## Mental Health Utilization (MPT)

Summary of Changes to HEDIS 2016

* Added a method and value sets to identify inpatient discharges.

Description

The number and percentage of members receiving the following mental health services during the measurement year:

* Any service.
* Inpatient.
* Intensive outpatient or partial hospitalization.
* Outpatient or ED.

Calculations

|  |  |
| --- | --- |
| Product lines | Report the following tables for each applicable product line:   * Table MPT-1a Total Medicaid. * Table MPT-1b Medicaid/Medicare Dual-Eligibles. * Table MPT-1c Medicaid—Disabled. * Table MPT-1d Medicaid—Other Low Income. * Table MPT-2 Commercial—by Product or Combined HMO/POS. * Table MPT-3 Medicare.   Count members who received inpatient, intensive outpatient, partial hospitalization, outpatient and ED mental health services in each column. Count members only once in each column, regardless of number of visits.  Count members in the *Any Service* column only if they had at least one inpatient, intensive outpatient, partial hospitalization, outpatient or ED claim/encounter during the measurement year.  *For members who had more than one encounter,* count only the first visit in the measurement year and report the member in the respective age category as of the date of service or discharge. |
| Benefit | Mental health. |
| Member months | For each product line and table, report all member months during the measurement year for members with the benefit. IDSS automatically produces member years data for the commercial and Medicare product lines. Refer to *Specific Instructions for Utilization Tables* for more information.  Because some organizations may offer different benefits for inpatient and outpatient mental health services, denominators in the columns of the member months table may vary. Include all members with any mental health benefit in the denominator in the *Any* column. |

|  |  |
| --- | --- |
| Inpatient | Include acute and nonacute inpatient discharges from either a hospital or a treatment facility with a mental health principal diagnosis (Mental Health Diagnosis Value Set). To identify acute and nonacute inpatient discharges:   1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set). 2. Identify the discharge date for the stay. |
| Intensive out-patient and partial hospitalization | Report intensive outpatient and partial hospitalization claims/encounters in conjunction with a principal mental health diagnosis. Any of the following code combinations meet criteria:   * MPT Stand Alone IOP/PH Value Set ***with*** a principal mental health diagnosis (Mental Health Diagnosis Value Set). * MPT IOP/PH Group 1 Value Set ***with*** POS 52 Value Set ***and*** a principal mental health diagnosis (Mental Health Diagnosis Value Set). * MPT IOP/PH Group 1 Value Set ***with*** POS 53 Value Set ***and*** a principal mental health diagnosis (Mental Health Diagnosis Value Set), where the organization can confirm that the visit was in an intensive outpatient or partial hospitalization setting (POS 53 is not specific to setting). * MPT IOP/PH Group 2 Value Set ***with*** POS 52 Value Set ***and*** a principal mental health diagnosis (Mental Health Diagnosis Value Set) billed by a mental health practitioner. * MPT IOP/PH Group 2 Value Set ***with*** POS 53 Value Set ***and*** a principal mental health diagnosis (Mental Health Diagnosis Value Set), where the organization can confirm that the visit was in an intensive outpatient or partial hospitalization setting (POS 53 is not specific to setting) ***and*** billed by a mental health practitioner.   Count services provided by physicians and nonphysician practitioners.  Exclude services determined inpatient based on type of bill, place of service or location of service codes. |
| Outpatient  and ED | Report outpatient and ED claims/encounters in conjunction with a principal mental health diagnosis. Any of the following code combinations meet criteria:   * MPT Stand Alone Outpatient Group 1 Value Set ***with*** a principal mental health diagnosis (Mental Health Diagnosis Value Set). * Observation Value Set ***with*** a principal mental health diagnosis (Mental Health Diagnosis Value Set) billed by a mental health practitioner. * ED Value Set ***with*** a principal mental health diagnosis (Mental Health Diagnosis Value Set) billed by a mental health practitioner. * MPT Outpatient/ED Value Set ***with*** MPT Outpatient/ED POS Value Set ***and*** a principal mental health diagnosis (Mental Health Diagnosis Value Set). * MPT Outpatient/ED Value Set ***with*** POS 53 Value Set ***and*** a principal mental health diagnosis (Mental Health Diagnosis Value Set), where the organization can confirm that the visit was in an outpatient or ED setting (POS 53 is not specific to setting). * MPT Stand Alone Outpatient Group 2 Value Set ***with*** a principal mental health diagnosis (Mental Health Diagnosis Value Set) billed by a mental health practitioner.   Count services provided by physicians and nonphysicians.  Only include observation stays and ED visits that do not result in an inpatient stay. |

