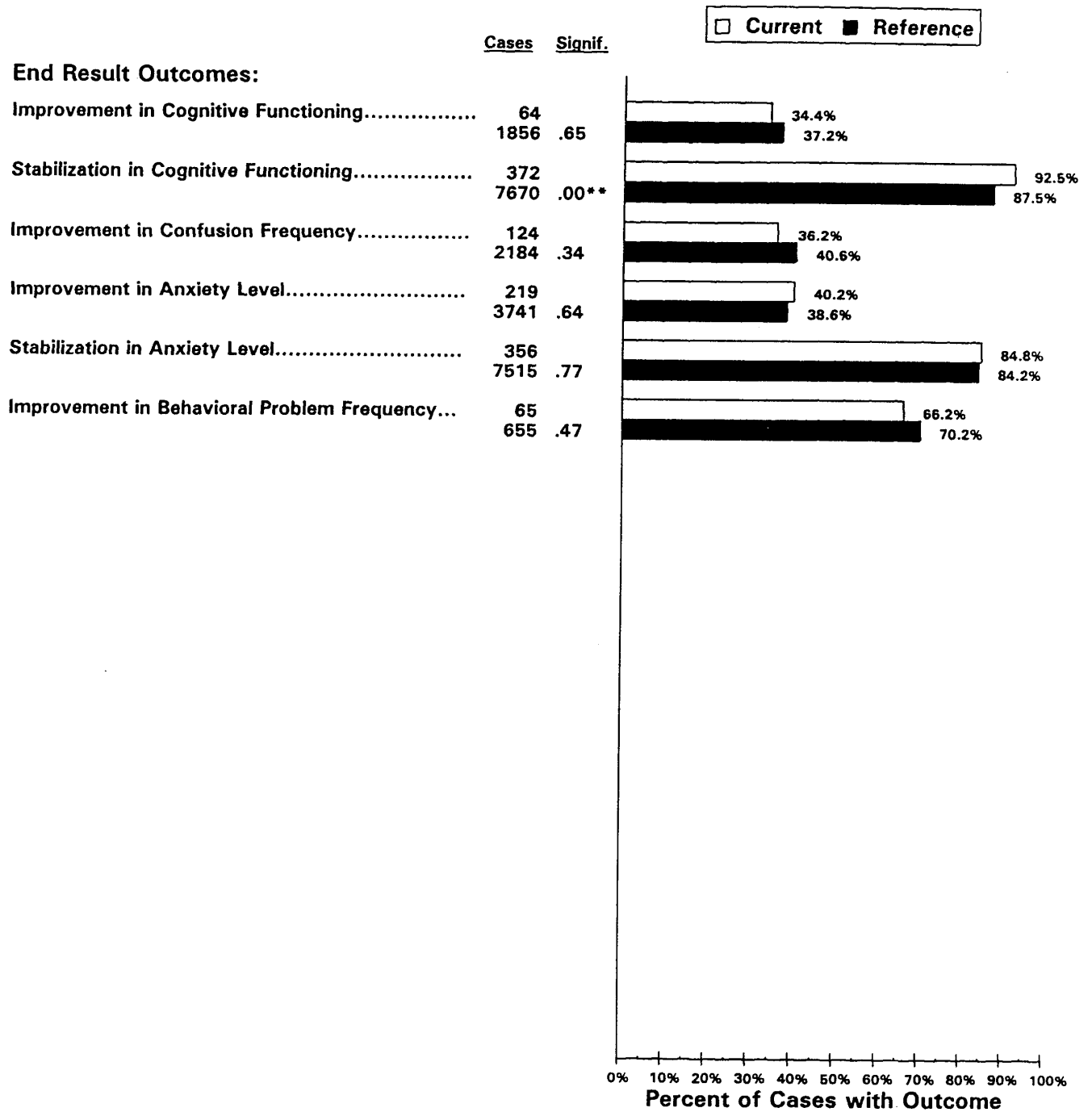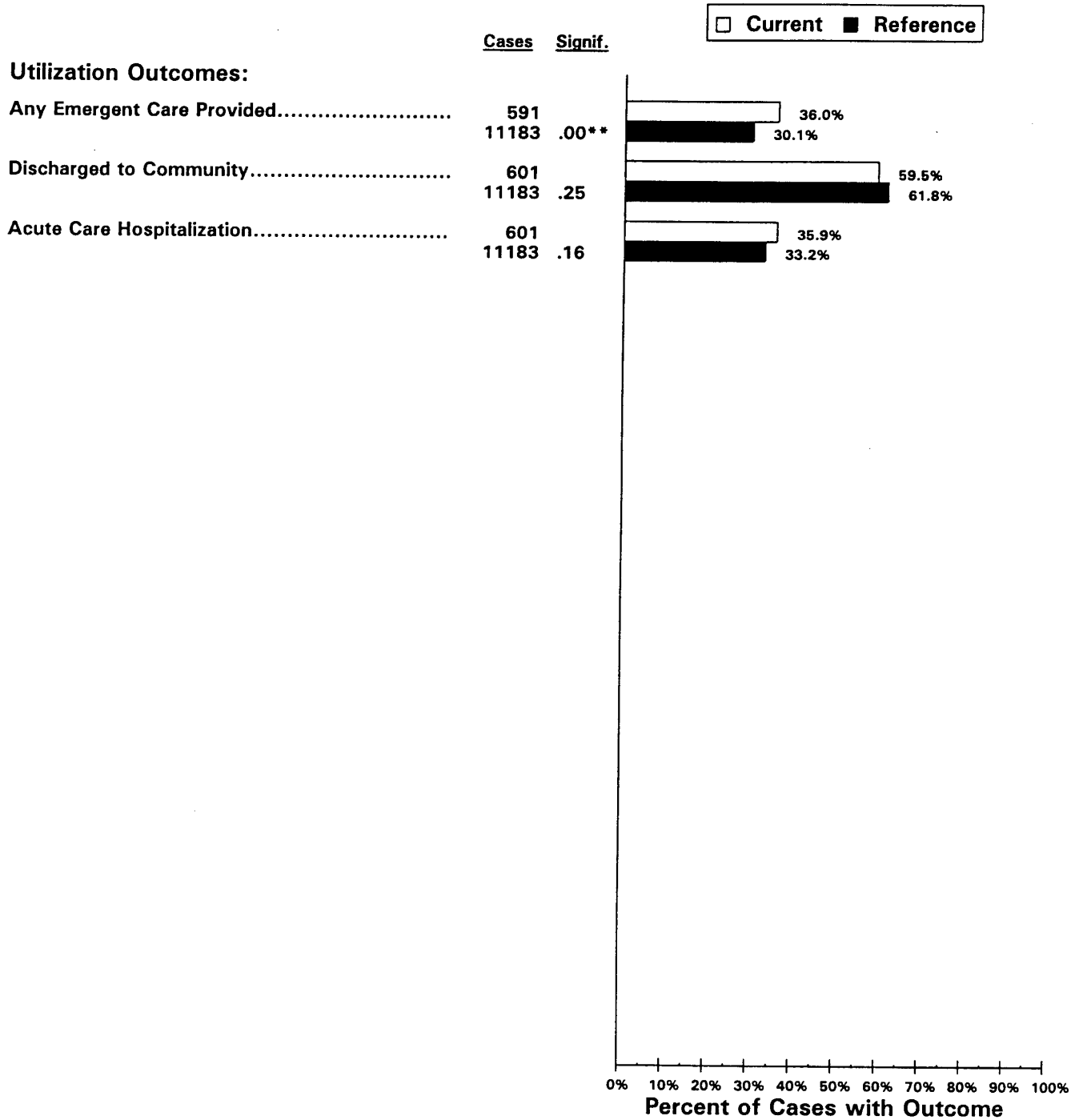|	Current Mean	Reference Mean	Sig.		Current Mean	Reference Mean	Sig.
Demographics				**ADL Status Prior to SOC/ROC**			
Age (average in years)	70.75	72.78	**	Grooming (0-3, scale average)	0.66	0.52	**
Gender: Female (%)	69.4%	62.9%	**	Dress upper body (0-3, scale avg.)	0.35	0.35	
Race: Black (%)	1.7%	10.7%	**	Dress lower body (0-3, scale avg.)	0.70	0.63	
Race: White (%)	97.5%	85.5%	**	Bathing (0-5, scale average)	1.33	1.20	
Race: Other (%)	0.8%	3.8%	**	Toileting (0-4, scale average)	0.39	0.38	
				Transferring (0-5, scale average)	0.38	0.44	**
Payment Source				Ambulation (0-5, scale average)	0.70	0.71	
Any Medicare (%)	80.4%	82.6%		Eating (0-5, scale average)	0.22	0.21	
Any Medicaid (%)	12.9%	14.3%					
Any HMO (%)	3.0%	5.8%	*	**IADL Disabilities at SOC/ROC**			
Medicare HMO (%)	1.3%	2.2%		Light meal prep (0-2, scale avg.)	1.02	0.90	**
Any third party (%)	19.9%	21.9%		Transportation (0-2, scale avg.)	1.05	0.99	**
				Laundry (0-2, scale average)	1.62	1.51	**
Current Residence				Housekeeping (0-4, scale avg.)	2.89	2.68	**
Own home (%)	74.7%	78.7%		Shopping (0-3, scale average)	2.10	2.06	
Family member home (%)	20.5%	14.1%	**	Phone use (0-5, scale average)	0.63	0.72	
				Mgmt. oral meds (0-2, scale avg.)	0.69	0.70	
Current Living Situation							
Lives alone (%)	28.6%	29.4%		**IADL Status Prior to SOC/ROC**			
With family member (%)	66.7%	64.2%		Light meal prep (0-2, scale avg.)	0.65	0.56	*
With friend (%)	1.3%	1.6%		Transportation (0-2, scale avg.)	0.78	0.69	**
With paid help (%)	2.3%	3.3%		Laundry (0-2, scale average)	1.10	0.96	**
				Housekeeping (0-4, scale avg.)	1.93	1.73	*
Assisting Persons				Shopping (0-3, scale average)	1.45	1.32	
Person residing in home (%)	57.0%	55.9%		Phone use (0-5, scale average)	0.49	0.59	
Person residing outside home (%)	44.3%	53.0%	**	Mgmt. oral meds (0-2, scale avg.)	0.53	0.54	
Paid help (%)	9.3%	14.1%	**				
				Respiratory Status			
Primary Caregiver				Dyspnea (0-4, scale average)	1.33	1.19	
Spouse/significant other (%)	31.0%	33.6%					
Daughter/son (%)	33.0%	26.4%	**	**Therapies Received at Home**			
Other paid help (%)	3.7%	6.1%	*	IV/infusion therapy (%)	4.3%	3.7%	
No one person (%)	21.7%	20.2%		Parenteral nutrition (%)	0.5%	0.3%	
				Enteral nutrition (%)	2.2%	1.8%	
Primary Caregiver Assistance							
Freq. of assistance (0-6, scale avg.)	4.11	4.10		**Sensory Status**			
				Vision impairment (0-2, scale avg.)	0.32	0.30	
Inpatient DC within 14 Days of SOC/ROC				Hearing impair. (0-4, scale avg.)	0.38	0.45	**
From hospital (%)	69.1%	68.4%		Speech/language (0-5, scale avg.)	0.45	0.47	
From rehab facility (%)	7.2%	6.4%					
From nursing home (%)	1.8%	3.3%		**Pain**			
				Pain interf. w/activity (0-3, scale avg.)	0.95	0.98	
Med. Reg. Chg. w/in 14 Days of SOC/ROC				Intractable pain (%)	14.0%	13.7%	
Medical regimen change (%)	67.7%	81.2%	**				
				Neuro/Emotional/Behavioral Status			
Prognoses				Moderate cognitive disability (%)	10.8%	11.9%	
Moderate recovery prognosis (%)	85.3%	85.9%		Severe confusion disability (%)	5.7%	6.9%	
Good rehab prognosis (%)	62.6%	68.2%	*	Severe anxiety level (%)	16.7%	11.7%	**
				Behav probs > twice a week (%)	14.0%	5.7%	**
ADL Disabilities at SOC/ROC							
Grooming (0-3, scale average)	1.02	0.86	**	**Integumentary Status**			
Dress upper body (0-3, scale avg.)	0.56	0.59		Presence of wound/lesion (%)	31.6%	31.2%	
Dress lower body (0-3, scale avg.)	1.22	1.10	*	Stasis ulcer(s) present (%)	3.7%	2.9%	
Bathing (0-5, scale average)	2.15	2.03		Surgical wound(s) present (%)	21.1%	22.3%	
Toileting (0-4, scale average)	0.63	0.57		Pressure ulcer(s) present (%)	8.2%	5.4%	*
Transferring (0-5, scale average)	0.64	0.70	**	Stage 2-4 ulcer(s) present (%)	6.5%	4.5%	
Ambulation (0-5, scale average)	1.05	1.07		Stage 3-4 ulcer(s) present (%)	4.0%	1.4%	**
Eating (0-5, scale average)	0.33	0.32					

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 601
Number of Cases in Reference Sample: 29983

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

All Patients' Case Mix Profile at Start/Resumption of Care

	Current Mean	Reference Mean	Sig.
Elimination Status			
UTI within past 14 days (%)	22.5%	9.7%	**
Urinary incont./catheter present (%)	21.0%	20.6%	
Incontinent day and night (%)	10.0%	9.3%	
Urinary catheter (%)	6.0%	5.9%	
Bowel incont. (0-5, scale avg.)	0.29	0.23	
Acute Conditions			
Orthopedic (%)	18.5%	21.5%	
Neurologic (%)	13.1%	9.3%	*
Open wounds/lesions (%)	33.0%	31.8%	
Terminal condition (%)	5.7%	5.6%	
Cardiac/peripheral vascular (%)	27.0%	30.9%	
Pulmonary (%)	17.3%	16.9%	
Diabetes mellitus (%)	7.7%	8.4%	
Gastrointestinal disorder (%)	12.5%	11.5%	
Contagious/communicable (%)	9.8%	3.0%	**
Urinary incont./catheter (%)	6.0%	8.1%	
Mental/emotional (%)	9.3%	3.1%	**
Oxygen therapy (%)	11.2%	11.2%	
IV/infusion therapy (%)	4.3%	3.7%	
Enteral/parenteral nutrition (%)	2.7%	2.0%	
Ventilator (%)	0.0%	0.1%	
Chronic Conditions			
Dependence in living skills (%)	42.1%	35.9%	*
Dependence in personal care (%)	37.9%	22.9%	**
Impaired ambulation/mobility (%)	14.0%	13.4%	
Eating disability (%)	4.2%	3.2%	
Urinary incontinence/catheter (%)	13.1%	13.7%	
Dependence in med. admin. (%)	44.1%	39.9%	
Chronic pain (%)	7.7%	5.7%	
Cognitive/mental/behavioral (%)	28.6%	23.5%	*
Chronic pt. with caregiver (%)	40.4%	34.0%	**

	Current Mean	Reference Mean	Sig.
Diagnoses For Which Patients Are Receiving Home Care			
Infections/parasitic diseases (%)	13.0%	4.5%	**
Neoplasms (%)	11.8%	12.3%	
Endocrine/nutrit./metabolic (%)	29.0%	27.1%	
Blood diseases (%)	8.2%	6.7%	
Mental diseases (%)	20.1%	9.9%	**
Nervous system diseases (%)	13.8%	9.4%	**
Circulatory system diseases (%)	61.6%	55.3%	*
Respiratory system diseases (%)	24.3%	19.5%	*
Digestive system diseases (%)	13.8%	12.0%	
Genitourinary sys. diseases (%)	10.7%	10.4%	
Pregnancy problems (%)	0.5%	0.2%	
Skin/subcutaneous diseases (%)	6.2%	7.4%	
Musculoskeletal sys. diseases (%)	26.1%	23.5%	
Congenital anomalies (%)	1.8%	0.8%	
Ill-defined conditions (%)	24.1%	19.6%	*
Fractures (%)	12.0%	9.1%	
Intracranial injury (%)	0.2%	0.3%	
Other injury (%)	9.5%	5.9%	**
Iatrogenic conditions (%)	2.2%	3.1%	
Length of Stay			
LOS until discharge (avg. in days)	49.52	40.35	**
LOS from 1 to 31 days (%)	46.6%	54.0%	**
LOS from 32 to 62 days (%)	28.0%	30.0%	
LOS from 63 to 124 days (%)	17.8%	11.8%	**
LOS more than 124 days (%)	7.7%	4.3%	**

* The probability is 1% or less that the difference is due to chance, and 99% or more that the difference is real.

** The probability is 0.1% or less that the difference is due to chance, and 99.9% or more that the difference is real.

Divider C:

ORTHOPEDIC PATIENTS'
OUTCOME AND CASE MIX REPORTS

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 84
Number of Cases in Reference Sample: 1981

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Orthopedic Patients' Outcome Report
Risk Adjusted

End Result Outcomes:	Cases	Signif.	□ Current ■ Reference
Improvement in Grooming............................	48 958	.83	79.2% / 77.7%
Improvement in Dressing Upper Body...............	39 984	.83	69.2% / 67.4%
Improvement in Dressing Lower Body...............	57 1409	.54	70.2% / 73.7%
Improvement in Bathing................................	73 1630	.49	74.0% / 70.2%
Improvement in Toileting...............................	28 618	.87	78.6% / 79.5%
Improvement in Transferring..........................	40 1257	.07*	80.0% / 66.7%
Improvement in Ambulation/Locomotion...........	71 1762	.12	40.8% / 32.0%
Improvement in Eating..................................	23 385	.24	60.9% / 72.1%
Improvement in Light Meal Preparation..............	61 1301	.00**	54.1% / 76.0%
Stabilization in Light Meal Preparation...............	46 1546	.02**	80.4% / 91.6%
Improvement in Laundry................................	79 1830	.00**	31.6% / 48.1%
Improvement in Housekeeping........................	81 1898	.03**	43.2% / 55.6%
Improvement in Shopping..............................	80 1933	.00**	33.8% / 56.4%
Stabilization in Shopping...............................	69 1392	.81	88.4% / 89.1%
Improvement in Phone Use............................	10 247	.39	50.0% / 63.6%
Improvement in Management of Oral Meds........	31 612	.18	38.7% / 51.0%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 84
Number of Cases in Reference Sample: 1981

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Orthopedic Patients' Outcome Report
Risk Adjusted

□ Current   ■ Reference

	Cases	Signif.

End Result Outcomes:

Improvement in Pain Interfering with Activity.... 72 / 1624 .68
- 51.4%
- 53.8%

Stabilization in Pain Interfering with Activity..... 76 / 1776 .00**
- 97.4%
- 87.6%

Improvement in Status of Surgical Wounds........... 33 / 708 .94
- 84.8%
- 84.0%

0%   10%   20%   30%   40%   50%   60%   70%   80%   90%   100%

Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

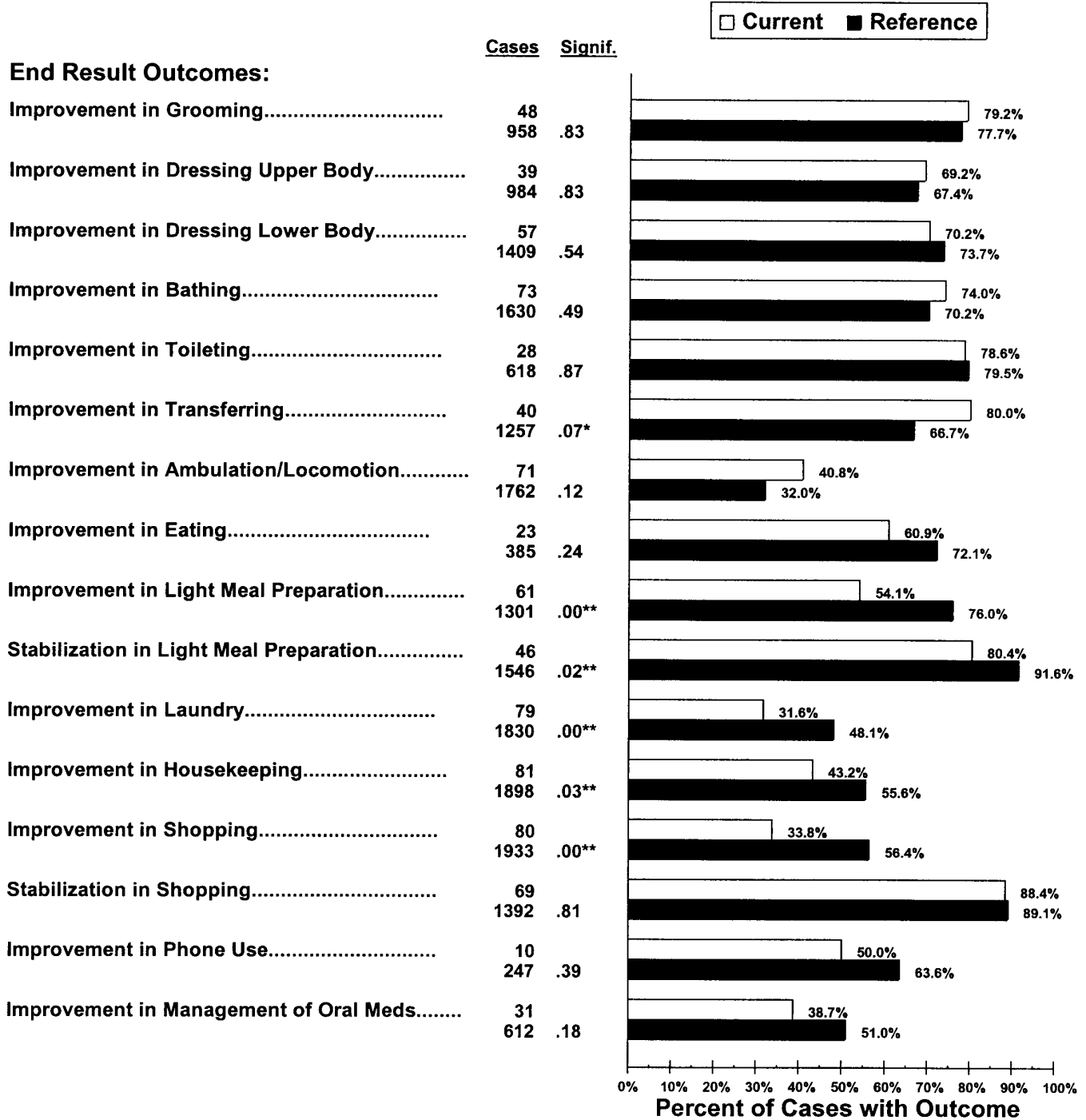** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

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Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 111
Number of Cases in Reference Sample: 2423

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Orthopedic Patients' Outcome Report
Risk Adjusted

	Cases	Signif.	□ Current ■ Reference
Utilization Outcomes:			
Any Emergent Care Provided........................	111		28.8%
	2423	.01**	18.6%
Discharged to Community...........................	111		72.1%
	2423	.55	74.5%
Acute Care Hospitalization.........................	111		24.3%
	2423	.40	21.1%

0%   10%   20%   30%   40%   50%   60%   70%   80%   90%   100%
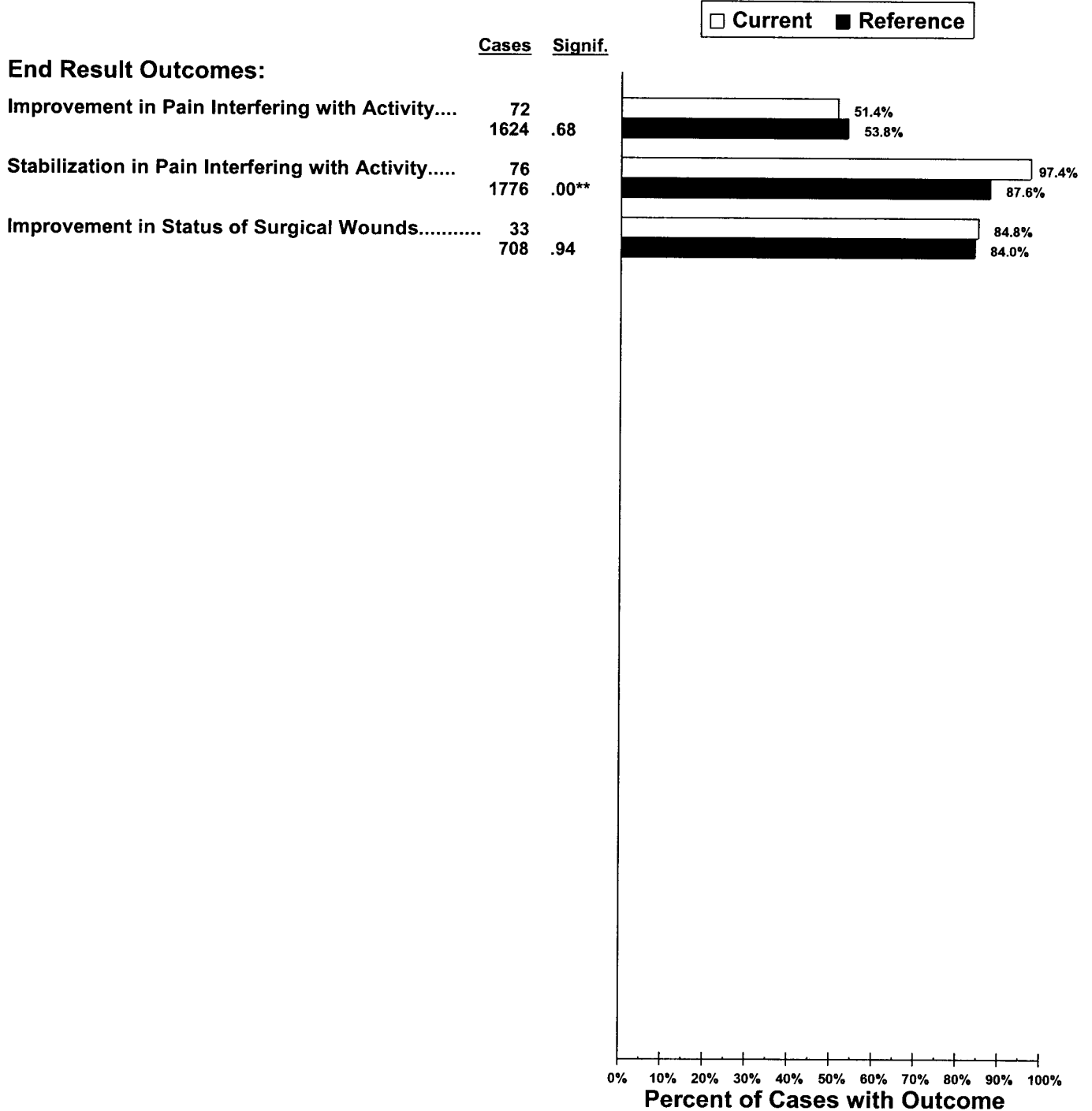
Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
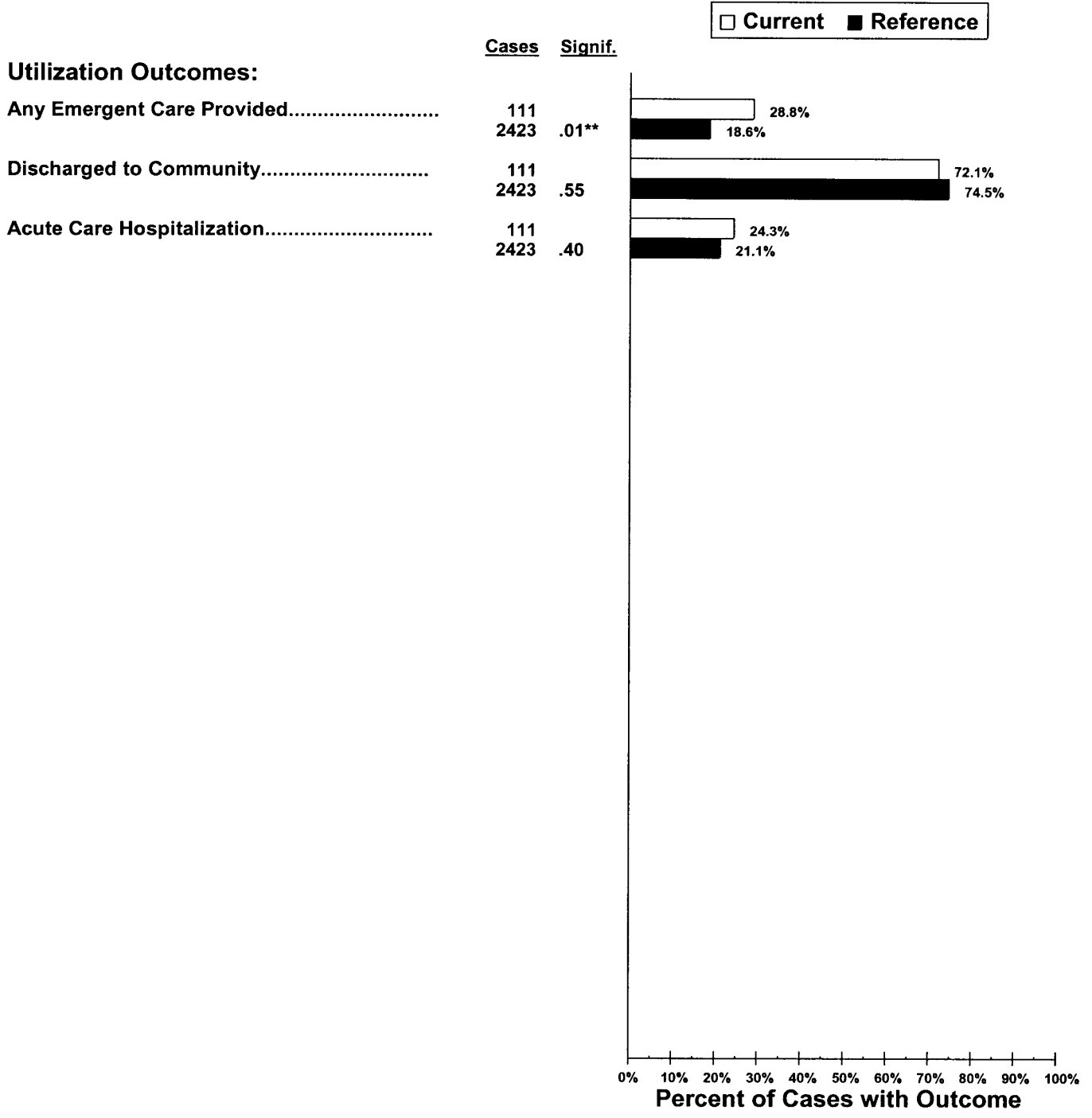
Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 111
Number of Cases in Reference Sample: 2423

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Orthopedic Patients' Case Mix Profile at Start/Resumption of Care

	Current Mean	Reference Mean	Sig.
Demographics			
Age (average in years)	71.91	73.27	
Gender: Female (%)	79.3%	71.5%	
Race: Black (%)	4.5%	7.2%	
Race: White (%)	95.5%	90.3%	
Race: Other (%)	0.0%	2.5%	
Payment Source			
Any Medicare (%)	80.2%	82.8%	
Any Medicaid (%)	5.4%	8.8%	
Any HMO (%)	2.7%	6.3%	
Medicare HMO (%)	0.0%	2.3%	
Private third party (%)	29.7%	28.9%	
Current Residence			
Own home (%)	73.0%	80.7%	
Family member home (%)	20.7%	12.9%	
Current Living Situation			
Lives alone (%)	22.5%	31.1%	
With family member (%)	73.9%	63.0%	
With friend (%)	2.7%	1.5%	
With paid help (%)	0.9%	3.2%	
Assisting Persons			
Person residing in home (%)	61.3%	55.0%	
Person residing outside home (%)	36.9%	54.7%	**
Paid help (%)	7.2%	13.6%	
Primary Caregiver			
Spouse/significant other (%)	40.5%	34.9%	
Daughter/son (%)	34.2%	26.2%	
Paid help (%)	1.8%	6.0%	
No one person (%)	16.2%	19.7%	
Primary Caregiver Assistance			
Freq. of assistance (0-6, scale avg.)	4.40	4.18	
Inpatient DC within 14 Days of SOC/ROC			
From hospital (%)	70.3%	65.6%	
From rehab facility (%)	18.0%	16.2%	
From nursing home (%)	2.7%	5.9%	
Med. Reg. Chg. w/in 14 Days of SOC/ROC			
Medical regimen change (%)	81.1%	83.3%	
Prognoses			
Moderate recovery prognosis (%)	94.4%	94.0%	
Good rehab prognosis (%)	82.1%	83.5%	
ADL Disabilities at SOC/ROC			
Grooming (0-3, scale average)	1.04	0.87	
Dress upper body (0-3, scale avg.)	0.63	0.63	
Dress lower body (0-3, scale avg.)	1.47	1.36	
Bathing (0-5, scale average)	2.42	2.32	
Toileting (0-4, scale average)	0.77	0.57	
Transferring (0-5, scale average)	0.73	0.85	
Ambulation (0-5, scale average)	1.28	1.23	
Eating (0-5, scale average)	0.28	0.25	

	Current Mean	Reference Mean	Sig.
ADL Status Prior to SOC/ROC			
Grooming (0-3, scale average)	0.45	0.36	
Dress upper body (0-3, scale avg.)	0.23	0.25	
Dress lower body (0-3, scale avg.)	0.50	0.49	
Bathing (0-5, scale average)	1.02	0.91	
Toileting (0-4, scale average)	0.25	0.26	
Transferring (0-5, scale average)	0.26	0.34	
Ambulation (0-5, scale average)	0.59	0.57	
Eating (0-5, scale average)	0.11	0.12	
IADL Disabilities at SOC/ROC			
Light meal prep (0-2, scale avg.)	1.19	0.93	**
Transportation (0-2, scale avg.)	1.06	1.03	
Laundry (0-2, scale average)	1.62	1.62	
Housekeeping (0-4, scale avg.)	2.91	2.85	
Shopping (0-3, scale average)	2.08	2.15	
Phone use (0-5, scale average)	0.34	0.43	
Mgmt. oral meds (0-2, scale avg.)	0.51	0.49	
IADL Status Prior to SOC/ROC			
Light meal prep (0-2, scale avg.)	0.54	0.39	
Transportation (0-2, scale avg.)	0.74	0.56	*
Laundry (0-2, scale average)	0.85	0.74	
Housekeeping (0-4, scale avg.)	1.38	1.30	
Shopping (0-3, scale average)	1.09	1.02	
Phone use (0-5, scale average)	0.17	0.32	
Mgmt. oral meds (0-2, scale avg.)	0.32	0.35	
Respiratory Status			
Dyspnea (0-4, scale average)	0.99	0.84	
Therapies Received at Home			
IV/infusion therapy (%)	4.5%	2.7%	
Parenteral nutrition (%)	0.0%	0.0%	
Enteral nutrition (%)	0.0%	0.5%	
Sensory Status			
Vision impairment (0-2, scale avg.)	0.32	0.23	
Hearing impair. (0-4, scale avg.)	0.34	0.37	
Speech/language (0-5, scale avg.)	0.22	0.28	
Pain			
Pain interfer. w/activity (0-3, scale avg.)	1.39	1.45	
Intractable pain (%)	21.6%	22.5%	
Neuro/Emotional/Behavioral Status			
Moderate cognitive disability (%)	1.8%	6.7%	
Severe confusion disability (%)	1.8%	3.8%	
Severe anxiety level (%)	13.6%	9.4%	
Behav probs > twice a week (%)	6.3%	3.6%	
Integumentary Status			
Presence of wound/lesion (%)	40.5%	38.2%	
Stasis ulcer(s) present (%)	2.7%	1.3%	
Surgical wound(s) present (%)	35.1%	32.3%	
Pressure ulcer(s) present (%)	2.7%	4.5%	
Stage 2-4 ulcer(s) present (%)	2.7%	3.8%	
Stage 3-4 ulcer(s) present (%)	1.8%	0.9%	

