

APPENDIX:

Guidelines for Reviewing Case Mix and Adverse Event Outcome Reports

Basic Information Regarding the Case Mix and Adverse Event Outcome Reports

The *Case Mix* and *Adverse Event Outcome Reports* are part of the report series produced by HCFA for home health agency use in Outcome-Based Quality Improvement (OBQI) and Outcome-Based Quality Monitoring (OBQM). In these guidelines, the reports are described, key terms are defined, and "How to Read" instructions are presented for each report. In both the case mix and adverse event outcome reports, the findings pertaining to a single agency are compared with a reference group. The reference sample for the reports consists of patients served by all home health agencies reporting OASIS data under Medicare Conditions of Participation.

The case mix report shows patient attributes or circumstances present at start of care (or resumption of care) that are likely to impact health status (such as a patient's environmental or living conditions, demographics, and baseline health status). For the report, individual (patient-level) case mix information is aggregated to the agency level to describe the health status of all the agency's patients at admission/resumption of care. Case mix measures then are compared to the reference sample so that differences between the agency's patients and the reference sample of patients are identified. Reports may also include a comparison to the same agency's patients during an earlier time period.

In view of the large number of factors included in the case mix reports, as well as the large size of the reference sample, it is natural that a number of statistically significant differences will appear between a single agency's case mix and the average case mix of the total reference sample. In comparing "current" to "reference" data in the case mix reports, a single asterisk [*] corresponds to the .01 level of significance (i.e., a 1% probability that the observed difference is due to chance) and the double asterisk [**] corresponds to the .001 level. Even relatively small case mix differences are sometimes asterisked as statistically significant because of the large reference sample size. Agencies are cautioned not to "overinfer" about relatively small case mix differences simply because of statistical significance.

The case mix report can serve multiple purposes independent of other reports produced for OBQI/OBQM, such as providing a descriptive overview of the types of patients admitted to an agency, monitoring the extent of changes in the population served over the course of time, and aiding public relations or marketing to payers and consumers. Agencies will also find it useful for staffing or clinical programmatic needs to monitor changes in agency case mix over time.

For the adverse event outcome 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. They are important to include in an agency's overall quality measurement program (due to their serious and potentially preventable nature) as "markers" of quality of care. Definitions of individual adverse events are provided in the next section.

Owing to the nature of adverse events, it is appropriate for an agency to investigate how and why the adverse event occurred for individual patients. Ultimately, adverse event investigation can occur at regular intervals in an agency in a manner similar to investigation of incident reports. The agency's goal in the investigation is to attempt to lower the agency incidence of the untoward event to the extent possible.

Key Terms

The following definitions of several key terms may help you to better understand the reports.

- **Significance:** Statistical significance is relevant when comparing the "current" values to "reference" values in the *Case Mix Report*. It can be understood as the probability that a difference between two rates or averages is due to chance rather than due to a "real" difference between the two populations compared. If the statistical significance value is numerically high, then we consider it likely that any difference observed is due to chance. Statistical significance is related to the magnitude of the observed difference and the number of cases. A relatively large difference may be non-significant (have a high probability) when sample size is low, while a large sample size will produce significant (low probability) results with a smaller observed difference.
- **Criteria for Acute Conditions:** On the second page of case mix reports, prevalence values are given for patients categorized with 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 or resumption of care (SOC/ROC), or who experienced a medical or treatment regimen change within 14 days of SOC/ROC are included in this group if any 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 in this group if any medical diagnosis pertaining to those events relates to the nervous system.

Open Wounds or Lesions

Patients are included in this group if they have an open wound or skin lesion. Also, 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 in this group if any 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 in this group. These patients usually 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 in this group if any 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 in this group if any 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 in this group if any 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 in this group if any 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 in this group if any medical diagnosis pertaining to those events is related to infections or 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 in this group 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 in this group.

Oxygen Therapy

Patients receiving either intermittent or continuous oxygen therapy at home are included in this group.