Table MPT-1/2/3: Mental Health Utilization

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Member Months (Any Service) | | | | | Member Months (Inpatient) | | |
| Age | | Male | Female | Total | Male | Female | Total |
| 0-12 | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 13-17 | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 18-64 | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 65+ | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Unknown | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| ***Total:*** | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Member Months (Intensive Outpatient/Partial Hospitalization) | | | | | Member Months (Outpatient/ED) | | |
| Age | Male | | Female | Total | Male | Female | Total |
| 0-12 | \_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 13-17 | \_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 18-64 | \_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| 65+ | \_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| Unknown | \_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_ | | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_ |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Sex | Any Service | | Inpatient | | Intensive Outpatient/Partial Hospitalization | | Outpatient/ED | |
| Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| 0-12 | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 13-17 | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 18-64 | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| 65+ | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Unknown | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |

## Antibiotic Utilization (ABX)

Summary of Changes to HEDIS 2016

* No changes to this measure.

Description

This measure summarizes the following data on outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender:

* Total number of antibiotic prescriptions.
* Average number of antibiotic prescriptions per member per year (PMPY).
* Total days supplied for all antibiotic prescriptions.
* Average days supplied per antibiotic prescription.
* Total number of prescriptions for antibiotics of concern.
* Average number of prescriptions PMPY for antibiotics of concern.
* Percentage of antibiotics of concern for all antibiotic prescriptions.
* Average number of antibiotics PMPY reported by drug class:
* For selected “antibiotics of concern.”
* For all other antibiotics.

**Note:** NCQA will provide a list of NDC codes for antibiotic medications on its Web site (www.ncqa.org) by November 2, 2015.

Measure Attributes

|  |  |
| --- | --- |
| Product lines | Report the following tables for each applicable product line:   * Table ABX-1a Total Medicaid. * Table ABX-1b Medicaid/Medicare Dual-Eligibles. * Table ABX-1c Medicaid—Disabled. * Table ABX-1d Medicaid—Other Low Income. * Table ABX-2 Commercial—by Product or Combined HMO/POS. * Table ABX-3 Medicare.   Report the information in Tables ABX-1/2/3 (a–c) by age and gender. |
| Age | Age as of the date the prescription is dispensed. |
| Benefit | Pharmacy. |
| Member months | Report all member months for the measurement year for members with the benefit. IDSS automatically produces member years data for all product lines: Medicaid, commercial and Medicare. Refer to *Specific Instructions for Use of Services Tables.* |
| Antibiotic prescription | An antibiotic dispensed for any duration. |

Calculations

|  |  |
| --- | --- |
| Total number of antibiotic prescriptions | Total number of all antibiotic prescriptions for the measurement year of any duration of the medication. |
| Average number of antibiotic prescriptions PMPY | Annual total number of antibiotic prescriptions PMPY = [Total number of antibiotic prescriptions in the year/member months for members with a pharmacy benefit] x 12 months. |
| Total days supplied for all antibiotic prescriptions | Count the number of days supplied for all antibiotic prescriptions during the measurement year. Identify the number of days supplied for each antibiotic prescription and sum the days for all antibiotic prescriptions during the measurement year. |
| Average number  of days supplied  per antibiotic prescription | Average number of days supplied per prescription = [Total days supplied for all antibiotics prescription in the year/Total number of antibiotic prescriptions in the year]. |