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 111
Number of Cases in Reference Sample: 2423

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Orthopedic Patients' Case Mix Profile at Start/Resumption of Care

	Current Mean	Reference Mean	Sig.
Elimination Status			
UTI within past 14 days (%)	18.0%	8.6%	*
Urinary incont./catheter present (%)	15.3%	16.5%	
Incontinent day and night (%)	9.0%	7.4%	
Urinary catheter (%)	2.7%	2.8%	
Bowel incont. (0-5, scale avg.)	0.17	0.12	
Acute Conditions			
Orthopedic (%)	100.0%	100.0%	
Neurologic (%)	10.8%	4.1%	*
Open wounds/lesions (%)	40.5%	38.8%	
Terminal condition (%)	4.5%	3.6%	
Cardiac/peripheral vascular (%)	18.9%	13.9%	
Pulmonary (%)	9.9%	6.0%	
Diabetes mellitus (%)	8.1%	4.3%	
Gastrointestinal disorder (%)	8.1%	4.3%	
Contagious/communicable (%)	9.0%	2.5%	**
Urinary incont./catheter (%)	6.3%	7.7%	
Mental/emotional (%)	1.8%	2.2%	
Oxygen therapy (%)	2.7%	4.8%	
IV/infusion therapy (%)	4.5%	2.7%	
Enteral/parenteral nutrition (%)	0.0%	0.5%	
Ventilator (%)	0.0%	0.0%	
Chronic Conditions			
Dependence in living skills (%)	33.3%	25.2%	
Dependence in personal care (%)	26.1%	16.2%	*
Impaired ambulation/mobility (%)	8.1%	9.2%	
Eating disability (%)	1.8%	1.2%	
Urinary incontinence/catheter (%)	8.1%	8.9%	
Dependence in med. admin. (%)	33.3%	26.3%	
Chronic pain (%)	7.2%	9.7%	
Cognitive/mental/behavioral (%)	15.3%	15.8%	
Chronic pt. with caregiver (%)	35.1%	25.5%	

	Current Mean	Reference Mean	Sig.
Diagnoses For Which Patients Are Receiving Home Care			
Infections/parasitic diseases (%)	11.7%	3.4%	**
Neoplasms (%)	2.7%	5.1%	
Endocrine/nutrit./metabolic (%)	9.0%	18.4%	
Blood diseases (%)	3.6%	5.9%	
Mental diseases (%)	3.6%	7.3%	
Nervous system diseases (%)	6.3%	7.1%	
Circulatory system diseases (%)	22.5%	36.4%	*
Respiratory system diseases (%)	6.3%	9.9%	
Digestive system diseases (%)	5.4%	7.9%	
Genitourinary sys. diseases (%)	2.7%	6.3%	
Pregnancy problems (%)	0.0%	0.0%	
Skin/subcutaneous diseases (%)	0.9%	3.9%	
Musculoskeletal sys. diseases (%)	31.5%	64.5%	**
Congenital anomalies (%)	0.9%	0.6%	
Ill-defined conditions (%)	13.5%	15.8%	
Fractures (%)	30.6%	36.1%	
Intracranial injury (%)	0.0%	0.5%	
Other injury (%)	3.6%	4.9%	
Iatrogenic conditions (%)	0.0%	1.7%	
Length of Stay			
LOS until discharge (avg. in days)	47.63	37.54	
LOS from 1 to 31 days (%)	46.0%	54.2%	
LOS from 32 to 62 days (%)	31.5%	33.1%	
LOS from 63 to 124 days (%)	15.3%	10.2%	
LOS more than 124 days (%)	7.2%	2.4%	*

* The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
** The probability is 0.1% or less that this difference is due to chance, and 99.9% or more that the difference is real.
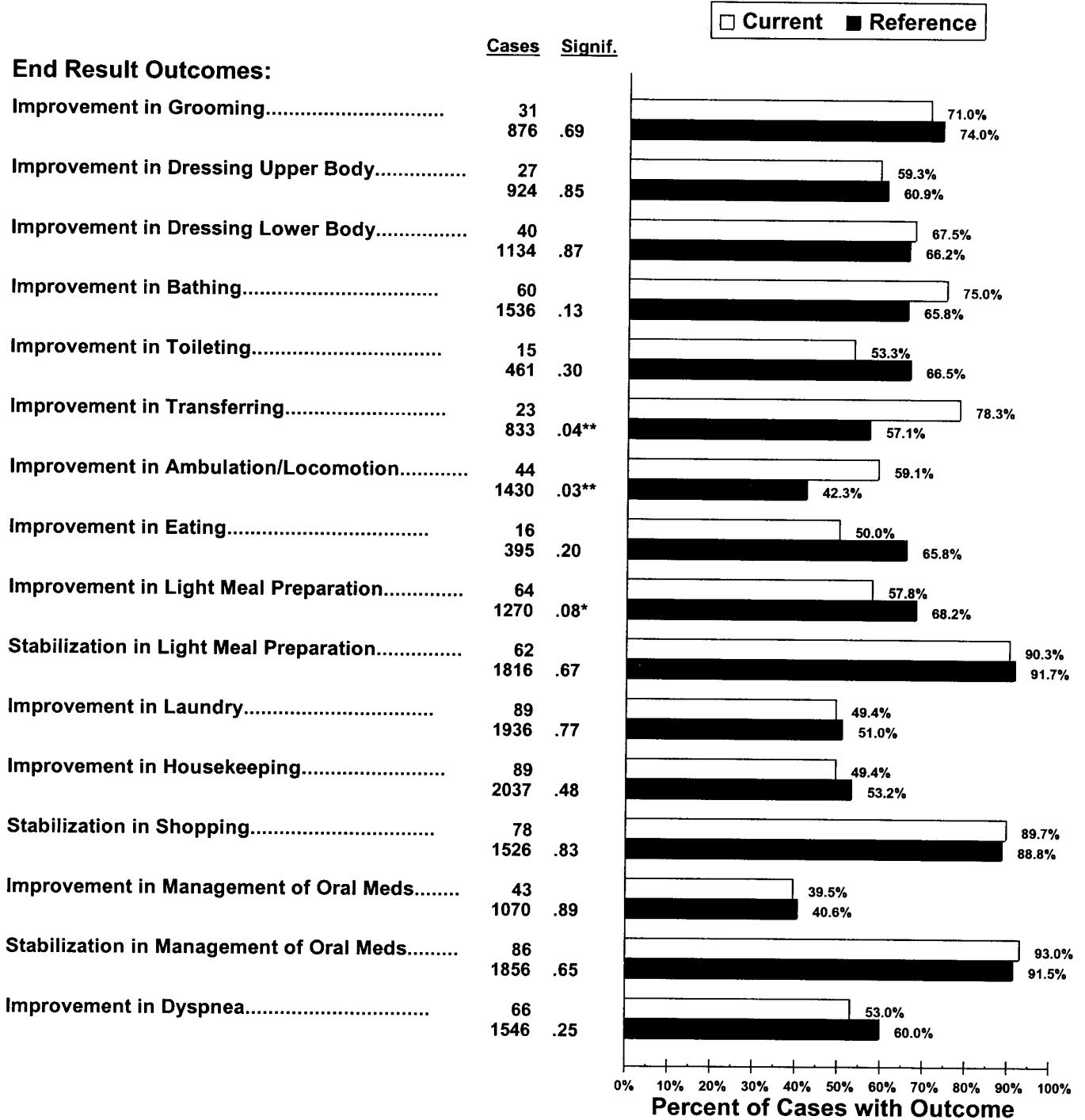
Divider D:

CARDIAC PATIENTS'
OUTCOME AND CASE MIX REPORTS

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 94
Number of Cases in Reference Sample: 2224

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Cardiac Patients' Outcome Report
Risk Adjusted

| ☐ Current ■ Reference |

Cases   Signif.

End Result Outcomes:

Outcome	Cases	Signif.	Current	Reference
Improvement in Grooming	31 / 876	.69	71.0%	74.0%
Improvement in Dressing Upper Body	27 / 924	.85	59.3%	60.9%
Improvement in Dressing Lower Body	40 / 1134	.87	67.5%	66.2%
Improvement in Bathing	60 / 1536	.13	75.0%	65.8%
Improvement in Toileting	15 / 461	.30	53.3%	66.5%
Improvement in Transferring	23 / 833	.04**	78.3%	57.1%
Improvement in Ambulation/Locomotion	44 / 1430	.03**	59.1%	42.3%
Improvement in Eating	16 / 395	.20	50.0%	65.8%
Improvement in Light Meal Preparation	64 / 1270	.08*	57.8%	68.2%
Stabilization in Light Meal Preparation	62 / 1816	.67	90.3%	91.7%
Improvement in Laundry	89 / 1936	.77	49.4%	51.0%
Improvement in Housekeeping	89 / 2037	.48	49.4%	53.2%
Stabilization in Shopping	78 / 1526	.83	89.7%	88.8%
Improvement in Management of Oral Meds	43 / 1070	.89	39.5%	40.6%
Stabilization in Management of Oral Meds	86 / 1856	.65	93.0%	91.5%
Improvement in Dyspnea	66 / 1546	.25	53.0%	60.0%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
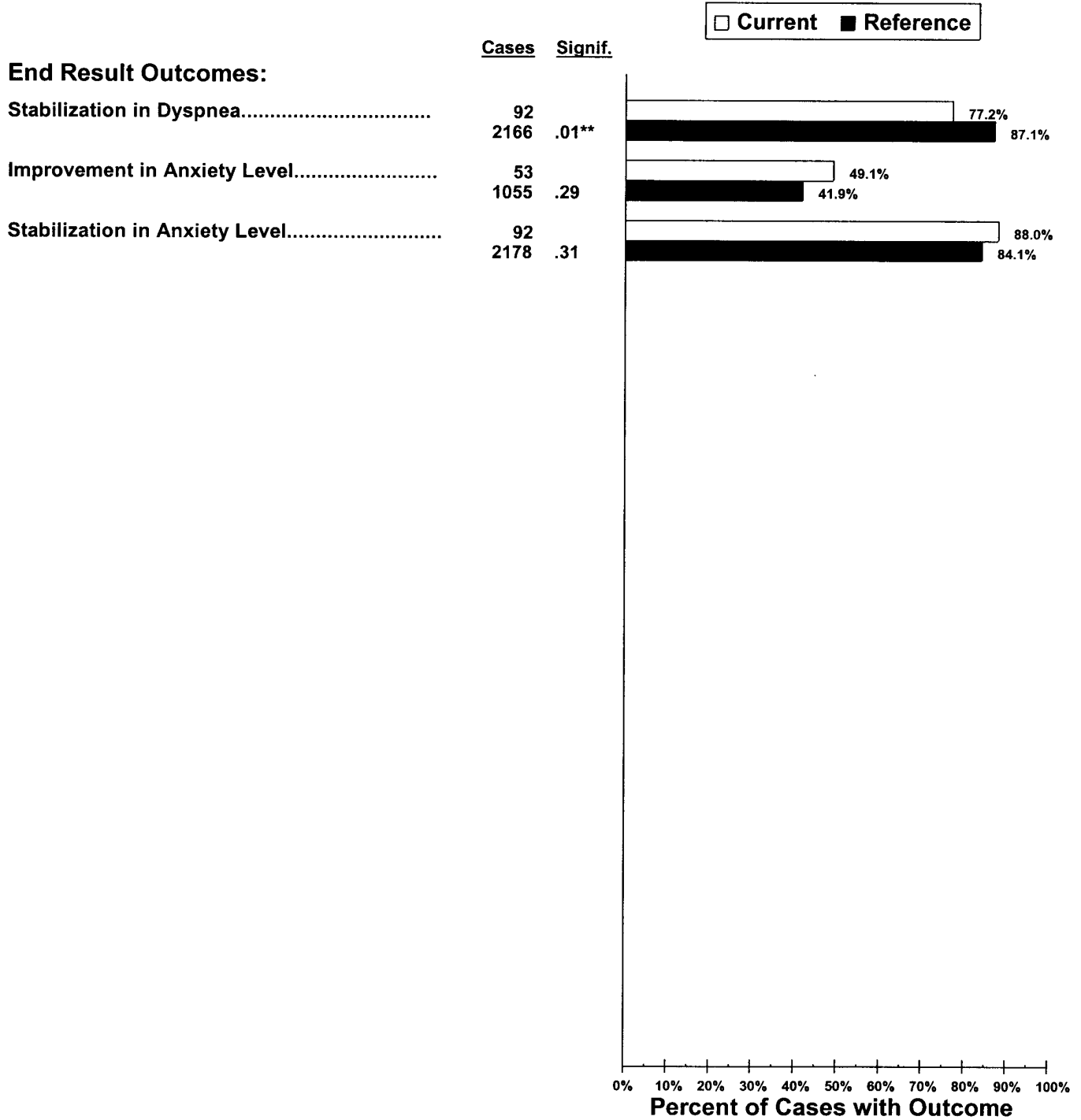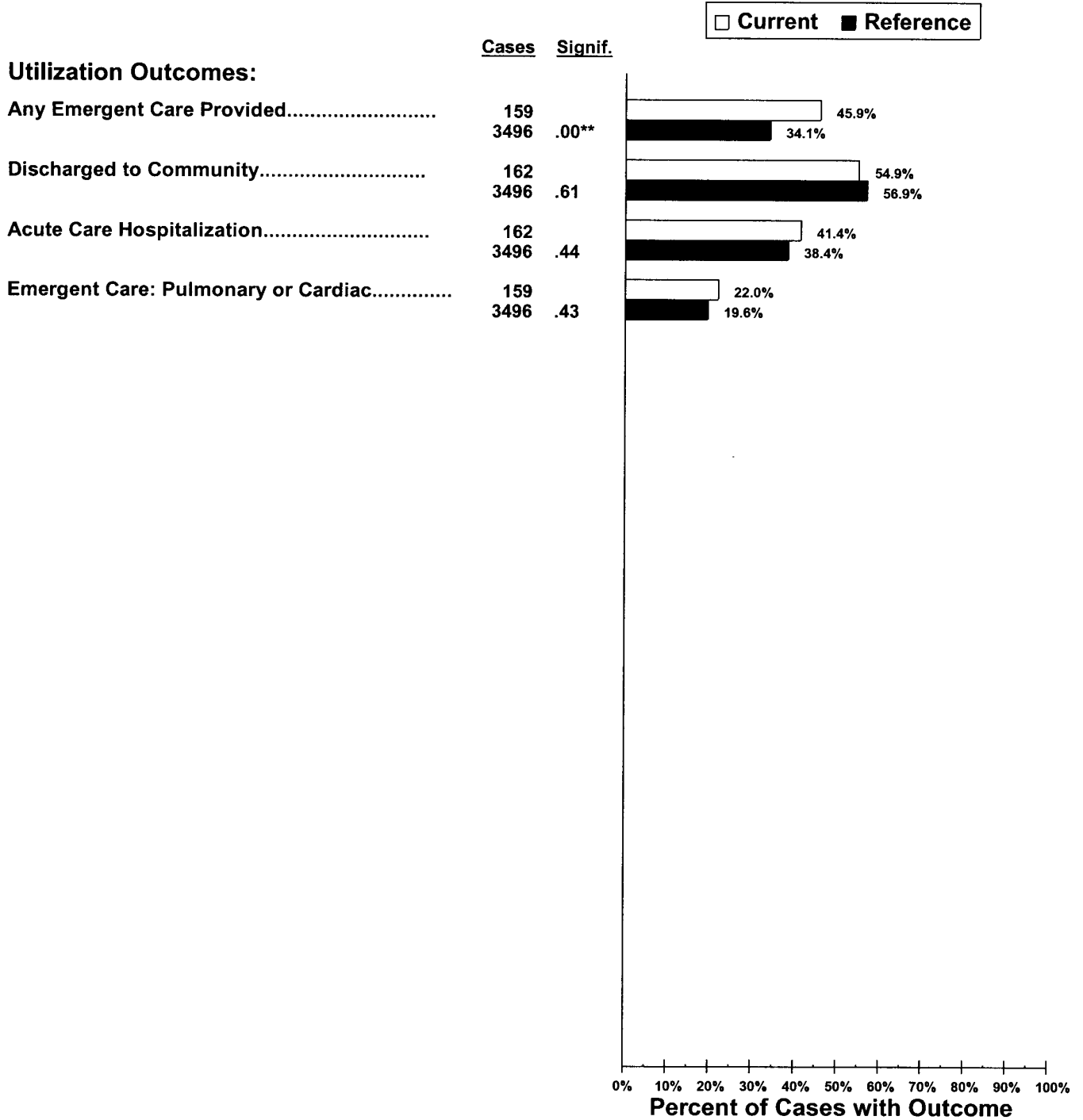**Percent of Cases with Outcome**

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 94
Number of Cases in Reference Sample: 2224

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Cardiac Patients' Outcome Report
Risk Adjusted

	Cases	Signif.	☐ Current ■ Reference

End Result Outcomes:

Stabilization in Dyspnea.................................
92
2166 .01**
— 77.2%
— 87.1%

Improvement in Anxiety Level.........................
53
1055 .29
— 49.1%
— 41.9%

Stabilization in Anxiety Level..........................
92
2178 .31
— 88.0%
— 84.1%

Percent of Cases with Outcome

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

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Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 162
Number of Cases in Reference Sample: 3496

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Cardiac Patients' Outcome Report
Risk Adjusted

☐ Current ■ Reference

	Cases	Signif.	
Utilization Outcomes:			
Any Emergent Care Provided..........................	159		45.9%
	3496	.00**	34.1%
Discharged to Community.............................	162		54.9%
	3496	.61	56.9%
Acute Care Hospitalization............................	162		41.4%
	3496	.44	38.4%
Emergent Care: Pulmonary or Cardiac..............	159		22.0%
	3496	.43	19.6%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

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** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

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Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 162
Number of Cases in Reference Sample: 3496

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Cardiac Patients' Case Mix Profile at Start/Resumption of Care

	Current Mean	Reference Mean	Sig.
Demographics			
Age (average in years)	75.28	75.52	
Gender: Female (%)	67.9%	61.1%	
Race: Black (%)	1.9%	13.0%	**
Race: White (%)	96.3%	83.1%	**
Race: Other (%)	1.9%	3.9%	
Payment Source			
Any Medicare (%)	88.3%	86.9%	
Any Medicaid (%)	8.0%	13.2%	
Any HMO (%)	3.1%	6.1%	
Medicare HMO (%)	1.9%	2.8%	
Private third party (%)	18.5%	24.1%	
Current Residence			
Own home (%)	76.4%	79.8%	
Family member home (%)	19.3%	14.5%	
Current Living Situation			
Lives alone (%)	32.1%	30.3%	
With family member (%)	63.6%	64.5%	
With friend (%)	1.2%	1.5%	
With paid help (%)	3.7%	2.9%	
Assisting Persons			
Person residing in home (%)	53.7%	56.6%	
Person residing outside home (%)	41.4%	55.1%	**
Paid help (%)	10.5%	12.7%	
Primary Caregiver			
Spouse/significant other (%)	21.0%	32.8%	*
Daughter/son (%)	39.5%	29.8%	*
Paid help (%)	3.7%	4.9%	
No one person (%)	27.2%	18.8%	*
Primary Caregiver Assistance			
Freq. of assistance (0-6, scale avg.)	3.80	4.16	
Inpatient DC within 14 Days of SOC/ROC			
From hospital (%)	89.5%	82.6%	
From rehab facility (%)	3.7%	5.4%	
From nursing home (%)	0.6%	3.2%	
Med. Reg. Chg. w/in 14 Days of SOC/ROC			
Medical regimen change (%)	81.5%	89.9%	**
Prognoses			
Moderate recovery prognosis (%)	85.3%	87.8%	
Good rehab prognosis (%)	68.8%	69.3%	
ADL Disabilities at SOC/ROC			
Grooming (0-3, scale average)	1.06	0.82	*
Dress upper body (0-3, scale avg.)	0.54	0.57	
Dress lower body (0-3, scale avg.)	1.23	1.04	
Bathing (0-5, scale average)	2.12	1.95	
Toileting (0-4, scale average)	0.54	0.49	
Transferring (0-5, scale average)	0.52	0.62	
Ambulation (0-5, scale average)	0.91	0.99	
Eating (0-5, scale average)	0.36	0.27	

	Current Mean	Reference Mean	Sig.
ADL Status Prior to SOC/ROC			
Grooming (0-3, scale average)	0.65	0.48	
Dress upper body (0-3, scale avg.)	0.36	0.32	
Dress lower body (0-3, scale avg.)	0.76	0.59	
Bathing (0-5, scale average)	1.31	1.14	
Toileting (0-4, scale average)	0.36	0.32	
Transferring (0-5, scale average)	0.30	0.40	
Ambulation (0-5, scale average)	0.62	0.66	
Eating (0-5, scale average)	0.22	0.18	
IADL Disabilities at SOC/ROC			
Light meal prep (0-2, scale avg.)	1.12	0.88	**
Transportation (0-2, scale avg.)	1.05	1.00	
Laundry (0-2, scale average)	1.69	1.53	**
Housekeeping (0-4, scale avg.)	2.92	2.70	
Shopping (0-3, scale average)	2.08	2.08	
Phone use (0-5, scale average)	0.60	0.62	
Mgmt. oral meds (0-2, scale avg.)	0.71	0.75	
IADL Status Prior to SOC/ROC			
Light meal prep (0-2, scale avg.)	0.64	0.53	
Transportation (0-2, scale avg.)	0.79	0.70	
Laundry (0-2, scale average)	1.14	0.98	
Housekeeping (0-4, scale avg.)	1.96	1.75	
Shopping (0-3, scale average)	1.38	1.35	
Phone use (0-5, scale average)	0.46	0.50	
Mgmt. oral meds (0-2, scale avg.)	0.50	0.55	
Respiratory Status			
Dyspnea (0-4, scale average)	1.80	1.43	**
Therapies Received at Home			
IV/infusion therapy (%)	1.9%	1.6%	
Parenteral nutrition (%)	0.0%	0.0%	
Enteral nutrition (%)	1.2%	0.9%	
Sensory Status			
Vision impairment (0-2, scale avg.)	0.43	0.32	
Hearing impair. (0-4, scale avg.)	0.31	0.47	*
Speech/language (0-5, scale avg.)	0.40	0.41	
Pain			
Pain interfer. w/activity (0-3, scale avg.)	0.78	0.84	
Intractable pain (%)	8.0%	9.5%	
Neuro/Emotional/Behavioral Status			
Moderate cognitive disability (%)	6.8%	9.8%	
Severe confusion disability (%)	3.7%	5.4%	
Severe anxiety level (%)	9.3%	11.0%	
Behav probs > twice a week (%)	9.9%	4.6%	*
Integumentary Status			
Presence of wound/lesion (%)	32.7%	28.9%	
Stasis ulcer(s) present (%)	4.9%	4.1%	
Surgical wound(s) present (%)	22.2%	20.6%	
Pressure ulcer(s) present (%)	8.0%	4.7%	
Stage 2-4 ulcer(s) present (%)	5.6%	3.9%	
Stage 3-4 ulcer(s) present (%)	4.3%	1.1%	*

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 162
Number of Cases in Reference Sample: 3496

Date Report Printed: 02/28/2000
Report Period: 01/01/1999-12/31/1999

Cardiac Patients' Case Mix Profile at Start/Resumption of Care

	Current Mean	Reference Mean	Sig.		Current Mean	Reference Mean	Sig.
Elimination Status				**Diagnoses For Which Patients Are**			
UTI within past 14 days (%)	13.8%	8.2%		**Receiving Home Care**			
Urinary incont./catheter present (%)	18.5%	18.2%		Infections/parasitic diseases (%)	1.9%	2.4%	
Incontinent day and night (%)	8.6%	8.3%		Neoplasms (%)	4.3%	6.3%	
Urinary catheter (%)	3.7%	3.4%		Endocrine/nutrit./metabolic (%)	13.0%	31.1%	**
Bowel incont. (0-5, scale avg.)	0.23	0.18		Blood diseases (%)	4.9%	7.1%	
				Mental diseases (%)	5.6%	7.9%	
Acute Conditions				Nervous system diseases (%)	7.4%	6.5%	
Orthopedic (%)	13.0%	9.5%		Circulatory system diseases (%)	53.1%	96.9%	**
Neurologic (%)	13.0%	7.9%		Respiratory system diseases (%)	14.8%	22.3%	
Open wounds/lesions (%)	33.3%	29.3%		Digestive system diseases (%)	6.2%	9.5%	
Terminal condition (%)	4.3%	4.9%		Genitourinary sys. diseases (%)	4.3%	10.2%	*
Cardiac/peripheral vascular (%)	100.0%	100.0%		Pregnancy problems (%)	0.0%	0.0%	
Pulmonary (%)	21.6%	18.9%		Skin/subcutaneous diseases (%)	1.9%	5.7%	
Diabetes mellitus (%)	8.0%	11.2%		Musculoskeletal sys. diseases (%)	12.4%	15.3%	
Gastrointestinal disorder (%)	8.0%	7.2%		Congenital anomalies (%)	1.2%	0.8%	
Contagious/communicable (%)	3.1%	1.4%		Ill-defined conditions (%)	11.1%	17.7%	
Urinary incont./catheter (%)	4.3%	7.4%		Fractures (%)	4.9%	3.3%	
Mental/emotional (%)	1.2%	2.5%		Intracranial injury (%)	0.0%	0.1%	
Oxygen therapy (%)	14.2%	14.3%		Other injury (%)	4.9%	3.5%	
IV/infusion therapy (%)	1.9%	1.6%		Iatrogenic conditions (%)	0.6%	2.1%	
Enteral/parenteral nutrition (%)	1.2%	0.9%					
Ventilator (%)	0.0%	0.0%					
				Length of Stay			
Chronic Conditions				LOS until discharge (avg. in days)	49.15	40.93	
Dependence in living skills (%)	40.1%	34.0%		LOS from 1 to 31 days (%)	47.5%	53.1%	
Dependence in personal care (%)	35.2%	20.7%	**	LOS from 32 to 62 days (%)	28.4%	31.1%	
Impaired ambulation/mobility (%)	13.0%	10.8%		LOS from 63 to 124 days (%)	16.7%	11.5%	
Eating disability (%)	4.3%	1.9%		LOS more than 124 days (%)	7.4%	4.3%	
Urinary incontinence/catheter (%)	13.6%	10.9%					
Dependence in med. admin. (%)	43.2%	41.1%					
Chronic pain (%)	3.1%	3.0%					
Cognitive/mental/behavioral (%)	27.8%	21.9%					
Chronic pt. with caregiver (%)	36.4%	33.7%					

* The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
** The probability is 0.1% or less that this difference is due to chance, and 99.9% or more that the difference is real.

Divider E:

PATIENT TALLY REPORT INSTRUCTIONS

Patient Tally Report Instructions

Description

Patient Tally Reports give descriptive information for each individual case included in your outcome report analysis. For each case, you can identify if the patient contributed to an outcome measure and, if so, whether that outcome was achieved (for all outcomes in your Outcome Report). In addition, you can identify the values for each case mix variable (found in to your Case Mix Report) for every patient at start of care (e.g., his/her value on the bathing scale or whether he/she had an acute cardiac condition). Finally, it is possible to see how all (raw) OASIS items were answered for each patient at start of care. All agencies receive their Patient Tally Reports in the form of a Microsoft Excel workbook. In addition, agencies with 250 or fewer cases contributing to their All Patients' Case Mix Report receive a binder containing printed output of the tally reports. The interpretation of these reports is the same whether they are printed or viewed on a computer screen. To access any of these options (raw, case mix, or outcome data) select the icon at the bottom of your screen.

The primary use of the Patient Tally Reports is to select patients for your process-of-care investigation. For example, if you choose to investigate the outcome "Improvement in Dyspnea" as a target outcome, you can identify which patients improved in dyspnea and which did not improve. By conducting a process-of-care investigation, comparing processes of care for the two groups of patients, you should be able to identify specific care behaviors that can be remedied or reinforced. These target care behaviors (and corresponding best practices) will be the basis for your plan of action.

Reading the Tally Reports

Each row in a tally report corresponds to a single case (i.e., one episode for a given start of care date). Reading across from left to right, you will see the patient's ID number and start of care date for the episode followed by SOC case mix, outcome, or (raw) OASIS item data. Using the patient ID number and SOC date, it is possible to identify specific episodes of care if patients were discharged and readmitted to your agency. Descriptive labels for outcome measures, case mix attributes, and OASIS items are printed at the top of each page.

For the Case Mix Tally Report: (Select the "Case Mix" tab)

Attributes Measured Using Scales

Some SOC case mix attributes are measured using integer scales. The labels (at the top of the page) for such variables include the possible range of values in parentheses. The patient's score on this attribute will fall within this range or be shown as a "-" if no data were collected for the attribute.

Attributes Measured by Presence/Absence

Most case mix attributes with no scale range listed after the attribute name in the label are dichotomies and are presented as an "X" if the case mix attribute was present, an "o" if the case mix attribute was not present, or an "-" if data were not available. The only exception to this is "Age," which does not have a range in its label, but is nonetheless not a dichotomous measure.

For the Outcome Tally Report: (Select the "Outcome" tab)

Each patient will have either an "X," "o," or "-" for each outcome. An "X" means that a patient actually <u>achieved</u> the outcome (e.g., stabilized in light meal preparation). An "o" means that a patient <u>did not achieve</u> the outcome (e.g., did not stabilize in bowel incontinence, thus actually declined). A "-" indicates that the outcome could not be calculated for that patient. This might occur if a patient does not meet the inclusion criteria for the outcome (e.g., patients completely independent in ambulation at SOC/ROC are not included in the outcome analysis for improvement in ambulation) or if data needed to compute the outcome were missing for that patient.

For the OASIS (Raw Data) Item Tally Report: (Select the "Raw Data" tab)

<u>Attributes Measured Using Scales</u>

Some SOC/ROC OASIS items are measured using integer scales. The labels (at the top of the page) for such variables include the possible range of values in parentheses. The patient's score on this attribute will fall within this range or be shown as a "-" if no data were collected for the attribute.

<u>Attributes Measured by Presence/Absence</u>

Most OASIS items with no scale range listed after the attribute name in the label are dichotomies and are presented as an "X" if the case mix attribute was present, an "o" if the case mix attribute was not present, or a "-" if the data were not available. The only exception to this is "Gender," which is a dichotomous item with a range of 1 to 2.

<u>Other Attributes</u>

Some OASIS items that have no ranges listed after the attribute name can take numerous values. Examples of such items include birth year and the several (ICD-9) diagnosis items.