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 in this group.

Enteral/Parenteral Nutrition Therapy

Patients receiving enteral or parenteral nutrition at home, such as gastrostomy tube feedings or hyperalimentation, are included in this group.

Ventilator Therapy

Patients receiving continuous or intermittent ventilation therapy at home are included in this group.

- **Criteria for Chronic Conditions:** Patients who were not discharged from an inpatient facility (hospital, rehabilitation facility, or nursing home) within 14 days of SOC/ROC, and who did not experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic group if they meet specified levels of dependency (or conditions for membership) for that group. Patients who were discharged from an inpatient facility within 14 days of SOC/ROC or who did experience a change in medical or treatment regimen within 14 days of SOC/ROC are assigned to a chronic group if and only if they met the specified levels of dependency/conditions for membership for that condition prior 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 conditions are assigned to this group if they are unable to prepare main meals on a regular basis and 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 group if they require the assistance of another person for bathing; or if they require assistance for grooming (combing or brushing hair, shaving or applying makeup, cleaning teeth or dentures, or trimming fingernails) plus dressing of upper or lower body.

Impaired Ambulation/Mobility

Patients who meet the criteria for inclusion in chronic conditions are assigned to this group 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 group if they are unable to feed themselves without constant supervision or 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 group 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 group 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 group 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 group 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 Condition with Caregiver

Patients are included in this group 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 each of these diagnostic categories if they are receiving home care for a diagnosis belonging to that category (excluding diagnoses that are currently asymptomatic). A patient may have several home care diagnoses and may, therefore, belong to more than one diagnosis category.

- **Specific Adverse Events:** The 13 adverse events included in the *Adverse Event Outcome Report* are defined in terms of patient condition at time of discharge, or events that occur during the home care episode.

Emergent Care for Injury Caused by Fall or Accident at Home

The patient received emergent care after start of care/resumption of care (SOC/ROC), and the emergent care reason was "injury caused by fall or accident at home."

Emergent Care for Wound Infections, Deteriorating Wound Status

The patient received emergent care after SOC/ROC, and the emergent care reason was "wound infection, deteriorating wound status, new lesion/ulcer."

Emergent Care for Improper Medication Administration, Medication Side Effects

The patient received emergent care after SOC/ROC, and the emergent care reason was "improper medication administration, medication side effects, toxicity, anaphylaxis."

Emergent Care for Hypo/Hyperglycemia

The patient received emergent care after SOC/ROC, and the emergent care reason was "hypo/hyperglycemia, diabetes out of control."

Development of Urinary Tract Infection

The patient had not been treated for urinary tract infection in the 14 days prior to SOC/ROC, but had been treated for a urinary tract infection in the 14 days prior to discharge (DC).

Increase in Number of Pressure Ulcers

The patient had a greater number of pressure ulcers at DC than he or she had at SOC/ROC.

Substantial Decline in Three or More Activities in Daily Living

Between SOC/ROC and DC, 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 are excluded.

Substantial Decline in Management of Oral Medications

The patient was able to prepare and take all prescribed oral medications reliably and safely at SOC/ROC but was unable to do so at DC.

Unexpected Nursing Home Admission

The patient was admitted to a nursing home for reasons other than therapy services or respite care, although patient had a good rehabilitative prognosis at SOC/ROC.

Discharged to Community Needing Wound Care or Medication Assistance

Patient was discharged to the community without paid or resident assistance, while confused or non-responsive, and while unable to take medications without assistance, or with either a Stage 3 or 4 pressure ulcer or a non-healing surgical wound.

Discharged to Community Needing Toileting Assistance

Patient was discharged to the community without paid or resident assistance while chairfast/bedfast and totally dependent in toileting.

Discharged to Community with Behavioral Problems

Patient was discharged to the community without paid or resident assistance while having demonstrated at least two behavioral problems.

Unexpected Death

The patient died although he or she had a life expectancy of greater than six months at SOC/ROC.