Table ABX-A: Antibiotic Medications

|  |  |  |  |
| --- | --- | --- | --- |
| Description | Prescription | | |
| Antibiotics of concern | * Amoxicillin-clavulanate * Azithromycin * Aztreonam * Clarithromycin * Cefaclor * Cefdinir * Cefditoren * Cefepime * Cefixime * Cefotaxime * Cefotetan | * Cefoxitin * Cefpodoxime * Cefprozil * Ceftazidime * Ceftibuten * Ceftriaxone * Cefuroxime * Clindamycin * Chloramphenicol * Ciprofloxacin * Dalfopristin-quinupristin | * Gemifloxacin * Levofloxacin * Moxifloxacin * Linezolid * Norfloxacin * Ofloxacin * Telavancin * Telithromycin * Vancomycin |
| All other antibiotics | * Amikacin * Amoxicillin * Ampicillin * Ampicillin-sulbactam * Cefadroxil * Cefazolin * Cephalexin * Daptomycin * Doxycycline * Erythromycin * Erythromycin ethylsuccinate * Erythromycin lactobionate * Erythromycin stearate * Erythromycin-sulfisoxazole | * Fosfomycin * Gentamicin * Kanamycin * Lincomycin * Metronidazole * Minocycline * Nafcillin * Nitrofurantoin * Nitrofurantoin macrocrystals * Dicloxacillin * Oxacillin * Penicillin G benzathine * Penicillin G potassium * Penicillin G procaine | * Penicillin G sodium * Penicillin V potassium * Piperacillin * Piperacillin-tazobactam * Rifampin * Sulfadiazine * Sulfamethoxazole-trimethoprim * Tetracycline * Ticarcillin-clavulanate * Streptomycin * Tobramycin * Trimethoprim |

Calculations for Antibiotics of Concern

|  |  |
| --- | --- |
| Total number of prescriptions for antibiotics of concern | Total number of all prescriptions for antibiotics of concern during the measurement year. Table ABX-B contains all antibiotics of concern. |
| Average number of prescriptions PMPY for antibiotics of concern | Annual total number of prescriptions for antibiotics of concern per member per year = [Annual number of prescriptions for antibiotics of concern/member months for members with a pharmacy benefit] × 12 months. |
| Percentage of antibiotics of concern of all antibiotic prescriptions | Percentage of prescriptions for antibiotics of concern of all antibiotic prescriptions = [Total number of prescriptions for antibiotics of concern in the year/Total number of antibiotic prescriptions in the year]. |

Table ABX-B: Antibiotics of Concern by NCQA Drug Class

|  |  |  |  |
| --- | --- | --- | --- |
| Description | Prescription | | |
| Quinolone | * Ciprofloxacin * Gemifloxacin | * Levofloxacin * Moxifloxacin | * Norfloxacin * Ofloxacin |
| Azithromycin and clarithromycin | * Azithromycin | * Clarithromycin | |
| Cephalosporin (second, third, fourth generation) | * Cefaclor * Cefdinir * Cefditoren * Cefepime * Cefixime | * Cefotaxime * Cefotetan * Cefoxitin * Cefpodoxime * Cefprozil | * Ceftriaxone * Cefuroxime * Ceftazidime * Ceftibuten |
| Amoxicillin/clavulanate | * Amoxicillin-clavulanate | | |
| Ketolide | * Telithromycin |  | |
| Clindamycin | * Clindamycin |  | |
| Miscellaneous antibiotics of concern | * Aztreonam * Chloramphenicol | * Dalfopristin-quinupristin * Linezolid | * Telavancin * Vancomycin |

Calculations for Reporting by Drug Class

|  |  |
| --- | --- |
| Antibiotic utilization by drug class | For each product line, report the utilization of antibiotic prescriptions by drug class in Table ABX-1/2/3(b) and Table ABX-1/2/3(c) for the following:   * Antibiotics of concern. * All other antibiotics. |
| Antibiotics of concern | Report the utilization of antibiotics of concern by the following antibiotic drug classes in Table ABX-1/2/3(b):   * Amoxicillin/clavulanate. * Azithromycin and clarithromycin. * Cephalosporin (includes second-, third- and fourth-generation cephalosporins). * Clindamycin. |

|  |  |
| --- | --- |
|  | * Ketolide. * Quinolone. * Miscellaneous antibiotics of concern.   Refer to Table ABX-B for a list of antibiotics of concern and therapeutic classes. |
| All other antibiotics | Report the utilization of all other antibiotics by the following antibiotic drug classes in Table ABX-1/2/3(c):   * Absorbable sulfonamide. * Aminoglycoside. * Cephalosporin (includes first generation only). * Lincosamide (other than clindamycin). * Macrolide (other than azithromycin and clarithromycin). * Penicillin (other than amoxicillin/clavulanate). * Tetracycline. * Miscellaneous antibiotics.   Refer to Table ABX-C for a list of all other antibiotics of concern and therapeutic classes. |