Illustrative Excerpt:

Illustrative Home Health Care

All Patients' Tally Report: Case Mix

Report Period: 01/01/1999-12/31/1999

Patient ID	Start of Care Date	Branch ID	Age	Gender: Female	Race: Black	Race: White	Race: Other	Any Medicare	Any Medicaid	Any HMO	Medicare HMO	Private third party	Own home	Family member home	Lives alone	With other family member	With friend	With paid help	Person residing in home	Relative/friend/neighbor	Paid help	Spouse/significant other	Daughter/son	Other paid help	No one person	Freq. of assistance (0-6)	From hospital	From rehab facility	From nursing home	Medical regimen change	Moderate recovery prognosis	Good rehab prognosis
1012-06	03/21/1999	TY89	84	X	·	X	·	X	·	·	·	X	X	·	X	·	·	·	·	X	·	·	·	·	3	X	·	·	X	X	·
1012-06	06/11/1999	TY89	84	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	X	·	·	·	X	0	X	·	·	X	X	·
1036-03	02/22/1999		54	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	X	·	·	·	·	5	·	·	·	X	X	X
1036-04	03/07/1999		54	X	·	X	·	X	·	·	·	·	X	·	X	·	·	X	X	X	·	·	·	·	5	X	X	·	X	X	X
1048-04	04/21/1999		69	X	·	X	·	X	·	·	·	·	·	X	·	X	·	·	X	·	·	X	·	·	6	X	·	·	X	X	X
1122-02	05/30/1999		86	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	X	·	·	·	·	X	0	·	X	X	X	X	X
1139-02	04/05/1999		87	·	·	X	·	X	·	·	·	·	X	·	·	·	·	·	X	X	X	·	X	·	5	·	X	·	·	·	X
1148-04	05/07/1999		82	·	·	X	·	X	·	·	·	·	X	·	·	·	·	·	X	X	X	·	X	·	5	·	·	·	·	·	X
1286-02	07/29/1999	TY89	54	·	·	·	·	X	·	·	·	·	·	·	X	·	·	X	X	·	·	·	·	·	0	·	·	·	X	X	X
1287-07	05/09/1999		71	·	·	X	·	X	·	·	·	X	X	·	X	·	·	X	·	·	X	·	·	·	2	·	·	·	X	X	X
1323-04	04/15/1999		80	·	·	X	·	X	·	·	·	·	·	·	·	·	·	X	X	X	·	X	X	·	5	·	·	·	X	X	X
1328-02	08/08/1999		88	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	X	·	·	·	X	2	·	·	·	X	X	·
1338-06	02/20/1999	TY89	79	X	·	X	·	X	·	·	·	·	X	·	·	X	·	·	·	X	·	X	·	·	0	·	·	·	·	X	X
1338-07	11/06/1999	TY89	79	X	·	X	·	X	·	·	·	·	X	·	·	X	·	·	·	·	X	·	·	·	0	·	X	·	X	X	X
1382-02	11/13/1999		68	X	·	X	·	X	·	·	·	·	X	X	X	·	·	X	X	X	·	X	·	X	5	X	·	X	X	X	X
1383-02	02/06/1999		83	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	X	X	·	·	·	X	6	·	·	·	X	X	X
1392-03	02/22/1999		83	X	·	X	·	X	·	·	·	·	X	·	·	·	·	X	X	X	·	X	X	X	0	X	·	X	X	X	X
1403-04	02/12/1999	TY89	82	X	·	X	·	X	·	·	·	X	·	·	X	·	X	·	X	X	·	·	·	·	0	X	·	·	X	X	X
1403-05	07/11/1999	TY89	82	X	·	X	·	X	·	·	·	·	·	·	·	·	X	·	X	X	·	·	X	X	5	X	·	X	X	X	X
1413-02	07/01/1999		67	X	·	X	·	·	·	·	·	X	·	·	X	·	·	·	X	·	·	·	·	·	5	X	·	X	X	X	·
1425-05	04/21/1999		62	X	·	X	·	·	X	·	·	X	X	·	·	X	·	X	X	·	·	X	X	·	6	·	·	·	X	·	X
1425-06	09/18/1999		62	X	·	X	·	·	·	·	·	X	X	·	·	X	·	X	X	·	·	X	·	·	5	·	·	·	X	·	·
1425-07	12/01/1999		62	X	·	X	·	·	·	·	·	X	·	X	·	X	·	X	X	X	·	X	·	·	5	·	·	·	X	X	·

Center for Health Services Research, Denver, CO   E.3

Illustrative Excerpt:

All Patients' Tally Report: Outcomes

Illustrative Home Health Care

Report Period:
01/01/1999-12/31/1999

Patient ID	Start of Care Date	Branch ID	Improv in grooming	Stabil in grooming	Improv in dressing upper body	Improv in dressing lower body	Improv in bathing	Stabil in bathing	Improv in toileting	Improv in transferring	Stabil in transferring	Improv in ambulation	Improvement in eating	Improv light meal preparation	Stabil in light meal preparation	Improvement in laundry	Stabil in laundry	Improvement in housekeeping	Stabil in housekeeping	Improvement in shopping	Stabil in shopping	Improvement in phone use	Stabil in phone use	Improv in management of oral meds	Stabil in management of oral meds
1012-06	03/21/1999	TY89	-	X	-	-	o	X	-	-	X	o	-	-	X	o	X	o	X	o	X	-	X	o	X
1012-06	06/11/1999	TY89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036-03	02/22/1999		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036-04	03/07/1999		-	X	X	X	X	X	-	X	X	o	-	X	X	X	-	X	-	X	X	-	X	-	X
1048-04	04/21/1999		X	X	o	o	X	X	X	o	X	o	X	o	-	o	-	o	-	o	-	o	o	X	-
1122-02	05/30/1999		X	X	X	X	X	X	X	-	o	o	X	X	X	o	-	X	o	o	o	o	X	o	X
1139-02	04/05/1999		-	X	-	-	o	X	-	-	X	o	X	-	X	o	-	o	X	o	o	-	X	o	X
1148-04	05/07/1999		o	X	o	o	o	X	o	-	o	o	-	X	X	o	X	X	X	X	X	-	X	o	X
1286-02	07/29/1999	TY89	-	X	-	-	-	X	-	-	X	o	-	-	X	o	-	o	-	o	X	-	X	-	X
1287-07	05/09/1999		-	X	-	-	-	X	-	-	X	o	-	-	X	o	-	o	X	o	X	-	X	o	X
1323-04	04/15/1999		o	o	o	o	o	X	-	o	X	X	-	o	X	o	o	o	X	o	X	-	o	o	X
1328-02	08/08/1999		-	X	-	-	o	X	-	X	X	o	X	X	X	o	-	X	X	o	X	-	X	o	X
1338-06	02/20/1999	TY89	-	X	-	-	o	X	-	o	o	o	-	-	X	o	X	o	o	o	X	-	X	o	X
1338-07	11/06/1999	TY89	-	X	-	-	o	X	-	o	X	o	-	-	X	o	-	o	o	o	X	-	X	o	X
1382-02	11/13/1999		-	X	-	-	X	X	-	-	o	-	-	o	X	o	X	o	-	o	-	-	X	-	X
1383-02	02/06/1999		-	-	-	-	-	X	-	-	X	-	-	-	-	o	X	o	X	o	-	-	X	X	X
1392-03	02/22/1999		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1403-04	02/12/1999	TY89	-	X	-	-	o	X	-	o	X	o	-	X	X	o	-	X	X	X	X	-	X	X	X
1403-05	07/11/1999	TY89	-	X	-	-	X	X	X	-	X	o	-	o	X	o	-	X	X	X	X	-	X	X	X
1413-02	07/01/1999		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1425-05	04/21/1999		-	X	-	-	o	o	-	o	o	o	X	-	o	X	-	o	X	o	X	-	X	o	X
1425-06	09/18/1999		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1425-07	12/01/1999		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Functional Outcomes: Activities of Daily Living; Instrumental Activities of Daily Living

Illustrative Excerpt:

Illustrative Home Health Care

All Patients' Tally Report: Raw Data

Report Period: 01/01/1999-12/31/1999

Patient ID	Start of Care Date	Branch ID	Birth year	Gender (1-2)	Race/Ethnicity (1-6)	None, No Charge	Medicare (Fee For Service)	Medicare (HMO/Managed Care)	Medicaid (Fee For Service)	Medicaid (HMO/Managed Care)	Worker's Compensation	Title Programs	Other Government	Private Insurance	HMO/Managed Care	Self Pay	Other	Unknown	Fin: None	Unable to Afford Meds/Supplies	Unable to Afford Copays	Unable to Afford Rent/Utility Bills	Unable to Afford Food	Other Factors	Hospital	Rehabilitation Facility	Nursing Home	Inpt DC Other	Patient Not DCd from Inpt Facility	Inpt Diag Primary	Inpt Diag Secondary	Medical Regimen Change
1012-06	03/21/1999	TY89	1913	2	1		X							X					X						X					451		X
1012-06	06/11/1999	TY89	1913	2	1		X												X						X					427		X
1036-03	02/22/1999		1943	2	1		X												X										X			X
1036-04	03/07/1999		1943	2	1		X												X						X	X				824		X
1048-04	04/21/1999		1928	2	1		X												X						X					719		X
1122-02	05/30/1999		1911	2	1		X												X											808	805	X
1139-02	04/05/1999		1910	1	1		X												X							X	X			480		
1148-04	05/07/1999		1915	1	1		X												X										X			
1286-02	07/29/1999	TY89	1943	1	5		X												X										X			X
1287-07	05/09/1999		1926	1	1		X							X					X										X			X
1323-04	04/15/1999		1917	1	1		X												X										X			X
1328-02	08/08/1999		1909	2	1		X												X										X			X
1338-06	02/20/1999	TY89	1918	2	1		X												X										X			X
1338-07	11/06/1999	TY89	1918	2	1		X												X										X			
1382-02	11/13/1999		1929	2	1	X													X											392		X
1383-02	02/06/1999		1914	2	1														X							X	X			496	428	X
1392-03	02/22/1999		1914	2	1		X												X						X					428		X
1403-04	02/12/1999	TY89	1915	2	1		X							X					X						X		X			428	496	X
1403-05	07/11/1999	TY89	1915	2	1		X												X								X			558		X
1413-02	07/01/1999		1930	2	1				X										X						X					560	246	X
1425-05	04/21/1999		1935	2	1									X					X						X					496	429	X
1425-06	09/18/1999		1935	2	1									X					X						X					515		X
1425-07	12/01/1999		1935	2	1									X					X										X			X

Instructions for Working with
the Microsoft Excel Patient Tally Reports

Description

In order to facilitate analysis of your outcome results in support of your process-of-care investigation, we have provided patient tally reports in the form of a Microsoft Excel 5.0 workbook (agencies with 250 or fewer total cases also received printed tally reports). A "workbook" is a set of spreadsheets that, in this case, contains case mix, outcome, and raw OASIS item data along with associated macros, or programs, for querying and printing these data. The four components of the Patient Tally workbook are:

1.   A spreadsheet containing start of care Case Mix data for all patients,

2.   A spreadsheet containing Outcomes data for all patients,

3.   A spreadsheet containing start of care raw OASIS item data for all patients, and

4.   A set of macros that automate the processes of querying the spreadsheets to select cases with specified characteristics and the printing of reports.

System Requirements and Installation Instructions

A copy of Microsoft Excel (version 5.0 or higher) is recommended to read these data files and run the query and print macros. This software is not provided. All of the instructions in this document assume that you are using Excel 5.0 in Windows 3.x. There should be very little difference for users working with the Office '97 version of Excel in Windows 95 or NT. If your agency uses another current Windows-based spreadsheet or database program, you should be able to import data from the Excel workbook, but you will probably not be able to run the associated macros. In this case, it will be necessary for you to use the query and print capabilities of your software to perform these functions.

If you have a copy of Microsoft Excel (or a similar Windows-based program) and are able to use it with relatively large amounts of data, your computer hardware is probably sufficient to handle the patient tally workbook. Agencies with extremely large numbers of cases (in the thousands) may require more memory (RAM) than smaller agencies to load the data and run the macros.

Follow the instructions below to install the Excel workbook:

1.   Insert the installation diskette (Disk 1 if there are multiple diskettes) in the floppy drive (these instructions assume it is drive A:).

2.   Either from DOS or from a DOS window in Microsoft Windows 3.x or 95, type "A:" to change to the A: drive.

3.   Decide on which drive and directory you wish to install the workbook. The following example assumes that you want to install the file in the directory "C:\TALLY," but you can substitute another location, if you wish. To install the workbook, type the following at the A:\ prompt:

    install c:\tally   [or substitute another drive and directory if you do not want to use C:\TALLY.]

4. If there are multiple diskettes, you will be prompted when to insert each disk. Follow all prompts to insert disks until the process is complete. After the installation process is complete, you should find a file with a name like "TALLYnn.XLS," where "nn" corresponds to the first two digits of your agency's three-digit ID number. Use Microsoft Excel (version 5.0 or higher) to open this file. **Be sure to save the diskette to preserve the original Excel workbook as a backup copy.**

Performing Queries to Select Cases with Specified Characteristics

The first step in the process-of-care investigation is to select patients who achieved a target outcome and compare them with patients who did not achieve that outcome. As part of this investigation, it may also be desirable to further subdivide these groups of patients to focus on key secondary outcomes. The Excel patient tally workbook can assist in this process by providing the capability to query the tally reports to quickly pinpoint patients with selected characteristics. This is accomplished with several query macros that are provided as part of the workbook.

A concrete example will best illustrate this procedure. Suppose that you have chosen "Improvement in Bathing" as your target outcome. Obviously, you will be interested in comparing patients who improved in bathing with those who did not improve. To list the patients who improved in bathing, follow the steps below:

1. Open the patient tally workbook file in Excel.

2. From the "Tools" menu, select the "Macro..." option.

3. You will see a list of available macros. Find the macro named "QueryOutcomes" on this list and click on it. Click on the "Run" button to run this macro.

4. You will be asked if you want to "Specify (more) selection criteria?". Click on the "Yes" button.

5. You will then see a series of prompts asking, for each outcome measure, whether you want to select cases based on that outcome. The first outcome is "Improvement in Grooming," which you are not interested in at this time. Click on the "No" button to skip this outcome and proceed to the other outcomes.

6. Continue to click on "No" until the outcome you are interested in, "Improvement in Bathing," appears. Click on "Yes" when you are prompted to add "Improvement in Bathing" to the selection criteria.

7. You are now asked whether you want to select patients who did improve in bathing or those who did not improve. Enter the number "1" and click on "OK" to select patients who achieved the outcome "Improvement in Bathing."

8. Note that the "Outcome Query" specification box now indicates that you have specified "Improv in Bathing = Yes" as a selection criteria. Also, an "X" appears under the "Improv in Bathing" label in the first query definition row (row 8991). Since you do not want to specify any other selection criteria at this time, click on "Cancel" to exit from the specification step.

9. You will now return to the prompt asking if you want to "Specify (more) selection criteria?". Click on "No."

10. Excel will now perform the requested query and list all outcomes for only those patients who improved in bathing. Note that the Outcomes spreadsheet is now active, regardless of which spreadsheet was active when you ran the macro. Note also that the selection criteria you specified are listed at the top of the screen (in row 8999). Cases that met the selection criteria

are listed starting in row 9001. [NOTE: If you explore the spreadsheets, you will notice that the data for all of your patients start in row 3 of each spreadsheet. The spreadsheets for most agencies will contain a large number of blank rows and some additional header information prior to row 8999. These rows allow the query macros to operate regardless of the number of cases an agency may have.]

11. Although you may be interested in whether these patients achieved other outcomes, you will almost certainly want to look at the start of care case mix characteristics and possibly the raw OASIS data for these patients. There are additional macros that will apply the selection criteria (i.e., patients who improved in bathing) to the Case Mix and Raw Data spreadsheets. To see Case Mix data for patients who improved in bathing, select the "Macro..." option from the "Tools" menu. From the list of available macros, click on the macro named "CaseMixQuery" and click on "Run." You should now see Case Mix data for all patients who improved in bathing. Note that the Case Mix spreadsheet is now active, regardless of which spreadsheet was active when you ran the macro.

12. To see raw OASIS item data for the same patients, select the "Macros..." option from the "Tools" menu. From the list of available macros, click on the macro named "RawDataQuery" and click on "Run." You should now see OASIS data items for all patients who improved in bathing. Note that the Raw Data spreadsheet is now active, regardless of which spreadsheet was active when you ran the macro.

This example demonstrates how to select patients based on a single criterion. The "QueryOutcomes" macro allows you to specify up to seven levels of selection criteria, and each level can contain selection criteria for any of the outcomes (i.e., 46 selection criteria). The criteria that you specify within a given level must all be true for a case to be listed. If multiple levels of criteria are specified, any case that satisfies at least one level will be listed. Cases that satisfy more than one level of a query will only be listed once. An extension of the previous example should help to clarify how this versatile (if somewhat complex) querying capability works. Suppose that you now want to list all patients who improved in bathing and were discharged to the community as well as all patients who stabilized in bathing (there may not be an obvious reason to specify this query, but that does not negate its instructive value). This requires a two-level query. The first level specifies all patients who improved in bathing and were discharged to the community. To specify this portion of the query, perform Steps 2 through 7 from the previous example. In place of Step 8 (be careful not to go past Step 7!), perform the following steps:

8a. Click on "No" to prompts for all outcomes until you reach the prompt asking if you want to "Add outcome Discharged to Community to selection criteria?". Click "Yes" on this prompt. Type "1" and click on "OK" to specify patients who were discharged to the community. Note the change in the selection criteria message at the next prompt.

9a. Click "Cancel" or click "No" on all other selection criteria prompts until you see the "Specify (more) selection criteria?" prompt again. At this point, you have completed specification of the first level of the query (i.e., all patients who improved in bathing and were discharged to the community).

9b. The second level of this query will add to the list all patients who stabilized in bathing. To specify the second level, click on "Yes" at the "Specify (more) selection criteria?" prompt.

9c. Click on "No" for all outcomes until you see the prompt asking if you want to add "Stabil in Bathing" to the selection criteria. Click "Yes" at this prompt. Enter "1" to select patients who achieved this outcome and click on "OK." Note that an "X" appears under the "Stabil in Bathing" label in the second query specification row (row 8992). This indicates that you have specified patients who stabilized in bathing as a criterion for the second level of the query.

9d. Continue to click on "No" until you return to the "Specify (more) selection criteria?" prompt. If you intended to specify a third level of criteria for this query, you could do so at this point,

simply by repeating Steps 9a through 9c. Up to seven levels of selection criteria can be specified in this manner. Since you do not need to specify any additional criteria in this case, click on "No" to perform the query.

Once you have specified the two-level query, simply follow Steps 11 and 12 to see Case Mix or raw OASIS item data for the patients listed. Once an outcome query has been specified by using the "QueryOutcomes" macro, the selection criteria remain in effect for use by other macros until a new query is specified. If you bypass an outcome during the selection process, there is no way to back up. You must cancel the selection process and restart the QueryOutcomes macro. Finally, if you want to leave Excel without losing the query specifications and results, you must save the file prior to exiting the program.

A query macro that has not been discussed, called "RunOutcomeQuery," allows you to run a query that you have manually specified by entering "X's" and "o's" (to indicate achieving or not achieving an outcome) in the query specification rows (rows 8991 through 8997) in the "Outcomes" spreadsheet. Instructions on how to do this are beyond the scope of this document. It is possible that experienced Excel users might find it easier to manually specify queries rather than use the prompts. We recommend using the prompts, however, for all but the most complex queries.

Printing Reports

The tally workbook also includes macros that allow you to print the entire contents of a tally report as well as the results of a query. If you have successfully made it through the process of specifying a query, you will be relieved to know that you have made it past the difficult part. Printing reports using the supplied macros is quite simple. There are separate macros for printing all cases in a tally report and for printing only those cases that satisfy the selection criteria of a query. The macros for printing entire reports are called PrintCaseMixReport, PrintOutcomeReport, and PrintRawDataReport. The macros for printing the results of a query are PrintCaseMixQuery, PrintOutcomeQuery, and PrintRawDataQuery. **VERY IMPORTANT NOTE:** You must have specified a query (using the QueryOutcomes macro) and, in the cases of case mix and raw OASIS item data reports, applied the query (using CaseMixQuery or RawDataQuery) prior to running the macros that print query results. This caveat aside, the procedure for printing is virtually identical using any of the print macros. The steps involved in printing the entire Outcomes Tally Report are as follows:

1. Open the patient tally workbook file in Excel (if it is not already open).

2. From the "Tools" menu, select the "Macro..." option.

3. You will see a list of available macros. Find the macro named "PrintOutcomeReport" on this list and click on it. Click on the "Run" button to run this macro.

4. Next, you will see a prompt that tells you how many cases are on the report and approximately how many pages the printout will take. If you want to send the report to the printer, click on "Yes." If you want to preview the report on the screen, click on "No." If you want to cancel the macro and the print job altogether, click on "Cancel."

In addition to the need to specify and apply queries prior to printing their results, there are two other points to bear in mind when attempting to use the print macros. First, the macros were designed to work with a laser printer using legal-size (8.5" X 14") paper in a landscape orientation. Your printer must be able to support this mode of printing for the macros to paginate and print the reports properly. Second, during testing and development, we experienced occasional problems when printing extremely large reports. The problem results in a "Run Time Error 1004" message being generated, and the report fails to print. Once this error occurs, it is necessary to exit Excel and Windows altogether before printing from Excel will work properly (even without the macros). Although we have not been able to determine the cause of this problem, it does seem to be related to the size of the report and to the amount of work that has been done in Excel prior to printing. We believe that it is related to the depletion of system resources in the course of

loading data and running macros. Due to a known shortcoming of Windows 3.x, these resources are often not released by a program even after you exit the program. Thus, it is necessary to restart Windows after this problem occurs.

We hope that the tally report workbook will be a useful tool in conducting your process-of-care investigation. Please call your primary technical assistant contact if you have any problems working with these files and programs.

SECTION B

**Illustrative Second Year Outcome and Case Mix Reports, and
Guidelines/Instructions for Them As Well As
Patient Tally Reports for OBQI**

Subsequent Year Outcome and Case Mix Reports

for Faircare Home Health Services

National Medicare Quality Assurance and Quality Improvement Demonstration

February 28, 2001

Florence Nightingale, Administrator
Faircare Home Health Services
100 Main Street
Centerville, USA

Dear Ms. Nightingale:

Enclosed within this package is a notebook containing your Year 2000 Outcome and Case Mix Reports with instructions for interpreting these reports. Similar to last year, your Patient Tally Report is found on diskette(s) attached to the back cover of your binder. If your agency had 250 cases or fewer, a hard copy of the report is also included in a separate binder.

Your Outcome and Case Mix Reports contain a great deal of information. We congratulate you again on reaching this extremely critical milestone. You continue to accomplish something that, except for the parallel accomplishments of your companion agencies in the demonstration, has never been achieved in the home care field – the generation of objective and scientific reports on health status and related changes in your patients during the period they received care from your agency.

Remember, this is your Outcome Report and, most important, the results found herein continue your ability to assess your agency's current performance and to enhance this performance in future years. The concurrent comparison of your outcomes with those of other participating agencies, whose patients constitute the reference sample, is intended to help you select your target outcome(s) for investigating care behaviors that influenced the outcome, resulting in your plan of action to change care behaviors. Your plans of action should be sent to us on or before the date indicated on the cover memo accompanying your outcome report.

We genuinely have enjoyed working with you this past year. Your participation has greatly impacted the development and refinement of OBQI.

Sincerely,

The Staff of the National Medicare Quality Assurance and Improvement Demonstration

Peter W. Shaughnessy, Ph.D.   Kathryn Crisler, MS, R.N.
Principal Investigator   Managing Project Manager

Karin Conway, MBA, R.N.   Lecia West, MS
Study Manager   Study Manager

Contents

[Note: The format for the letter, guidelines, and instructions for reports received after the second and subsequent years differed from those produced after the first year owing to the experience acquired by agency staff.]

Section I:

GUIDELINES FOR REPORTS

A. BASIC INFORMATION REGARDING YOUR *OUTCOME* AND *CASE MIX* *REPORTS*

Enclosed are your annual *Outcome* and *Case Mix Reports*, which we recommend you use in the following manner:

- Compare and assess similarities and differences between your agency's case mix and the reference sample (and your own agency in a prior period when available).

- Assess your current outcomes relative to those of the reference group (and your own prior outcomes when available).

- Identify target outcomes for this year's outcome enhancement activities in your agency.

- Incorporate these reports and activities into your agency's quality improvement program.

Before reviewing your outcome and case mix reports, we recommend that you study the following information and become familiar with the guidelines for reviewing the reports, which are provided in Section B.

1. The single most important principle to keep in mind as you review these reports is that your agency is reaching new milestones in your ability to assess and improve patient care. The outcome reports should not be cause for discouragement if your performance is below average or complacency if your performance is above average. Remember that approximately 50% of the reference agencies will be below average, and 50% will be above average on any given measure. These reports should be viewed as a starting point for an examination of the care provided to patients.

2. An understanding of the following basic terminology will facilitate the interpretation of the reports and their use for quality improvement activities.

   - **Outcome-based quality improvement (OBQI)** is a two-phase continuous quality improvement approach. The first phase, termed the outcome analysis phase, involves the collection and analysis of data and the generation of the outcome report. The second phase, or outcome enhancement phase, involves interpretation of the outcome report, the analysis of care provided for identified patient groups, and the development (and implementation) of an action plan to change or reinforce care behaviors.

   - An **outcome** is a change in patient health status between two or more time points. Note that such change can be positive (improvement), negative (worsening), or neutral (no change).

   - Outcomes become **target outcomes** when your agency identifies that they meet specific criteria for selection and are important or relevant to your agency's goals (see Section C.1). Target outcomes become the focus for outcome enhancement activities.

   - **Reference samples** are used in both the outcome and case mix reports. The findings pertaining to your agency are compared with a reference group. A reference sample consists of approximately 50% of all discharged patients for whom we had "clean" outcome data for a specified period of time. To prevent exceptionally large agencies from dominating the reference statistics, no agency is allowed to contribute more than 5% of the cases in a given reference sample. The multivariate models used to risk adjust all outcome measures that appear in your outcome reports were developed using the same reference sample. We use only 50% of the available cases to develop risk models and set aside the remainder to test the models and validate the effectiveness of the risk adjustment methodologies. As with the outcome reports, each agency contributes no more than 5% of the patients in the case mix reference sample. (The size of the reference sample is located in the upper left-hand corner of

each report. Each outcome measure also has a measure-specific reference sample of eligible cases on which the reference mean is based.)

- **Magnitude of difference** is the difference between the agency's outcome rate and the reference outcome rate for the same outcome measure (as well as your prior rate when available).

- **Risk adjustment** is a technique that eliminates or minimizes the effects of risk-factor differences when comparisons are made between two samples of patients. Risk adjustment is necessary when two (or more) patient samples whose outcomes are being compared differ in terms of risk factors or patient characteristics that influence the outcomes. By controlling for differences between an agency's case mix and that of the reference sample, risk adjustment permits an "apples to apples" comparison of outcome results.

- **Statistical significance** indicates whether a difference between two values (e.g., two outcome rates) is likely to be due to chance. The level of statistical significance is always between 0.00 and 1.00 and can be thought of as a percentage. The percentage is the probability that the result (the difference between the two values) occurred by chance. When a significance level is high (for example, 0.90) the difference should be disregarded because there is a strong likelihood (90% in this case) that the difference between two values is due to chance. When a significance value is low (for example, 0.01), the difference should be considered important because there is almost no likelihood (1% in this case) that the difference between the values is due to chance.

3. Your case mix report reflects your patient profile at start (or resumption) of care for all (discharged) patients in your agency's sample. This profile is compared with an analogous profile for the entire reference group using more than 100 different case mix factors. Please bear in mind that differences between your agency and the reference sample were taken into consideration in producing risk-adjusted outcome reports.

4. Utilization outcomes pertaining to discharge to the community, hospitalization, and emergent care were computed for all patients in your agency sample. Results for these measures appear on the final page of your outcome report. The results for improvement and stabilization measures (end-result outcomes) appearing on the first pages of your outcome report were computed only for those patients not discharged to an inpatient facility. Therefore, the results for these end-result outcome measures are based on fewer cases than the results for the utilization outcome measures.

5. A large number of outcome measures can be computed using the OASIS data set. Those included in your outcome report were selected as the most relevant and useful measures for the outcome reports in the OBQI programs. Within the outcome reports, results and significance levels are presented for each measure as long as the sample size corresponding to the measure is at least 10. If you had nine or fewer patients on whom the outcome measure could be computed validly, the outcome report contains only the percentage of patients who attained the outcome for your agency (current and prior) and for the reference comparison (expected value). Statistical significance is not provided in this case because you do not have an adequate number of patients for a valid statistical comparison. Also, some outcome measures were excluded altogether because we are not yet satisfied with the risk adjustment methodology or models for such outcomes. Nevertheless, as you can see from the reports, you have a number of outcomes that provide valid and useful results for you to analyze.

6. Your focus should be on using the outcome reports to select target outcome(s) for your quality improvement activities. Please remember that it is natural to be disappointed with outcomes in areas where your performance appears inferior -- to the point of trying to explain the inferior performance by pointing to case mix differences or other factors. This is a very natural reaction. When this occurs, recall that the outcome measures are risk adjusted for case mix differences.

7.   Although this is your outcome report to circulate or disseminate as you wish, we encourage a controlled and circumscribed dissemination. We absolutely will not publicize reports on individual agencies or publicize any information about agency rankings. Analogously, since your main goal is to use these reports for OBQI purposes, it is important to move into your quality improvement activities promptly. Within your organization, we advise carefully reinforcing your prior education of those to whom you provide the outcome reports. As time goes on, it will be much more commonplace and straightforward for other individuals to read and interpret such reports.

Guidelines on interpreting the definitions and statistics in your outcome and case mix reports are found in the next section.

B. GUIDELINES FOR REVIEWING OUTCOME AND CASE MIX REPORTS

Sample reports are presented in this section. The following definitions of several key terms may help you to better understand the reports. Thereafter, "How to Read" instructions are presented for each report.

1. Key Terms

- **Improvement and Stabilization**: In these reports, a patient *improves* if he/she is less disabled or dependent at discharge than at start of care. A patient has *stabilized* if he/she is no <u>more</u> disabled/dependent (that is, <u>has not worsened</u>) at discharge than at start of care. For example, a patient who was disabled in bathing at start of care and became less disabled at discharge has <u>improved</u> in bathing. If the patient did not worsen (but either improved or remained at the same level), then he/she <u>stabilized</u>. Thus, the opposite of stabilization is <u>decline</u> or worsening.

  The actual <u>measures</u> that correspond to improvement or stabilization simply <u>quantify</u> the above concepts. Consider again the improvement measure for bathing. The bathing <u>scale</u> used for data collection takes on values between 0 and 5, with higher values indicating progressively higher disability or dependence. A patient whose ability on this scale at start of care is 4, and whose value at discharge is 2, has <u>improved</u> in bathing, and therefore the <u>improvement measure</u> is 1 (if the patient had not improved, the improvement measure would be 0). Note that this outcome measure does not apply to patients who are initially independent in bathing (i.e., at a level 0 on the scale), because they cannot improve. Such patients are excluded from the calculation of the improvement measure.

  A patient has <u>stabilized</u> in bathing if, from start of care to discharge, the value on the bathing scale decreases or moves toward 0 (reflecting improvement) <u>or</u> remains the same. When stabilization occurs, the <u>stabilization measure</u> is 1 (when it does <u>not</u> occur, the stabilization measure is 0). Patients are excluded from the calculation of the measure if they cannot worsen (that is, if they are at the most dependent level at start of care--i.e., at a level 5 on the scale for bathing).

  The number of patients excluded from the outcome calculations varies depending on the specific measure. For this reason, the number of patients included in the calculations also varies. The precise number of patients used in a calculation for any measure is presented in the column labeled "Cases" in the outcome report.

  Taking the average of the values for an improvement measure (or stabilization measure) for a group of patients yields the improvement rate (or stabilization rate) for that group. These rates are presented in the outcome reports.

  It should be noted that stabilization rates are typically higher than improvement rates. This is due to the fact that improvement rates only include patients who improve in the outcome measure, while stabilization rates include both patients who improve and patients who stay the same. Care providers should not think in terms of a "grading system" for improvement rates; e.g., one must be above 90% to receive an 'A', above 80% to receive a 'B', etc. Improvement rates are often below 50% and usually range from 25% to 60%, depending on the health status attribute of interest and the particular condition or subgroup (if one is examining focused measures that pertain to specific types of patients only, such as orthopedic patients). On the other hand, stabilization measures typically tend to be above 75%, and some are even above 90% (Shaughnessy and Crisler, 1995, p. 6-8).

- **Significance**: Statistical significance is relevant when comparing the "current" values to "prior" or "reference" values in the outcome and case mix reports, and it can be understood as the probability that a difference between two rates or averages is due to chance. If the statistical significance value is greater than .10, then we consider it likely that the difference is due to chance. Thus, in reviewing outcomes, you should not focus your energy on outcomes with significance values greater than .10. Rather, you should look very closely at outcomes with a significance of .10 or less, since the probability that the difference between the "current" outcome and the "prior" or "reference" outcome rate is due to chance is quite low.

2. **Definitions for Acute and Chronic Conditions**

On the second page of case mix reports, values are given for patients categorized with acute or chronic conditions. The following definitions of the categories may be helpful as you interpret the case mix reports.

- **Criteria for Acute Conditions:** The inclusion of patients in these groups is based on the following criteria. The categories are not mutually exclusive.

  Orthopedic Conditions
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of start of care or resumption of care (SOC/ROC), or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events is related to the musculoskeletal system, including disorders of cartilage or other connective and soft tissues.

  Neurologic Conditions
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to the nervous system.

  Open Wounds or Lesions
  Patients are included if they have an open wound or skin lesion. Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to an open wound or skin lesion.

  Terminal Conditions
  Patients who have a life expectancy of six months or less are included. These patients are receiving palliative care for terminal illnesses such as malignant neoplasms, end-stage cardiopulmonary disease, or end-stage renal disease.

  Cardiac/Peripheral Vascular Conditions
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to the circulatory system.

  Pulmonary Conditions
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events relates to respiratory function.

  Diabetes Mellitus
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events is diabetes mellitus.

  Acute Gastrointestinal Disorders
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events is related to the digestive system.

  Contagious/Communicable Conditions
  Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events is related to infections and parasitic diseases.

Acute Urinary Incontinence/Catheter
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the patient is incontinent of urine or if the patient has a new indwelling catheter.

Acute Mental/Emotional Conditions
Patients receiving psychiatric nursing services at home are included.

Oxygen Therapy
Patients receiving either intermittent or continuous oxygen therapy at home are included.

IV/Infusion Therapy
Patients receiving intravenous or infusion therapy at home, such as hydration, or intravenous, subcutaneous, or intrathecal therapy for pain control, are included.

Enteral/Parenteral Nutrition Therapy
Patients receiving enteral or parenteral nutrition at home, such as gastrostomy tube feedings or hyperalimentation, are included.

Ventilator Therapy
Patients receiving continuous or intermittent ventilation therapy at home are included.

Other Acute Conditions
Patients who were discharged from a hospital, rehabilitation facility, or nursing home within 14 days of SOC/ROC, or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included if the medical diagnosis pertaining to those events falls into diagnostic categories other than the categories previously listed. Excluded are diagnoses for mental disorders or senility.

- **Criteria for Chronic Conditions**

    Patients who were <u>not</u> discharged from an inpatient facility (hospital, rehabilitation facility, or nursing home) within 14 days of SOC/ROC, or who did <u>not</u> experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic condition group if they meet specified levels of dependency (or conditions for membership). Patients who <u>were</u> discharged from an inpatient facility within 14 days of SOC/ROC or who <u>did</u> experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic condition group if and only if they met the specified levels of dependency/conditions for membership for that condition <u>prior</u> to the inpatient stay/medical regimen change.

    The inclusion of patients in these groups is based on the following criteria. These categories are not mutually exclusive.

    Dependence in Living Skills
    Patients who meet the criteria for inclusion in chronic condition groups and are unable to prepare main meals on a regular basis <u>and</u> require the assistance of another person for at least two of the following: laundry, transportation, housekeeping, shopping, or ability to use the telephone. The assistance required is necessary for routine or normal performance of the activity.

    Dependence in Personal Care
    Patients who meet the criteria for inclusion in chronic condition groups and require the assistance of another person for bathing; <u>or</u> if they require assistance for grooming (combing or brushing hair, shaving or applying makeup, cleaning teeth or dentures, or trimming fingernails) <u>plus</u> dressing upper or lower body.

    Impaired Ambulation/Mobility
    Patients who meet the criteria for inclusion in chronic condition groups and require the routine assistance of another person for toileting, transferring, or ambulation.

Eating Disability

Patients who meet the criteria for inclusion in chronic condition groups and are unable to feed themselves without constant supervision or assistance, or if they receive nutrients through a naso-gastric or gastrostomy tube.

Urinary Incontinence/Catheter Use

Patients who meet the criteria for inclusion in chronic condition groups and are incontinent of urine or have an indwelling/suprapubic catheter.

Dependence in Medication Administration

Patients who meet the criteria for inclusion in chronic condition groups and require the assistance of another person for taking oral medications, inhalant medications, or injectable medications.

Chronic Pain

Patients who meet the criteria for inclusion in chronic condition groups and are experiencing intractable pain.

Chronic Cognitive/Mental/Behavioral Problems

Patients who meet the criteria for inclusion in chronic condition groups and demonstrate one or more of the following behaviors at least once a week:

1) memory deficit,
2) impaired decision making,
3) verbal disruption,
4) physical aggression,
5) disruptive, infantile, or socially inappropriate behavior (excludes verbal actions), or
6) delusions, hallucinations, or paranoid ideations.

Chronic Patient with Caregiver

Patients are included if they have been assigned to one or more chronic condition groups and an assisting person (caregiver) resides in the home.

Reference

Shaughnessy PW and Crisler KS (1995). *Outcome-Based Quality Improvement: A Manual for Home Care Agencies on How to Use Outcomes*. Washington, DC: National Association for Home Care.

3. How to Read the Outcome Report

The most important features of the outcome report are listed below. Each feature is numbered and corresponds to a pointer in the sample report on the next page. Special considerations for reviewing outcome reports immediately follow the sample report.

① **Key to Shades Used in the Bar Chart**: "Current" values are actual agency outcome rates calculated from data collected in the most recent data collection period. "Adjusted Prior" values are calculated from data collected in the previous data collection period, adjusted for any agency-level risk factor differences between the prior and current periods. "Reference" values reflect your agency's expected outcome rate given your specific case mix or risk factor distribution for that outcome.

In an agency's first year of data collection, there will be no "adjusted prior" values. Thus, the first outcome report an agency receives will only contain "current" and "reference" values.

② **Outcome Headers**: Describe the types of outcome measures listed immediately below the heading. Two types of outcome measures are used in the reports: end-result and utilization outcomes.

③ **Bar Graphs**: Indicate the percentage of patients who achieved the outcome for the given measure. For each measure, three bars could be presented, corresponding to the "current," "adjusted prior," and "reference" groups.

Example: *For the measure "Stabilization in Transferring," the first bar shows that 93.8% of the "current" patients stabilized, the second bar shows that 90.8% of the "adjusted prior" patients stabilized, and the third bar shows that 93.5% of the "reference" patients stabilized.*

In an agency's first year of data collection, there will be no "adjusted prior" values. Thus, the first outcome report an agency receives will only contain bars for the "current" and "reference" values.

④ **Cases**: The number of patient cases included in the group for which the outcome was computed.

Example: *For the measure "Stabilization in Transferring," there were 808 cases from "current" data, 93.8% of which stabilized in transferring; there were 523 cases from the "adjusted prior" data, 90.8% of which stabilized; and there were 35,386 cases from the "reference" data, 93.5% of which stabilized.*

Note: It is quite likely that the "adjusted prior" outcome rate is different than the "current" rate from the previous year's report. This is because (1) this rate is risk adjusted, and (2) it may be based on more (or fewer) cases than last year due to late-arriving data or data reductions that took place in the current year of data collection.

⑤ **Significance**: This is relevant when outcomes are <u>compared</u> between sets of patients (for example, "current" vs. "reference") and indicates the level of statistical significance for the comparison. This value will always be between .00 and 1.00 and can be thought of as a percentage. The percentage is the probability that the result occurred by chance.