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, it is natural to expect that some differences should appear between a single 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 two pages. This is a hypothetical *All Patients' Case Mix Profile Report* for "Faircare Home Health Services." Note: Both the agency data and reference values are hypothetical.

- ① **Current Mean:** Values in this column reflect case mix averages (means) based on data collected during the actual current period indicated in the upper right corner (in this example, this is 09/1999 to 08/2000). These values correspond to case mix means or averages at start (or resumption) of care (SOC/ROC) for all patients discharged (or transferred to a facility) during the report period.
- ② **Reference Mean:** Values in this column reflect case mix averages based on a nationally representative sample of patients from all agencies submitting OASIS data. Episode of care data ending between the beginning of September 1999 and the end of August 2000 (the same time period as that represented by Faircare's data) are included in the reference sample.
- 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, primarily because of the large reference sample, case mix reports may contain a substantial number of significant differences. When this occurs (as it frequently does, particularly for agencies with large numbers of patients), you should be attentive only to large 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.** In general, higher scale values represent more impairment or a more severe condition than lower numeric values for the same measure.

Example: Under the section on ADL Disabilities at SOC/ROC (start of care/resumption of care), the sample report shows that for Transferring, which is measured on a 0-5 scale, the average scale value for the current mean for Faircare Home Health Services is 0.64, compared with a mean of 0.70 for the reference sample. This indicates slightly less disability on this measure for Faircare's patients.

- 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 Faircare Home Health Services is 14.0% compared with 13.7% in the reference sample.

Agency Name: Faircare Home Health Services
 Agency ID: HHA01
 Location: Anytown, USA
 Medicare Number: 007001
 Medicaid Number: 999888001

Requested Current Period: 09/1999-08/2000
 Actual Current Period: 09/1999-08/2000
 Number of Cases in Current Period: 601
 Number of Cases in Reference Sample: 29983
 Date Report Printed: 11/30/2000