Table ABX-C: All Other Antibiotics by NCQA Drug Class

|  |  |  |  |
| --- | --- | --- | --- |
| Description | Prescription | | |
| Absorbable sulfonamide | * Sulfadiazine | * Sulfamethoxazole-trimethoprim | |
| Aminoglycoside | * Amikacin * Gentamicin | * Kanamycin * Streptomycin | * Tobramycin |
| Cephalosporin (first generation) | * Cefadroxil * Cefazolin | * Cephalexin | |
| Lincosamide (other than clindamycin) | * Lincomycin | | |
| Macrolide (other than azithromycin and clarithromycin) | * Erythromycin * Erythromycin ethylsuccinate * Erythromycin lactobionate | * Erythromycin stearate * Erythromycin-sulfisoxazole | |
| Penicillin (other than amoxicillin/ clavulanate) | * Ampicillin * Ampicillin-sulbactam * Amoxicillin * Dicloxacillin * Nafcillin * Oxacillin * Penicillin G benzathine | * Penicillin G potassium * Penicillin G procaine * Penicillin G sodium * Penicillin V potassium * Piperacillin * Piperacillin-tazobactam * Ticarcillin-clavulanate | |
| Tetracyclines | * Doxycycline * Minocycline | * Tetracycline |  |
| Miscellaneous antibiotics | * Daptomycin * Fosfomycin * Metronidazole * Nitrofurantoin | * Nitrofurantoin macrocrystals * Rifampin * Trimethoprim | |

Table ABX-1/2/3: Plan Member Months

|  |  |  |  |
| --- | --- | --- | --- |
| Member Months | | | |
| Age | Male | Female | Total |
| 0-9 | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| 10-17 | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| 18-34 | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| 35-49 | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| 50-64 | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| 65-74 | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| 75-84 | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| 85+ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| Unknown | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ |

Table ABX-1/2/3(a): Antibiotic Utilization

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Sex | Total Antibiotic Scrips | Average Scrips for Antibiotics PMPY | Total Days Supplied for All Antibiotic Scrips | Average Days Supplied per Anti-biotic Scrip | Total Scrips for Antibiotics of Concern | Average Scrips for Antibiotics of Concern PMPY | % of Antibiotics of Concern of All Antibiotic Scrips |
| 0-9 | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| 10-17 | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| 18-34 | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |

Table ABX-1/2/3(a): Antibiotic Utilization *(continued)*

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Sex | Total Antibiotic Scrips | Average Scrips for Antibiotics PMPY | Total Days Supplied for All Antibiotic Scrips | Average Days Supplied per Anti-biotic Scrip | Total Scrips for Antibiotics of Concern | Average Scrips for Antibiotics of Concern PMPY | % of Antibiotics of Concern of All Antibiotic Scrips |
| 35-49 | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| 50-64 | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| 65-74 | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Unknown | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Total | Male | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| Female | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_% |

Table ABX-1/2/3(b): Antibiotics of Concern Utilization by Drug Class

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Sex | Total Quino-lone Scrips | Avg Scrips for Quino-lone PMPY | Total Ceph-alo-sporin Scrips | Avg Scrips for Ceph-alo-sporin PMPY | Total Azithro-mycin & Clar-ithro-mycin Scrips | Avg Scrips for Azithro-mycin & Clar-ithro-mycin PMPY | Total Amox-icillin/ Clavu-lanate Scrips | Avg Scrips PMPY for Amox-icillin/ Clavu-lanate PMPY | Total Keto-lide Scrips | Avg Scrips for Keto-lide PMPY | Total Clinda-mycin Scrips | Avg Scrips for Clinda-mycin PMPY | Total Misc Anti-biotics of Concern Scrips | Avg Scrips for Misc Anti-biotics of Concern PMPY |
| 0-9 | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| 10-17 | Male | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| 18-34 | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| 35-49 | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| 50-64 | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| 65-74 | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |

Table ABX-1/2/3(b): Antibiotics of Concern Utilization by Drug Class *(continued)*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Sex | Total  Quino-lone Scrips | Avg Scrips for Quino-lone PMPY | Total Ceph-alo-sporin Scrips | Avg Scrips for Ceph-alo-sporin PMPY | Total Azithro-mycin & Clar-ithro-mycin Scrips | Avg Scrips for Azithro-mycin & Clar-ithro-mycin PMPY | Total Amox-icillin/ Clavu-lanate Scrips | Avg Scrips PMPY for Amox-icillin/ Clavu-lanate PMPY | Total Keto-lide Scrips | Avg Scrips for Keto-lide PMPY | Total Clinda-mycin Scrips | Avg Scrips for Clinda-mycin PMPY | Total Misc Anti-biotics of Concern Scrips | Avg Scrips for Misc Anti-biotics of Concern PMPY |
| 85+ | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Unknown | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_\_ |

Table ABX-1/2/3(c): All Other Antibiotic Utilization by Drug Class

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Sex | Total Absorb-able sulfona-mide Scrips | Avg Scrips for Absorb-able sulfona-mide PMPY | Total  Amino-glyco-side Scrips | Avg Scrips for Amino-glyco-side PMPY | Total 1st Gen Ceph-alo-spor-ins Scrips | Avg Scrips for 1st Gen Ceph-alo-spor-ins PMPY | Total Linco-samide Scrips | Avg Scrips for Linco-samide PMPY | Total  Macro-lides (not azith., clar.) Scrips | Avg Scrips for Macro-lides (not azith., clar.) PMPY | Total Peni-cillin Scrips | Avg Scrips for Peni-cillin PMPY | Total Tetra-cycline Scrips | Avg Scrips for Tetra-cy-cline PMPY | Total Misc. Anti-biotics Scrips | Avg Scrips for Misc. Anti-biotics PMPY |
| 0-9 | M | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| 10-17 | M | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| 18-34 | M | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| 35-49 | M | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| 50-64 | M | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| 65-74 | M | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| 75-84 | M | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |

Table ABX-1/2/3(c): All Other Antibiotic Utilization by Drug Class *(continued)*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Sex | Total Absorb-able sulfona-mide Scrips | Avg Scrips for Absorb-able sulfona-mide PMPY | Total Amino-glyco-side Scrips | Avg Scrips for Amino-glyco-side PMPY | Total 1st Gen Ceph-alo-spor-ins Scrips | Avg Scrips for 1st Gen Ceph-alo-spor-ins PMPY | Total Linco-samide Scrips | Avg Scrips for Linco-samide PMPY | Total Macro-lides (not azith., clar.) Scrips | Avg Scrips for Macro-lides (not azith., clar.) PMPY | Total Peni-cillin Scrips | Avg Scrips for Peni-cillin PMPY | Total Tetra-cycline Scrips | Avg Scrips for Tetra-cy-cline PMPY | Total Misc. Anti-biotics Scrips | Avg Scrips for Misc. Anti-biotics PMPY |
| 85+ | M | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| Un. | M | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| Total | M | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| F | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |
| ***Tot.*** | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ | \_\_\_\_\_\_ | \_\_\_\_\_ |

Risk Adjusted Utilization

## Plan All-Cause Readmissions (PCR)

Summary of Changes to HEDIS 2016

* Added a method and value sets to identify acute inpatient discharges in step 1 of the event/diagnosis.
* Added instructions for identifying the transfer setting in step 2 of the event/diagnosis.
* Added a Note to steps 4 and 5 of the event/diagnosis.
* Added a method and value sets to identify acute inpatient admissions in step 1 of the numerator.

Description

For members 18 years of age and older, the number of acute inpatient stays during the measurement year that were followed by an unplanned acute readmission for any diagnosis within 30 days and the predicted probability of an acute readmission. Data are reported in the following categories:

1. Count of Index Hospital Stays (IHS) (denominator).
2. Count of 30-Day Readmissions (numerator).
3. Average Adjusted Probability of Readmission.

