

**HOME HEALTH AGENCY QUALITY MEASURES:
TECHNICAL DOCUMENTATION OF
OASIS-BASED PATIENT OUTCOME MEASURES**

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HOME HEALTH AGENCY QUALITY MEASURES: TECHNICAL DOCUMENTATION OF OASIS-BASED PATIENT OUTCOME MEASURES

Introduction

This document provides definitions of measures that appear in Home Health Agency Patient Outcome Reports, including detailed specifications for calculating these measures based on OASIS assessment data. It includes specifications for measures that appear on the "Outcome Tally Report" that is used for Outcome-Based Quality Improvement. A subset of these measures appears on the CMS Home Health Compare web site.

Quality Episodes of Care for OASIS Quality Measures

A quality episode of care is the unit of analysis for OASIS-based measures. This section provides the steps to construct a home health quality episode of care from OASIS assessments. The following fields are needed from each assessment to construct home health quality episodes of care:

- M0100_ASSMT_REASON: Reason for assessment
- FAC_INT_ID: Facility internal ID
- RES_INT_ID: Resident internal ID
- STATE_CD: State abbreviation
- EFCTV_DT: Effective date of the assessment¹
- ASSESSMENT_ID: Unique identifier for each assessment

OASIS assessments are transmitted to the National Submissions Database residing on a secure database server maintained by CMS. Episodes of care are constructed by matching up assessments for each individual served by a home health agency, sorting those assessments by effective date, then pairing up assessments that mark the beginning and end of an episode of care. Episodes of care for which either the beginning or end assessment is missing, or for which assessments are out of sequence, are not included.

¹ Effective date depends on the reason for assessment:

- If M0100_ASSMT_REASON = 01, effective date = M0030_START_CARE_DT.
- If M0100_ASSMT_REASON = 03, effective date = M0032_ROC_DATE.
- If M0100_ASSMT_REASON = 04 or 05, effective date = M0090_INFO_COMPLETET_DT.
- If M0100_ASSMT_REASON = 06, 07, 08, or 09, effective date = M0906_DC_TRAN_DTH_DT.

When working with assessment records from the National Submissions Database, the unique home health agency ID is a combination of the two position STATE_CD and FAC_INT_ID, and the unique patient ID is a combination of STATE_CD and RES_INT_ID.

The process of building episode-level records is as follows:

1. Keep only assessments related to start of care (SOC), resumption of care (ROC) after an inpatient facility stay, or end of care (EOC) discharge from home health care, including discharge due to death, or admission to inpatient facility for 24 hours or more:
 - a. SOC: M0100_ASSMT_REASON = 01
 - b. ROC: M0100_ASSMT_REASON = 03
 - c. EOC: M0100_ASSMT_REASON = 06, 07, 08, or 09
2. Sort assessments by FAC_INT_ID, RES_INT_ID, STATE_CD in descending order based on EFCTV_DT (i.e., latest to earliest assessment).
3. For each set of assessments having the same combination of FAC_INT_ID, RES_INT_ID, STATE_CD, step through the assessments to find the latest assessment with M0100_ASSMT_REASON = 06, 07, 08, or 09.
4. If an assessment with M0100_ASSMT_REASON = 06, 07, 08, or 09 is found before an assessment with M0100_ASSMT_REASON = 01 or 03 is found, discard the episode being built and start over with step #3.
5. If no assessment with M0100_ASSMT_REASON = 01 or 03 is found before the assessments for this patient are exhausted, discard the episode being built.
6. When an assessment with M0100_ASSMT_REASON = 01 or 03 is found, the episode is complete.
7. Create an episode of care record with the following attributes:
 - FAC_INT_ID
 - RES_INT_ID
 - STATE_CD
 - ASSESSMENT_ID_1: Assessment ID of the SOC or ROC assessment
 - ASSESSMENT_ID_2: Assessment ID of the EOC assessment
 - EFCTV_DT_1: Effective date of the SOC or ROC assessment
 - EFCTV_DT_2: Effective date of the EOC assessment

Home Health Outcome Measures

Outcome Measures are referred to as follows:

<u>Measure Domain & Descriptive Measure Name</u>	<u>Short Measure Name</u>
End Result Outcomes –Functional	
*Improvement in Grooming	Imprv_Grooming
Stabilization in Grooming	Stablz_Grooming
Improvement in Upper Body Dressing	Imprv_Upper_Dress
Improvement in Lower Body Dressing	Imprv_Lower_Dress
Improvement in Bathing	Imprv_Bathing
Stabilization in Bathing	Stablz_Bathing
Improvement in Toilet Transferring	Imprv_Toilet_Transfer
Stabilization in Toilet Transferring	Stablz_Toilet_Transfer
*Improvement in Toileting Hygiene	Imprv_Toilet_Hygeine
Stabilization in Toileting Hygiene	Stablz_Toilet_Hygeine
Improvement in Bed Transferring	Imprv_Bed_Transfer
Stabilization in Bed Transferring	Stablz_Bed_Transfer
Improvement in Ambulation-Locomotion	Imprv_Ambulation
*Improvement in Eating	Imprv_Eating
Improvement in Management of Oral Medications	Imprv_Oral_Meds
Stabilization in Management of Oral Medications	Stablz_Oral_Meds
End Result Outcomes –Health/Disease Status	
Improvement in Dyspnea	Imprv_Dyspnea
Improvement in Pain Interfering with Activity	Imprv_Pain
Improvement in Status of Surgical Wounds	Imprv_Status_Wounds
*Improvement in Urinary Tract Infection	Imprv_UTI
Improvement in Bowel Incontinence	Imprv_Bowel_Incont
Improvement in Confusion Frequency	Imprv_Confusion
*Stabilization in Cognitive Functioning	Stablz_Cognitive
*Improvement in Anxiety Level	Imprv_Anxiety
*Stabilization in Anxiety Level	Stablz_Anxiety
*Improvement in Behavior Problem Frequency	Imprv_Behavior
†Percent of Residents or Patients with Pressure Ulcers that are New or Worsened	Pct_New_Worsen_PU
Utilization Outcomes	
Discharged to community	Util_DC_Comm
Emergency Department Use with Hospitalization	Util_ED_Use_W_Hosp

*Measure removed from Home Health Quality Initiative. Results only available on Outcome Tally Report.

†This measure is calculated from an item only available on OASIS-C2. Starting with OASIS-D, this measure will be replaced with “Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury.” Measure results will be frozen after December 2018, but still available on HH Compare and through confidential feedback.

Assumptions and Conventions

The following transformations result in measures with numeric values. For process and outcome measures, “1” indicates that the outcome event occurred or the process was followed, while “0” indicates the outcome event did not occur or the process was not followed. When the instructions indicate that a measure is to be set to "MISSING", the case is excluded from analysis for that particular measure, either because the measure is not applicable or because a data item on which that measure is based has been indicated as “unknown”.

OASIS data items are referred to in this documentation using field names specified in OASIS Data Submission Specifications published by CMS. “[1]” is appended to the field name if the value is taken from the beginning of episode assessment (Start or Resumption of Care), and “[2]” is appended if the value is to be taken from the assessment conducted at the end of the episode (Discharge, Transfer, or Death). Starting with OASIS D, dash ‘-’ may be used as a response for certain items.

End Result Outcome Measures Data Transformation Pseudo-Code

Functional Outcomes

**Improvement in Grooming / Stabilization in Grooming*

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
  AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
  <> NA
THEN
  IF M1800_CRNT_GROOMING[1] > 00
  THEN
    IF M1800_CRNT_GROOMING[2] < (M1800_CRNT_GROOMING[1]
    THEN
      Imprv_GROOMING = 1
    ELSE
      Imprv_GROOMING = 0
    END IF
  ELSE
    Imprv_GROOMING = MISSING
  END IF
  IF M1800_CRNT_GROOMING[1] < 03
  THEN
    IF M1800_CRNT_GROOMING[2] <= M1800_CRNT_GROOMING[1]
    THEN
      Stblz_GROOMING = 1
    ELSE
      Stblz_GROOMING = 0
    END IF
  ELSE
    Stblz_GROOMING = MISSING
  END IF
ELSE
  Imprv_GROOMING = MISSING
  Stblz_GROOMING = MISSING
END IF
```

Improvement in Upper Body Dressing

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
  AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
  <> NA
THEN
  IF M1810_CRNT_DRESS_UPPER[1] > 00
  THEN
    IF M1810_CRNT_DRESS_UPPER[2] < M1810_CRNT_DRESS_UPPER[1]
    THEN
      Imprv_Upper_Dress = 1
    ELSE
      Imprv_Upper_Dress = 0
    END IF
  ELSE
    Imprv_Upper_Dress = MISSING
  END IF
ELSE
  Imprv_Upper_Dress = MISSING
END IF
```