Example: *For the measure "Stabilization in Transferring," 93.8% of "current" patients stabilized, compared with 90.8% of "adjusted prior" patients who stabilized. The ".05" value in the significance column means that there is a 5% probability that this difference (between 93.8% and 90.8%) is due to chance. Consequently, there is a 95% probability that the difference is <u>not</u> due to chance, but is a real phenomenon.*

When a significance value is high (for example, .90), the result should be disregarded or interpreted conservatively because there is a greater likelihood that the difference is due to chance (a 90% likelihood, in this case). When a significance value is low (for example, .01), the result should be considered important because there is almost no likelihood (for example, 1%) that the difference is due to chance. We suggest that you concentrate on differences where the significance value is 10% or less, as indicated by the asterisks.

6.94

Agency: Illustrative Home Health Care
Number of Cases in Report (Current) Period: 818
Number of Cases in Prior Period: 699
Number of Cases in Reference Sample: 35789

Date Report Printed: 08/01/2000
Report Period: 07/01/1999-06/30/2000
Prior Period: 07/01/1998-06/30/1999

All Patients' Outcome Report
Risk Adjusted

(1)

(2)

(4) (5)

Cases Signif.

□ Current ▨ Adjusted prior ■ Reference

End Result Outcomes:

Outcome	Cases	Signif.	Percent
Improvement in Grooming	333		65.5%
	205	.56	68.2%
	15242	.81	66.1%
Stabilization in Grooming	781		93.9%
	506	.77	93.2%
	33936	.46	93.2%
Improvement in Dressing Upper Body	360		66.1%
	245	.99	65.6%
	16732	.90	65.8%
Improvement in Dressing Lower Body	433		62.8%
	290	.85	63.7%
	19851	.27	65.4%
Improvement in Bathing	624		61.2%
	400	.98	61.4%
	26947	.29	63.3%
Stabilization in Bathing	785		90.1%
	511	1.00	90.2%
	34256	.00**	95.2%
Improvement in Toileting	194		62.9%
	121	.97	62.1%
	8879	.78	63.8%
Improvement in Transferring	381		55.9%
	231	.89	55.1%
	16648	.43	57.9%
Stabilization in Transferring	808		93.8%
	523	.05**	90.8%
	35386	.73	93.5%
Improvement in Ambulation/Locomotion	566		40.3%
	350	.66	38.5%
	24840	.16	37.4%
Improvement in Eating	164		61.6%
	103	.90	63.6%
	7937	.80	60.6%
Improvement in Light Meal Preparation	489		57.9%
	320	.60	59.9%
	22198	.34	60.0%

(3)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

4. Special Items to Investigate When Reviewing the Outcome Report

In our experience, we have discovered several trends which, while relatively uncommon, occur with enough frequency to warrant further explanation. Before drawing any conclusions from your report, please pay particular attention to the following items:

- Examine your sample size for the current year (found in the upper left-hand corner of the report). If your sample size is small **(fewer than 30 cases),** some caution should be used in interpreting the findings. Also, remember that when your sample size for a particular outcome is fewer than 10 cases, the report does not provide a significance value because the sample is too small.

- You may find that some outcomes do not show a statistically significant difference from the reference group (i.e., no asterisks are shown by the significance value). In general, it is important that you do not focus on these outcomes for further investigation. If, however, you find a number of outcomes that are statistically significant, you <u>should</u> focus your attention on these outcomes for further investigation. In the event that you have no statistically significant outcome differences, you may need to select a target outcome with a significance level approaching .10 (e.g., a significance level between .11 to .20).

- Review your agency's current acute care hospitalization rate. If your hospitalization rate is less than 10%, this may indicate that your agency is underreporting hospitalizations. You may wish to investigate this further. Specifically, we recommend that you review your data collection procedures to determine if some hospital admissions are not being recorded.

- Examine the percentages for your agency's "current" rates on the outcome measures of hospitalization and discharged to community. If these percentages do not add up to at least 85%, then a sizeable amount of your agency's patient population may be unaccounted for (a small percentage may have been admitted to a long-term care facility, but we have found that it is highly unusual for this percentage to be more than 5%). If you find this discrepancy, we recommend that you assess the accuracy of these utilization outcome values by determining the actual disposition of your agency's patients upon discharge. If you find that your number of cases for these outcomes is lower than the number of patients your agency actually discharged, this may indicate a potential data quality problem.

- In looking at the end-result outcomes (functional and health status), check to see if most of the improvement outcomes are significantly lower than the reference value (unfavorable), while most of the stabilization measures are significantly higher than the reference value (favorable). If this pattern exists, it may suggest that few of your agency's patients show an improvement in health and functional status, but relatively few decline in health and functional status (they stabilize). In our experience, this type of pattern often reflects problems in the data collection methodology rather than in care provision. It typically occurs when clinical staff do not conduct a new assessment at follow-up or discharge time points, but simply "carry over" their answers from previously collected assessments (for example, SOC). This is most likely to happen if your agency uses OASIS data entry software that facilitates automatic carrying forward of

assessment data from previous time points. If your report exhibits this pattern, it is possible that the end-result outcomes in the report do not represent a "true picture" of your agency's outcomes, but are a result of problems with the data collection methodology used at your agency. We suggest that you investigate this possibility before devoting time to the process-of-care investigation.

6.97

5. How to Read the Case Mix Report

The key features of the case mix report are listed below. In view of the large number of factors in the case mix report, as well as the large size of the reference sample, it is natural to expect that a variety of differences should appear between your agency's case mix and the average case mix of the reference sample. Each report feature is numbered and corresponds to a pointer in the sample report on the next page.

① **Current Mean:** Values in this column reflect case mix averages (means) based on data collected during the report period indicated in the upper right corner. These values correspond to case mix means or averages at SOC/ROC for all patients admitted <u>and</u> discharged during the report period.

② **Prior Mean**: Values in this column reflect case mix averages based on data collected during the prior report period indicated in the upper right corner. This mean will be present in reports starting with the second year of agency participation.

③ **Reference Mean:** Values in this column reflect case mix averages based on data collected by all reference group agencies. These values correspond to case mix means or averages at SOC/ROC for all patients admitted <u>and</u> discharged during this period.

④ **Significance:** Indicates whether or not a statistically significant difference exists between the "current" and "prior" or "reference" means. In the comparison of "current" to "prior" case mix, significance levels of .05 or lower are marked with a single asterisk (*), and levels of .01 or lower are marked with a double asterisk (**). In the comparison of "current" with "reference," significance levels of .01 or lower are marked with a single dagger (†) and levels of .001 or lower are marked with a double dagger (‡). When a significance value is low (for example, .01), the results may be important because there is only a small likelihood (in this case, 1%) that the difference is due to chance. We suggest you examine only differences where the significance value is asterisked or daggered.

In fact, purely because of the large reference sample, case mix reports may contain a substantial number of significant differences. When this occurs (as it frequently does), you should be attentive only to <u>large</u> differences between the means within the total group of asterisked differences.

⑤ **Case Mix Attributes Measured Using Scales:** Results for attributes measured using a health status scale (for example, a scale that takes on values between 0 and 5 -- as indicated by "0-5" after the attribute name) are expressed in terms of the average scale value for the attribute. The scale values are determined by the answer options provided for the specific data item in the OASIS data set.

Example: In the "ADL Disabilities at SOC/ROC" section, the sample report shows that for Dressing Lower Body, which is measured on a 0-3 scale, the average scale value for the current mean for Illustrative Home Health Care is 1.16, compared with an analogous mean of 1.07 in the prior period, and a mean of 1.14 for the reference sample.

⑥ **Case Mix Attributes Measured as Prevalences:** Results for attributes measured not by scales, but by simply presence or absence have a "%" next to them. The values in the "Current Mean," "Prior Mean," and "Reference Mean" columns provide the percentage of patients with a given attribute.

Example: In the "Pain" section of the report, the percentage of patients with intractable pain at start/ resumption of care for Illustrative Home Health Care is 10.0% compared with 9.9% in the prior period and 9.8% in the reference sample.

Agency: Illustrative Home Health Care
Number of Cases in Current Period: 1103
Number of Cases in Prior Period: 1010
Number of Cases in Reference Sample: 65597

Date Report Printed: 08/01/2000
Current Period: 07/01/1999-06/30/2000
Prior Report Period: 07/01/1998-06/30/1999

All Patients' Case Mix Profile at Start/Resumption of Care

	Current	Prior[1]	Reference[2]
Demographics			
Age (average in years)	73.3	72.9	72.9
Gender: Female (%)	60.5%	61.6%	61.5%
Race: Black (%)	11.9%	13.4%	13.0%
Race: White (%)	83.7%	82.6%	82.5%
Race: Other (%)	4.5%	4.0%	4.6%
Payment Source			
Any Medicare (%)	79.3%	83.1% *	80.0%
Any Medicaid (%)	11.3%	12.6%	12.0%
Any HMO (%)	12.4%	11.8%	13.2%
Medicare HMO (%)	5.3%	4.9%	5.7%
Any third party (%)	28.0%	24.6%	28.2%
Current Residence			
Own home (%)	80.5%	81.2%	79.4%
Family member home (%)	14.4%	13.8%	13.9%
Current Living Situation			
Lives alone (%)	26.4%	28.7%	28.2%
With family member (%)	67.6%	66.6%	64.5%
With friend (%)	1.8%	1.1%	1.6%
With paid help (%)	4.3%	3.9%	5.3%
Assisting Persons			
Person residing in home (%)	57.9%	58.1%	56.3%
Person residing outside home (%)	53.2%	53.8%	53.5%
Paid help (%)	13.6%	11.8%	14.0%
Primary Caregiver			
Spouse/significant other (%)	34.6%	33.9%	33.0%
Daughter/son (%)	29.0%	25.1% *	26.1%
Paid help (%)	5.3%	4.7%	6.6%
No one person (%)	18.0%	26.0% **	22.0% ‡
Primary Caregiver Assistance			
Freq. of assistance (0-6, scale avg.)	4.20	3.82 **	4.02 †
Inpatient DC within 14 Days of SOC/ROC			
From hospital (%)	66.1%	67.0%	67.4%
From rehab facility (%)	10.2%	7.9%	8.5%
From nursing home (%)	3.0%	2.9%	2.9%
Med. Reg. Chg. w/in 14 Days of SOC/ROC			
Medical regimen change (%)	77.7%	80.2%	79.8%
Prognoses			
Moderate recovery prognosis (%)	88.0%	89.1%	88.7%
Good rehab prognosis (%)	73.7%	72.1%	72.1%
ADL Disabilities at SOC/ROC			
Grooming (0-3, scale average)	0.83	0.77	0.82
Dress upper body (0-3, scale avg.)	0.91	0.82 *	0.89
Dress lower body (0-3, scale avg.)	1.16	1.07 *	1.14
Bathing (0-5, scale average)	2.20	2.09	2.20
Toileting (0-4, scale average)	0.59	0.50 *	0.55
Transferring (0-5, scale average)	0.76	0.66 *	0.72
Ambulation (0-5, scale average)	1.09	1.02	1.10
Eating (0-5, scale average)	0.34	0.30	0.34

	Current	Prior[1]	Reference[2]
ADL Status Prior to SOC/ROC			
Grooming (0-3, scale average)	0.50	0.48	0.49
Dress upper body (0-3, scale avg.)	0.53	0.50	0.53
Dress lower body (0-3, scale avg.)	0.62	0.60	0.62
Bathing (0-5, scale average)	1.24	1.21	1.26
Toileting (0-4, scale average)	0.40	0.34	0.38
Transferring (0-5, scale average)	0.49	0.41 *	0.46
Ambulation (0-5, scale average)	0.72	0.67	0.72
Eating (0-5, scale average)	0.24	0.19 *	0.22
IADL Disabilities at SOC/ROC			
Light meal prep (0-2, scale avg.)	0.95	0.91	0.96
Transportation (0-2, scale avg.)	1.02	0.99 *	1.01
Laundry (0-2, scale average)	1.62	1.57 *	1.60
Housekeeping (0-4, scale avg.)	2.83	2.75	2.81
Shopping (0-3, scale average)	2.14	2.09	2.13
Phone use (0-5, scale average)	0.72	0.59 *	0.71
Mgmt. oral meds (0-2, scale avg.)	0.71	0.63 *	0.71
IADL Status Prior to SOC/ROC			
Light meal prep (0-2, scale avg.)	0.59	0.55	0.59
Transportation (0-2, scale avg.)	0.68	0.67	0.68
Laundry (0-2, scale average)	1.01	0.92 *	0.99
Housekeeping (0-4, scale avg.)	1.82	1.69	1.75
Shopping (0-3, scale average)	1.34	1.27	1.30
Phone use (0-5, scale average)	0.59	0.49	0.59
Mgmt. oral meds (0-2, scale avg.)	0.55	0.48 *	0.55
Respiratory Status			
Dyspnea (0-4, scale average)	1.09	1.14	1.11
Therapies Received at Home			
IV/infusion therapy (%)	3.7%	3.4%	4.2%
Parenteral nutrition (%)	0.6%	0.5%	0.4%
Enteral nutrition (%)	1.4%	2.0%	1.9%
Sensory Status			
Vision impairment (0-2, scale avg.)	0.26	0.23	0.25
Hearing impair. (0-4, scale avg.)	0.36	0.38	0.40
Speech/language (0-5, scale avg.)	0.40	0.42	0.43
Pain			
Pain interfer. w/activity (0-3, scale avg.)	1.06	1.09	1.06
Intractable pain (%)	10.0%	9.9%	9.8%
Neuro/Emotional/Behavioral Status			
Moderate cognitive disability (%)	9.6%	9.4%	10.7%
Severe confusion disability (%)	7.4%	8.3%	9.3%
Severe anxiety level (%)	17.2%	19.1%	17.2%
Behav probs > twice a week (%)	4.0%	4.6%	4.3%
Integumentary Status			
Presence of wound/lesion (%)	35.5%	32.8%	34.4%
Stasis ulcer(s) present (%)	3.6%	2.4%	2.4% †
Surgical wound(s) present (%)	23.8%	23.2%	23.5%
Pressure ulcer(s) present (%)	5.9%	4.7%	5.2%
Stage 2-4 ulcer(s) present (%)	5.0%	3.9%	4.4%
Stage 3-4 ulcer(s) present (%)	1.8%	1.0%	1.4%

6. **Special Items to Investigate When Reviewing the Case Mix Report**

In our experience, we have discovered several trends which, while relatively uncommon, occur with enough frequency to warrant further explanation. Before drawing any conclusions from your report, please pay particular attention to the following items:

- The case mix report is a snapshot of your agency's patients at start/resumption of care based on the complete cases your agency has submitted to us. Please examine your report carefully. If you feel that the case mix indicators presented in your report are not representative of your patient population, review your data collection and encoding procedures for possible errors.

- You may find that some case mix indicators do not show a statistically significant difference from the reference group. Do not focus on these indicators for further investigation. If, however, you find a number of case mix indicators that are statistically significant compared with the reference group, (or current, prior, and reference groups for agencies that have participated in data collection for longer than one year), you should focus your attention on these indicators because they represent real differences between your agency and the reference group. This information can help you understand what types of patients you serve and what characteristics are common among your patients.

- Case mix reports typically have very large reference samples (i.e., 15,000 or greater). As a result, you could observe a relatively large number of significant differences between your current case mix profile and the reference sample. For the case mix reports, we used lower significance levels in the "current" to "reference" comparisons than in the "current" to "prior" comparisons because of the large size of the reference sample. In the "current" to "prior" comparisons, a single asterisk (*) corresponds to the .05 level and a double asterisk (**) corresponds to the .01 level. When comparing "current" with "reference" data, the dagger (†) corresponds to the .01 level and a double dagger (‡) corresponds to the .001 level. Despite the more stringent criteria, even relatively small case mix differences can be indicated with daggers as statistically significant because of the large reference sample size. Be sure to look both at statistical significance and the magnitude of the difference when reviewing your comparison to the reference sample.

- Examine the contagious/communicable item in the "Acute Conditions" section of the case mix report (page 2) to determine if the current mean is more than 5% for this case mix measure. These case mix items are derived from the ICD code categories on the OASIS data set. If this component of your case mix report appears to conflict with your impressions of your patient population, we suggest that you investigate the possibility of miscoding. The ICD codes for these diagnoses are three-digit codes with a zero as the first digit, which can be confused with two-digit surgical procedure codes. It is possible that some surgical codes may have been entered in place of medical diagnoses. If you find that a data quality issue is present, it will be important to correct this error.

- Examine the average length of stay (LOS) listed on your case mix report. If your LOS is considerably lower or higher than the reference (or your prior average LOS), you might want to investigate further to determine if a data quality issue exists or if the LOS is a true agency characteristic.

6.101

7. **How to Read the Patient Tally Reports**

- **Description:** Patient Tally Reports provide descriptive information for each individual case included in your outcome report analysis. For each case, you can identify if the patient was included in an outcome measure and, if so, whether that outcome was achieved (corresponding to your Outcome Report). In addition, you can identify which case mix variables (corresponding to your Case Mix Report) characterized each patient at start of care/resumption of care (SOC/ROC) (e.g., if he/she was disabled in bathing or had an acute cardiac condition). Finally, it is possible to see how all (raw) OASIS items were answered for each patient at SOC/ROC. Due to the large amount of data typically contained in Patient Tally Reports, we provide them in the form of a Microsoft Excel 97 workbook rather than providing them on hardcopy. You can use Microsoft Excel 97 or higher or any program that can read Excel 97 files to view, print, or manipulate the tally reports.

  The primary use of the Patient Tally Reports is to select patients for the process-of-care investigation that should be a key part of your outcome enhancement activities. For example, if you choose to investigate the outcome "Improvement in Anxiety," you can identify which patients improved in anxiety and which ones did not improve. By conducting a process-of-care investigation, comparing care delivery for the two groups of patients, you should be able to identify specific care behaviors that can be remedied or reinforced. These specific problems or strengths (and corresponding best practices) will be the basis for your plan of action.

- **Reading the Patient Tally Reports:** Each row in a tally report corresponds to a single case (i.e., a patient that has an SOC/ROC assessment and a corresponding discharge or transfer assessment). Reading across from left to right, you will see the patient's ID number and start-of-care date (which is actually the SOC/ROC date) for the episode followed by SOC/ROC case mix, outcome, or (raw) OASIS item data. Patients with multiple SOC/ROC and corresponding discharge or transfer assessments will have a listing for each episode. Thus, using the patient ID number and SOC/ROC date, it is possible to identify individual episodes of care. Descriptive labels for outcome measures, case mix attributes, and OASIS items are printed at the top of each page.

- **For the OASIS (Raw Data) Item Tally Report:**

  Attributes Measured Using Scales
  Some SOC/ROC OASIS items are measured using integer scales. The labels (at the top of the page) for such variables include the possible range of values in parentheses. The patient's score on this attribute will fall within this range or be shown as a "-" if no data was collected for the attribute.

  Attributes Measured by Presence/Absence
  Most OASIS items with no scale range listed after the attribute name in the label are dichotomies and are presented as "X" if the case mix attribute was present, as "o" if the case mix attribute was not present, or as "-" if the data were not available. The only exception to this is "Gender," which is a dichotomous item with a range of 1 to 2.

  Other Attributes
  Some OASIS items that have no ranges listed after the attribute name can take numerous values. Examples of such items include birth year and the several diagnosis (ICD-9) items.

- **For the Case Mix Tally Report:**

    Attributes Measured Using Scales
    Some SOC/ROC case mix attributes are measured using integer scales. The labels (at the top of the page) for such variables include the possible range of values in parentheses. The patient's score on this attribute will fall within this range or be shown as a "-" if no data were collected for the attribute.

    Attributes Measured by Presence/Absence
    Most case mix attributes with no scale range listed after the attribute name in the label are dichotomies (attributes that are only present or absent) and are presented as "X" if the case mix attribute was present, as "o" if the case mix attribute was not present, or as "-" if data were not available. The only exception to this is "Age," which does not have a range in its label, but is nonetheless not a dichotomous measure.

- **For the Outcome Tally Report:** Each patient will have either an "X," "o," or "-" for each outcome. An "X" means that a patient actually <u>achieved</u> the outcome (e.g., stabilized in light meal preparation). An "o" means that a patient <u>did not achieve</u> the outcome (e.g., did not stabilize in bowel incontinence). A "-" indicates that the outcome could not be calculated for that patient. This might occur if a patient did not meet the inclusion criteria for the outcome (e.g., patients completely independent in ambulation at start of care are not included in the outcome analysis for improvement in ambulation) or if data were missing for that patient.

Illustrative Excerpt:

Illustrative Home Health Care

All Patients' Tally Report: Case Mix

Report Period: 01/01/2000-12/31/2000

Patient ID	Start of Care Date	Branch ID	Age	Gender: Female	Race: Black	Race: White	Race: Other	Any Medicare	Any Medicaid	Any HMO	Medicare HMO	Private third party	Own home	Family member home	Lives alone	With other family member	With friend	With paid help	Person residing in home	Relative/friend/neighbor	Paid help	Spouse/significant other	Daughter/son	Other paid help	No one person	Freq. of assistance (0-6)	From hospital	From rehab facility	From nursing home	Medical regimen change	Moderate recovery prognosis	Good rehab prognosis
1012-06	03/21/2000	TY89	84	X	·	X	·	X	·	·	·	X	X	·	X	·	·	·	·	X	·	·	·	·	·	3	X	·	·	X	X	·
1012-06	06/11/2000	TY89	84	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	X	·	·	·	·	X	0	X	·	·	X	X	·
1036-03	02/22/2000		54	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	X	·	·	·	·	·	5	·	X	·	X	X	X
1036-04	03/07/2000		54	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	X	X	X	·	·	·	·	5	X	·	·	X	X	X
1048-04	04/21/2000		69	X	·	X	·	X	·	·	·	·	·	X	·	X	·	·	·	X	·	·	X	·	·	6	X	·	·	X	X	X
1122-02	05/30/2000		86	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	X	·	X	·	·	X	0	·	·	X	X	X	X
1139-02	04/05/2000		87	·	·	X	·	X	·	·	·	·	X	·	·	·	·	·	·	X	X	·	·	X	·	5	·	·	·	·	·	X
1148-04	05/07/2000		82	·	·	X	·	X	·	·	·	·	X	·	·	·	·	·	·	X	·	·	·	·	·	5	·	·	·	·	·	·
1286-02	07/29/2000	TY89	54	·	·	·	·	X	·	·	·	·	·	·	X	·	·	·	·	X	X	·	X	·	X	0	·	·	·	X	X	X
1287-07	05/09/2000		71	·	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	X	X	·	·	X	·	2	·	·	·	X	X	X
1323-04	04/15/2000		80	X	·	X	·	X	·	·	·	X	·	·	·	·	·	·	·	X	X	·	·	·	·	5	·	·	·	X	X	X
1328-02	08/08/2000		88	X	·	X	·	X	·	·	·	·	X	·	X	·	·	·	·	·	X	·	·	·	·	2	·	·	·	X	X	·
1338-06	02/20/2000	TY89	79	X	·	X	·	X	·	·	·	·	X	·	·	X	·	·	·	X	·	·	·	·	X	0	·	·	·	X	X	X
1338-07	11/06/2000	TY89	79	X	·	X	·	X	·	·	·	·	X	·	·	X	·	·	·	·	·	·	·	·	X	0	·	X	·	·	X	X
1382-02	11/13/2000		68	X	·	X	·	X	·	·	·	·	·	·	·	X	·	·	X	·	·	·	X	·	·	5	X	·	·	X	X	X
1383-02	02/06/2000		83	X	·	X	·	X	·	·	·	·	·	·	X	·	·	·	·	X	X	·	·	·	·	6	X	·	·	X	X	X
1392-03	02/22/2000		83	X	·	X	·	·	·	·	·	·	X	·	X	·	·	·	·	X	X	·	·	·	X	0	·	·	·	X	X	X
1403-04	02/12/2000	TY89	82	X	·	X	·	X	·	·	·	X	·	·	·	·	·	·	·	X	X	·	·	·	X	0	·	·	X	X	X	X
1403-05	07/11/2000	TY89	82	X	·	X	·	X	·	·	·	·	·	·	·	·	·	X	·	·	·	·	·	X	·	5	·	·	X	X	X	·
1413-02	07/01/2000		67	X	·	X	·	X	X	·	·	·	·	·	·	·	·	X	·	·	·	·	·	X	·	5	X	·	·	X	X	X
1425-05	04/21/2000		62	X	·	X	·	·	·	·	·	X	X	·	·	X	·	·	X	·	·	·	X	·	·	6	·	·	·	X	·	·
1425-06	09/18/2000		62	X	·	X	·	·	·	·	·	X	X	·	·	X	·	·	X	X	X	·	X	·	·	5	·	·	·	X	·	X
1425-07	12/01/2000		62	X	·	X	·	·	·	·	·	X	·	X	·	X	·	·	X	X	X	·	X	·	·	5	·	·	·	X	X	·

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Illustrative Excerpt:

Illustrative Home Health Care

All Patients' Tally Report: Outcomes

Report Period: 01/01/2000-12/31/2000

Patient ID	Start of Care Date	Branch ID	Functional Outcomes — Activities of Daily Living											Functional Outcomes — Instrumental Activities of Daily Living											
			Improv in grooming	Stabil in grooming	Improv in dressing upper body	Improv in dressing lower body	Improv in bathing	Stabil in bathing	Improv in toileting	Improv in transferring	Stabil in transferring	Improv in ambulation	Improvement in eating	Improv light meal preparation	Stabil in light meal preparation	Improvement in laundry	Stabil in laundry	Improvement in housekeeping	Stabil in housekeeping	Improvement in shopping	Stabil in shopping	Improvement in phone use	Stabil in phone use	Improv in management of oral meds	Stabil in management of oral meds
1012-06	03/21/2000	TY89	-	X	-	-	o	X	-	-	X	o	-	-	X	o	X	o	X	o	X	-	X	o	X
1012-06	06/11/2000	TY89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036-03	02/22/2000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1036-04	03/07/2000		-	X	X	X	X	X	-	X	X	o	-	X	X	X	-	X	-	X	X	-	X	-	X
1048-04	04/21/2000		X	X	o	o	X	X	X	o	X	o	X	o	-	o	-	o	-	o	-	o	o	X	-
1122-02	05/30/2000		X	X	X	X	X	X	X	-	o	o	X	X	X	o	-	o	o	o	o	o	X	o	X
1139-02	04/05/2000		-	X	-	-	o	X	-	-	X	o	X	-	X	o	X	o	X	o	o	-	X	o	X
1148-04	05/07/2000		o	X	o	o	o	X	o	-	o	o	-	X	-	o	-	X	X	o	X	-	X	o	X
1286-02	07/29/2000	TY89	-	X	-	-	o	X	-	-	X	o	-	o	X	o	-	o	X	o	X	-	X	-	X
1287-07	05/09/2000		-	X	-	-	-	X	-	-	X	o	-	o	X	o	-	o	X	o	X	-	X	o	X
1323-04	04/15/2000		-	o	o	o	o	X	-	o	X	X	-	o	X	o	-	o	X	o	-	-	o	o	-
1328-02	08/08/2000		-	X	-	-	o	X	-	X	X	o	X	X	X	o	-	o	-	o	X	-	X	o	X
1338-06	02/20/2000	TY89	-	X	-	X	o	X	-	-	o	o	-	-	X	o	-	X	o	o	X	-	X	o	X
1338-07	11/06/2000	TY89	-	X	-	-	o	X	-	o	X	o	-	-	X	o	X	o	X	o	X	-	X	o	X
1382-02	11/13/2000		-	X	-	-	X	X	-	-	o	o	-	o	-	o	-	o	-	o	-	-	X	X	-
1383-02	02/06/2000		-	-	-	-	-	-	-	-	X	-	-	-	-	o	X	o	X	o	X	-	X	o	X
1392-03	02/22/2000		-	X	-	-	o	X	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
1403-04	02/12/2000	TY89	-	X	-	-	o	X	-	-	X	o	-	X	-	o	-	X	-	X	-	-	X	X	-
1403-05	07/11/2000	TY89	-	X	-	-	X	X	X	o	X	o	-	o	-	o	-	X	-	X	-	-	X	X	-
1413-02	07/01/2000		-	X	-	-	o	o	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
1425-05	04/21/2000		-	-	-	-	-	-	-	-	o	o	X	-	-	X	-	o	X	o	X	-	X	-	X
1425-06	09/18/2000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1425-07	12/01/2000		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

6.105

Illustrative Excerpt:

Illustrative Home Health Care

All Patients' Tally Report: Raw Data

Report Period: 01/01/2000-12/31/2000

Patient ID	Start of Care Date	Branch ID	Birth year	Gender (1-2)	Race/Ethnicity (1-6)	Payment Source	Financial Factors	Inpt DC	Inpt Diag Primary	Inpt Diag Secondary	Medical Regimen Change
1012-06	03/21/2000	TY89	1913	2	1	Medicare (Fee For Service) X; Private Insurance X	None X	Hospital X	451	-	X
1012-06	06/11/2000	TY89	1913	2	1	Medicare (Fee For Service) X	None X	Hospital X	427	-	X
1036-03	02/22/2000		1943	2	1	Medicare (Fee For Service) X	None X	Patient Not DCd from Inpt Facility X	-	-	X
1036-04	03/07/2000		1943	2	1	Medicare (Fee For Service) X	None X	Hospital X; Rehabilitation Facility X	824	-	X
1048-04	04/21/2000		1928	2	1	Medicare (Fee For Service) X	None X	Hospital X	719	-	X
1122-02	05/30/2000		1911	2	1	Medicare (Fee For Service) X	None X	Nursing Home X	808	805	X
1139-02	04/05/2000		1910	1	1	Medicare (Fee For Service) X	None X	Rehabilitation Facility X	480	-	-
1148-04	05/07/2000		1915	1	1	Medicare (Fee For Service) X	None X	Patient Not DCd from Inpt Facility X	-	-	-
1286-02	07/29/2000	TY89	1943	1	5	Medicare (Fee For Service) X	None X	Patient Not DCd from Inpt Facility X	-	-	X
1287-07	05/09/2000		1926	1	1	Medicare (Fee For Service) X; Private Insurance X	None X	Patient Not DCd from Inpt Facility X	-	-	X
1323-04	04/15/2000		1917	1	1	Medicare (Fee For Service) X	None X	Patient Not DCd from Inpt Facility X	-	-	X
1328-02	08/08/2000		1909	2	1	Medicare (Fee For Service) X	None X	Patient Not DCd from Inpt Facility X	-	-	X
1338-06	02/20/2000	TY89	1918	2	1	Medicare (Fee For Service) X	None X	Patient Not DCd from Inpt Facility X	-	-	X
1338-07	11/06/2000	TY89	1918	2	1	Medicare (Fee For Service) X	None X	Patient Not DCd from Inpt Facility X	-	-	-
1382-02	11/13/2000		1929	2	1	None, No Charge X	None X	Nursing Home X	392	-	X
1383-02	02/06/2000		1914	2	1	Medicare (Fee For Service) X	None X	Hospital X; Rehabilitation Facility X	496	428	X
1392-03	02/22/2000		1914	2	1	Medicare (Fee For Service) X; Private Insurance X	None X	Hospital X	428	-	X
1403-04	02/12/2000	TY89	1915	2	1	Medicaid (Fee For Service) X	None X	Nursing Home X	428	496	X
1403-05	07/11/2000	TY89	1915	2	1	Medicare (Fee For Service) X; Private Insurance X	None X	Nursing Home X	558	-	X
1413-02	07/01/2000		1930	2	1	Medicare (Fee For Service) -	None X	Hospital X	560	246	X
1425-05	04/21/2000		1935	2	1	Private Insurance X	None X	Hospital X	496	429	X
1425-06	09/18/2000		1935	2	1	Private Insurance X	None X	Hospital X	515	-	X
1425-07	12/01/2000		1935	2	1	Private Insurance X	None X	Patient Not DCd from Inpt Facility X	-	-	X

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Instructions for Working With the Microsoft Excel Patient Tally Reports

- **Description:** In order to facilitate analysis of your outcome results in support of your process-of-care investigation, we provide Patient Tally Reports in the form of a Microsoft Excel 97 workbook. A "workbook" is a set of spreadsheets that, in this case, contains raw OASIS item, case mix, and outcome data along with associated macros, or programs, for querying and printing these data. The four components of the Patient Tally workbook are:

  1. A spreadsheet (or "worksheet") containing start of care and resumption of care (SOC/ROC) <u>raw OASIS item</u> data for all patients,

  2. A spreadsheet (or "worksheet") containing start of care and resumption of care (SOC/ROC) <u>Case Mix</u> data for all patients,

  3. A spreadsheet containing <u>Outcome</u> data for all patients, and

  4. A set of macros that automate the processes of querying the spreadsheets to select cases with specified characteristics and printing of reports.

- **System Requirements and Installation Instructions:** A copy of Microsoft Excel (version 97 or later) is recommended to read these data files and run the query and print macros. This software is <u>not</u> provided. All of the instructions in this document assume that you are using Excel 97 in Windows 95 or 98. There should be very little difference for users working with Excel 97 in Windows NT or 2000. If your agency uses another current Windows-based spreadsheet or database program, you should be able to import data from the Excel workbook, but you probably will not be able to run the associated macros. In this case, it will be necessary for you to use the query and print capabilities of your software to perform these functions.

  If you have a copy of Microsoft Excel (or a similar Windows-based program) and are able to use it with relatively large amounts of data, your computer hardware is probably sufficient to handle the patient tally workbook. Agencies with extremely large numbers of cases (in the thousands) may require more memory (RAM) than smaller agencies to load the data and run the macros.

  A. Follow the instructions below to install the Excel **workbook on diskettes** (for agencies with less than 1000 cases):

  1. Insert the installation diskette (Disk 1 if there are multiple diskettes) in the floppy drive (these instructions assume it is drive A:). Either from DOS or from a DOS window in Microsoft Windows 3.x or 97, type "A:" to change to the A: drive.

  2. Decide which drive and directory you wish to install the workbook. The following example assumes that you want to install the file in the directory "C:TALLY," but you can substitute another location, if you wish. To install the workbook, type the following at the A:\prompt: install   c:\tally [or substitute another drive and directory if you do not want to use C:\TALLY.]

  3. If there are multiple diskettes, you will be prompted when to insert each disk. Follow all prompts to insert disks until the process is complete. After the installation process is complete, you should find an Excel file with a name indicative of your provider number, ending with ".xls". Use Microsoft Excel (version 97 or later) to open this file. **Be sure to save the diskette to preserve the original Excel workbook as a backup copy.**

B. Follow the instructions below to install the Excel **workbook on CD** (for agencies with 1000 or greater cases):

1. Insert the CD into your CD drive. In Explorer, go to the D: drive. You will see a file with your provider number and ending with ".xls".

2. You can now view the Tally Report on your D drive. We suggest, however, that you copy the report from your D drive onto your hard drive (i.e., C: drive) under a folder named Tally.

- **Performing Queries to Select Cases with Specified Characteristics:** The first step in the process-of-care investigation is to select patients who achieved a target outcome and compare them to patients who did not achieve that outcome. As part of this investigation, it may also be desirable to further subdivide these groups of patients to focus on key secondary outcomes. The Excel patient tally workbook can assist in this process by providing the capability to query the tally reports to quickly zero in on patients with selected characteristics. This is accomplished with several query macros that are provided as part of the workbook.

A concrete example will best illustrate this procedure. Suppose that you have chosen "Improvement in Bathing" as your target outcome. Obviously, you will be interested in comparing patients who improved in bathing with those who did not improve. To list the patients who improved in bathing, follow the steps below:

1. Open the patient tally workbook file in Excel.

2. From the "Tools" menu, select the "Macro..." option. You will see a list of available macros. Find the macro named "QueryOutcomes" on this list and click on it. Click on the "Run" button to run this macro.