***Note:*** *For commercial, report only members 18–64 years of age.*

Definitions

|  |  |
| --- | --- |
| IHS | Index hospital stay. An acute inpatient stay with a discharge on or between January 1 and December 1 of the measurement year. Exclude stays that meet the exclusion criteria in the denominator section. |
| Index Admission Date | The IHS admission date. |
| Index Discharge Date | The IHS discharge date. The index discharge date must occur on or between January 1 and December 1 of the measurement year. |
| Index Readmission Stay | An acute inpatient stay for any diagnosis with an admission date within 30 days of a previous Index Discharge Date. |
| Index Readmission Date | The admission date associated with the Index Readmission Stay. |
| Planned Hospital Stay | A hospital stay is considered planned if it meets criteria as described in step 5 (required exclusions) of the *Eligible Population*. |
| Classification Period | 365 days prior to and including an Index Discharge Date. |

Risk Adjustment Tables

|  |  |
| --- | --- |
| Table | Table Description |
| HCC-Surg | Surgery codes for Risk Adjustment Determination |
| PCR-DischCC | Discharge Clinical Condition category codes for Risk Adjustment Determination |
| CC-Comorbid | Comorbid Clinical Condition category codes for Risk Adjustment Determination step 2 |
| HCC–Rank | HCC rankings for Risk Adjustment Determination step 3 |
| HCC-Comb | Combination HCCs for Risk Adjustment Determination step 5 |
| PCR-MA-DischCC-Weight-Under65 | MA and SNP primary discharge weights for Risk Adjustment Weighting step 2 for ages under 65 |
| PCR-MA-DischCC-Weight-65plus | MA and SNP primary discharge weights for Risk Adjustment Weighting step 2 for ages 65 and older |
| PCR-Comm-DischCC-Weight | Commercial primary discharge weights for Risk Adjustment Weighting step 2 |
| PCR-MA-ComorbHCC-Weight-Under65 | MA and SNP comorbidity weights for Risk Adjustment Weighting step 3 for ages under 65 |
| PCR-MA-ComorbHCC-Weight-65plus | MA and SNP comorbidity weights for Risk Adjustment Weighting step 3 for ages 65 and older |
| PCR-Comm-ComorbHCC-Weight | Commercial comorbidity weights for Risk Adjustment Weighting step 3 |
| PCR-MA-OtherWeights-Under65 | MA and SNP base risk, surgery, age and gender weights for Risk Adjustment Weighting steps 1, 4, 5 for ages under 65 |
| PCR-MA-OtherWeights-65plus | MA and SNP base risk, surgery, age and gender weights for Risk Adjustment Weighting steps 1, 4, 5 for ages 65 and older |
| PCR-Comm-OtherWeights | Commercial base risk, surgery, age and gender weights for Risk Adjustment Weighting steps 1, 4, 5 |

**Note:** The risk adjustment tables will be released on November 2, 2015, and posted to www.ncqa.org.

Eligible Population

|  |  |
| --- | --- |
| Product line | Commercial, Medicare (report each product line separately). |
| Ages | For commercial, ages 18–64 as of the Index Discharge Date.  For Medicare, ages 18 and older as of the Index Discharge Date. |
| Continuous enrollment | 365 days prior to the Index Discharge Date through 30 days after the Index Discharge Date. |
| Allowable gap | No more than one gap in enrollment of up to 45 days during the 365 days prior to the Index Discharge Date and no gap during the 30 days following the Index Discharge date. |
| Anchor date | Index Discharge Date. |
| Benefit | Medical. |
| Event/ diagnosis | An acute inpatient discharge on or between January 1 and December 1 of the measurement year.  The denominator for this measure is based on discharges, not members. Include all acute inpatient discharges for members who had one or more discharges on or between January 1 and December 1 of the measurement year.  Follow the steps below to identify acute inpatient stays. |