Improvement in Lower Body Dressing

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
  AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
  <> NA
THEN
  IF M1820_CRNT_DRESS_LOWER[1] > 00
  THEN
    IF M1820_CRNT_DRESS_LOWER[2] < M1820_CRNT_DRESS_LOWER[1]
    THEN
      Imprv_Lower_Dress = 1
    ELSE
      Imprv_Lower_Dress = 0
    END IF
  ELSE
    Imprv_Lower_Dress = MISSING
  END IF
ELSE
  Imprv_Lower_Dress = MISSING
```


END IF

Improvement in Bathing / Stabilization in Bathing

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
  AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
  <> NA
THEN
  IF M1830_CRNT_BATHG[1] > 00
  THEN
    IF M1830_CRNT_BATHG[2] < M1830_CRNT_BATHG[1]
    THEN
      Imprv_Bathing = 1
    ELSE
      Imprv_Bathing = 0
    END IF
  ELSE
    Imprv_Bathing = MISSING
  END IF
  IF M1830_CRNT_BATHG[1] < 06
  THEN
    IF M1830_CRNT_BATHG[2] <= M1830_CRNT_BATHG[1]
    THEN
      Stablz_Bathing = 1
    ELSE
      Stablz_Bathing = 0
    END IF
  ELSE
    Stablz_Bathing = MISSING
  END IF
ELSE
  Imprv_Bathing = MISSING
  Stablz_Bathing = MISSING
END IF
```

Improvement in Toilet Transferring / Stabilization in Toilet Transferring

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
    AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
    <> NA
THEN
    IF M1840_CRNT_TOILTG[1] > 00
    THEN
        IF M1840_CRNT_TOILTG[2] < M1840_CRNT_TOILTG[1]
        THEN
            Imprv_Toilet_Transfer = 1
        ELSE
            Imprv_Toilet_Transfer = 0
        END IF
    ELSE
        Imprv_Toilet_Transfer = MISSING
    END IF
    IF M1840_CRNT_TOILTG[1] < 04
    THEN
        IF M1840_CRNT_TOILTG[2] <= M1840_CRNT_TOILTG[1]
        THEN
            Stablz_Toilet_Transfer = 1
        ELSE
            Stablz_Toilet_Transfer = 0
        END IF
    ELSE
        Stablz_Toilet_Transfer = MISSING
    END IF
ELSE
    Imprv_Toilet_Transfer = MISSING
    Stablz_Toilet_Transfer = MISSING
END IF
```

*Improvement in Toileting Hygiene / Stabilization in Toileting Hygiene

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
    AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
    <> NA
THEN
    IF M1845_CRNT_TOILTG_HYGN[1] > 00
```

```

THEN
    IF M1845_CRNT_TOILTG_HYGN[2] < M1845_CRNT_TOILTG_HYGN[1]
    THEN
        Imprv_Toilet_Hygeine = 1
    ELSE
        Imprv_Toilet_Hygeine = 0
    END IF
ELSE
    Imprv_Toilet_Hygeine = MISSING
END IF
IF M1845_CRNT_TOILTG_HYGN[1] < 03
THEN
    IF M1845_CRNT_TOILTG_HYGN[2] <= M1845_CRNT_TOILTG_HYGN[1]
    THEN
        Stablz_Toilet_Hygeine = 1
    ELSE
        Stablz_Toilet_Hygeine = 0
    END IF
ELSE
    Stablz_Toilet_Hygeine = MISSING
END IF
ELSE
    Imprv_Toilet_Hygeine = MISSING
    Stablz_Toilet_Hygeine = MISSING
END IF

```

Improvement in Bed Transferring / Stabilization in Bed Transferring

```

IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
    AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
    <> NA
THEN
    IF M1850_CRNT_TRNSFRNG[1] > 00
    THEN
        IF M1850_CRNT_TRNSFRNG[2] < M1850_CRNT_TRNSFRNG[1]
        THEN
            Imprv_Bed_Transfer = 1
        ELSE
            Imprv_Bed_Transfer = 0
        END IF
    END IF