3. You will be asked if you want to "Specify (more) selection criteria?". Click on the "Yes" button.

4. You will then see a series of prompts asking, for each outcome measure, whether you want to select cases based on that outcome. The first outcome is "Improvement in Grooming," which you are not interested in at this time. Click on the "No" button to skip this outcome and proceed to the other outcomes.

5. Continue to click on "No" until the outcome you are interested in, "Improvement in Bathing," appears. Click on "Yes" when you are prompted to add "Improvement in Bathing" to the selection criteria.

6. You are now asked whether you want to select patients who did improve in bathing or those who did not improve. Enter the number "1" and click on "OK" to select patients who achieved the outcome Improvement in Bathing.

7. Note that the "Outcome Query" specification box now indicates that you have specified "Improv in Bathing = Yes" as a selection criteria. Also, an "X" appears under the "Improv in Bathing" label in the first query definition row (row 8991). Since you do not want to specify any other selection criteria at this time, click on "Cancel" to exit from the specification step.

8. You will now return to the prompt asking if you want to "Specify (more) selection criteria?". Click on "No."

9. Excel will now perform the requested query and list all outcomes for only those patients who improved in bathing. Note that the Outcomes spreadsheet is now active, regardless of which spreadsheet was active when you ran the macro. Note also that the selection criteria you specified are listed at the top of the screen (in row 8999). Cases that met the selection criteria

are listed starting in row 9001. [NOTE: If you explore the spreadsheets, you will notice that the data for all of your patients start in row 4 in the Outcomes spreadsheet and row 3 in the Raw Data and Case Mix spreadsheets. The spreadsheets for most agencies will contain a large number of blank rows and some additional header information prior to row 8999. These rows allow the query macros to operate regardless of the number of cases an agency may have.]

10. Although you may be interested in whether these patients achieved other outcomes, you will almost certainly want to look at the start of care case mix characteristics and possibly the raw OASIS data for these patients. There are additional macros that will apply the selection criteria (i.e., patients who improved in bathing) to the Case Mix and Raw Data spreadsheets. To see Case Mix data for patients who improved in bathing, Select the "Macro..." option from the "Tools" menu. From the list of available macros, click on the macro named "CaseMixQuery" and click on "Run." You should now see Case Mix data for all patients who improved in bathing. Note that the Case Mix spreadsheet is now active, regardless of which spreadsheet was active when you ran the macro.

11. To see raw OASIS data for the same patients, select the "Macros..." option from the "Tools" menu. From the list of available macros, click on the macro named "RawDataQuery" and click on "Run." You should now see OASIS data items for all patients who improved in bathing. Note that the Raw Data spreadsheet is now active, regardless of which spreadsheet was active when you ran the macro.

This example demonstrates how to select patients based on a single criterion. The "QueryOutcomes" macro allows you to specify up to seven levels of selection criteria, and each level can contain selection criteria for any of the outcomes (i.e., 46 selection criteria). The criteria that you specify within a given level must all be true for a case to be listed. If multiple levels of criteria are specified, any case that satisfies at least one level will be listed. Cases that satisfy more than one level of a query will only be listed once. An extension of the previous example should help to clarify how this versatile (if somewhat complex) querying capability works. Suppose that you now want to list all patients who improved in bathing <u>and</u> were discharged to the community as well as all patients who stabilized in bathing (there may not be an obvious reason to specify this query, but that does not negate its instructive value). This requires a two-level query. The first level specifies all patients who improved in bathing and were discharged to the community. To specify this portion of the query, perform Steps 2 through 6 from the previous example. In place of Step 7 (be careful not to go past Step 6!), perform the following steps:

7a. Click on "No" to prompts for all outcomes until you reach the prompt asking if you want to "Add outcome Discharged to community to selection criteria?". Click "Yes" on this prompt. Type "1" and click on "OK" to specify patients who were discharged to the community. Note the change in the selection criteria message at the next prompt.

8a. Click "Cancel" or click "No" on all other selection criteria prompts until you see the "Specify (more) selection criteria?" prompt again. At this point, you have completed specification of the first level of the query (i.e., all patients who improved in bathing and were discharged to the community).

8b. The second level of this query will add to the list all patients who stabilized in bathing. To specify the second level, click on "Yes" at the "Specify (more) selection criteria?" prompt.

8c. Click on "No" for all outcomes until you see the prompt asking if you want to add "Stabil in Bathing" to the selection criteria. Click "Yes" at this prompt. Enter "1" to select patients who achieved this outcome and click on "OK." Note that an "X" appears under the "Stabil in Bathing" label in the second query specification row (row 8992). This indicates that you have specified patients who stabilized in bathing as a criterion for the second level of the query.

8d.	Click on "Cancel" at the prompt to return to the "Specify (more) selection criteria?" prompt. If you intended to specify a third level of criteria for this query, you could do so at this point, simply by repeating Steps 8a through 8c. Up to seven levels of selection criteria can be specified in this manner. Since you do not need to specify any additional criteria in this case, click on "No" to perform the query.

Once you have specified the two-level query, simply follow Steps 10 and 11 to see Case Mix or raw OASIS data for the patients listed. Once an outcome query has been specified by using the "QueryOutcomes" macro, the selection criteria remain in effect for use by other macros until a new query is specified. If you bypass an outcome during the selection process, there is no way to back up. You must cancel the selection process and restart the QueryOutcomes macro. Finally, if you want to leave Excel without losing the query specifications and results, you must save the file prior to exiting the program.

A query macro that has not been discussed, called "RunOutcomeQuery," allows you run a query that you have manually specified by entering "X"s and "o"s (to indicate achieving or not achieving an outcome) in the query specification rows (rows 8991 through 8997) in the "Outcomes" spreadsheet. Instructions on how to do this are beyond the scope of this document. It is possible that experienced Excel users might find it easier to manually specify queries rather than use the prompts. We recommend using the prompts, however, for all but the most complex queries.

- **Printing Reports:** The tally workbook also includes macros that allow you to print the entire contents of a tally report as well as the results of a query. If you have successfully made it through the process of specifying a query, you will be relieved to know that you have made it past the difficult part. Printing reports using the supplied macros is quite simple. There are separate macros for printing all cases in a tally report and for printing only those cases that satisfy the selection criteria of a query. The macros for printing entire reports are called PrintCaseMixReport, PrintOutcomeReport, and PrintRawDataReport. The macros for printing the results of a query are PrintCaseMixQuery, PrintOutcomeQuery, and PrintRawDataQuery. **VERY IMPORTANT NOTE:** You must have specified a query (using the QueryOutcomes macro) and, in the cases of case mix and raw OASIS data reports, applied the query (using CaseMixQuery or RawDataQuery) prior to running the macros that print query results. This caveat aside, the procedure for printing is virtually identical using any of the print macros. The steps involved in printing the entire Outcomes Tally Report are as follows:

  1.	Open the patient tally workbook file in Excel (if it is not already open).

  2.	From the "Tools" menu, select the "Macro..." option.

  3.	You will see a list of available macros. Find the macro named "PrintOutcomeReport" on this list and click on it. Click on the "Run" button to run this macro.

  4.	Next, you will see a prompt that tells you how many cases are on the report and approximately how many pages the printout will take. If you want to send the report to the printer, click on "Yes." If you want to preview the report on screen, click on "No." If you want to cancel the macro and the print job altogether, click on "Cancel."

In addition to the need to specify and apply queries prior to printing their results, please bear in mind that the macros were designed to work with a laser printer using legal-size (8.5 by 14 inches) paper in a landscape orientation. Your printer must be able to support this mode of printing for the macros to paginate and print the reports properly.

C.   NEXT STEPS

1.   Selecting Target Outcomes

Once you and your staff have reviewed your reports, your next activity is to select one or two specific target outcomes for OBQI activities. We recommend that you involve several key staff in making this decision. Some agencies form a committee consisting of administrative, managerial, and clinical field staff members to evaluate potential target outcomes.

It is important to limit the number of target outcomes your agency selects to one or two. This will allow you to conduct an in-depth review of the care processes that affected the target outcomes and to implement the outcome enhancement activities within one month. The one-month time frame will maximize the possibility of seeing changes in your target outcomes (as a result of outcome enhancement activities) reflected on your next annual outcome report.

Most agencies will select a target outcome that is unfavorable in comparison to the reference group or prior outcome. Some agencies, however, select a favorable outcome for outcome enhancement activities to identify and reinforce excellent care practices.

As potential target outcomes are evaluated for OBQI outcome enhancement activities, the following selection criteria should be applied:

- *Which outcomes have statistically significant comparisons to either prior outcomes or reference group outcomes (noted by the double or single asterisk)?*

- *If there are no (or an extremely small number of) statistically significant outcome differences, which outcomes have a level of statistical significance approaching 0.10 or less (i.e., between 0.10 and 0.20)? These can also be considered as potential target outcomes in the absence of several statistically significant outcomes.*

- *Which outcomes were calculated for at least 30 patients?*

- *Which of the statistically significant outcomes have a large magnitude of difference (e.g., greater than a 10% difference) between current values vs. adjusted prior values or current values and reference values (indicating that your efforts are more likely to produce a result)?*

- *Which outcomes have particular relevance for your agency's goals or program objectives?*

- *Which outcomes have clinical significance for your agency?*

- *Which outcomes do you perceive that your agency is most likely to impact in the coming year?*

Outcomes that meet the selection criteria should be considered potential target outcomes. If there are a limited number of outcomes remaining, your choice is easier than if there are several. If there are several outcomes remaining as potential choices, achieving consensus in your agency on the target outcome(s) is an important step.

2.   Sharing the Outcome and Case Mix Reports with Staff

We recommend that your reports be shared with your staff as you move toward the selection of target outcomes. Typically, staff understanding greatly facilitates involvement in the outcome enhancement activities that follow. Since most home health agency staff have participated (in one way or another) in OASIS data collection, most are extremely interested in the reports that describe your agency's overall performance. Many people, however, are not familiar or comfortable with statistical reports. It will be

important that anyone with access to your reports also have access to these guidelines on how to interpret and use the reports. As mentioned in Section A, we encourage a controlled and circumscribed distribution of reports to parties outside your agency.

3. **Outcome Enhancement Activities**

The process-of-care investigation is a systematic evaluation of the care provided to patients that affected the target outcome. The goal in this step of OBQI is to identify specific care behaviors that need to be improved (if problematic) or reinforced (if already excellent). Most agencies form a performance improvement team to investigate care processes linked with target outcomes. The performance improvement team utilizes quality improvement tools and techniques such as clinical record review (of carefully selected records), staff interviews, and flow charting to investigate the target outcome.

After identifying problems or strengths in care delivery, the team develops, implements, and monitors a plan of action to remediate inadequate care practices or reinforce excellent care practices. Action plans consist of a problem or strength statement and corresponding best practices that should be implemented throughout the agency. In addition, the plan includes a list of at least three to five intervention activities designed to educate staff on the best practices and to promote their use in care delivery. As with any change in behavior, changes related to improving patient care should be evaluated over time. A specific plan for monitoring the action plan should be developed to assist in the ongoing assessment of behavior change. A sample plan of action and a blank plan of action form are included in this section.

Please submit your completed plans of action to the Research Center within 4 weeks of receiving your Outcome and Case Mix Reports.

4. **Last Words**

While the OBQI process is similar in many ways to traditional quality improvement/performance improvement processes, it includes some unique characteristics. We encourage you to use the following resources for further guidance in interpreting OASIS-based reports and conducting outcome enhancement activities.

- Shaughnessy, Peter W. and Crisler, Kathryn S. (1995). Outcome-Based Quality Improvement: A Manual for Home Care Agencies on How to Use Outcomes. Washington, DC, National Association for Home Care. Available from the National Association for Home Care.

- White, T. (1999). Beyond OASIS. Caring, 18(5): 26-28.

- The April 2000 special OBQI/OASIS issue of Home Healthcare Nurse.

- Materials from OBQI workshops that you have attended.

Communication with your agency staff (at all levels) is imperative for success in your quality improvement activities. A staff member who understands OBQI, who has participated in the development of your plan, and who realizes that care behavior changes are being implemented to improve patient outcomes is usually receptive to organizational and personal behavior changes.

As you progress through your outcome enhancement activities, remember that the staff at the Research Center is available to answer questions. We look forward to hearing your success stories!

Illustrative Home Health Care Agency

Plan of Action for Continuous Quality Improvement

Outcome Report Date: 2/28/2001   Plan of Action Date: 3/28/2001

1. **Target Outcome**: Stabilization in Anxiety Level

2. **Action Plan** for **Remediation**

3. **Identified Problem**: Inconsistent definition of anxiety, so similar assessment data are not consistently interpreted. When anxiety is present, no specific interventions occur. Lack of continuity of staff adds to patient anxiety.

4. **Care Behaviors or Processes Identified as Best Practices** (Prioritized)

    a. Staff will use a consistent definition of anxiety in analyzing assessment data.

    b. When anxiety is detected, staff will intervene to decrease anxiety.

    c. Staff scheduling priorities will include assuring continuity of nursing staff.

5. **Intervention Actions** (Prioritized):

Action	Time Frame		Responsible Party	Monitoring Approaches & Frequencies
	Start	Finish		
a) Staff inservice by psych supervisor to address definition of anxiety, signs and symptoms, and interventions.	4/05	4/30	Sylvia Shivers	1. Post-test at end of inservice, reviewed by QI committee within 1 week with additional inservices or 1-on-1 session set up for those demonstrating need. 2. Project team members bring up discussion of anxiety in team meetings.
b) Instruct scheduler to assign admissions to the patient's primary RN.	3/20	3/20	Margie Mania	Project team review assignment of admissions weekly x 4, monthly x3, then quarterly to check on continuity.
c) Find/develop teaching materials for cardiac patients regarding anxiety and specific subjects that can produce anxiety for cardiac patients, e.g., sexual activity.	4/01	5/20	Phyllis Panic & Wilma Worrier	Project team check progress every 2 weeks and review suggestions for appropriateness. Forward recommendations to Clinical Education Committee.
d) Produce or purchase education materials, distribute to staff with written suggestions for use.	3/30	6/15	Phyllis Panic & Wilma Worrier	Staff use of education materials will be included in record audit (see below).
			Catherine Controller	Project team audit 15 SOC records by 5/15, then 15 records (which had OASIS assessments done) by 5/30 and another 15 by 6/15, using review form used in investigation and checking for use of new teaching materials. Compile results of monitoring before meeting on 6/25 when team will determine if additional training, follow-up, and/or revisions to plan are needed.

6. **Monitoring Activities**:

   a. Project Team and inservice presenter review post-test results within one week after each inservice. Bring up discussion of anxiety in team meetings 05/1-05/20 to obtain staff input on utility of inservice and additional needs. Follow-up with additional training sessions or one-on-one attention as needed.

   b. Project Team review staff assignments for admissions weekly x 4 (beginning 03/20), then monthly x 3, then quarterly to evaluate achievement of continuity of care in first five visits (work toward 90%).

   c. Project Team audit 15 SOC records by 05/15, then 15 records by 05/30, and another 15 by 06/15, all with assessments done after 05/01. Team will use review form used in process of care investigation and check for use of new teaching materials. Compile and summarize results of monitoring before meeting on 06/25 when team will determine if additional training, follow-up, and/or revisions to plan are needed. (SEE "NOTE" BELOW.)

   d. Project Team members each interview at least two clinicians 05/15 - 05/31 and two more 06/02 - 06/20 re:

      1) Do you find it easier to assess for anxiety now than prior to 04/01?

      2) Do you feel that you know how to begin basic interventions for patients experiencing anxiety?

      3) Are you comfortable with knowing when to seek a social work referral to assist with anxiety interventions?

      4) What are the greatest difficulties you encounter or areas you feel you still need help with?

      5) Have you used any of the new teaching materials? If yes, go to # 6, if no, go to #7.

      6) Which teaching materials have you used? Were they helpful? Are others needed?

      7) Do you have other feedback?

      Interview results will be compiled and summarized, then presented at the meeting on 06/25/01.

NOTE: Regarding Monitoring Activities (c) and (d): If no changes are needed, audit 20 records by 07/28 of patients assessed 06/01-07/15 and compile results for meeting on 08/03. If progress is acceptable, audit 20 records quarterly with reviews completed by 09/30, 12/31, and 03/31/02. Report audit results to staff and seek input.

If changes are needed (to training plans or plan of action), revise auditing schedule

_____ HOME CARE AGENCY

Plan of Action for Continuous Quality Improvement

QUALITY IMPROVEMENT TEAM MEMBERS

1. _____ 4. _____ 7. _____

2. _____ 5. _____ 8. _____

3. _____ 6. _____ 9. _____

Outcome Report Date _____   Plan of Action Date _____

---

1. **Target Outcome Addressed by Plan of Action:**

2. **Action Plan for (circle one):** a. Remediation   b. Reinforcement

3. **Identified Problem or Strength:**

4. **Care Behaviors or Processes Selected as Best Practices (Prioritized):**

5. **Intervention Actions (Prioritized):**

Action	Time Frame		Responsible Person(s)	Monitoring Approaches (and Frequency)
	Start	**Finish**		
a.				
b.				

Action	Time Frame		Responsible Person(s)	Monitoring Approaches (and Frequency)
	Start	Finish		
c.				
d.				

6. **Evaluation:**

   a. **Review of Plan:**
   Date: _____
   Responsible person(s): _____
   _____
   Results:

   b. **Next outcome report:**
   Date: _____
   Result: _____
   Next Step(s):

   c. **Monitoring Activities:**

   (1) **Activity:**

   Date Completed:
   Finding:

   Response:

   (2) **Activity:**

   Date Completed:
   Finding:

   Response:

   (3) **Activity:**

   Date Completed:
   Finding:

   Response:

   (4) **Activity:**

   Date Completed:
   Finding:

   Response:

Section II:

AGENCY-SPECIFIC INFORMATION

Agency-Specific Information

The following information is intended to assist **Faircare Home Health Services** interpret the Outcome and Case Mix Reports enclosed in this packet.

Basic Information on Your Agency's Reports

In both the Outcome and Case Mix Reports, the findings pertaining to your agency are compared with a reference group. The reference sample of 42,812 cases for the All Patients' Outcome Report was selected from all agencies participating in the national demonstration's Year 1 and Year 2 data collection periods. It consists of approximately 50% of all discharged patients for whom we had "clean" outcome data for the years from 1999-2000. No agency was allowed to make up more than 5% of the patients in the reference sample. The reference sample of 37,765 cases for the All Patients' Case Mix Report is based only on data collected during the current year of the national demonstration. As with the outcome report reference sample, each agency comprises no more than 5% of the case mix reference sample.

Your Agency's Outcome Report

In all, the Outcome Reports for **Faircare Home Health Services** display a mixed pattern of favorable and unfavorable outcomes, as is always the case when a large number of outcomes are displayed. Not all of these outcomes are statistically significant, however, and we encourage you to focus your attention on those outcomes that are. The general pattern of outcomes from your All Patients' Outcome Report is displayed in the following table:

	Number of current outcomes significantly different and **favorable** when compared to:		Number of current outcomes significantly different and **unfavorable** when compared to:		Number of current outcomes **not significantly different** when compared to:	
Number of outcomes	Adjusted Prior	Reference	Adjusted Prior	Reference	Adjusted Prior	Reference
41	8	8	1	7	32	26

Target Outcomes

This section summarizes your overall agency progress with regard to your target outcome(s). Your first target outcome, **Improvement in Dyspnea**, has improved from last year at a significance level (equal to or) lower than .25. Congratulations – we suggest you continue the best practices you put into place! You do not need to consider this as a target outcome for next year.

Your agency's second target outcome, **Improvement in Transferring** (which was selected for reinforcement), appears to have run into some difficulty. We suggest you assess your satisfaction with your progress and determine whether you wish to work anew with this as a target outcome.

The third target outcome selected by your agency, **Any Emergent Care Provided**, has improved from last year at a significance level (equal to or) lower than .25. Congratulations – we suggest you continue the best practices you put into place! You do not need to consider this as a target outcome for next year.

Your Agency's Case Mix Report

In view of the large number of factors in the Case Mix Reports, as well as the large size of the reference sample, it is natural to expect that a variety of differences should appear between your agency's case mix and the average case mix of the reference sample. For example, your agency's All Patients' Case Mix Report reveals the following significant differences compared with the reference sample:

- Age,
- Less Dependent in Functional (ADL) Status at SOC/ROC,
- More Dependent in Functional (IADL) Status at SOC/ROC,
- Less Pain Interfering With Activity, and
- Length of Stay (LOS).

Your own agency's case mix comparisons from one year to the next usually reveal a smaller number of differences. Your All Patients' Case Mix Report, however, does include the following statistically significant differences:

- Age,
- More Dependent in Functional (IADL) Status at SOC/ROC
- Less Pain Interfering with Activity, and
- Length of Stay (LOS).

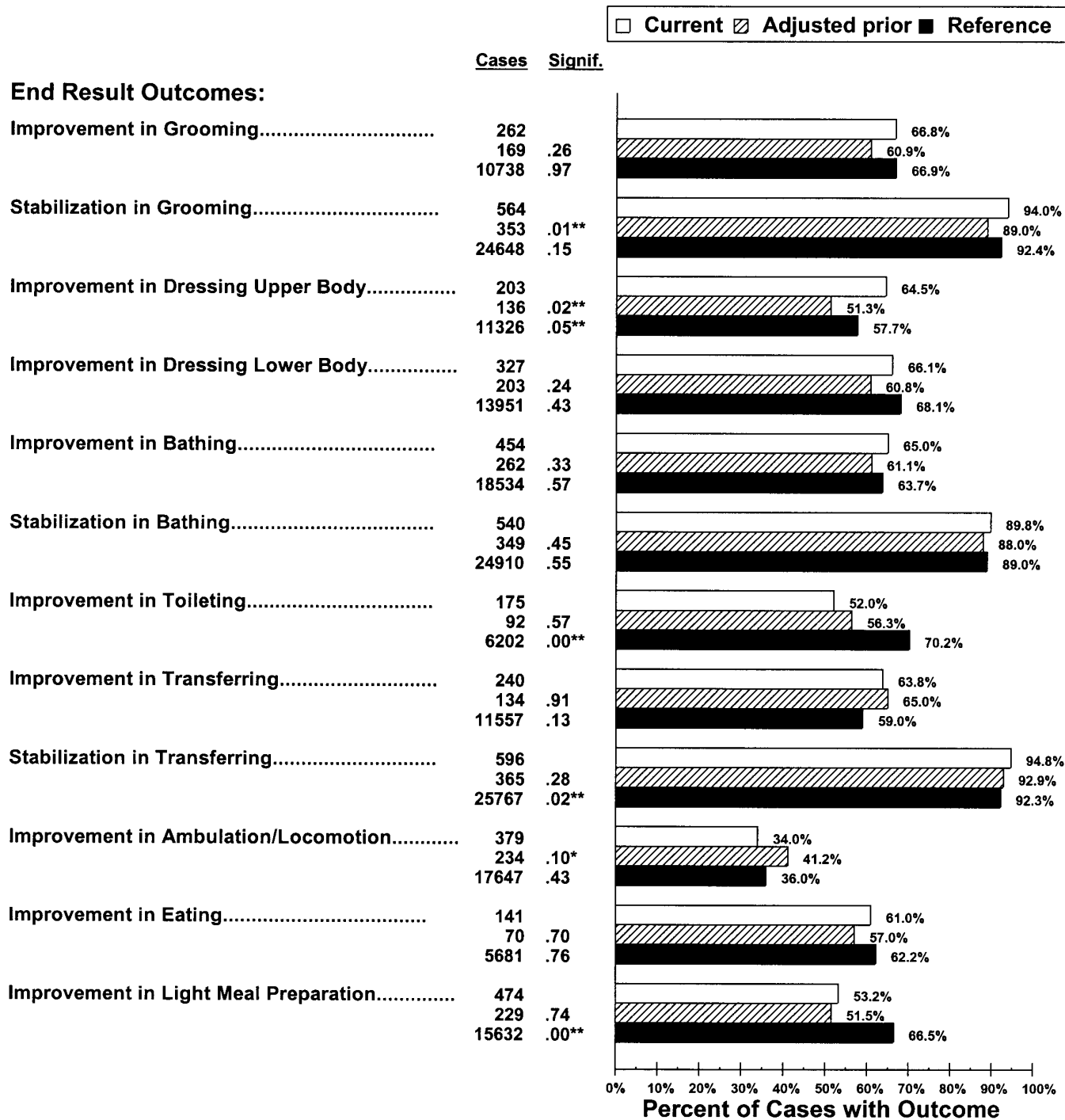Note that one area of difference in the Case Mix Report between this year and last is a decrease in the percentage of patients listed with contagious/communicable disease, which we are certain reflects increased attention to data quality in your agency. In particular, this indicates that surgical procedure code usage does not appear to be impacting your data, and thus your case mix reports.

Section III:

OUTCOME REPORTS

Agency: Faircare Home Health Services
Number of Cases in Current Period: 599
Number of Cases in Prior Period: 374
Number of Cases in Reference Sample: 26044

Date Report Printed: 02/28/2001
Current Period: 01/01/2000-12/31/2000
Prior Period: 01/01/1999-12/31/1999

All Patients' Outcome Report
Risk Adjusted

☐ **Current** ☒ **Adjusted prior** ■ **Reference**

Cases   Signif.

End Result Outcomes:

Improvement in Grooming............................
262
169   .26
10738   .97
- 66.8%
- 60.9%
- 66.9%

Stabilization in Grooming...............................
564
353   .01**
24648   .15
- 94.0%
- 89.0%
- 92.4%

Improvement in Dressing Upper Body...............
203
136   .02**
11326   .05**
- 64.5%
- 51.3%
- 57.7%

Improvement in Dressing Lower Body...............
327
203   .24
13951   .43
- 66.1%
- 60.8%
- 68.1%

Improvement in Bathing.................................
454
262   .33
18534   .57
- 65.0%
- 61.1%
- 63.7%

Stabilization in Bathing..................................
540
349   .45
24910   .55
- 89.8%
- 88.0%
- 89.0%

Improvement in Toileting................................
175
92   .57
6202   .00**
- 52.0%
- 56.3%
- 70.2%

Improvement in Transferring...........................
240
134   .91
11557   .13
- 63.8%
- 65.0%
- 59.0%

Stabilization in Transferring............................
596
365   .28
25767   .02**
- 94.8%
- 92.9%
- 92.3%

Improvement in Ambulation/Locomotion...........
379
234   .10*
17647   .43
- 34.0%
- 41.2%
- 36.0%

Improvement in Eating...................................
141
70   .70
5681   .76
- 61.0%
- 57.0%
- 62.2%

Improvement in Light Meal Preparation..............
474
229   .74
15632   .00**
- 53.2%
- 51.5%
- 66.5%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
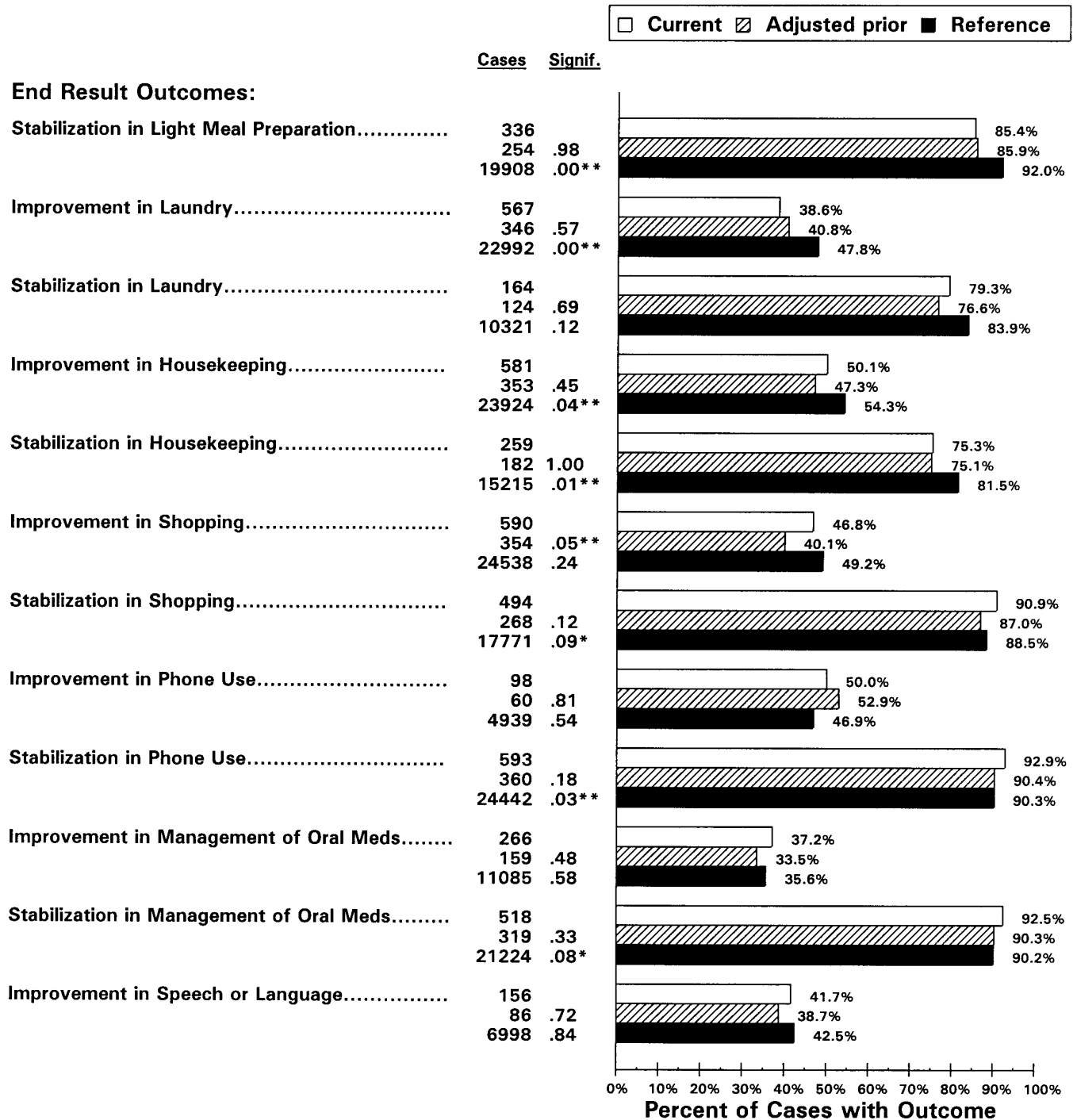### Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

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All Patients' Outcome Report
Risk Adjusted

☐ **Current** ☒ **Adjusted prior** ■ **Reference**

	Cases	Signif.

End Result Outcomes:

Stabilization in Light Meal Preparation..............
- 336 — 85.4%
- 254 .98 — 85.9%
- 19908 .00** — 92.0%

Improvement in Laundry................................
- 567 — 38.6%
- 346 .57 — 40.8%
- 22992 .00** — 47.8%

Stabilization in Laundry................................
- 164 — 79.3%
- 124 .69 — 76.6%
- 10321 .12 — 83.9%

Improvement in Housekeeping........................
- 581 — 50.1%
- 353 .45 — 47.3%
- 23924 .04** — 54.3%

Stabilization in Housekeeping........................
- 259 — 75.3%
- 182 1.00 — 75.1%
- 15215 .01** — 81.5%

Improvement in Shopping.............................
- 590 — 46.8%
- 354 .05** — 40.1%
- 24538 .24 — 49.2%

Stabilization in Shopping.............................
- 494 — 90.9%
- 268 .12 — 87.0%
- 17771 .09* — 88.5%

Improvement in Phone Use............................
- 98 — 50.0%
- 60 .81 — 52.9%
- 4939 .54 — 46.9%

Stabilization in Phone Use............................
- 593 — 92.9%
- 360 .18 — 90.4%
- 24442 .03** — 90.3%

Improvement in Management of Oral Meds........
- 266 — 37.2%
- 159 .48 — 33.5%
- 11085 .58 — 35.6%

Stabilization in Management of Oral Meds.........
- 518 — 92.5%
- 319 .33 — 90.3%
- 21224 .08* — 90.2%

Improvement in Speech or Language................
- 156 — 41.7%
- 86 .72 — 38.7%
- 6998 .84 — 42.5%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
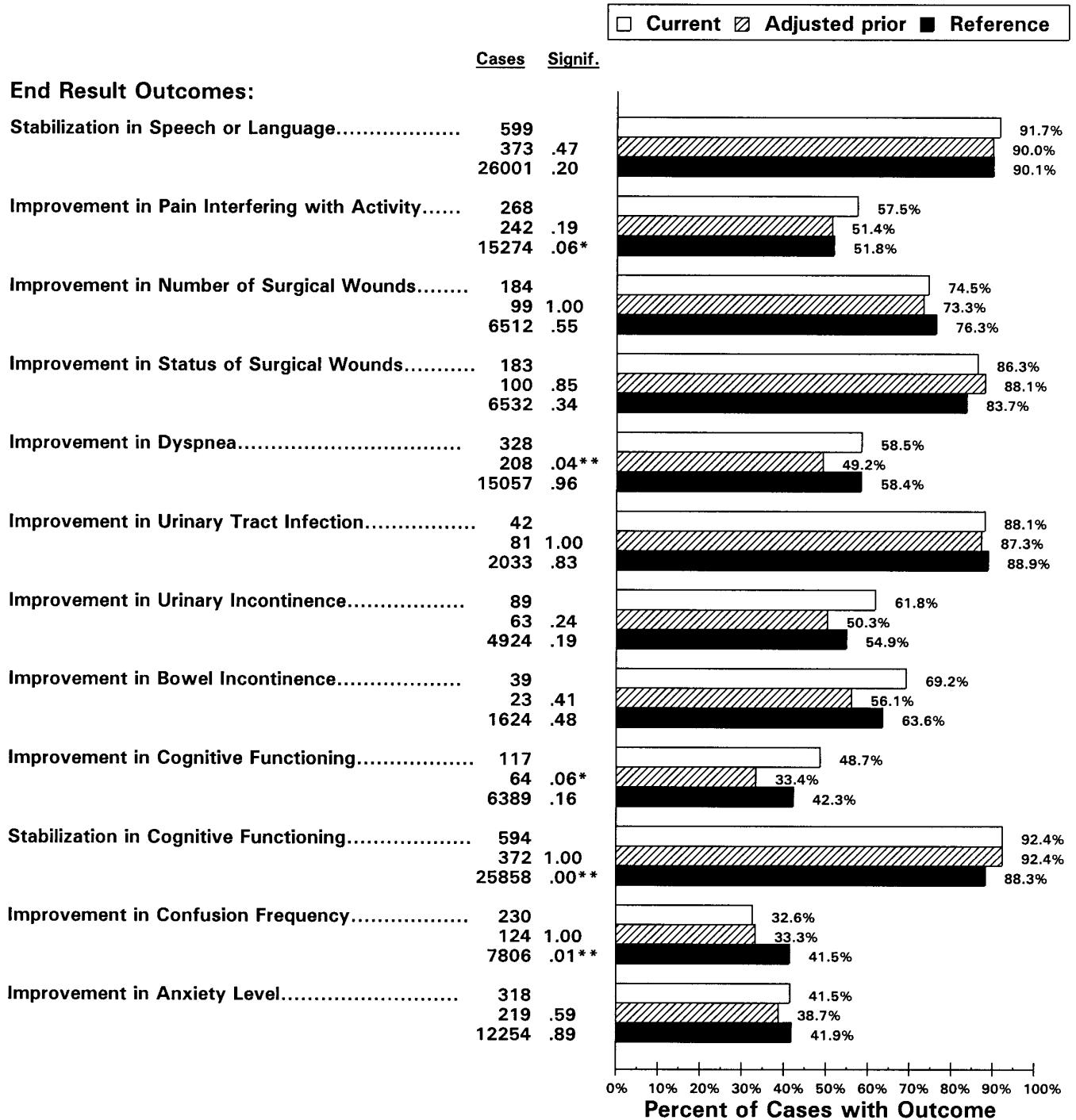
Percent of Cases with Outcome

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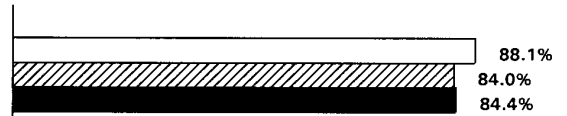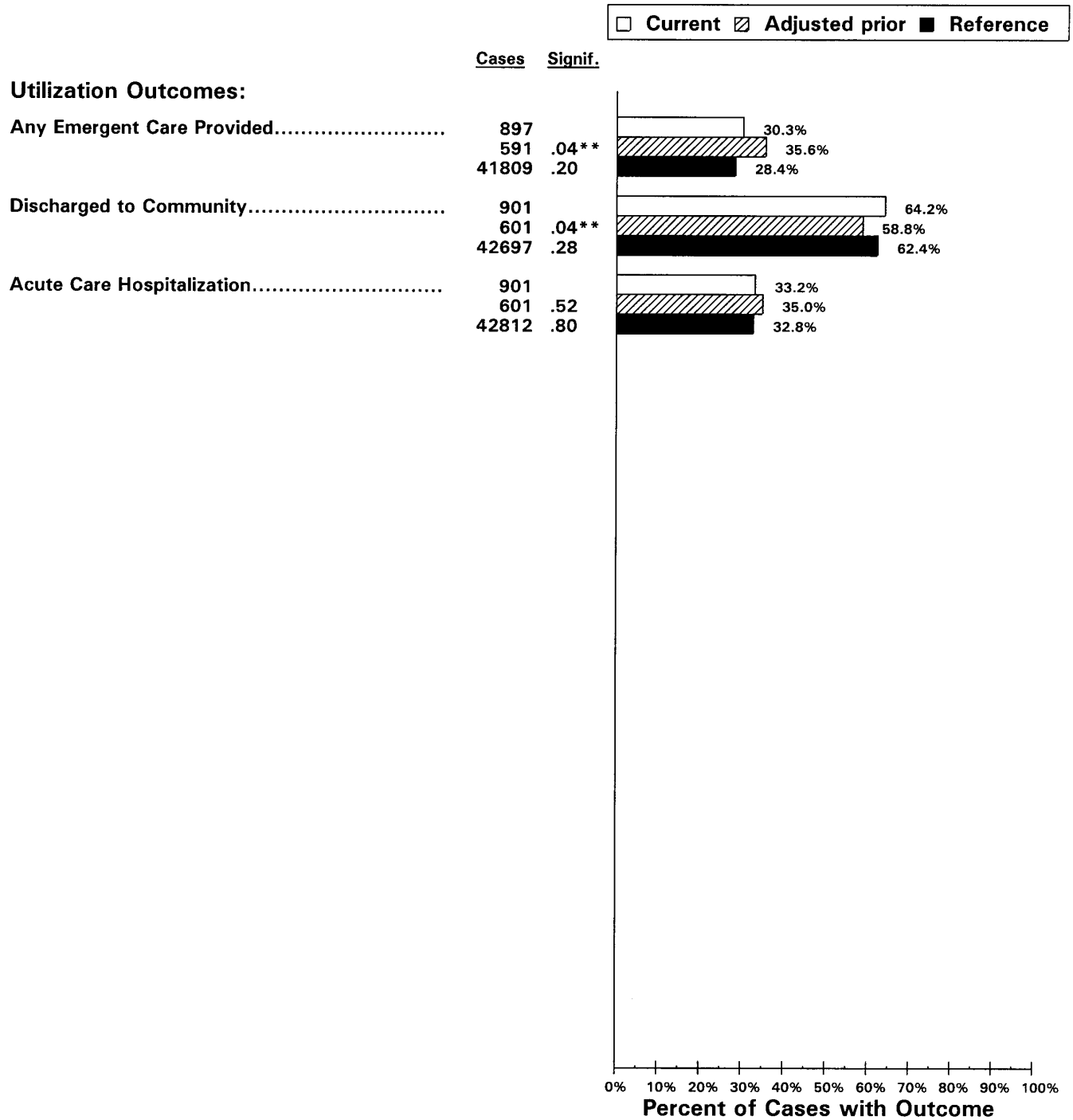
All Patients' Outcome Report
Risk Adjusted

☐ **Current** ☑ **Adjusted prior** ■ **Reference**

	Cases	Signif.	