Administrative Specification

|  |  |  |
| --- | --- | --- |
| Denominator | The eligible population. | |
| *Step 1* | | Identify all acute inpatient discharges on or between January 1 and December 1 of the measurement year. To identify acute inpatient discharges:   1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set). 2. Exclude nonacute inpatient stays (Nonacute Inpatient Stay Value Set). 3. Identify the discharge date for the stay.   The measure includes acute discharges from any type of facility (including behavioral healthcare facilities). |
| *Step 2* | ***Acute-to-acute transfers:*** Keep the original admission date as the Index Admission Date, but use the transfer’s discharge date as the Index Discharge Date. Organizations must identify “transfers” using their own methods and then confirm the acute inpatient care setting using the process in step 1. | |
| *Step 3* | Exclude hospital stays where the Index Admission Date is the same as the Index Discharge Date. | |
| *Step 4: Required exclusions* | Exclude hospital stays for the following reasons:   * The member died during the stay. * A principal diagnosis of pregnancy (Pregnancy Value Set). * A principal diagnosis of a condition originating in the perinatal period (Perinatal Conditions Value Set).   ***Note:*** *For hospital stays where there was an acute-to-acute transfer (identified in step 2), use both the original stay and the transfer stay to identify exclusions in this step.* | |
| *Step 5: Required exclusions* | For all acute inpatient discharges identified using steps 1–4, determine if there was a planned hospital stay within 30 days. To identify planned hospital stays, identify all acute inpatient discharges on or between January 1 and December 31 of the measurement year:   1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set). 2. Exclude nonacute inpatient stays (Nonacute Inpatient Stay Value Set). 3. Identify the admission date for the stay. 4. Exclude any hospital stay as an Index Hospital Stay if the admission date of the ***first*** stay within 30 days meets any of the following criteria:  * A principal diagnosis of maintenance chemotherapy (Chemotherapy Value Set). * A principal diagnosis of rehabilitation (Rehabilitation Value Set). * An organ transplant (Kidney Transplant Value Set, Bone Marrow Transplant Value Set, Organ Transplant Other Than Kidney Value Set). * A potentially planned procedure (Potentially Planned Procedures Value Set) without a principal acute diagnosis (Acute Condition Value Set).   ***Note:*** *For hospital stays where there was an acute-to-acute transfer (identified in step 2), use only the original stay to identify planned hospital stays in this step (i.e., do not use diagnoses and procedures from the transfer stay).* | |

|  |  |
| --- | --- |
| *Example 1* | For a member with the following acute inpatient stays, exclude stay 1 as an Index Hospital Stay.   * *Stay 1 (January 30–February 1 of the measurement year)*: Acute inpatient discharge with a principal diagnosis of COPD. * *Stay 2 (February 5–7 of the measurement year)*: Acute inpatient discharge with a principal diagnosis of maintenance chemotherapy. |
| *Example 2* | For a member with the following acute inpatient stays, exclude stays 2 and 3 as Index Hospital Stays in the following scenario.   * *Stay 1 (January 15–17 of the measurement year):* Acute inpatient discharge with a principal diagnosis of diabetes * *Stay 2 (January 30–February 1 of the measurement year):* Acute inpatient discharge with a principal diagnosis of COPD. * *Stay 3 (February 5–7 of the measurement year):* Acute inpatient discharge with an organ transplant. * *Stay 4 (February 10–15 of the measurement year):* Acute inpatient discharge with a principal diagnosis of rehabilitation. |
| *Step 6* | Calculate continuous enrollment. |
| *Step 7* | Assign each acute inpatient stay to an age category. Refer to Table PCR-A-2/3 and Table PCR-B-3. |

Risk Adjustment Determination

For each IHS, use the following steps to identify risk adjustment categories based on presence of surgeries, discharge condition, comorbidity, age and gender.

|  |  |
| --- | --- |
| Surgeries | Determine if the member underwent surgery during the inpatient stay. Download the list of codes from the NCQA Web site (Table HCC-Surg) and use it to identify surgeries. Consider an IHS to include a surgery if at least one procedure code in Table HCC-Surg is present from any provider between the admission and discharge dates. |
| Discharge Condition | Assign a discharge Clinical Condition (CC) category code to the IHS based on its primary discharge diagnosis, using Table PCR-DischCC. For acute-to-acute transfers, use the transfer’s primary discharge diagnosis.  Exclude diagnoses that cannot be mapped to Table PCR-DischCC. |
| Comorbidities |  |
| *Step 1* | Identify all diagnoses for encounters during the classification period. Include the following when identifying encounters:   * Outpatient visits (Outpatient Value Set). * Observation visits (Observation Value Set). * Nonacute inpatient encounters (Nonacute Inpatient Value Set). * Acute inpatient encounters (Acute Inpatient Value Set). * ED visits (ED Value Set).   Exclude the primary discharge diagnosis on the IHS. |