```

```

ELSE
    Imprv_Bed_Transfer = MISSING
END IF
IF M1850_CRNT_TRNSFRNG[1] < 05
THEN
    IF M1850_CRNT_TRNSFRNG[2] <= M1850_CRNT_TRNSFRNG[1]
    THEN
        Stablz_Bed_Transfer = 1
    ELSE
        Stablz_Bed_Transfer = 0
    END IF
ELSE
    Stablz_Bed_Transfer = MISSING
END IF
ELSE
    Imprv_Bed_Transfer = MISSING
    Stablz_Bed_Transfer = MISSING
END IF

```

Improvement in Ambulation-Locomotion

```

IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
    AND M1710_WHEN_CONFUSED[1] <> NA
    AND M1720_WHEN_ANXIOUS[1] <> NA
THEN
    IF M1860_CRNT_AMBLTN[1] > 00
    THEN
        IF M1860_CRNT_AMBLTN[2] < M1860_CRNT_AMBLTN[1]
        THEN
            Imprv_Ambulation = 1
        ELSE
            Imprv_Ambulation = 0
        END IF
    ELSE
        Imprv_Ambulation = MISSING
    END IF
ELSE
    Imprv_Ambulation = MISSING
END IF

```

**Improvement in Eating*

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
  AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
  <> NA
THEN
  IF M1870_CRNT_FEEDING[1] > 00
  THEN
    IF M1870_CRNT_FEEDING[2] < M1870_CRNT_FEEDING[1]
    THEN
      Imprv_Eating = 1
    ELSE
      Imprv_Eating = 0
    END IF
  ELSE
    Imprv_Eating = MISSING
  END IF
ELSE
  Imprv_Eating = MISSING
END IF
```

Improvement in Management of Oral Medications / Stabilization in Management of Oral Medications

```
IF M0100_ASSMT_REASON[2] = 09 AND
  M2020_CRNT_MGMT_ORAL_MDCTN[1] IS NOT BLANK AND
  M2020_CRNT_MGMT_ORAL_MDCTN[1] <> NA AND
  M2020_CRNT_MGMT_ORAL_MDCTN[2] <> NA AND
  (M1700_COG_FUNCTION[1] <> 04 AND M1710_WHEN_CONFUSED[1] <> NA
  AND M1720_WHEN_ANXIOUS[1] <> NA)
THEN
  IF M2020_CRNT_MGMT_ORAL_MDCTN[1] > 00
  THEN
    IF M2020_CRNT_MGMT_ORAL_MDCTN[2] <
      M2020_CRNT_MGMT_ORAL_MDCTN[1]
    THEN
      Imprv_Oral_Meds = 1
    ELSE
      Imprv_Oral_Meds = 0
    END IF
  
```

```

ELSE
    Imprv_Oral_Meds = MISSING
END IF
IF M2020_CRNT_MGMT_ORAL_MDCTN[1] < 03
THEN
    IF M2020_CRNT_MGMT_ORAL_MDCTN[2] <=
        M2020_CRNT_MGMT_ORAL_MDCTN[1]
    THEN
        Stablz_Oral_Meds = 1
    ELSE
        Stablz_Oral_Meds = 0
    END IF
ELSE
    Stablz_Oral_Meds = MISSING
END IF
ELSE
    Imprv_Oral_Meds = MISSING
    Stablz_Oral_Meds = MISSING
END IF

```

Health Status Outcomes

Improvement in Dyspnea

```

IF M0100_ASSMT_REASON[2] = 09
THEN
    IF M1400_WHEN_DYSPNEIC[1] > 00
    THEN
        IF M1400_WHEN_DYSPNEIC[2] < M1400_WHEN_DYSPNEIC[1]
        THEN
            Imprv_Dyspnea = 1
        ELSE
            Imprv_Dyspnea = 0
        END IF
    ELSE
        Imprv_Dyspnea = MISSING
    END IF
ELSE
    Imprv_Dyspnea = MISSING
END IF

```

Improvement in Pain Interfering with Activity

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
  AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
  <> NA
THEN
  IF M1242_PAIN_FREQ_ACTVTY_MVMT[1] > 00
  THEN
    IF M1242_PAIN_FREQ_ACTVTY_MVMT[2] <
      M1242_PAIN_FREQ_ACTVTY_MVMT[1]
    THEN
      Imprv_Pain = 1
    ELSE
      Imprv_Pain = 0
    END IF
  ELSE
    Imprv_Pain = MISSING
  END IF
ELSE
  Imprv_Pain = MISSING
END IF
```