End Result Outcomes:

Stabilization in Speech or Language...............
- 599 — 91.7%
- 373 .47 — 90.0%
- 26001 .20 — 90.1%

Improvement in Pain Interfering with Activity......
- 268 — 57.5%
- 242 .19 — 51.4%
- 15274 .06* — 51.8%

Improvement in Number of Surgical Wounds.......
- 184 — 74.5%
- 99 1.00 — 73.3%
- 6512 .55 — 76.3%

Improvement in Status of Surgical Wounds..........
- 183 — 86.3%
- 100 .85 — 88.1%
- 6532 .34 — 83.7%

Improvement in Dyspnea................................
- 328 — 58.5%
- 208 .04** — 49.2%
- 15057 .96 — 58.4%

Improvement in Urinary Tract Infection................
- 42 — 88.1%
- 81 1.00 — 87.3%
- 2033 .83 — 88.9%

Improvement in Urinary Incontinence.................
- 89 — 61.8%
- 63 .24 — 50.3%
- 4924 .19 — 54.9%

Improvement in Bowel Incontinence..................
- 39 — 69.2%
- 23 .41 — 56.1%
- 1624 .48 — 63.6%

Improvement in Cognitive Functioning.................
- 117 — 48.7%
- 64 .06* — 33.4%
- 6389 .16 — 42.3%

Stabilization in Cognitive Functioning..................
- 594 — 92.4%
- 372 1.00 — 92.4%
- 25858 .00** — 88.3%

Improvement in Confusion Frequency.................
- 230 — 32.6%
- 124 1.00 — 33.3%
- 7806 .01** — 41.5%

Improvement in Anxiety Level..........................
- 318 — 41.5%
- 219 .59 — 38.7%
- 12254 .89 — 41.9%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
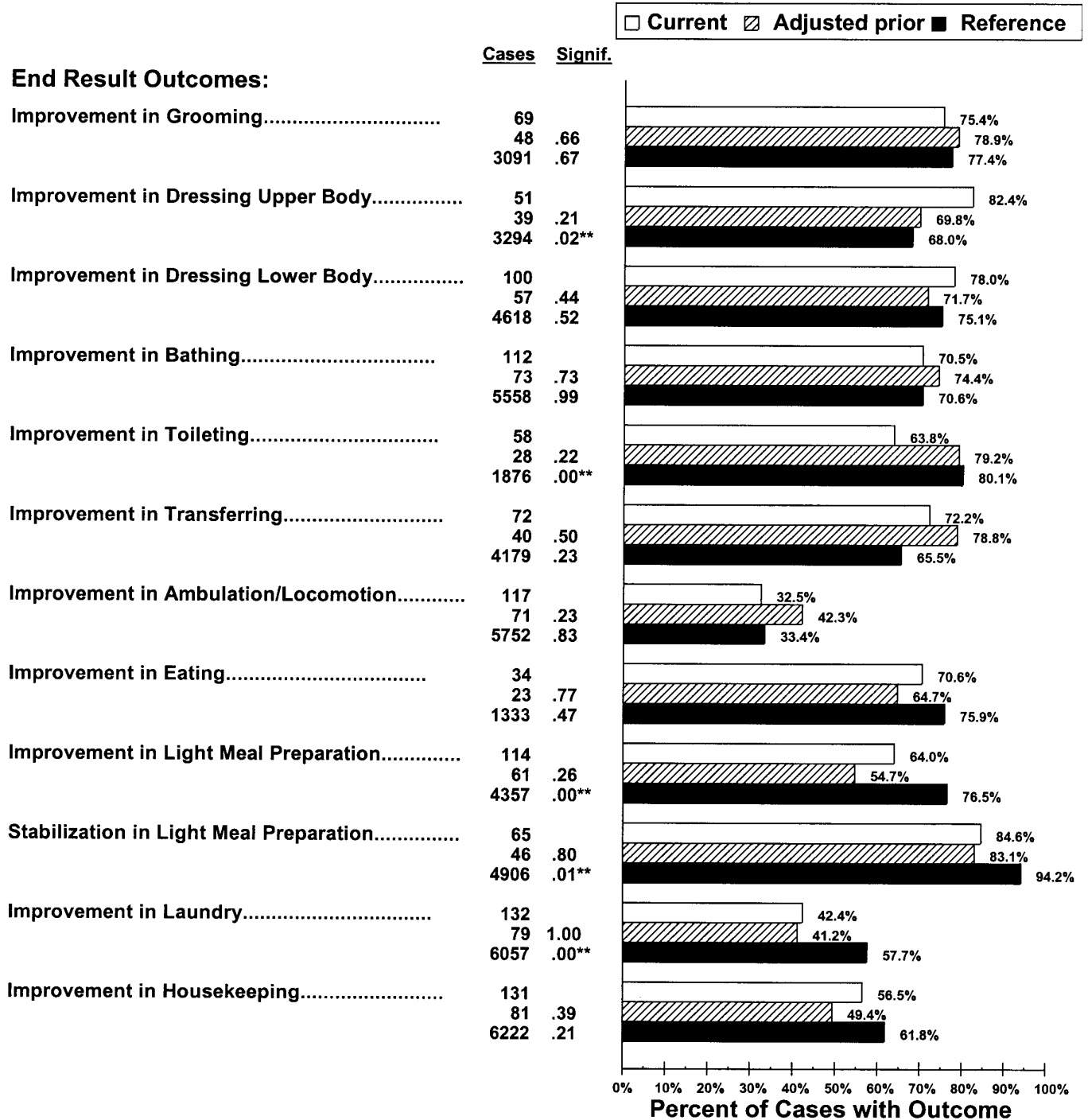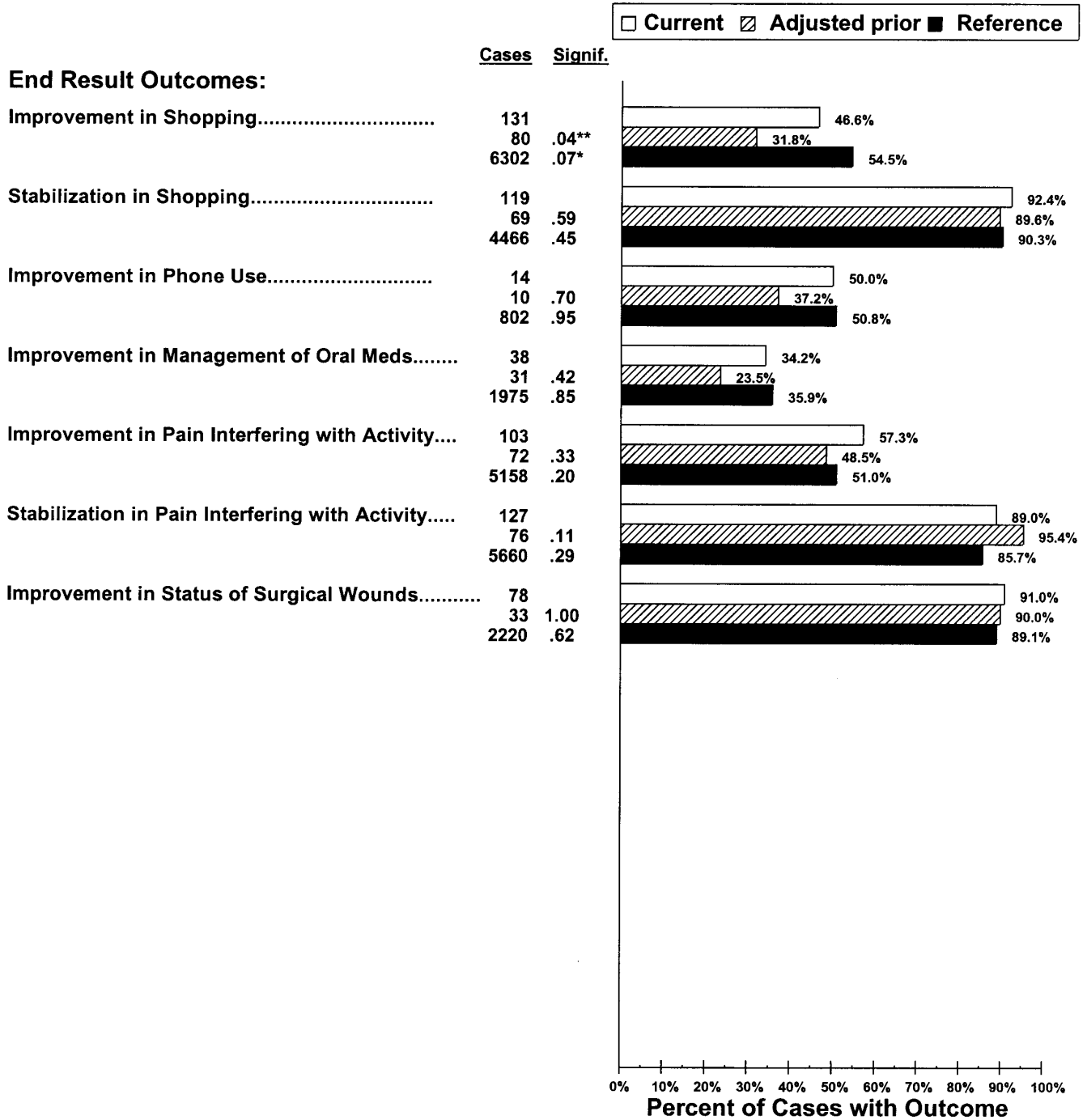
Percent of Cases with Outcome

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All Patients' Outcome Report
Risk Adjusted

☐ **Current** ☑ **Adjusted prior** ■ **Reference**

Cases Signif.

End Result Outcomes:

Stabilization in Anxiety Level...........................   589   88.1%
   356 .09*   84.0%
 25410 .01** 84.4%

Improvement in Behavioral Problem Frequency...   92   69.6%
   65 .94   67.6%
 1891 .27   74.6%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

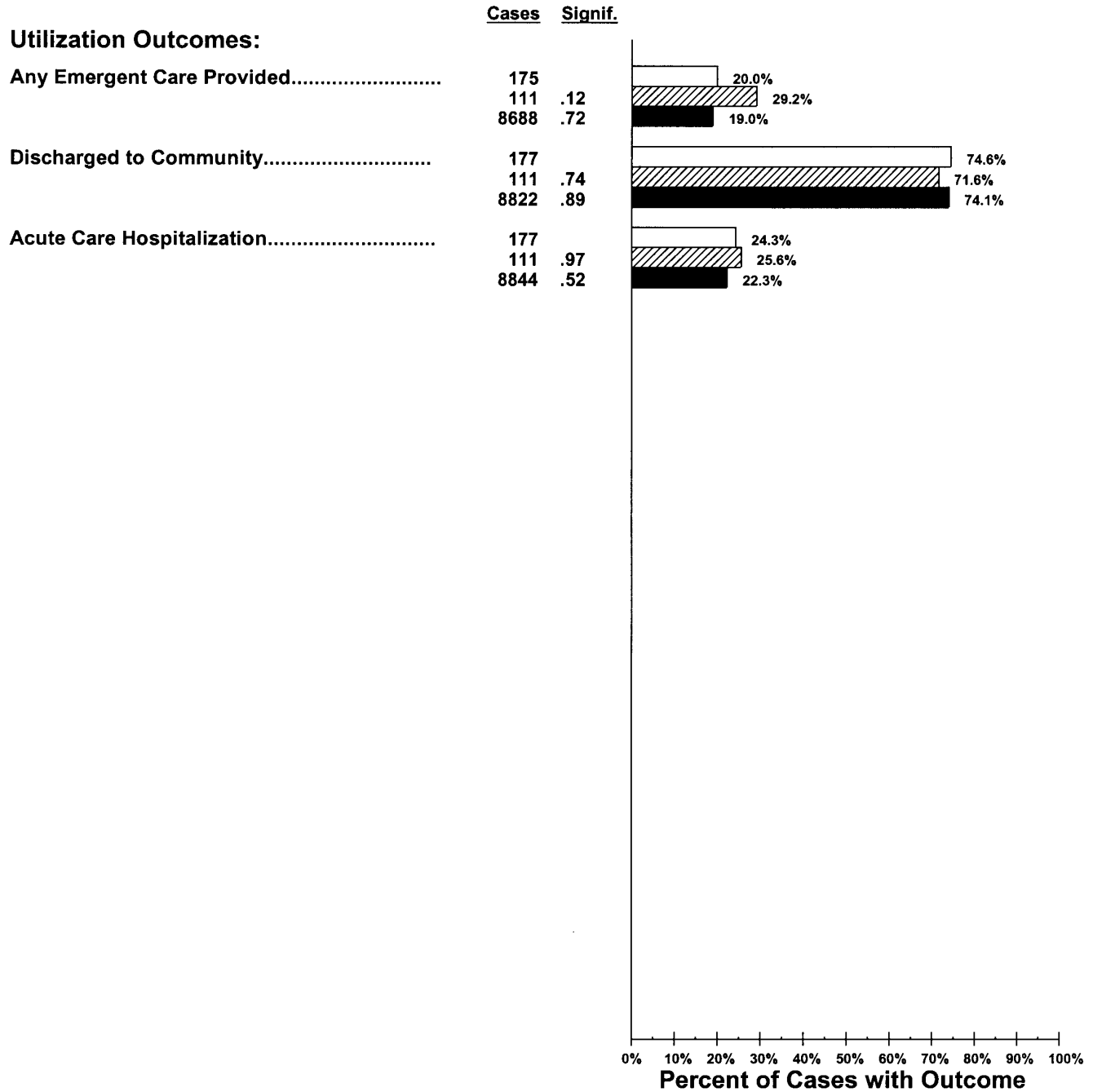* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

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All Patients' Outcome Report
Risk Adjusted

□ Current ▨ Adjusted prior ■ Reference

Cases   Signif.

Utilization Outcomes:

Any Emergent Care Provided..........................

Cases	Signif.
897	
591	.04**
41809	.20

30.3%
35.6%
28.4%

Discharged to Community..............................

Cases	Signif.
901	
601	.04**
42697	.28

64.2%
58.8%
62.4%

Acute Care Hospitalization...........................

Cases	Signif.
901	
601	.52
42812	.80

33.2%
35.0%
32.8%

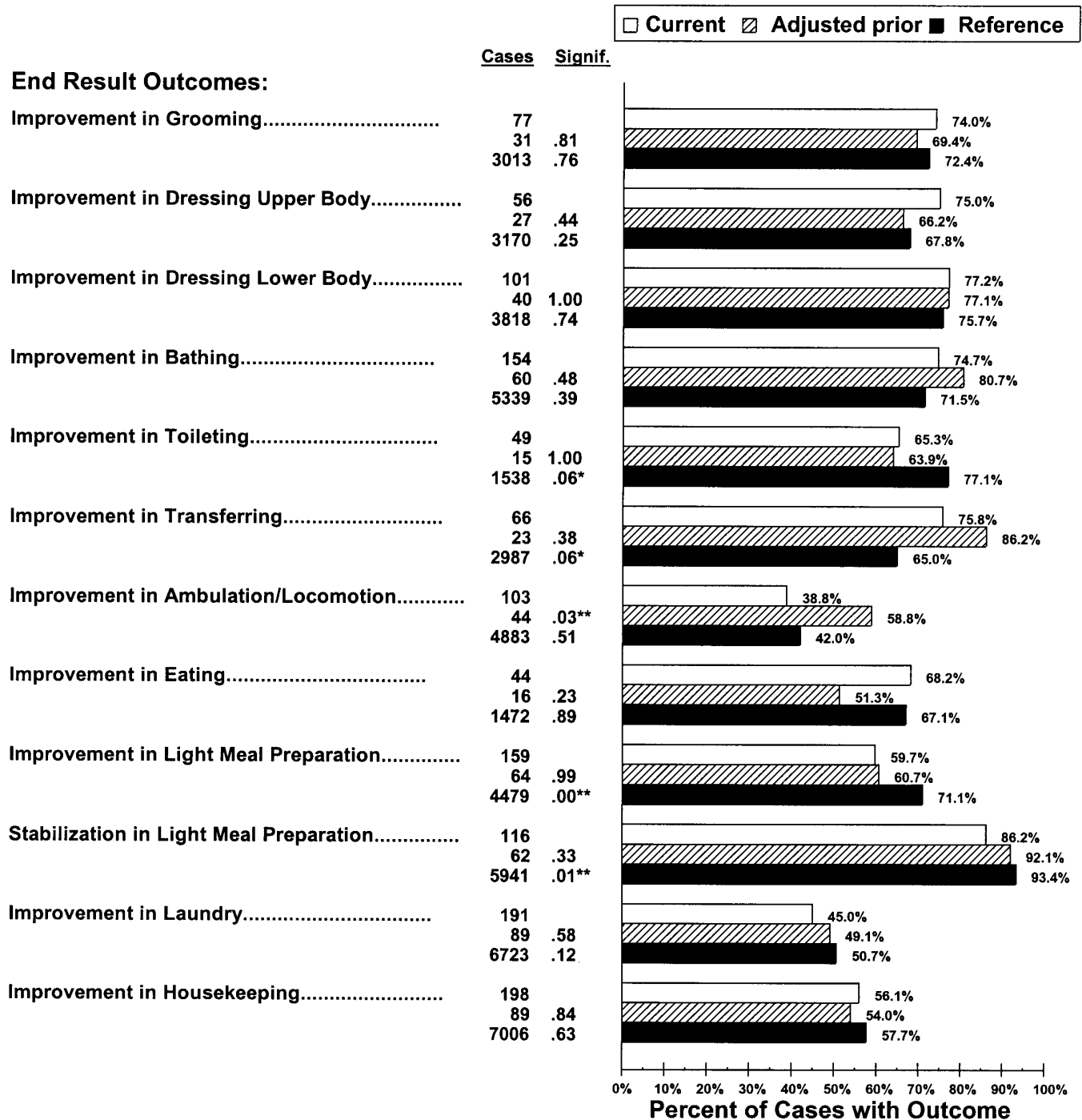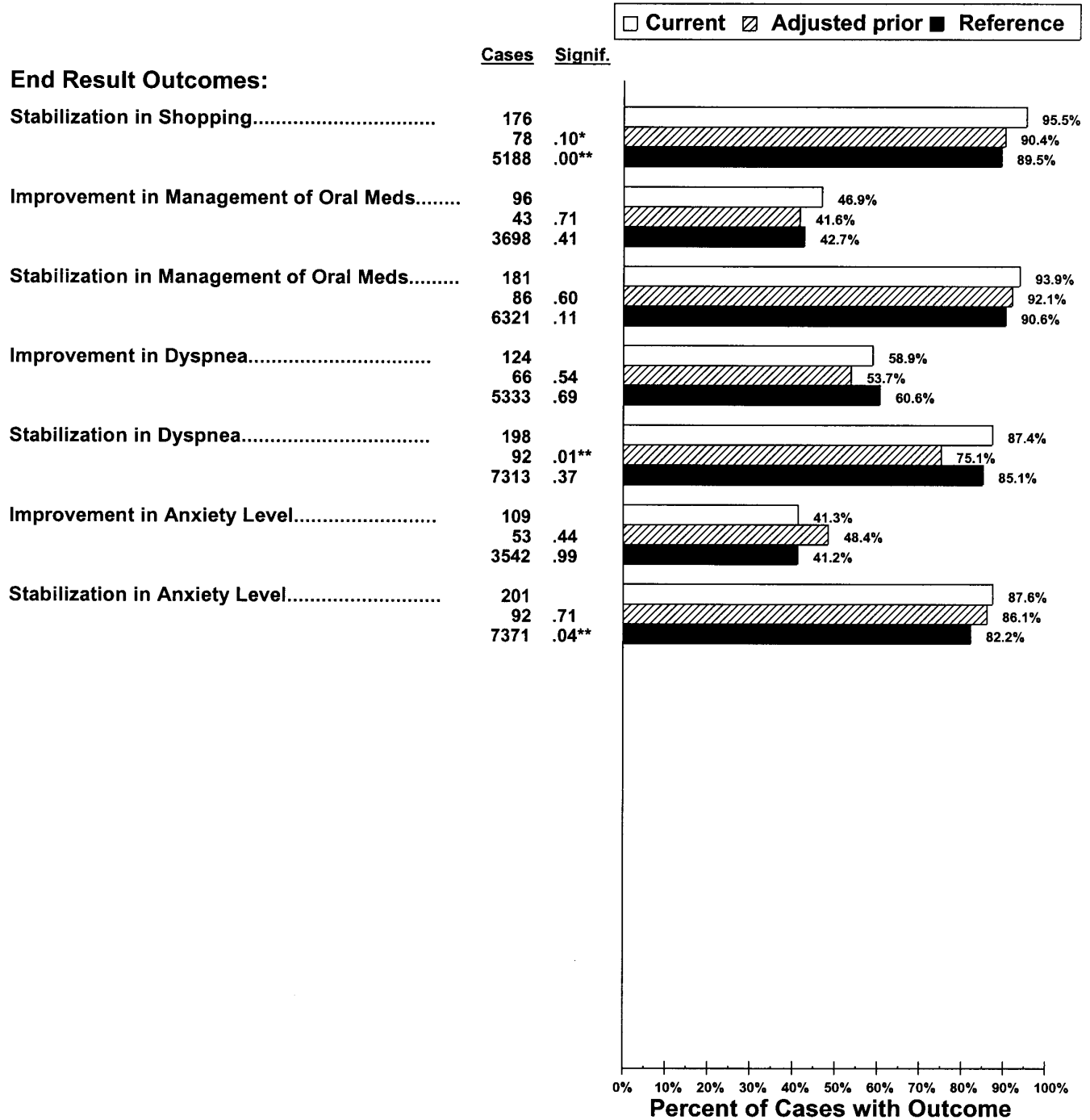0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

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Orthopedic Patients' Outcome Report
Risk Adjusted

□ Current ☒ Adjusted prior ■ Reference

Cases   Signif.

End Result Outcomes:

Improvement in Grooming..............................
69
48 .66
3091 .67
— 75.4%
— 78.9%
— 77.4%

Improvement in Dressing Upper Body...............
51
39 .21
3294 .02**
— 82.4%
— 69.8%
— 68.0%

Improvement in Dressing Lower Body...............
100
57 .44
4618 .52
— 78.0%
— 71.7%
— 75.1%

Improvement in Bathing.................................
112
73 .73
5558 .99
— 70.5%
— 74.4%
— 70.6%

Improvement in Toileting................................
58
28 .22
1876 .00**
— 63.8%
— 79.2%
— 80.1%

Improvement in Transferring...........................
72
40 .50
4179 .23
— 72.2%
— 78.8%
— 65.5%

Improvement in Ambulation/Locomotion...........
117
71 .23
5752 .83
— 32.5%
— 42.3%
— 33.4%

Improvement in Eating..................................
34
23 .77
1333 .47
— 70.6%
— 64.7%
— 75.9%

Improvement in Light Meal Preparation.............
114
61 .26
4357 .00**
— 64.0%
— 54.7%
— 76.5%

Stabilization in Light Meal Preparation...............
65
46 .80
4906 .01**
— 84.6%
— 83.1%
— 94.2%

Improvement in Laundry.................................
132
79 1.00
6057 .00**
— 42.4%
— 41.2%
— 57.7%

Improvement in Housekeeping........................
131
81 .39
6222 .21
— 56.5%
— 49.4%
— 61.8%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

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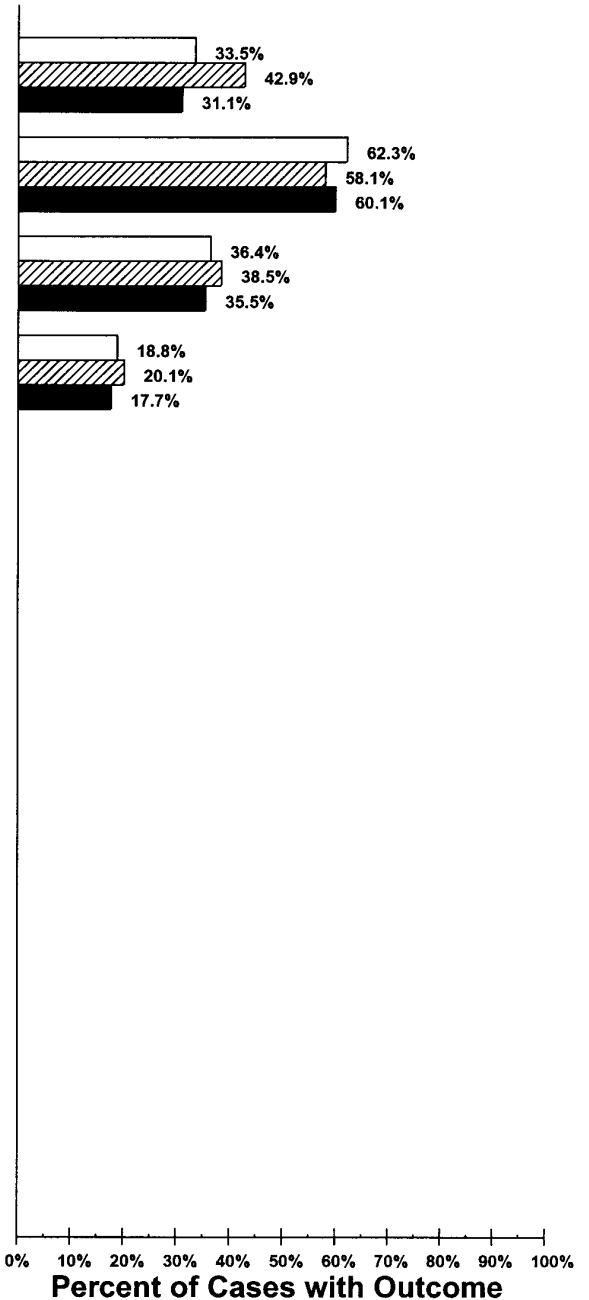
Orthopedic Patients' Outcome Report
Risk Adjusted

□ Current ☑ Adjusted prior ■ Reference

	Cases	Signif.

End Result Outcomes:

Improvement in Shopping............................ 131 / 80 .04** / 6302 .07*
- 46.6% (Current)
- 31.8% (Adjusted prior)
- 54.5% (Reference)

Stabilization in Shopping............................. 119 / 69 .59 / 4466 .45
- 92.4% (Current)
- 89.6% (Adjusted prior)
- 90.3% (Reference)

Improvement in Phone Use........................... 14 / 10 .70 / 802 .95
- 50.0% (Current)
- 37.2% (Adjusted prior)
- 50.8% (Reference)

Improvement in Management of Oral Meds........ 38 / 31 .42 / 1975 .85
- 34.2% (Current)
- 23.5% (Adjusted prior)
- 35.9% (Reference)

Improvement in Pain Interfering with Activity.... 103 / 72 .33 / 5158 .20
- 57.3% (Current)
- 48.5% (Adjusted prior)
- 51.0% (Reference)

Stabilization in Pain Interfering with Activity..... 127 / 76 .11 / 5660 .29
- 89.0% (Current)
- 95.4% (Adjusted prior)
- 85.7% (Reference)

Improvement in Status of Surgical Wounds........... 78 / 33 1.00 / 2220 .62
- 91.0% (Current)
- 90.0% (Adjusted prior)
- 89.1% (Reference)

Percent of Cases with Outcome
(0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%)

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.
** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

Orthopedic Patients' Outcome Report
Risk Adjusted

□ **Current** ☑ **Adjusted prior** ■ **Reference**

	Cases	Signif.
Utilization Outcomes:		
Any Emergent Care Provided............................	175	
	111	.12
	8688	.72
Discharged to Community.............................	177	
	111	.74
	8822	.89
Acute Care Hospitalization.............................	177	
	111	.97
	8844	.52

Any Emergent Care Provided: 20.0% (Current), 29.2% (Adjusted prior), 19.0% (Reference)

Discharged to Community: 74.6% (Current), 71.6% (Adjusted prior), 74.1% (Reference)

Acute Care Hospitalization: 24.3% (Current), 25.6% (Adjusted prior), 22.3% (Reference)

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

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Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 203
Number of Cases in Prior Period: 94
Number of Cases in Reference Sample: 7533

Cardiac Patients' Outcome Report
Risk Adjusted

□ Current ▨ Adjusted prior ■ Reference

End Result Outcomes:

Outcome	Cases	Signif.	Current	Adjusted prior	Reference
Improvement in Grooming	77 / 31 / 3013	.81 / .76	74.0%	69.4%	72.4%
Improvement in Dressing Upper Body	56 / 27 / 3170	.44 / .25	75.0%	66.2%	67.8%
Improvement in Dressing Lower Body	101 / 40 / 3818	1.00 / .74	77.2%	77.1%	75.7%
Improvement in Bathing	154 / 60 / 5339	.48 / .39	74.7%	80.7%	71.5%
Improvement in Toileting	49 / 15 / 1538	1.00 / .06*	65.3%	63.9%	77.1%
Improvement in Transferring	66 / 23 / 2987	.38 / .06*	75.8%	86.2%	65.0%
Improvement in Ambulation/Locomotion	103 / 44 / 4883	.03** / .51	38.8%	58.8%	42.0%
Improvement in Eating	44 / 16 / 1472	.23 / .89	68.2%	51.3%	67.1%
Improvement in Light Meal Preparation	159 / 64 / 4479	.99 / .00**	59.7%	60.7%	71.1%
Stabilization in Light Meal Preparation	116 / 62 / 5941	.33 / .01**	86.2%	92.1%	93.4%
Improvement in Laundry	191 / 89 / 6723	.58 / .12	45.0%	49.1%	50.7%
Improvement in Housekeeping	198 / 89 / 7006	.84 / .63	56.1%	54.0%	57.7%

Percent of Cases with Outcome (0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%)

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

Cardiac Patients' Outcome Report
Risk Adjusted

☐ **Current** ☑ **Adjusted prior** ■ **Reference**

	Cases	Signif.
End Result Outcomes:		
Stabilization in Shopping.............................	176	
	78	.10*
	5188	.00**
Improvement in Management of Oral Meds........	96	
	43	.71
	3698	.41
Stabilization in Management of Oral Meds.........	181	
	86	.60
	6321	.11
Improvement in Dyspnea..............................	124	
	66	.54
	5333	.69
Stabilization in Dyspnea..............................	198	
	92	.01**
	7313	.37
Improvement in Anxiety Level........................	109	
	53	.44
	3542	.99
Stabilization in Anxiety Level........................	201	
	92	.71
	7371	.04**

Stabilization in Shopping: 95.5%, 90.4%, 89.5%
Improvement in Management of Oral Meds: 46.9%, 41.6%, 42.7%
Stabilization in Management of Oral Meds: 93.9%, 92.1%, 90.6%
Improvement in Dyspnea: 58.9%, 53.7%, 60.6%
Stabilization in Dyspnea: 87.4%, 75.1%, 85.1%
Improvement in Anxiety Level: 41.3%, 48.4%, 41.2%
Stabilization in Anxiety Level: 87.6%, 86.1%, 82.2%

0%   10%   20%   30%   40%   50%   60%   70%   80%   90%   100%

Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

6.141

Agency: Faircare Home Health Services
Number of Cases in Report (Current) Period: 321
Number of Cases in Prior Period: 162
Number of Cases in Reference Sample: 13384

Date Report Printed: 02/28/2001
Report Period: 01/01/2000-12/31/2000
Prior Period: 01/01/1999-12/31/1999

Cardiac Patients' Outcome Report
Risk Adjusted

☐ **Current** ▨ **Adjusted prior** ■ **Reference**

	Cases	Signif.