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

	1						2	3
	Current Mean	Reference Mean	Sig.	Current Mean	Reference Mean	Sig.	Current Mean	Reference Mean
Demographics								
Age (average in years)	70.75	72.78	**					
Gender: Female (%)	69.4%	62.9%	**					
Race: Black (%)	1.7%	10.7%	**					
Race: White (%)	97.5%	85.5%	**					
Race: Other (%)	0.8%	3.8%	**					
Payment Source								
Any Medicare (%)	80.4%	82.6%						
Any Medicaid (%)	12.9%	14.3%						
Any HMO (%)	3.0%	5.8%	*					
Medicare HMO (%)	1.3%	2.2%						
Any third party (%)	19.9%	21.9%						
Current Residence								
Own home (%)	74.7%	78.7%						
Family member home (%)	20.5%	14.1%	**					
Current Living Situation								
Lives alone (%)	28.6%	29.4%						
With family member (%)	66.7%	64.2%						
With friend (%)	1.3%	1.6%						
With paid help (%)	2.3%	3.3%						
Assisting Persons								
Person residing in home (%)	57.0%	55.9%						
Person residing outside home (%)	44.3%	53.0%	**					
Paid help (%)	9.3%	14.1%	**					
Primary Caregiver								
Spouse/significant other (%)	31.0%	33.6%						
Daughter/son (%)	33.0%	26.4%	**					
Other paid help (%)	3.7%	6.1%	*					
No one person (%)	21.7%	20.2%						
Primary Caregiver Assistance								
Freq. of assistance (0-6, scale avg.)	4.11	4.10						
Inpatient DC within 14 Days of SOC/ROC								
From hospital (%)	69.1%	68.4%						
From rehab facility (%)	7.2%	6.4%						
From nursing home (%)	1.8%	3.3%						
Med. Reg. Chg. w/in 14 Days of SOC/ROC								
Medical regimen change (%)	67.7%	81.2%	**					
Prognoses								
Moderate recovery prognosis (%)	85.3%	85.9%						
Good rehab prognosis (%)	62.6%	68.2%	*					
ADL Disabilities at SOC/ROC								
Grooming (0-3, scale average)	1.02	0.86	**					
Dress upper body (0-2, scale avg.)	0.56	0.59						
Dress lower body (0-3, scale avg.)	1.22	1.10	*					
Bathing (0-5, scale average)	2.15	2.03						
Toileting (0-4, scale average)	0.63	0.57						
Transferring (0-5, scale average)	0.64	0.70	**					
Ambulation (0-5, scale average)	1.05	1.07						
Eating (0-5, scale average)	0.33	0.32						
ADL Status Prior to SOC/ROC								
Grooming (0-3, scale average)	0.66	0.52	**					
Dress upper body (0-2, scale avg.)	0.35	0.35						
Dress lower body (0-3, scale avg.)	0.70	0.63						
Bathing (0-5, scale average)	1.33	1.20						
Toileting (0-4, scale average)	0.39	0.38						
Transferring (0-5, scale average)	0.38	0.44	**					
Ambulation (0-5, scale average)	0.70	0.71						
Eating (0-5, scale average)	0.22	0.21						
IADL Disabilities at SOC/ROC								
Light meal prep (0-2, scale avg.)	1.02	0.90	**					
Transportation (0-2, scale avg.)	1.05	0.99	**					
Laundry (0-2, scale average)	1.62	1.51	**					
Housekeeping (0-4, scale avg.)	2.89	2.68	**					
Shopping (0-3, scale average)	2.10	2.06						
Phone use (0-5, scale average)	0.63	0.72						
Mgmt. oral meds (0-2, scale avg.)	0.69	0.70						
IADL Status Prior to SOC/ROC								
Light meal prep (0-2, scale avg.)	0.65	0.56	*					
Transportation (0-2, scale avg.)	0.78	0.69	**					
Laundry (0-2, scale average)	1.10	0.96	**					
Housekeeping (0-4, scale avg.)	1.93	1.73	*					
Shopping (0-3, scale average)	1.45	1.32						
Phone use (0-5, scale average)	0.49	0.59						
Mgmt. oral meds (0-2, scale avg.)	0.53	0.54						
Respiratory Status								
Dyspnea (0-4, scale average)	1.33	1.19						
Therapies Received at Home								
IV/infusion therapy (%)	4.3%	3.7%						
Parenteral nutrition (%)	0.5%	0.3%						
Enteral nutrition (%)	2.2%	1.8%						
Sensory Status								
Vision impairment (0-2, scale avg.)	0.32	0.30						
Hearing impair. (0-4, scale avg.)	0.38	0.45	**					
Speech/language (0-5, scale avg.)	0.45	0.47						
Pain								
Pain interf. w/activity (0-3, scale avg.)	0.95	0.98						
Intractable pain (%)	14.0%	13.7%						
Neuro/Emotional/Behavioral Status								
Moderate cognitive disability (%)	10.8%	11.9%						
Severe confusion disability (%)	5.7%	6.9%						
Severe anxiety level (%)	16.7%	11.7%	**					
Behav probs > twice a week (%)	14.0%	5.7%	**					
Integumentary Status								
Presence of wound/lesion (%)	31.6%	31.2%						
Stasis ulcer(s) present (%)	3.7%	2.9%						
Surgical wound(s) present (%)	21.1%	22.3%						
Pressure ulcer(s) present (%)	8.2%	5.4%	*					
Stage 2-4 ulcer(s) present (%)	6.5%	4.5%						
Stage 3-4 ulcer(s) present (%)	4.0%	1.4%	**					

How to Read the (Graphic) Adverse Event Outcome Report

The key features of the (graphic) *Adverse Event Outcome 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 outcome report for "Faircare Home Health Services." Note: Both the agency data and reference data are hypothetical.