Improvement in Status of Surgical Wounds

```
IF M0100_ASSMT_REASON[2] = 09
THEN
  IF M1340_SRGCL_WND_PRSNT[1] = 01 AND
    M1342_STUS_PRBLM_SRGCL_WND[1] > 00 AND
    M1340_SRGCL_WND_PRSNT[2] <> 02
  THEN
    IF M1340_SRGCL_WND_PRSNT[2] = 00 OR
      M1342_STUS_PRBLM_SRGCL_WND[2] <
      M1342_STUS_PRBLM_SRGCL_WND[1]
    THEN
      Imprv_Status_Wounds = 1
    ELSE
      Imprv_Status_Wounds = 0
    END IF
  ELSE
    Imprv_Status_Wounds = MISSING
```

```
END IF
ELSE
    Imprv_Status_Wounds = MISSING
END IF
```

**Improvement in Urinary Tract Infection*

```
IF M0100_ASSMT_REASON[2] = 09 AND M1600_UTI[1] <> UK AND
    M1600_UTI[1] <> NA AND M1600_UTI[2] <> NA
THEN
    IF M1600_UTI[1] > 00
    THEN
        IF M1600_UTI[2] < M1600_UTI[1]
        THEN
            Imprv_UTI = 1
        ELSE
            Imprv_UTI = 0
        END IF
    ELSE
        Imprv_UTI = MISSING
    END IF
ELSE
    Imprv_UTI = MISSING
END IF
```

Improvement in Bowel Incontinence

```
IF M0100_ASSMT_REASON[2] = 09 AND M1620_BWL_INCONT[1] <> UK AND
    M1620_BWL_INCONT[1] <> NA AND M1620_BWL_INCONT[2] <> NA AND
    M1700_COG_FUNCTION[1] <> 04 AND M1710_WHEN_CONFUSED[1] <> NA
    AND M1720_WHEN_ANXIOUS[1] <> NA
THEN
    IF M1620_BWL_INCONT[1] > 00
    THEN
        IF M1620_BWL_INCONT[2] < M1620_BWL_INCONT[1]
        THEN
            Imprv_Bowel_Incont = 1
        ELSE
            Imprv_Bowel_Incont = 0
        END IF
    END IF
```



```

ELSE
    Imprv_Bowel_Incont = MISSING
END IF
ELSE
    Imprv_Bowel_Incont = MISSING
END IF

```

Improvement in Confusion Frequency

```

IF M0100_ASSMT_REASON[2] = 09 AND M1710_WHEN_CONFUSED[2] <> NA AND
    M1700_COG_FUNCTION[1] <> 04 AND M1710_WHEN_CONFUSED[1] <> NA
    AND M1720_WHEN_ANXIOUS[1] <> NA
THEN
    IF M1710_WHEN_CONFUSED[1] > 00
    THEN
        IF M1710_WHEN_CONFUSED[2] < M1710_WHEN_CONFUSED[1]
        THEN
            Imprv_Confusion = 1
        ELSE
            Imprv_Confusion = 0
        END IF
    ELSE
        Imprv_Confusion = MISSING
    END IF
ELSE
    Imprv_Confusion = MISSING
END IF

```

*Stabilization in Cognitive Functioning

```

IF M0100_ASSMT_REASON[2] = 09 AND M1710_WHEN_CONFUSED[1] <> NA AND
    M1720_WHEN_ANXIOUS[1] <> NA
THEN
    IF M1700_COG_FUNCTION[1] < 04
    THEN
        IF M1700_COG_FUNCTION[2] <= M1700_COG_FUNCTION[1]
        THEN
            Stablz_Cognitive = 1
        ELSE
            Stablz_Cognitive = 0
        END IF
    END IF

```

```

        END IF
    ELSE
        Stablz_Cognitive = MISSING
    END IF
ELSE
    Stablz_Cognitive = MISSING
END IF