Utilization Outcomes:

Any Emergent Care Provided..........................
- 319 — 33.5%
- 159 .06* — 42.9%
- 13096 .34 — 31.1%

Discharged to Community............................
- 321 — 62.3%
- 162 .42 — 58.1%
- 13353 .42 — 60.1%

Acute Care Hospitalization............................
- 321 — 36.4%
- 162 .77 — 38.5%
- 13384 .72 — 35.5%

Emergent Care: Pulmonary or Cardiac..............
- 319 — 18.8%
- 159 .83 — 20.1%
- 13096 .59 — 17.7%

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Percent of Cases with Outcome

* The probability is 10% or less that this difference is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.

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Section IV:

CASE MIX REPORTS

Agency: Faircare Home Health Services
Number of Cases in Current Period: 901
Number of Cases in Prior Period: 601
Number of Cases in Reference Sample: 37765

Date Report Printed: 02/28/2001
Current Period: 01/01/2000-12/31/2000
Prior Report Period: 01/01/1999-12/31/1999

All Patients' Case Mix Profile at Start/Resumption of Care

	Means					Means		
	Current	Prior[1]	Reference[2]			Current	Prior[1]	Reference[2]
Demographics					**ADL Status Prior to SOC/ROC**			
Age (average in years)	75.9	70.7 **	73.0 ‡		Grooming (0-3, scale average)	0.56	0.66 *	0.53
Gender: Female (%)	68.2%	69.4%	62.7% ‡		Dress upper body (0-3, scale avg.)	0.32	0.35	0.36 ‡
Race: Black (%)	0.4%	1.7% *	13.0% ‡		Dress lower body (0-3, scale avg.)	0.73	0.70	0.65
Race: White (%)	98.8%	97.5%	82.7% ‡		Bathing (0-5, scale average)	1.29	1.33	1.30
Race: Other (%)	0.8%	0.8%	4.3% ‡		Toileting (0-4, scale average)	0.43	0.39	0.38
					Transferring (0-5, scale average)	0.39	0.38	0.47 ‡
Payment Source					Ambulation (0-5, scale average)	0.72	0.70	0.73
Any Medicare (%)	93.7%	80.4% **	82.8% ‡		Eating (0-5, scale average)	0.22	0.22	0.23
Any Medicaid (%)	8.3%	12.9% **	14.6% ‡					
Any HMO (%)	3.8%	3.0%	8.8% ‡		**IADL Disabilities at SOC/ROC**			
Medicare HMO (%)	2.2%	1.3%	3.8% †		Light meal prep (0-2, scale avg.)	1.29	1.02 **	0.96 ‡
Any third party (%)	17.9%	19.9%	20.2%		Transportation (0-2, scale avg.)	1.13	1.05 **	1.01 ‡
					Laundry (0-2, scale average)	1.72	1.62 **	1.58 ‡
Current Residence					Housekeeping (0-4, scale avg.)	3.14	2.89 **	2.79 ‡
Own home (%)	74.7%	74.1%	79.3% ‡		Shopping (0-3, scale average)	2.08	2.10	2.12 ‡
Family member home (%)	22.5%	20.5%	13.8% ‡		Phone use (0-5, scale average)	0.58	0.63	0.72 †
					Mgmt. oral meds (0-2, scale avg.)	0.66	0.69	0.71
Current Living Situation								
Lives alone (%)	27.4%	28.6%	29.2%		**IADL Status Prior to SOC/ROC**			
With family member (%)	65.8%	66.7%	63.5%		Light meal prep (0-2, scale avg.)	0.80	0.65 **	0.62 ‡
With friend (%)	1.6%	1.3%	1.6%		Transportation (0-2, scale avg.)	0.81	0.78	0.71 ‡
With paid help (%)	4.1%	2.3%	5.0%		Laundry (0-2, scale average)	1.16	1.10	1.03 ‡
					Housekeeping (0-4, scale avg.)	2.09	1.93	1.83 ‡
Assisting Persons					Shopping (0-3, scale average)	1.35	1.45	1.37
Person residing in home (%)	60.5%	57.0%	55.1% ‡		Phone use (0-5, scale average)	0.49	0.49	0.60 †
Person residing outside home (%)	36.0%	44.3% **	53.4% ‡		Mgmt. oral meds (0-2, scale avg.)	0.51	0.53	0.56
Paid help (%)	10.5%	9.3%	14.0% †					
					Respiratory Status			
Primary Caregiver					Dyspnea (0-4, scale average)	1.30	1.33	1.17
Spouse/significant other (%)	29.8%	31.0%	31.9%					
Daughter/son (%)	35.3%	33.0%	26.0% ‡		**Therapies Received at Home**			
Paid help (%)	6.3%	3.7% *	6.5%		IV/infusion therapy (%)	1.3%	4.3% **	3.8% ‡
No one person (%)	19.2%	21.7%	23.2% †		Parenteral nutrition (%)	0.3%	0.5%	0.4%
					Enteral nutrition (%)	1.3%	2.2%	1.8%
Primary Caregiver Assistance								
Freq. of assistance (0-6, scale avg.)	4.17	4.11	3.97		**Sensory Status**			
					Vision impairment (0-2, scale avg.)	0.30	0.32	0.28
Inpatient DC within 14 Days of SOC/ROC					Hearing impair. (0-4, scale avg.)	0.41	0.38	0.44
From hospital (%)	70.7%	69.1%	67.4%		Speech/language (0-5, scale avg.)	0.45	0.45	0.46
From rehab facility (%)	5.1%	7.2%	7.1%					
From nursing home (%)	2.2%	1.8%	3.1%		**Pain**			
					Pain interf. w/activity (0-3, scale avg.)	0.77	0.95 **	1.08 ‡
Med. Reg. Chg. w/in 14 Days of SOC/ROC					Intractable pain (%)	6.9%	14.0% **	10.4% ‡
Medical regimen change (%)	64.0%	67.7%	80.0% ‡					
					Neuro/Emotional/Behavioral Status			
Prognoses					Moderate cognitive disability (%)	11.3%	10.8%	11.8%
Moderate recovery prognosis (%)	88.1%	85.3%	86.6%		Severe confusion disability (%)	7.4%	5.7%	9.5%
Good rehab prognosis (%)	78.2%	62.6% **	69.7% ‡		Severe anxiety level (%)	11.2%	16.7% **	18.7% ‡
					Behav probs > twice a week (%)	11.3%	14.0%	5.1% ‡
ADL Disabilities at SOC/ROC								
Grooming (0-3, scale average)	0.91	1.02	0.84		**Integumentary Status**			
Dress upper body (0-3, scale avg.)	0.51	0.56	0.58 ‡		Presence of wound/lesion (%)	35.2%	31.6%	33.0%
Dress lower body (0-3, scale avg.)	1.25	1.22	1.13 †		Stasis ulcer(s) present (%)	2.6%	3.7%	2.4%
Bathing (0-5, scale average)	2.26	2.15	2.15		Surgical wound(s) present (%)	25.8%	21.1% *	22.9%
Toileting (0-4, scale average)	0.69	0.63	0.55 ‡		Pressure ulcer(s) present (%)	8.7%	8.2%	5.1% ‡
Transferring (0-5, scale average)	0.64	0.64	0.71 ‡		Stage 2-4 ulcer(s) present (%)	7.2%	6.5%	4.2% ‡
Ambulation (0-5, scale average)	1.01	1.05	1.08 ‡		Stage 3-4 ulcer(s) present (%)	3.0%	4.0%	1.4% ‡
Eating (0-5, scale average)	0.34	0.33	0.34					

All Patients' Case Mix Profile at Start/Resumption of Care

	Means					Means		
	Current	Prior[1]	Reference[2]			Current	Prior[1]	Reference[2]
Elimination Status				**Diagnoses For Which Patients Are**				
UTI within past 14 days (%)	7.2%	22.5% **	8.6%	**Receiving Home Care**				
Urinary incont./catheter present (%)	15.6%	16.4%	18.4%	Infections/parasitic diseases (%)		3.3%	13.0% **	3.2%
Incontinent day and night (%)	7.9%	10.0%	11.1% †	Neoplasms (%)		12.4%	11.8%	12.0%
Urinary catheter (%)	4.6%	6.0%	5.5%	Endocrine/nutrit./metabolic (%)		37.3%	29.0% **	28.5% ‡
Bowel incont. (0-5, scale avg.)	0.27	0.29	0.25	Blood diseases (%)		9.2%	8.2%	5.2% ‡
				Mental diseases (%)		18.0%	20.1%	11.3% ‡
Acute Conditions				Nervous system diseases (%)		14.4%	13.8%	9.7% ‡
Orthopedic (%)	19.6%	18.5%	20.4%	Circulatory system diseases (%)		74.7%	61.6% **	57.2% ‡
Neurologic (%)	9.2%	13.1% *	9.3%	Respiratory system diseases (%)		28.5%	24.3%	18.3% ‡
Open wounds/lesions (%)	35.5%	33.0%	33.5%	Digestive system diseases (%)		20.8%	13.8% **	11.5% ‡
Terminal condition (%)	3.6%	5.7% *	3.8%	Genitourinary sys. diseases (%)		10.3%	10.7%	10.9%
Cardiac/peripheral vascular (%)	35.6%	27.0% **	31.9%	Pregnancy problems (%)		0.1%	0.5%	0.2%
Pulmonary (%)	21.4%	17.3%	16.5% ‡	Skin/subcutaneous diseases (%)		6.5%	6.2%	8.1%
Diabetes mellitus (%)	7.6%	7.7%	8.4%	Musculoskeletal sys. diseases (%)		29.7%	26.1%	22.1% ‡
Gastrointestinal disorder (%)	11.0%	12.5%	11.3%	Congenital anomalies (%)		2.0%	1.8%	0.8%
Contagious/communicable (%)	2.3%	9.8% **	1.7%	Ill-defined conditions (%)		27.3%	24.1%	18.5% ‡
Urinary incont./catheter (%)	5.8%	6.0%	8.3% †	Fractures (%)		9.5%	12.0%	10.5%
Mental/emotional (%)	5.0%	9.3% **	2.5% ‡	Intracranial injury (%)		0.1%	0.2%	0.3%
Oxygen therapy (%)	13.8%	11.2%	11.8%	Other injury (%)		8.8%	9.5%	6.2% †
IV/infusion therapy (%)	1.3%	4.3% **	3.8% ‡	Iatrogenic conditions (%)		1.2%	2.2%	2.9% †
Enteral/parenteral nutrition (%)	1.7%	2.7%	2.1%					
Ventilator (%)	0.1%	0.0%	0.1%					
				Length of Stay				
Chronic Conditions				LOS until discharge (avg. in days)		43.1	49.5 *	39.6 ‡
Dependence in living skills (%)	51.3%	42.1% **	39.4% ‡	LOS from 1 to 31 days (%)		49.4%	46.6%	55.3% ‡
Dependence in personal care (%)	36.3%	37.9%	31.1% ‡	LOS from 32 to 62 days (%)		33.5%	28.0% *	29.2% †
Impaired ambulation/mobility (%)	13.1%	14.0%	13.9%	LOS from 63 to 124 days (%)		12.1%	17.8% **	11.3%
Eating disability (%)	3.4%	4.2%	3.5%	LOS more than 124 days (%)		5.0%	7.7% *	4.2%
Urinary incontinence/catheter (%)	12.7%	13.1%	14.8%					
Dependence in med. admin. (%)	41.5%	44.1%	41.3%					
Chronic pain (%)	3.3%	7.7% **	4.7%					
Cognitive/mental/behavioral (%)	27.4%	28.6%	22.2% ‡					
Chronic pt. with caregiver (%)	43.8%	40.4%	34.4% ‡					

[1] The asterisks represent the significance levels of the current and prior data comparisons.
    * The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
    ** The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
[2] The daggers represent the significance levels of the current and reference data comparisons.
    † The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
    ‡ The probability is 0.1% or less that this difference is due to chance, and 99.9% or more that the difference is real.

Agency: Faircare Home Health Services
Number of Cases in Current Period: 177
Number of Cases in Prior Period: 111
Number of Cases in Reference Sample: 7721

Date Report Printed: 02/28/2001
Current Period: 01/01/2000-12/31/2000
Prior Report Period: 01/01/1999-12/31/1999

Orthopedic Patients' Case Mix Profile at Start/Resumption of Care

	Means					Means		
	Current	Prior[1]	Reference[2]			Current	Prior[1]	Reference[2]
Demographics				**ADL Status Prior to SOC/ROC**				
Age (average in years)	76.5	71.9 *	73.4 ‡	Grooming (0-3, scale average)		0.37	0.45	0.36
Gender: Female (%)	70.1%	79.3%	70.6%	Dress upper body (0-3, scale avg.)		0.26	0.23	0.26
Race: Black (%)	0.6%	4.5% *	8.0% ‡	Dress lower body (0-3, scale avg.)		0.66	0.50	0.52
Race: White (%)	98.9%	95.5%	88.9% ‡	Bathing (0-5, scale average)		0.99	1.02	1.01
Race: Other (%)	0.6%	0.0%	3.1%	Toileting (0-4, scale average)		0.36	0.25	0.26
				Transferring (0-5, scale average)		0.32	0.26	0.38
Payment Source				Ambulation (0-5, scale average)		0.64	0.59	0.60
Any Medicare (%)	93.8%	80.2% **	3.8% ‡	Eating (0-5, scale average)		0.15	0.11	0.13
Any Medicaid (%)	7.3%	5.4%	0.0% ‡					
Any HMO (%)	4.0%	2.7%	7.9%	**IADL Disabilities at SOC/ROC**				
Medicare HMO (%)	2.8%	0.0%	3.8%	Light meal prep (0-2, scale avg.)		1.41	1.19 *	0.98 ‡
Any third party (%)	19.8%	29.7%	27.7%	Transportation (0-2, scale avg.)		1.15	1.06	1.03 ‡
				Laundry (0-2, scale average)		1.80	1.62 **	1.67 ‡
Current Residence				Housekeeping (0-4, scale avg.)		3.22	2.91 *	2.93 †
Own home (%)	73.5%	73.0%	80.7% ‡	Shopping (0-3, scale average)		2.03	2.08	2.18 ‡
Family member home (%)	23.2%	20.7%	12.9% ‡	Phone use (0-5, scale average)		0.40	0.34	0.44
				Mgmt. oral meds (0-2, scale avg.)		0.48	0.51	0.51
Current Living Situation								
Lives alone (%)	24.9%	22.5%	31.9%	**IADL Status Prior to SOC/ROC**				
With family member (%)	67.8%	73.9%	62.1%	Light meal prep (0-2, scale avg.)		0.67	0.54	0.44 ‡
With friend (%)	2.3%	2.7%	1.7%	Transportation (0-2, scale avg.)		0.69	0.74	0.58 †
With paid help (%)	4.0%	0.9%	3.7%	Laundry (0-2, scale average)		0.92	0.85	0.78
				Housekeeping (0-4, scale avg.)		1.74	1.38	1.39 †
Assisting Persons				Shopping (0-3, scale average)		1.03	1.09	1.04
Person residing in home (%)	60.5%	61.3%	54.5%	Phone use (0-5, scale average)		0.31	0.17	0.35
Person residing outside home (%)	35.6%	36.9%	54.2% ‡	Mgmt. oral meds (0-2, scale avg.)		0.35	0.32	0.38
Paid help (%)	10.2%	7.2%	12.3%					
				Respiratory Status				
Primary Caregiver				Dyspnea (0-4, scale average)		0.90	0.99	0.83
Spouse/significant other (%)	35.6%	40.5%	32.7%					
Daughter/son (%)	29.4%	34.2%	25.5%	**Therapies Received at Home**				
Paid help (%)	7.9%	1.8% *	5.4%	IV/infusion therapy (%)		0.6%	4.5% *	2.9%
No one person (%)	18.1%	16.2%	23.4%	Parenteral nutrition (%)		0.0%	0.0%	0.1%
				Enteral nutrition (%)		0.0%	0.0%	0.4%
Primary Caregiver Assistance								
Freq. of assistance (0-6, scale avg.)	4.29	4.40	4.15	**Sensory Status**				
				Vision impairment (0-2, scale avg.)		0.20	0.32 *	0.21
Inpatient DC within 14 Days of SOC/ROC				Hearing impair. (0-4, scale avg.)		0.32	0.34	0.37
From hospital (%)	71.2%	70.3%	64.5%	Speech/language (0-5, scale avg.)		0.27	0.22	0.28
From rehab facility (%)	15.3%	18.0%	18.0%					
From nursing home (%)	6.2%	2.7%	5.4%	**Pain**				
				Pain interfer. w/activity (0-3, scale avg.)		1.15	1.39 *	1.62 ‡
Med. Reg. Chg. w/in 14 Days of SOC/ROC				Intractable pain (%)		7.9%	21.6% **	17.3% ‡
Medical regimen change (%)	74.0%	81.1%	84.5% ‡					
				Neuro/Emotional/Behavioral Status				
Prognoses				Moderate cognitive disability (%)		5.1%	1.8%	6.9%
Moderate recovery prognosis (%)	95.4%	94.4%	93.8%	Severe confusion disability (%)		3.4%	1.8%	6.0%
Good rehab prognosis (%)	91.2%	82.1% *	84.0% †	Severe anxiety level (%)		6.8%	13.6%	14.5% †
				Behav probs > twice a week (%)		8.5%	6.3%	3.4% ‡
ADL Disabilities at SOC/ROC								
Grooming (0-3, scale average)	0.94	1.04	0.82	**Integumentary Status**				
Dress upper body (0-3, scale avg.)	0.53	0.63	0.61	Presence of wound/lesion (%)		55.9%	40.5% *	40.0% ‡
Dress lower body (0-3, scale avg.)	1.66	1.47	1.36 ‡	Stasis ulcer(s) present (%)		2.8%	2.7%	1.0%
Bathing (0-5, scale average)	2.42	2.42	2.48	Surgical wound(s) present (%)		49.7%	35.1% *	33.3% ‡
Toileting (0-4, scale average)	0.95	0.77	0.55 ‡	Pressure ulcer(s) present (%)		9.6%	2.7% *	4.2% †
Transferring (0-5, scale average)	0.73	0.73	0.85	Stage 2-4 ulcer(s) present (%)		8.5%	2.7%	3.4% ‡
Ambulation (0-5, scale average)	1.23	1.28	1.23	Stage 3-4 ulcer(s) present (%)		4.0%	1.8%	0.9% ‡
Eating (0-5, scale average)	0.33	0.28	0.27					

Agency: Faircare Home Health Services
Number of Cases in Current Period: 177
Number of Cases in Prior Period: 111
Number of Cases in Reference Sample: 7721

Date Report Printed: 02/28/2001
Current Period: 01/01/2000-12/31/2000
Prior Report Period: 01/01/1999-12/31/1999

Orthopedic Patients' Case Mix Profile at Start/Resumption of Care

Elimination Status	Current	Prior[1]	Reference[2]
UTI within past 14 days (%)	6.9%	18.0% **	7.5%
Urinary incont./catheter present (%)	13.0%	15.3%	0.0% ‡
Incontinent day and night (%)	4.5%	9.0%	8.6%
Urinary catheter (%)	4.0%	2.7%	2.6%
Bowel incont. (0-5, scale avg.)	0.13	0.17	0.14
Acute Conditions			
Orthopedic (%)	100.0%	100.0%	100.0%
Neurologic (%)	6.8%	10.8%	5.2%
Open wounds/lesions (%)	56.5%	40.5% **	40.4% ‡
Terminal condition (%)	3.4%	4.5%	1.7%
Cardiac/peripheral vascular (%)	19.8%	18.9%	15.7%
Pulmonary (%)	12.4%	9.9%	6.0% ‡
Diabetes mellitus (%)	6.2%	8.1%	4.4%
Gastrointestinal disorder (%)	9.6%	8.1%	4.5% †
Contagious/communicable (%)	1.1%	9.0% **	0.8%
Urinary incont./catheter (%)	5.7%	6.3%	7.9%
Mental/emotional (%)	1.1%	1.8%	1.4%
Oxygen therapy (%)	5.7%	2.7%	4.8%
IV/infusion therapy (%)	0.6%	4.5% *	2.9%
Enteral/parenteral nutrition (%)	0.0%	0.0%	0.5%
Ventilator (%)	0.0%	0.0%	0.1%
Chronic Conditions			
Dependence in living skills (%)	41.2%	33.3%	28.1% ‡
Dependence in personal care (%)	27.7%	26.1%	24.7%
Impaired ambulation/mobility (%)	11.3%	8.1%	9.9%
Eating disability (%)	1.7%	1.8%	1.4%
Urinary incontinence/catheter (%)	7.3%	8.1%	9.9%
Dependence in med. admin. (%)	26.0%	33.3%	28.2%
Chronic pain (%)	5.7%	7.2%	7.9%
Cognitive/mental/behavioral (%)	19.2%	15.3%	15.2%
Chronic pt. with caregiver (%)	33.9%	35.1%	27.3%

Diagnoses For Which Patients Are Receiving Home Care	Current	Prior[1]	Reference[2]
Infections/parasitic diseases (%)	1.7%	11.7% **	1.0%
Neoplasms (%)	4.0%	2.7%	3.7%
Endocrine/nutrit./metabolic (%)	9.0%	9.0%	9.9%
Blood diseases (%)	5.1%	3.6%	5.0%
Mental diseases (%)	4.5%	3.6%	5.2%
Nervous system diseases (%)	4.5%	6.3%	5.5%
Circulatory system diseases (%)	23.2%	22.5%	22.6%
Respiratory system diseases (%)	8.5%	6.3%	6.2%
Digestive system diseases (%)	6.2%	5.4%	5.1%
Genitourinary sys. diseases (%)	1.1%	2.7%	3.3%
Pregnancy problems (%)	0.0%	0.0%	0.1%
Skin/subcutaneous diseases (%)	6.2%	0.9% *	3.3%
Musculoskeletal sys. diseases (%)	41.8%	31.5%	58.6% ‡
Congenital anomalies (%)	0.6%	0.9%	0.5%
Ill-defined conditions (%)	14.1%	13.5%	14.6%
Fractures (%)	19.8%	30.6% *	29.0% †
Intracranial injury (%)	0.0%	0.0%	0.3%
Other injury (%)	6.2%	3.6%	4.8%
Iatrogenic conditions (%)	0.0%	0.0%	1.4%
Length of Stay			
LOS until discharge (avg. in days)	41.4	47.6	39.0
LOS from 1 to 31 days (%)	45.8%	46.0%	53.3%
LOS from 32 to 62 days (%)	39.6%	31.5%	33.1%
LOS from 63 to 124 days (%)	11.9%	15.3%	10.6%
LOS more than 124 days (%)	2.8%	7.2%	3.0%

1 The asterisks represent the significance levels of the current and prior data comparisons.
* The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
** The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
2 The daggers represent the significance levels of the current and reference data comparisons.
† The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
‡ The probability is 0.1% or less that this difference is due to chance, and 99.9% or more that the difference is real.

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Agency: Faircare Home Health Services
Number of Cases in Current Period: 321
Number of Cases in Prior Period: 162
Number of Cases in Reference Sample: 12029

Date Report Printed: 02/28/2001
Current Period: 01/01/2000-12/31/2000
Prior Report Period: 01/01/1999-12/31/1999

Cardiac Patients' Case Mix Profile at Start/Resumption of Care

	Means		
	Current	Prior[1]	Reference[2]
Demographics			
Age (average in years)	75.8	75.3	75.6
Gender: Female (%)	65.7%	67.9%	61.3%
Race: Black (%)	0.3%	1.9%	14.6% ‡
Race: White (%)	99.1%	96.3%	80.5% ‡
Race: Other (%)	0.6%	1.9%	4.9% ‡
Payment Source			
Any Medicare (%)	94.4%	88.3% *	4.2% ‡
Any Medicaid (%)	6.9%	8.0%	0.0% ‡
Any HMO (%)	5.9%	3.1%	7.5%
Medicare HMO (%)	4.4%	1.9%	4.2%
Any third party (%)	17.8%	18.5%	22.8%
Current Residence			
Own home (%)	75.4%	76.4%	79.8%
Family member home (%)	22.1%	19.3%	14.5%
Current Living Situation			
Lives alone (%)	25.2%	32.1%	30.9%
With family member (%)	69.2%	63.6%	63.2%
With friend (%)	0.9%	1.2%	1.4%
With paid help (%)	3.4%	3.7%	4.0%
Assisting Persons			
Person residing in home (%)	62.8%	53.7%	55.1% †
Person residing outside home (%)	35.3%	41.4%	55.7% ‡
Paid help (%)	8.8%	10.5%	12.7%
Primary Caregiver			
Spouse/significant other (%)	32.6%	21.0% **	31.6%
Daughter/son (%)	36.4%	39.5%	29.4% †
Paid help (%)	4.1%	3.7%	5.4%
No one person (%)	20.4%	27.2%	22.0%
Primary Caregiver Assistance			
Freq. of assistance (0-6, scale avg.)	4.15	3.80	4.16
Inpatient DC within 14 Days of SOC/ROC			
From hospital (%)	92.2%	89.5%	81.3% ‡
From rehab facility (%)	2.8%	3.7%	5.8%
From nursing home (%)	1.9%	0.6%	3.3%
Med. Reg. Chg. w/in 14 Days of SOC/ROC			
Medical regimen change (%)	76.6%	81.5%	90.5% ‡
Prognoses			
Moderate recovery prognosis (%)	90.6%	85.3%	88.2%
Good rehab prognosis (%)	81.2%	68.8% **	69.7% ‡
ADL Disabilities at SOC/ROC			
Grooming (0-3, scale average)	0.76	1.06 **	0.83
Dress upper body (0-3, scale avg.)	0.40	0.54 *	0.58 ‡
Dress lower body (0-3, scale avg.)	1.11	1.23	1.09
Bathing (0-5, scale average)	2.20	2.12	2.11
Toileting (0-4, scale average)	0.56	0.54	0.47
Transferring (0-5, scale average)	0.50	0.52	0.63 †
Ambulation (0-5, scale average)	0.80	0.91	1.00 ‡
Eating (0-5, scale average)	0.24	0.36	0.29

	Means		
	Current	Prior[1]	Reference[2]
ADL Status Prior to SOC/ROC			
Grooming (0-3, scale average)	0.40	0.65 **	0.51
Dress upper body (0-3, scale avg.)	0.22	0.36 **	0.35 ‡
Dress lower body (0-3, scale avg.)	0.58	0.76	0.63
Bathing (0-5, scale average)	1.12	1.31	1.28
Toileting (0-4, scale average)	0.29	0.36	0.32
Transferring (0-5, scale average)	0.25	0.30	0.41 ‡
Ambulation (0-5, scale average)	0.53	0.62	0.69 ‡
Eating (0-5, scale average)	0.13	0.22	0.20 ‡
IADL Disabilities at SOC/ROC			
Light meal prep (0-2, scale avg.)	1.29	1.12 *	0.94 ‡
Transportation (0-2, scale avg.)	1.12	1.05	1.02 ‡
Laundry (0-2, scale average)	1.72	1.69	1.61 ‡
Housekeeping (0-4, scale avg.)	3.16	2.92 *	2.83 ‡
Shopping (0-3, scale average)	2.07	2.08	2.14
Phone use (0-5, scale average)	0.43	0.60	0.65 ‡
Mgmt. oral meds (0-2, scale avg.)	0.67	0.71	0.76
IADL Status Prior to SOC/ROC			
Light meal prep (0-2, scale avg.)	0.75	0.64	0.60 ‡
Transportation (0-2, scale avg.)	0.76	0.79	0.73
Laundry (0-2, scale average)	1.13	1.14	1.06
Housekeeping (0-4, scale avg.)	2.03	1.96	1.87
Shopping (0-3, scale average)	1.25	1.38	1.39
Phone use (0-5, scale average)	0.32	0.46	0.53 ‡
Mgmt. oral meds (0-2, scale avg.)	0.48	0.50	0.58 †
Respiratory Status			
Dyspnea (0-4, scale average)	1.50	1.80 *	1.43
Therapies Received at Home			
IV/infusion therapy (%)	0.9%	1.9%	1.7%
Parenteral nutrition (%)	0.0%	0.0%	0.1%
Enteral nutrition (%)	0.0%	1.2%	0.8%
Sensory Status			
Vision impairment (0-2, scale avg.)	0.32	0.43 *	0.29
Hearing impair. (0-4, scale avg.)	0.39	0.31	0.46
Speech/language (0-5, scale avg.)	0.33	0.40	0.42
Pain			
Pain interfer. w/activity (0-3, scale avg.)	0.65	0.78	0.95 ‡
Intractable pain (%)	5.3%	8.0%	7.6%
Neuro/Emotional/Behavioral Status			
Moderate cognitive disability (%)	7.5%	6.8%	9.9%
Severe confusion disability (%)	5.0%	3.7%	7.8%
Severe anxiety level (%)	7.5%	9.3%	18.3% ‡
Behav probs > twice a week (%)	7.5%	9.9%	4.2% †
Integumentary Status			
Presence of wound/lesion (%)	38.3%	32.7%	31.2% †
Stasis ulcer(s) present (%)	2.8%	4.9%	3.5%
Surgical wound(s) present (%)	31.2%	22.2% *	21.6% ‡
Pressure ulcer(s) present (%)	9.4%	8.0%	4.5% ‡
Stage 2-4 ulcer(s) present (%)	7.5%	5.6%	3.6% ‡
Stage 3-4 ulcer(s) present (%)	2.2%	4.3%	1.0%

Cardiac Patients' Case Mix Profile at Start/Resumption of Care

	Means					Means		
	Current	Prior[1]	Reference[2]			Current	Prior[1]	Reference[2]
Elimination Status				**Diagnoses For Which Patients Are**				
UTI within past 14 days (%)	8.3%	13.8%	8.1%	**Receiving Home Care**				
Urinary incont./catheter present (%)	14.6%	18.5%	0.0% ‡	Infections/parasitic diseases (%)		1.6%	1.9%	1.4%
Incontinent day and night (%)	5.9%	8.6%	10.3% †	Neoplasms (%)		3.1%	4.3%	4.8%
Urinary catheter (%)	3.4%	3.7%	3.4%	Endocrine/nutrit./metabolic (%)		15.0%	13.0%	21.4% †
Bowel incont. (0-5, scale avg.)	0.15	0.23	0.20	Blood diseases (%)		2.5%	4.9%	6.5% †
				Mental diseases (%)		8.1%	5.6%	6.4%
Acute Conditions				Nervous system diseases (%)		6.2%	7.4%	4.8%
Orthopedic (%)	10.9%	13.0%	10.1%	Circulatory system diseases (%)		54.8%	53.1%	82.5% ‡
Neurologic (%)	6.2%	13.0% *	8.1%	Respiratory system diseases (%)		15.9%	14.8%	18.0%
Open wounds/lesions (%)	38.3%	33.3%	31.5% †	Digestive system diseases (%)		5.6%	6.2%	6.7%
Terminal condition (%)	2.8%	4.3%	3.2%	Genitourinary sys. diseases (%)		5.0%	4.3%	7.8%
Cardiac/peripheral vascular (%)	100.0%	100.0%	100.0%	Pregnancy problems (%)		0.0%	0.0%	0.1%
Pulmonary (%)	23.7%	21.6%	18.6%	Skin/subcutaneous diseases (%)		2.8%	1.9%	4.7%
Diabetes mellitus (%)	9.7%	8.0%	11.9%	Musculoskeletal sys. diseases (%)		10.6%	12.4%	11.9%
Gastrointestinal disorder (%)	6.5%	8.0%	7.4%	Congenital anomalies (%)		0.0%	1.2%	0.5%
Contagious/communicable (%)	1.6%	3.1%	1.1%	Ill-defined conditions (%)		15.9%	11.1%	15.2%
Urinary incont./catheter (%)	5.6%	4.3%	8.3%	Fractures (%)		2.2%	4.9%	3.0%
Mental/emotional (%)	2.5%	1.2%	1.6%	Intracranial injury (%)		0.0%	0.0%	0.1%
Oxygen therapy (%)	17.1%	14.2%	15.4%	Other injury (%)		4.7%	4.9%	3.5%
IV/infusion therapy (%)	0.9%	1.9%	1.7%	Iatrogenic conditions (%)		0.9%	0.6%	1.7%
Enteral/parenteral nutrition (%)	0.0%	1.2%	0.9%					
Ventilator (%)	0.0%	0.0%	0.1%					
				Length of Stay				
Chronic Conditions				LOS until discharge (avg. in days)		39.0	49.1 *	40.6
Dependence in living skills (%)	44.6%	40.1%	38.2%	LOS from 1 to 31 days (%)		54.2%	47.5%	53.1%
Dependence in personal care (%)	28.4%	35.2%	29.7%	LOS from 32 to 62 days (%)		30.5%	28.4%	31.2%
Impaired ambulation/mobility (%)	8.7%	13.0%	11.5%	LOS from 63 to 124 days (%)		11.5%	16.7%	11.5%
Eating disability (%)	0.9%	4.3% *	2.1%	LOS more than 124 days (%)		3.7%	7.4%	4.2%
Urinary incontinence/catheter (%)	8.4%	13.6%	12.1%					
Dependence in med. admin. (%)	40.2%	43.2%	43.2%					
Chronic pain (%)	0.6%	3.1% *	2.5%					
Cognitive/mental/behavioral (%)	24.3%	27.8%	20.6%					
Chronic pt. with caregiver (%)	43.0%	36.4%	34.1% ‡					

1 The asterisks represent the significance levels of the current and prior data comparisons.
   * The probability is 5% or less that this difference is due to chance, and 95% or more that the difference is real.
   ** The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
2 The daggers represent the significance levels of the current and reference data comparisons.
   † The probability is 1% or less that this difference is due to chance, and 99% or more that the difference is real.
   ‡ The probability is 0.1% or less that this difference is due to chance, and 99.9% or more that the difference is real.

SECTION C

**Illustrative Consumer Response and Satisfaction Reports
and
Adverse Event Reports, and Guidelines for Their Review**

Consumer Response and Satisfaction and Adverse Event Reports

Faircare Home Health Services

The National Medicare Quality and Improvement Demonstration

April 28, 2000

Florence Nightingale, Administrator
Faircare Home Health Services
100 Main Street
Centerville, USA

Dear Miss Nightingale:

Enclosed are two reports that complement the outcome and case mix reports we sent to your agency in February 2000. These documents can be used to supplement your agency's quality improvement activities. We are sending these additional reports at this time because we did not want to inundate you in February with reports and information that would distract you from conducting your process-of-care analyses and developing plans of action for your target outcomes.

These reports contain the findings from the Telephone Interview Questionnaires (TIQs) and selected results on adverse events. We refer to these documents as your *Consumer Response and Satisfaction Report* and *Adverse Event Report*, respectively. The nature and utility of each of these reports are addressed in this cover letter. The guidelines immediately preceding each report provide additional information that should help you in interpreting each report's findings.