- ① **Requested/Actual Current Period:** This period is defined by two dates (Requested = 09/1999-08/2000 and Actual = 09/1999-08/2000) that encompass all episodes of care based on discharge/transfer date, which contributed to the adverse event outcome report. Note: These are reported in calendar month increments only, and the time period is inclusive of the starting and ending months.
- ② **Number of Cases in Current Period:** The number of (Faircare's) patients in the current reporting period for whom data were analyzed to produce the adverse event outcome 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 agencies that place patients admitted to an inpatient facility on "hold" status (meaning that patients who are admitted to an inpatient facility for 24 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 **Number of Cases in Reference Sample:** The total number of reference or comparison cases used to derive the "reference incidence" figures for the adverse event outcome report. This is a national sample of home health episodes ending between 09/1999 and 08/2000 (the same time interval as the "current" period for Faircare's patients).

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 **Cases:** The number of patients (at Faircare or in the reference sample) for whom each specific adverse event could have occurred. This number varies from one specific adverse event to another, primarily due to the selective inclusion of patients determined to be "at risk" for specific adverse events.
- ⑤ **Agency Incidence:** The number of (adverse) events that occurred in the agency sample divided by the number of valid cases for that adverse event measure, expressed as a percentage.

Example: The number of valid cases for emergent care for wounds or infections is 572 at Faircare Home Health Services. Since this particular adverse event occurred for 15 cases, then the agency incidence is 15/572 or 2.6%.

- ⑥ **Reference Incidence:** The number of (adverse) events that occurred in the reference group divided by the number of valid 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 1.9%. This is lower than the aforementioned 2.6% for Faircare Home Health Services, indicating that the incidence rate for this particular adverse event is higher at Faircare than is the case for the reference sample. Owing to the nature of adverse events, it would be appropriate for Faircare to investigate how and why this adverse event occurred for individual patients.

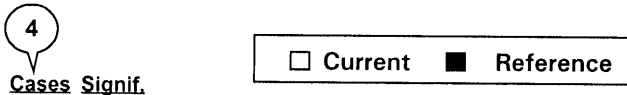
Agency Name: Faircare Home Health Services
 Agency ID: HHA01
 Location: Anytown, USA
 Medicare Number: 007001
 Medicaid Number: 999888001

1 Requested Current Period: 09/1999-08/2000
 Actual Current Period: 09/1999-08/2000
 Number of Cases in Current Period: 601
 Number of Cases in Reference Sample: 29983
 Date Report Printed: 11/30/2000
 2
 3