```

**Improvement in Anxiety Level / Stabilization in Anxiety Level*

```

IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
    AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
    <> NA AND M1720_WHEN_ANXIOUS[2] <> NA
THEN
    IF M1720_WHEN_ANXIOUS[1] > 00
    THEN
        IF M1720_WHEN_ANXIOUS[2] < M1720_WHEN_ANXIOUS[1]
        THEN
            *Imprv_Anxiety = 1
        ELSE
            Imprv_Anxiety = 0
        END IF
    ELSE
        Imprv_Anxiety = MISSING
    END IF
    IF M1720_WHEN_ANXIOUS[1] < 03
    THEN
        IF M1720_WHEN_ANXIOUS[2] <= M1720_WHEN_ANXIOUS[1]
        THEN
            Stablz_Anxiety = 1
        ELSE
            Stablz_Anxiety = 0
        END IF
    ELSE
        Stablz_Anxiety = MISSING
    END IF
ELSE
    Imprv_Anxiety = MISSING
    Stablz_Anxiety = MISSING
END IF

```

**Improvement in Behavior Problem Frequency*

```
IF M0100_ASSMT_REASON[2] = 09 AND M1700_COG_FUNCTION[1] <> 04
    AND M1710_WHEN_CONFUSED[1] <> NA AND M1720_WHEN_ANXIOUS[1]
    <> NA
THEN
    IF M1745_BEH_PROB_FREQ[1] > 00
    THEN
        IF M1745_BEH_PROB_FREQ[2] < M1745_BEH_PROB_FREQ[1]
        THEN
            Imprv_Behavior = 1
        ELSE
            Imprv_Behavior = 0
        END IF
    ELSE
        Imprv_Behavior = MISSING
    END IF
ELSE
    Imprv_Behavior = MISSING
END IF
```

Percent of Residents or Patients with Pressure Ulcers that are New or Worsened

```
IF M0100_ASSMT_REASON[2] <> 09 OR (M1313_NW_WS_PRSULC_STG2_A[2] = '-'  
    AND M1313_NW_WS_PRSULC_STG2_B[2] = '-' AND  
    M1313_NW_WS_PRSULC_STG2_C[2] = '-')  
THEN  
    Pct_New_Worsen_PU = MISSING  
ELSEIF M1313_NW_WS_PRSULC_STG2_A[2] = '^' (SKIP) AND  
    M1313_NW_WS_PRSULC_STG2_B[2] = '^' (SKIP) AND  
    M1313_NW_WS_PRSULC_STG2_C[2] = '^' (SKIP)  
THEN  
    Pct_New_Worsen_PU = 0  
ELSEIF M1313_NW_WS_PRSULC_STG2_A[2] > 0 OR  
    M1313_NW_WS_PRSULC_STG2_B[2] > 0 OR  
    M1313_NW_WS_PRSULC_STG2_C[2] > 0  
THEN  
    Pct_New_Worsen_PU = 1  
ELSE  
    Pct_New_Worsen_PU = 0  
END IF
```

Utilization Outcomes (OASIS-Based)

Discharged to Community

```
IF M0100_ASSMT_REASON[2] <> 08
THEN
    IF M0100_ASSMT_REASON[2] = 09 AND (M2420_DSCHRG_DISP[2] = 01
        OR M2420_DSCHRG_DISP[2] = 02)
    THEN
        Util_DC_Comm = 1
    ELSE IF (M0100_ASSMT_REASON[2] = 09 AND M2420_DSCHRG_DISP[2] = 03)
        OR M0100_ASSMT_REASON[2] = 06 OR M0100_ASSMT_REASON[2] = 07
    THEN
        Util_DC_Comm = 0
    ELSE IF M0100_ASSMT_REASON[2] = 09
        AND M2420_DSCHRG_DISP[2] = UK
    THEN
        Util_DC_Comm = MISSING
    END IF
ELSE
    Util_DC_Comm = MISSING
END IF
```

Emergency Department Use with Hospitalization

```
IF M0100_ASSMT_REASON[2] <> 08
THEN
    IF M2301_EMER_USE_AFTR_LAST_ASMT[2] = 02
    THEN
        Util_ED_Use_W_Hosp = 1
    ELSEIF M2301_EMER_USE_AFTR_LAST_ASMT[2] = 00
        OR M2301_EMER_USE_AFTR_LAST_ASMT[2] = 01
    THEN
        Util_ED_Use_W_Hosp = 0
    ELSEIF M2301_EMER_USE_AFTR_LAST_ASMT[2] = UK
    THEN
        Util_ED_Use_W_Hosp = MISSING
    END IF
```

ELSE

Util_ED_Use_W_Hosp = MISSING

END IF