Consumer Response and Satisfaction Report: This report includes the results from the TIQs administered by your staff. It contains relatively straightforward statistics that enable you to compare your patients' responses across 12 different dimensions of consumer satisfaction such as courtesy and respect shown by your providers, thoroughness and completeness of visits, whether the patient would recommend your agency, and overall level of satisfaction. "Consumer" refers to a patient or caregiver. Recall that the TIQ was administered to caregivers in instances where patients were either unavailable or unable to respond. You can also compare your consumers' responses to those of the reference group (consumers from all national demonstration agencies to whom the TIQ was administered) although no single agency was allowed to contribute more than 10% to the reference sample.

In analyzing the TIQ data and other satisfaction and consumer response surveys over a number of years, we have observed that responses to such surveys tend to be significantly influenced by factors such as geographic location, personality traits (for which one cannot easily risk adjust—unlike the more objectively measured risk factors used to adjust the outcome measures used in your outcome reports), and interaction between location and personality traits. Geographic location seems to be important because there are often cultural or community characteristics that influence the "mind set" of consumers (globally, at times) in a given location or catchment area that might be served by your agency. As you know from your own experiences, personality also is important in responding to these types of surveys. Some individuals tend to be fairly positive or upbeat by nature, while others are less inclined to look on the bright side or perhaps even be downright cranky in response to such surveys – under the very same circumstances relative to the care received. Risk adjusting for personality traits and community mores or culture is well beyond the scope of even this relatively comprehensive demonstration program that focuses primarily on end-result and utilization outcomes (i.e., changes in health status and other events that reflect such changes).

Because of these issues related to location and personality, the most appropriate use of the *Consumer Response and Satisfaction Reports* should focus on comparing the findings among different dimensions of consumer response for your agency (rather than between your agency and the reference group). This will enable you to identify areas of greatest concern as well as the areas in which you are strong, in the opinions of your consumers.

Overall, we note that agency sample sizes for these reports were small, which limits the reliability of statistical comparisons with the reference group. You should take this into consideration in interpreting the findings presented in this portion of your *Consumer Response and Satisfaction Report*.

Adverse Event Report: The term "adverse event" is used here to mean a negative or untoward event that reflects a relatively serious health problem or decline in health status for an individual patient. Adverse events are low frequency events and, therefore, do not lend themselves readily to risk adjustment as is the case with other outcome measures. In the interest of providing you with information on important low frequency events that you might want to monitor or investigate in the context of your total quality assurance and improvement program, this report provides you with findings on 13 adverse events: (1) emergent care for injury caused by fall or accident at home, (2) emergent care for wound infections, deteriorating wound status, (3) emergent care for improper medication administration, medication side effects, (4) emergent care for hypo/hyperglycemia, (5) development of urinary tract infection, (6) increase in number of pressure ulcers, (7) substantial decline in three or more activities of daily living, (8) substantial decline in management of oral medications, (9) unexpected nursing home admission, (10) unexpected death, (11) discharged to the community needing wound care or medication assistance, (12) discharged to the community needing toileting assistance, and (13) discharged to the community with behavioral problems. For all agencies in the demonstration program, the frequency of occurrence of these events is quite low, with the average incidence figure approximately 2% or lower for all 13 adverse events for which results appear in this report.

For each of the 13 adverse events, the report provides the number of "complete data" cases (i.e., the number of cases for which you submitted data on the appropriate OASIS items), the number of these cases for which the event occurred at your agency, the incidence of the event in percentage terms for your agency, and the incidence of the event for a reference sample of patients in the demonstration program. This enables you to compare your incidence rate to the incidence rate for all agencies participating in the national demonstration, the reference group (although no agency was allowed to contribute more than 5% to the reference sample). As noted, your incidence rate is not risk-adjusted because it is not typically possible to risk adjust infrequently occurring events with adequate precision.

An enumeration of all patients for whom the adverse event occurred in your agency is located underneath the row that contains statistics on the number of cases and incidence rates. Information is provided in terms of patient identification number, agency branch (if applicable), and start of care/resumption of care and discharge/transfer dates for each patient.

The information in your *Adverse Event Report* should be viewed differently from the information in the outcome reports you received earlier. Specifically, the occurrence of any adverse event for a patient ought to be of some concern and, depending on the size of your agency, may warrant investigation as time permits – to determine why the adverse event occurred and whether it might have been prevented with a different approach to providing care. Unlike your outcome reports that are more statistical in nature (they provide you with a rate for each outcome measure – but not an enumeration of all patients who attained the outcome), the *Adverse Event Report* is designed to provide you with information on negative or untoward events that might warrant investigation. If you choose to investigate them, please note that you do not need to go through any type of sampling procedure other than selecting patients directly from

the list of those identified in your *Adverse Event Report* (i.e., you do not have to go through the Patient Tally Report for purposes of choosing patients – although you may want to use these sources to investigate other patient characteristics).

Also, it is entirely possible that the statistically based outcome reports you received earlier reflect average or even favorable performance on certain outcomes that might be similar or akin to one or more of the adverse events. For example, your outcome report contains an outcome related to improvement in urinary incontinence. While this outcome is potentially related to the development of urinary tract infections, it is by no means the same. It is possible for your outcome report to reflect a favorable performance in terms of improvement in urinary incontinence, but for several patients to have developed urinary tract infections that might warrant your attention or follow-up.

As indicated in the previous discussion regarding potential consumer dissatisfaction or discontent, it is not possible to avoid adverse events under all circumstances. Such events naturally occur, but our goal in home care should be to avoid them to the extent possible. If your agency is large and you submitted data on a large number of patients, it is likely that the number of cases for which an adverse event occurred is fairly large. This is to be expected for large agencies. We suggest you examine your agency's incidence rate relative to the reference rate to ascertain the extent to which you should be concerned. In instances where you have a large number of patients enumerated, it is appropriate to sample from these cases to investigate circumstances surrounding or leading to the occurrence of adverse events. In other instances, when *Adverse Event Report* sample sizes are extremely small, very large percentages for adverse event occurrences appear. You should pay particular attention to these facts when interpreting your report and when making reference group comparisons. As mentioned, we are interested in hearing from you regarding how you use these reports for quality assurance and improvement purposes.

Please feel free to contact us if you have questions or specific issues you wish to raise regarding your *Consumer Response and Satisfaction Report* or your *Adverse Event Report*. We know you have received a great deal of information about your patients and the results of your care over the past few months. We understand that it takes time to absorb and work with this kind of information. The highest priority, of course, is to implement, maintain, and monitor your plans of action for your target outcomes. Beyond this, we encourage you to review these new reports according to a time schedule that is reasonable and works for you. It has been gratifying to both work and learn with you as we collectively shape the way outcome information can benefit home care providers and patients.

Sincerely,

Pete Shaughnessy   Kathy Crisler
Project Director   Project Co-Director

Karin Conway   Lecia West
Study Manager   Study Manager

Enclosure

Contents

Divider A:

GUIDELINES FOR REVIEWING THE CONSUMER RESPONSE AND SATISFACTION REPORT

Guidelines for Reviewing the Consumer Response and Satisfaction Report

The *Consumer Response and Satisfaction Report* is one in the series of reports produced for agencies participating in Outcome-Based Quality Improvement (OBQI). It is prepared from data gathered using the Telephone Interview Questionnaire (TIQ). Data are obtained from discharged patients (or their caregivers) via the structured telephone interviews to assess client satisfaction with home care services received. Each participating agency trained its own staff to administer the TIQ and monitored its administration throughout the reporting period.

In developing the TIQ, research literature on patient satisfaction was reviewed to determine important constructs to include in the interview questions. Pilot testing identified areas for refinement, which was undertaken prior to implementing the TIQ at all demonstration agencies. At each agency, a random sample of discharged patients or their caregivers (excluding cases where the patient died) are interviewed within 14 days of agency discharge. If the patient is not able to participate in the interview, the caregiver is interviewed.

In the *Consumer Response and Satisfaction Report*, patient responses and caregiver responses are presented separately. Numbers of respondents for each item can vary as a result of individuals not answering a specific question.

Similar to most surveys of patient satisfaction in the home care field, relatively little variation is found in the patient/caregiver responses to the TIQ. Consumers generally tend to express satisfaction with the care they receive at home. For this reason, the number and percent of patients expressing serious concern for each item are also presented in this report. Agencies may choose to investigate these cases to determine potential reasons for dissatisfaction, particularly when there is a statistically significant difference reflecting more serious concern on the part of the agency's patients than patients in the reference sample.

How to Read the Consumer Response and Satisfaction Report

The key features of the *Consumer Response and Satisfaction Report* are listed below. Each feature is numbered and corresponds to a pointer in the sample report on the next page. This is a hypothetical *Consumer Response and Satisfaction Report* for "Illustrative Home Health Care."

1. **Reference Sample**: The total number of cases in the reference group.

2. **Patient Responses and Caregiver Responses**: The categories under the "Patient" and "Caregiver Responses" pertain to the twelve survey questions administered.

3. **N**: This column contains the total number of agency patients or caregivers whose responses to each survey question were recorded during the report period.

4. **Agency Mean**: Values in this column reflect the average (mean) of the agency's patient or caregiver responses. The range of the scale corresponding to each item is in parentheses next to the item wording.

5. **Reference Mean**: Values in this column reflect the average (mean) reference sample response. The range of the scale corresponding to each item is in parentheses next to the item wording.

6. **Sig.**: Asterisks in these columns indicate that a statistically significant difference exists between agency and reference means in accord with the conventions explained in footnote b.

7. **Number Expressing Serious Concern**: The number of patients or caregivers expressing serious concern for each survey item. The scale levels used to define "serious concern" are indicated in brackets next to each item.

    Example: *The bracketed expressions [1, 2], to the right of "Courtesy and respect shown by providers" indicates that levels 1 and 2 of the 5-point scale were used to define "serious concern," and the number of patients expressing such concern for Illustrative Home Health Care was 1 out of 70 patients who responded to this item.*

8. **Agency**: **% Expressing Serious Concern**: Values in this column represent the percentage of cases in the agency expressing serious concern.

9. **Ref.**: **% Expressing Serious Concern**: Values in this column represent the percentage of cases in the reference sample expressing serious concern. If the agency percentage is significantly different from the reference percentage expressing serious concern, this is indicated by the presence of asterisks in the final ("Sig.") column.

Agency: Illustrative Home Health Care
Agency Sample: 70 Patients and 15 Caregivers
Reference Sample: 2584 Patients and 1123 Caregivers

Consumer Response and Satisfaction Report
All Patients and Caregivers

①	②	③ N	④ Agency Mean	⑤ Reference Mean	⑥ Sig.[b]	⑦ Number Expressing Serious Concern	⑧ Agency: % Expressing Serious Concern	⑨ Ref.: % Expressing Serious Concern	⑥ Sig.[b]
Patient Responses[a]									
Courtesy and respect shown by providers (1-5), [1,2]		70	4.74	4.39	**	1	1.4%	1.2%	
Thoroughness and completeness of visits (1-5), [1,2]		70	4.35	4.31		3	4.3%	1.9%	**
Providers' ability to answer questions (1-5), [1,2]		70	4.30	4.30		1	1.4%	2.0%	
Advance notice of visits (1-5), [1,2]		70	4.25	4.20		2	2.9%	4.5%	
Visits on time (1-5), [1,2]		70	4.10	4.12		2	2.9%	5.0%	
Coordination among providers (1-5), [1,2]		55	4.18	4.22	*	2	3.6%	2.2%	*
Providers take patient views into account (1-5), [1,2]		64	4.19	4.26		1	1.6%	2.4%	*
Skills and competence of providers (1-5), [1,2]		68	4.31	4.35		2	2.9%	1.7%	
Providers' ability to help patient manage condition (1-5), [1,2]		67	4.22	4.31	**	2	3.0%	1.5%	
Quality of HHC received (1-5), [1,2]		70	4.16	4.40	**	1	1.4%	1.2%	
Patient would recommend agency (1-5), [1-3]		70	4.20	4.56	**	0	0.0%	2.8%	*
Level of satisfaction (1-7), [1-4]		70	6.24	6.45	*	1	1.4%	2.0%	
Caregiver Responses[a]									
Courtesy and respect shown by providers (1-5), [1,2]		15	4.15	4.41		1	6.7%	1.8%	
Thoroughness and completeness of visits (1-5), [1,2]		15	4.21	4.34		0	0.0%	2.3%	
Providers' ability to answer questions (1-5), [1,2]		13	4.30	4.35		1	7.7%	2.0%	
Advance notice of visits (1-5), [1,2]		13	4.00	4.20		2	15.4%	5.3%	*
Visits on time (1-5), [1,2]		13	3.53	4.15	**	2	15.4%	5.4%	*
Coordination among providers (1-5), [1,2]		12	3.91	4.20		1	8.3%	4.9%	
Providers take patient views into account (1-5), [1,2]		15	3.80	4.29	**	1	6.7%	2.2%	
Skills and competence of providers (1-5), [1,2]		15	4.11	4.38	*	1	6.7%	2.3%	
Providers' ability to help patient manage condition (1-5), [1,2]		13	4.15	4.30		0	0.0%	2.9%	
Quality of HHC received (1-5), [1,2]		15	4.13	4.39		1	6.7%	2.1%	
Caregiver would recommend agency (1-5), [1-3]		13	4.38	4.59		1	7.7%	3.6%	
Level of satisfaction (1-7), [1-4]		13	6.31	6.44		1	7.7%	2.7%	

[a] Numbers in parentheses refer to the range of the scale used for the item. For example, (1-5) indicates a scale that used five levels, with 1 denoting the least favorable and 5 denoting the most favorable response. Numbers in brackets pertain to the levels used to define "serious concern" in the columns containing this term in their headings.

[b] Asterisks in this column indicate statistical significance in keeping with the below conventions:

* The probability is 10% or less that the difference between agency and reference statistics is due to chance, and 90% or more that the difference is real.

** The probability is 5% or less that the difference between agency and reference statistics is due to chance, and 95% or more that the difference is real.

Explanation of Consumer Response
and Satisfaction Items

A.   Items that Use a 5-Level Scale from Poor to Excellent

For the following questions, patients* were asked to rank the agency on a five-level scale: 1 = poor, 2 = fair, 3 = good, 4 = very good, or 5 = excellent.

1.   The courtesy and respect shown by the home health providers were...
2.   The thoroughness and completeness of your home health visits were...
3.   The home health providers' ability to answer your questions was...
4.   The home health providers' ability to tell you in advance when you would receive a home health visit was...
5.   When the home health providers scheduled visits with you, their ability to get to your house on time was...
6.   How would you rate the coordination among all your providers from the home health agency?
7.   When the home health providers made decisions about your care, their ability to take your views into account was...
8.   The skills and competence of the home health providers were...
9.   The home health providers' ability to help you manage your medical condition was...
10.   The quality of the home health care you received was...

B.   Item that Uses a 5-Level Scale from Strongly Disagree to Strongly Agree.

For the following question, patients were asked to rate their agreement with the statement, using the following five-level scale: 1 = you strongly disagree with this statement, 2 = you disagree with this statement, 3 = you neither agree nor disagree, 4 = you agree, or 5 = you strongly agree.

11.   You would recommend this home health agency to your best friend or close family member under all circumstances, without any doubts.

C.   Item that Uses a 7-Level Scale from Completely Dissatisfied to Completely Satisfied.

For the following question, patients were asked to rate their agreement with the statement, using the following seven-level scale: 1 = you are completely dissatisfied, it couldn't be worse, 2 = you are very dissatisfied, 3 = somewhat dissatisfied, 4 = neither satisfied nor dissatisfied, 5 = somewhat satisfied, 6 = very satisfied, or 7 = completely satisfied, it couldn't be better.

12.   All things considered, how satisfied are you with the home health care you received?

_____

*When patients were unavailable or unable to respond, the telephone survey was administered to a caregiver with appropriate changes in the wording of selected items.

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Divider B:

GUIDELINES FOR REVIEWING THE ADVERSE EVENT REPORT

Guidelines for Reviewing the
Adverse Event Report

The *Adverse Event Report* is one in the series of reports produced for agencies participating in OBQI. For this report, an **Adverse Event** is defined as a low-frequency negative or untoward event that potentially reflects a serious health problem or decline in health status for an individual patient. Because these are low-frequency events, they do not lend themselves readily to risk adjustment in contrast to the outcome measures presented in your Outcome Report(s). Therefore, the rates or incidence figures for adverse events in this report are not risk adjusted.

The adverse events that appear in this report "began" as outcome measures that were considered for inclusion in your Outcome Reports. However, their very low frequency made them very difficult to use as "regular" outcome measures. Because they are regarded as important to include in an agency's overall quality measurement program (due to their serious and potentially preventable nature), they have been retained as "markers" of quality. Even one such incident is regarded as worthy of investigation by an agency.

The incidence of any adverse event (whether in the agency or reference sample) is computed by dividing the number of adverse events by the number of complete data cases. This result is then expressed as a percentage. Complete data cases are described as the number of patients for whom valid and meaningful data were submitted on the item(s) used to determine whether the specific adverse event occurred. Differences between the number of "complete data cases" and the total number of agency cases in the current period are due to responses of "NA" or "Unknown," or to missing data (as in the case of skip patterns).

Owing to the nature of adverse events, it is appropriate for your agency to investigate how and why the adverse event occurred for individual patients. This investigation should supplement the process-of-care investigation conducted in response to outcome reports, not replace it. Ultimately, adverse event investigation can occur at regular intervals in your agency in a manner similar to your investigation of incident reports. Your goal in the investigation is to attempt to lower your agency incidence of the untoward event to the extent possible.

How to Read the Adverse Event Report

The key features of the *Adverse Event Report* are listed below. Each feature is numbered and corresponds to a pointer in the sample report on the next page. This is a hypothetical *Adverse Event Report* for "Illustrative Home Health Care."

1. **Report Period**: This period is defined by two dates (01/01/1999-12/31/1999) that encompass all episodes of care (from admission to discharge) at the agency, i.e., Illustrative Home Health Care, that contributed to the *Adverse Event Report*.

2. **Number of Cases in Current Period**: The number of (Illustrative's) patients in the current reporting period for whom data were analyzed to produce the *Adverse Event Report*. If a patient was admitted and discharged more than once in the period (i.e., is considered a "duplicated" patient), each episode of care is counted as a case. For Discharge Option 2 agencies (meaning that patients who are admitted to an inpatient facility for 48 hours or longer are not discharged from the agency), an "episode of care" ends with an admission to the inpatient facility. A new episode of care begins at resumption of care.

3. **Reference Sample**: The total number of reference or comparison cases used to derive the "reference incidence" figures for the *Adverse Event Report*. This sample was drawn in such a way that no single agency was allowed to contribute more than 5% of the patients to the sample.

The following terms pertain to each of the separate adverse events for which findings are presented (e.g., emergent care for falls or accidents, emergent care for wounds or infections, etc.).

4. **Complete Data Cases**: The number of patients (at Illustrative) for whom valid or meaningful data were submitted on the item(s) used to determine whether the specific adverse event occurred. This number varies from one specific adverse event to another.

5. **Number of Events**: The number of times the indicated adverse event occurred among (Illustrative's) cases with complete data.

6. **Agency Incidence**: The number of (adverse) events in the agency sample divided by the complete data cases, expressed as a percentage.

    Example: *The number of complete data cases for emergent care for wounds or infections is 280 at Illustrative Home Health Care. Since this particular adverse event occurred for four cases, then the agency incidence is 4/280 or 1.4%.*

7. **Reference Incidence**:   The number of (adverse) events in the reference group divided by the complete data cases for the reference group, expressed as a percentage.

    Example: *The adverse event corresponding to emergent care for wounds or infections has a reference incidence of 1.8%. This is higher than the aforementioned 1.4% for Illustrative Home Health Care, indicating that the incidence rate for this particular adverse event is lower at Illustrative than is the case for the reference sample. Nonetheless, owing to the nature of adverse events, it would be appropriate for Illustrative to investigate how and why this adverse event occurred for individual patients.*

8. **Patient ID**: The identification or ID numbers of all patients for whom the adverse event occurred in the agency (i.e., Illustrative) are enumerated, along with the start of care or resumption of care (SOC/ROC) date and discharge or transfer date (DC/Tran) for each such patient. Patients discharged to an inpatient facility <u>can</u> contribute to a specific adverse event count or incidence rate. Patient-specific information is enumerated so that agency staff can investigate circumstances associated with the adverse event for individual patients of their choosing.

9. **Branch**: If appropriate, the branch is specified that admitted and provided services to each identified patient. This is the branch that was responsible for the patient's care at the time of occurrence of the adverse event. If a branch number is inappropriate, missing, or invalid, then the branch entry is blank for that patient.

Agency: Illustrative Home Health Care
Number of Cases in Report (Current) Period: 300
Number of Cases in Reference Sample: 29983

Date Report Printed: 03/23/2000
Report Period: 01/01/1999-12/31/1999

Adverse Event Outcome Report
Patient Listing

Emergent Care for Injury Caused by Fall or Accident at Home

Complete Data Cases: 300   Number of Events: 5   Agency Incidence: 1.7%   Reference Incidence: 1.8%

Patient ID	Branch	SOC/ROC	DC/Trans
11236		04/22/99	05/23/99
25967		08/26/99	09/24/99
13256		07/12/99	10/15/99
27468		05/13/99	07/10/99
21364		06/09/99	08/13/99

Emergent Care for Wound Infections, Deteriorating Wound Status

Complete Data Cases: 280   Number of Events: 4   Agency Incidence: 1.4%   Reference Incidence: 1.8%

Patient ID	Branch	SOC/ROC	DC/Trans
11265		06/25/99	08/01/99
20567		07/26/99	08/03/99
13498		06/02/99	07/13/99
22589		08/01/99	09/01/99

Emergent Care for Improper Medication Administration, Medication Side Effects

Complete Data Cases: 280   Number of Events: 3   Agency Incidence: 1.1%   Reference Incidence: 0.7%

Patient ID	Branch	SOC/ROC	DC/Trans
12801		02/22/99	05/30/99
44408		04/01/99	06/04/99
27690		03/10/99	04/18/99

Emergent Care for Hypo/Hyperglycemia

Complete Data Cases: 280   Number of Events: 1   Agency Incidence: 0.4%   Reference Incidence: 0.6%

Patient ID	Branch	SOC/ROC	DC/Trans
45325		02/11/99	04/01/99

Development of Urinary Tract Infection

Complete Data Cases: 292   Number of Events: 6   Agency Incidence: 2.1%   Reference Incidence: 1.3%

Patient ID	Branch	SOC/ROC	DC/Trans
12576		03/08/99	07/01/99
49727		06/06/99	10/21/99
20885		02/06/99	04/12/99
50154		06/29/99	08/06/99
35896		07/11/99	07/20/99
50676		07/03/99	07/14/99

NOTE: Incidence = [(Number of Events)/(Complete Data Cases)], computed separately for each measure.
SOC/ROC = Start of Care or Resumption of Care - ROC date indicated by "R:*

Definitions of Adverse Events

The 13 adverse events included in the *Adverse Event Report* were defined using specific items from OASIS-B1. The definitions of each adverse event are given below in terms of the specific OASIS item(s) used.

Emergent Care for Injury Caused by Fall or Accident at Home: The patient <u>received</u> emergent care (M0830) after start of care/resumption of care (SOC/ROC), and the emergent care reason (M0840) was "injury caused by fall or accident at home."

Emergent Care for Wound Infections, Deteriorating Wound Status: The patient <u>received</u> emergent care (M0830) after SOC/ROC, and the emergent care reason (M0840) was "wound infection, deteriorating wound status, new lesion/ulcer."

Emergent Care for Improper Medication Administration, Medication Side Effects: The patient <u>received</u> emergent care (M0830) after SOC/ROC, and the emergent care reason (M0840) was "improper medication administration, medication side effects, toxicity, anaphylaxis."

Emergent Care for Hypo/Hyperglycemia: The patient <u>received</u> emergent care (M0830) after SOC/ROC, and the emergent care reason (M0840) was "hypo/hyperglycemia, diabetes out of control."

Development of Urinary Tract Infection: The patient had <u>not</u> been treated for a urinary tract infection in the 14 days prior to SOC/ROC (M0510), but <u>had</u> been treated for a urinary tract infection in the 14 days prior to discharge/transfer (DC/Tran).

Increase in Number of Pressure Ulcers: The patient had a greater number of pressure ulcers at DC/Tran than he or she had at SOC/ROC (M0450).

Substantial Decline in Three or more Activities of Daily Living: Between SOC/ROC and DC/Tran, the scale levels for patients who are not terminal increased (indicating worsening) by at least two points in three or more of the activities of daily living categories (grooming, toileting, bathing, transferring, ambulation/locomotion). Patients who could not have declined by two or more points in three activities of daily living (M0640, M0670, M0680, M0690, M0700) are excluded.

Substantial Decline in Management of Oral Medications: The patient was <u>able</u> to prepare and take <u>all</u> prescribed oral medications reliably and safely at SOC/ROC but was <u>unable</u> to do so at DC/Tran (M0780).

Unexpected Nursing Home Admission: The patient was admitted to a nursing home (M0900) for reasons other than therapy services or respite care, although patient had a good rehabilitative prognosis at SOC/ROC (M0270).

Unexpected Death: The patient died (M0100) although he or she had a life expectancy of greater than six months (M0280) at SOC/ROC.

Discharged to Community Needing Wound Care or Medication Assistance: Patient was discharged to the community (M0870) without paid or resident assistance (M0350), while confused (M0570) or non-responsive, and while unable to take medications without assistance (M0780), or with either a Stage 3 or 4 pressure ulcer (M0460) or a non-healing surgical wound (M0488).

Discharged to Community Needing Toileting Assistance: Patient was discharged to the community (M0870) without paid or resident assistance (M0350) while chairfast/bedfast (M0700) and totally dependent in toileting (M0680).

Discharged to Community with Behavioral Problems: Patient was discharged to the community (M0870) without paid or resident assistance (M0350) while having demonstrated at least two behavioral problems (M0610).

Divider C:

AGENCY CONSUMER RESPONSE AND SATISFACTION AND ADVERSE EVENT REPORTS

Agency: Faircare Home Health Services
Agency Sample: 55 Patients and 19 Caregivers
Reference Sample: 2584 Patients and 1123 Caregivers

Consumer Response and Satisfaction Report
All Patients and Caregivers

	N	Agency Mean	Reference Mean	Sig.[b]	Number Expressing Serious Concern	Agency: % Expressing Serious Concern	Ref.: % Expressing Serious Concern	Sig.[b]
Patient Responses[a]								
Courtesy and respect shown by providers (1-5), [1,2]	55	4.42	4.39		2	3.6%	1.2%	**
Thoroughness and completeness of visits (1-5), [1,2]	55	4.38	4.31	*	4	7.3%	1.9%	
Providers' ability to answer questions (1-5), [1,2]	55	4.47	4.30		1	1.8%	2.0%	
Advance notice of visits (1-5), [1,2]	55	4.31	4.20		3	5.5%	4.5%	
Visits on time (1-5), [1,2]	55	4.25	4.12		2	3.6%	5.0%	
Coordination among providers (1-5), [1,2]	49	4.33	4.22		1	2.0%	2.2%	
Providers take patient views into account (1-5), [1,2]	53	4.40	4.26		0	0.0%	2.4%	
Skills and competence of providers (1-5), [1,2]	54	4.41	4.35		2	3.7%	1.7%	
Providers' ability to help patient manage condition (1-5), [1,2]	53	4.36	4.31		1	1.9%	1.5%	
Quality of HHC received (1-5), [1,2]	55	4.51	4.40		0	0.0%	1.2%	
Patient would recommend agency (1-5), [1-3]	55	4.62	4.56		0	0.0%	2.8%	
Level of satisfaction (1-7), [1-4]	55	6.60	6.45		1	1.8%	2.0%	
Caregiver Responses[a]								
Courtesy and respect shown by providers (1-5), [1,2]	19	4.26	4.41		0	0.0%	1.8%	
Thoroughness and completeness of visits (1-5), [1,2]	19	4.21	4.34		0	0.0%	2.3%	
Providers' ability to answer questions (1-5), [1,2]	18	4.22	4.35		0	0.0%	2.0%	
Advance notice of visits (1-5), [1,2]	18	3.89	4.20		2	11.1%	5.3%	
Visits on time (1-5), [1,2]	18	3.67	4.15	**	2	11.1%	5.4%	
Coordination among providers (1-5), [1,2]	15	3.87	4.20	**	2	13.3%	4.9%	
Providers take patient views into account (1-5), [1,2]	19	3.84	4.29	**	0	0.0%	2.2%	
Skills and competence of providers (1-5), [1,2]	19	4.11	4.38	*	0	0.0%	2.3%	
Providers' ability to help patient manage condition (1-5), [1,2]	18	4.11	4.30		0	0.0%	2.9%	
Quality of HHC received (1-5), [1,2]	19	4.05	4.39	**	0	0.0%	2.1%	
Caregiver would recommend agency (1-5), [1-3]	18	4.44	4.59		1	5.6%	3.6%	
Level of satisfaction (1-7), [1-4]	18	6.28	6.44		1	5.6%	2.7%	

[a] Numbers in parentheses refer to the range of the scale used for the item. For example, (1-5) indicates a scale that used five levels, with 1 denoting the least favorable and 5 denoting the most favorable response. Numbers in brackets pertain to the levels used to define "serious concern" in the columns containing this term in their headings.

[b] Asterisks in this column indicate statistical significance in keeping with the below conventions:

* The probability is 10% or less that the difference between agency and reference statistics is due to chance, and 90% or more that the difference is real.
** The probability is 5% or less that the difference between agency and reference statistics is due to chance, and 95% or more that the difference is real.

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Adverse Event Outcome Report
Patient Listing

Emergent Care for Injury Caused by Fall or Accident at Home

Complete Data Cases: 941   Number of Events: 12   Agency Incidence: 1.2%Reference Incidence: 1.3%

Patient ID	Branch	SOC/ROC	DC/Trans
1012-06	FR12	06/11/2000(R)	07/01/2000
1036-03		02/22/2000	02/28/2000
1256-05		05/05/2000	07/21/2000
1266-08		07/22/2000	08/15/2000
1338-06	FR12	02/20/2000	05/10/2000
1526-04		08/07/2000	08/23/2000
1694-01		04/17/2000(R)	06/09/2000
1822-06		03/14/2000	03/14/2000
1867-03		05/24/2000	06/07/2000
1877-07		10/18/1999	10/18/1999
1910-05		07/27/2000	07/27/2000
1983-05		01/29/2000	03/08/2000

Emergent Care for Wound Infections, Deteriorating Wound Status

Complete Data Cases: 941   Number of Events: 15   Agency Incidence: 1.5%Reference Incidence: 1.6%

Patient ID	Branch	SOC/ROC	DC/Trans
1005-03		07/22/2000	07/22/2000
1011-09		06/17/2000	06/28/2000
1054-01		05/14/2000(R)	07/05/2000
1148-03	FR12	06/13/2000	07/12/2000
1232-08		04/12/2000	07/13/2000
1333-04		06/15/2000(R)	06/21/2000
1333-06		08/16/2000	08/16/2000
1455-04		06/23/2000	06/29/2000
1573-09	FR12	06/16/2000	06/16/2000
1575-05		06/27/2000	07/31/2000
1664-07		07/01/2000(R)	07/21/2000
1699-02		08/10/2000	08/22/2000
1845-03		03/22/2000	03/29/2000
1903-05		12/18/1999	12/30/1999
1974-08		04/22/2000	07/04/2000

Emergent Care for Improper Medication Administration, Medication Side Effects

Complete Data Cases: 941   Number of Events: 4   Agency Incidence: 0.4%Reference Incidence: 0.5%

Patient ID	Branch	SOC/ROC	DC/Trans
1352-03		04/01/2000	04/24/2000
1338-07	FR12	11/06/2000	12/30/2000
1875-07		05/02/2000	06/22/2000
1888-03		06/30/2000(R)	07/14/2000

Emergent Care for Hypo/Hyperglycemia

Complete Data Cases: 941   Number of Events: 1   Agency Incidence: 0.1%Reference Incidence: 0.5%

Patient ID	Branch	SOC/ROC	DC/Trans
1559-06		07/05/2000	08/25/2000

NOTE: Incidence = [(Number of Events)/(Complete Data Cases)], computed separately for each measure.
SOC/ROC = Start of Care or Resumption of Care - ROC date indicated by (R)

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Adverse Event Outcome Report
Patient Listing

Development of Urinary Tract Infection

Complete Data Cases: 613   Number of Events: 8   Agency Incidence: 1.3%Reference Incidence: 1.3%

Patient ID	Branch	SOC/ROC	DC/Trans
1122-08		06/14/2000	06/19/2000
1344-06		06/21/2000	06/21/2000
1360-04		05/02/2000(R)	05/19/2000
1599-07		06/02/2000	06/21/2000
1645-01		05/06/2000	05/26/2000
1687-04		01/01/2000(R)	01/11/2000
1875-09		05/10/2000	06/10/2000
1888-07		01/01/2000	01/04/2000

Increase in Number of Pressure Ulcers

Complete Data Cases: 691   Number of Events: 4   Agency Incidence: 0.6%Reference Incidence: 0.9%

Patient ID	Branch	SOC/ROC	DC/Trans
1559-06		07/05/2000	08/25/2000
1645-01		05/06/2000	05/26/2000
1775-06		02/09/2000(R)	07/12/2000
1782-03		08/29/2000	09/08/2000

Substantial Decline in 3 or More Activities of Daily Living

Complete Data Cases: 644   Number of Events: 3   Agency Incidence: 0.5%Reference Incidence: 0.3%

Patient ID	Branch	SOC/ROC	DC/Trans
1338-06	FR12	02/20/2000	05/10/2000
1559-06		07/05/2000	08/25/2000
1645-01		05/06/2000	05/26/2000

Substantial Decline in Management of Oral Medications

Complete Data Cases: 358   Number of Events: 2   Agency Incidence: 0.6%Reference Incidence: 0.8%

Patient ID	Branch	SOC/ROC	DC/Trans
1114-03		04/09/2000(R)	05/05/2000
1564-08		07/14/2000(R)	07/28/2000

Unexpected Nursing Home Admission

Complete Data Cases: 707   Number of Events: 0   Agency Incidence: 0.0%Reference Incidence: 0.5%

NOTE: Incidence = [(Number of Events)/(Complete Data Cases)], computed separately for each measure.
SOC/ROC = Start of Care or Resumption of Care - ROC date indicated by (R)

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Adverse Event Outcome Report
Patient Listing

Unexpected Death

Complete Data Cases: 854   Number of Events: 1   Agency Incidence: 0.1%Reference Incidence: 0.9%

Patient ID	Branch	SOC/ROC	DC/Trans
1564-02		02/26/2000	03/21/2000

Discharged to the Community Needing Wound Care or Medication Assistance

Complete Data Cases: 665   Number of Events: 2   Agency Incidence: 0.3%Reference Incidence: 0.4%

Patient ID	Branch	SOC/ROC	DC/Trans
1023-01		05/09/2000	05/10/2000
1447-07		06/02/2000	08/11/2000

Discharged to the Community Needing Toileting Assistance

Complete Data Cases: 665   Number of Events: 0   Agency Incidence: 0.0%Reference Incidence: 0.2%

Discharged to the Community With Behavioral Problems

Complete Data Cases: 665   Number of Events: 4   Agency Incidence: 0.6%Reference Incidence: 0.5%

Patient ID	Branch	SOC/ROC	DC/Trans
1012-06	FR12	06/11/2000(R)	07/01/2000
1645-01		05/06/2000	05/26/2000
1698-01		05/27/2000	06/05/2000
1821-03		08/23/2000	09/01/2000

NOTE: Incidence = [(Number of Events)/(Complete Data Cases)], computed separately for each measure.
SOC/ROC = Start of Care or Resumption of Care - ROC date indicated by (R)

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