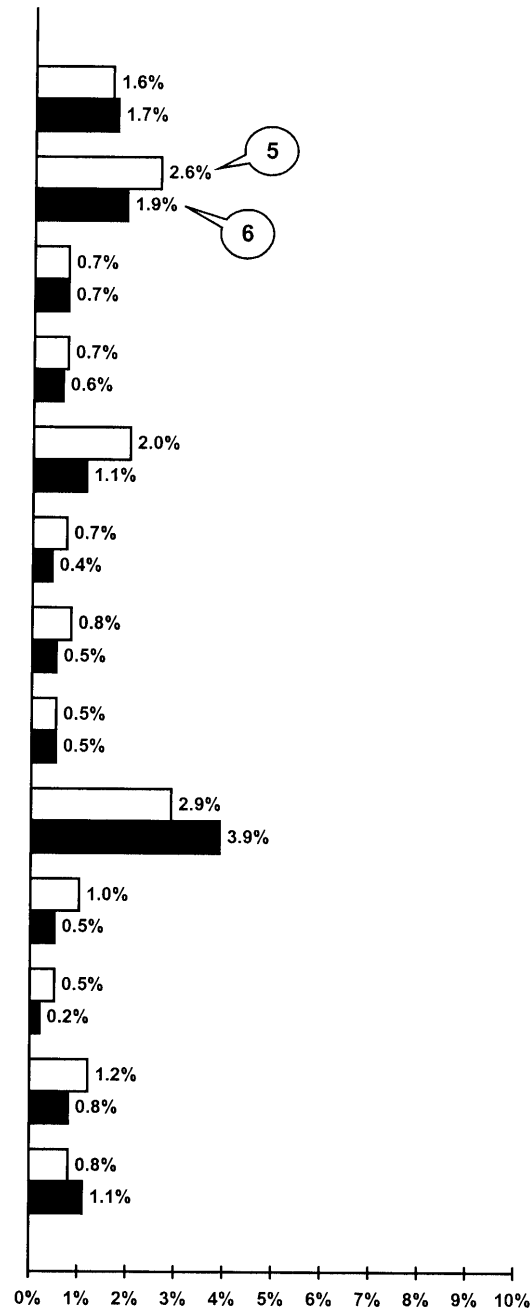
Adverse Event Outcome Report

Adverse Event Outcomes:

Emergent care for injury caused by fall or accident at home



Cases Signif.



* 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.

Percent of Cases with Adverse Event Outcome

Values above 10% are not graphed to scale.

How to Read the (Tabular) Adverse Event Outcome Report

The key features of the (tabular) *Adverse Event Outcome 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 outcome report for "Faircare Home Health Services." Note: Both the agency data and the reference data are hypothetical.

- ① **Requested/Actual Current Period:** This period is defined by two dates (Requested = 09/1999-08/2000 and Actual = 09/1999-08/2000) that encompass all episodes of care (based on discharge/transfer date), which contributed to the adverse event outcome report. Note: These are reported in calendar month increments only, and the time period is inclusive of the starting and ending months.
- ② **Number of Cases in Current Period:** The number of (Faircare's) patients in the current reporting period for whom data were analyzed to produce the adverse event outcome report. If a patient was discharged more than once in the period (i.e., is considered a "duplicated" patient), each episode of care is counted as a case. For agencies that place patients admitted to an inpatient facility on "hold" status (meaning that patients who are admitted to an inpatient facility for 24 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 **Number of Cases in Reference Sample:** The total number of reference or comparison cases used to derive the "reference incidence" figures for the adverse event outcome report. This is a national sample of home health care patients with episodes of care ending between 09/01/1999 to 08/31/2000. Whenever reports are generated, the time span for selection of reference sample cases will match the time span for selection of agency cases (current period).

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 Faircare for whom the specific adverse event could have occurred. This number varies from one specific adverse event to another, primarily due to selective inclusion of patients "at risk" for a specific adverse event.
- ⑤ **Number of Events:** The number of times the indicated adverse event occurred among Faircare's patients.
- 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 572 at Faircare Home Health Services. Since this particular adverse event occurred for 15 cases, then the agency incidence is 15/572 or 2.6%.
- 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 1.9%. This is lower than the aforementioned 2.6% for Faircare Home Health Services, indicating that the incidence rate for this particular adverse event is higher at Faircare than is the case for the reference sample. Owing to the nature of adverse events, it would be appropriate for Faircare to investigate how and why this adverse event occurred for individual patients.
- ⑧ **Patient ID, Name, Gender, Birth Date, SOC/ROC, DC/Transfer:** The (agency-defined) identification numbers of all patients for whom the adverse event occurred in the agency are enumerated, along with name, gender, date of birth, the start of care or resumption of care (SOC/ROC) date and discharge or transfer date (DC/Transfer) for each such patient. Patients discharged to an inpatient facility may 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.

Agency Name: Faircare Home Health Services
 Agency ID: HHA01
 Location: Anytown, USA
 Medicare Number: 007001
 Medicaid Number: 999888001

1 Requested Current Period: 09/1999-08/2000
 Actual Current Period: 09/1999-08/2000
 Number of Cases in Current Period: 601 2
 Number of Cases in Reference Sample: 29983
 Date Report Printed: 11/30/2000 3

Adverse Event Outcome Report Patient Listing

Emergent Care for Injury Caused by Fall or Accident at Home

Complete Data Cases: 572 Number of Events: 9 Agency Incidence: 1.6% Reference Incidence: 1.7%

Patient ID	Last Name	First Name	Gender	Birth Date	SOC/ROC	DC/Trans
654896104	Craig	Ron	M	05/11/1925	09/22/99	12/27/99
544740859	Hawk	Janet	F	08/29/1935	02/12/00	04/18/00
445140130	Schlue	Cindy	F	06/13/1939	03/28/00	06/10/00
674803196	Staloski	Mina	F	09/16/1933	05/22/00	05/26/00
175305360	Amador	Arnold	M	06/06/1928	11/17/99	11/25/99
451896539	Tosh	Ellen	F	01/16/1934	05/27/00	06/02/00
410242616	Adkins	Lisa	F	01/01/1925	04/28/00	08/05/00
037083519	Rose	Cecil	M	04/11/1924	09/26/99	12/05/99
038923073	Tanaka	Bruce	M	04/28/1938	09/02/99	11/01/99

Emergent Care for Wound Infections, Deteriorating Wound Status

Complete Data Cases: 572 Number of Events: 15 Agency Incidence: 2.6% Reference Incidence: 1.9% 7

Patient ID	Last Name	First Name	Gender	Birth Date	SOC/ROC	DC/Trans
601714911	Potter	Cindy	F	10/03/1938	03/22/00	03/23/00
605578965	Ridgeway	Jersey	F	08/16/1919	09/24/99	09/25/99
848022770	Jenkins	Steve	M	08/29/1931	01/20/00	02/18/00
157235821	Connot	Carole	F	09/01/1917	05/02/00	05/09/00
364627291	Kapoi	Bernadeane	F	09/03/1930	12/09/99	03/05/00
606116128	Dickerson	Mary Anne	F	07/27/1935	04/16/00	07/23/00
223434953	Dedmond	Cathy	F	06/26/1917	09/19/99	10/28/99
760263344	Fortis	Jay	M	01/10/1928	01/19/00	03/23/00
203633766	Liblanc	Marilyn	F	05/04/1924	11/07/99	01/29/00
890266877	Beave	Levond	F	12/10/1934	06/19/00	06/30/00
774698823	Anselm	Marge	F	01/05/1941	05/02/00	08/01/00
752690714	Freeman	Victoria	F	06/04/1932	05/21/00	07/31/00
388120765	Fatzer	Virginia	F	08/17/1920	02/10/00	03/24/00
648423584	DeBlois	Lori	F	02/01/1915	11/18/99	12/22/99
425853763	Anderson	Carolyn	F	08/03/1924	04/19/00	05/26/00

Emergent Care for Improper Medication Administration, Medication Side Effects

Complete Data Cases: 572 Number of Events: 4 Agency Incidence: 0.7% Reference Incidence: 0.7% 8

Patient ID	Last Name	First Name	Gender	Birth Date	SOC/ROC	DC/Trans
003678864	Ryan	Betty	F	04/27/1923	11/13/99	01/09/00
745499372	Burke	Leonard	M	12/20/1918	02/22/00	05/03/00
223324976	Rice	Bonnie	F	12/04/1924	10/23/99	02/17/00
039892392	Pierce	Susan	F	07/13/1935	01/30/00	04/10/00

Emergent Care for Hypo/Hyperglycemia

Complete Data Cases: 572 Number of Events: 4 Agency Incidence: 0.7% Reference Incidence: 0.6%

Patient ID	Last Name	First Name	Gender	Birth Date	SOC/ROC	DC/Trans
370756750	McCowan	Sandra	F	11/10/1931	10/06/99	01/06/00
571865967	Badger	Penny	F	01/18/1929	01/02/00	04/24/00
184679971	Penn	Deborah	F	06/02/1915	07/22/00	08/29/00
414789317	Thompson	Pat	F	12/14/1931	06/15/00	08/02/00