|  |  |
| --- | --- |
| *Step 2* | Assign each diagnosis to one comorbid Clinical Condition (CC) category using Table CC—Comorbid.  Exclude all diagnoses that cannot be assigned to a comorbid CC category. For members with no qualifying diagnoses from face-to-face encounters, skip to the Risk Adjustment Weighting section.  All digits must match exactly when mapping diagnosis codes to the comorbid CCs. |
| *Step 3* | Determine HCCs for each comorbid CC identified. Refer to Table HCC—Rank.  For each stay’s comorbid CC list, match the comorbid CC code to the comorbid CC code in the table, and assign:   * The ranking group. * The rank. * The HCC.   For comorbid CCs that do not match to Table HCC—Rank, use the comorbid CC as the HCC and assign a rank of 1.  **Note:** One comorbid CC can map to multiple HCCs; each HCC can have one or more comorbid CCs. |
| *Step 4* | Assess each ranking group separately and select only the highest ranked HCC in each ranking group using the *Rank* column (1 is the highest rank possible).  Drop all other HCCs in each ranking group, and de-duplicate the HCC list if necessary. |
| Example | *Assume a stay with the following comorbid CCs*: CC-15, CC-19 and CC-80 (assume no other CCs).   * CC-80 does not have a map to the ranking table and becomes HCC-80. * HCC-15 is part of Ranking Group 1 and HCC-19 is part of Ranking Groups Diabetes 1–Diabetes 4. Because CC-15 is ranked higher than CC-19 in Ranking Group Diabetes 1, the comorbidity is assigned as HCC-15 for Ranking Group 1. Because CC-19 is ranked higher in Ranking Groups Diabetes 2–4, the comorbidity is assigned as HCC-19 for these ranking groups. * The final comorbidities for this discharge are HCC-15, HCC-19 and HCC-80. |

*Example:* Table HCC—Rank

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Ranking Group | | CC | Description | Rank | HCC |
| NA | | CC-80 | Congestive Heart Failure | NA | HCC-80 |
| Diabetes 1 | | CC-15 | Diabetes With Renal or Peripheral Circulatory Manifestation | 1 | HCC-15 |
| CC-16 | Diabetes With Neurologic or Other Specified Manifestation | 2 | HCC-16 |
| CC-17 | Diabetes With Acute Complications | 3 | HCC-17 |
| CC-18 | Diabetes With Ophthalmologic or Unspecified Manifestation | 4 | HCC-18 |
| CC-19 | Diabetes Without Complications | 5 | HCC-19 |
| Diabetes 2 | | CC-16 | Diabetes With Neurologic or Other Specified Manifestation | 1 | HCC-16 |
| CC-17 | Diabetes With Acute Complications | 2 | HCC-17 |
| CC-18 | Diabetes With Ophthalmologic or Unspecified Manifestation | 3 | HCC-18 |
| CC-19 | Diabetes Without Complication | 4 | HCC-19 |
| Diabetes 3 | | CC-17 | Diabetes With Acute Complications | 1 | HCC-17 |
| CC-18 | Diabetes With Ophthalmologic or Unspecified Manifestation | 2 | HCC-18 |
| CC-19 | Diabetes Without Complication | 3 | HCC-19 |
| Diabetes 4 | | CC-18 | Diabetes With Ophthalmologic or Unspecified Manifestation | 1 | HCC-18 |
| CC-19 | Diabetes Without Complication | 2 | HCC-19 |
| *Step 5* | | Identify combination HCCs listed in Table HCC—Comb.  Some combinations suggest a greater amount of risk when observed together. For example, when diabetes *and* CHF are present, an increased amount of risk is evident. Additional HCCs are selected to account for these relationships.  Compare each stay’s list of unique HCCs to those in the *HCC* column in Table HCC—Comb and assign any additional HCC conditions.  For fully nested combinations (e.g., the diabetes/CHF combination is nested in the diabetes/ CHF/renal combination), use only the more comprehensive pattern. In this example, only the diabetes/CHF/renal combination is counted.  For overlapping combinations (e.g., the CHF, COPD combination overlaps the CHR/renal/ diabetes combination), use both sets of combinations. In this example, both CHF/COPD and CHF/renal/diabetes combinations are counted.  Based on the combinations, a member can have none, one or more of these added HCCs. | | | | |
| Example | | For a stay with comorbidities HCC-15, HCC-19 and HCC-80 (assume no other HCCs), assign HCC-901 in addition to HCC-15, HCC-19 and HCC-80. This *does not* replace  HCC-15, HCC-19 or HCC-80. | | | | |

*Example:* Table HCC—Comb

|  |  |  |  |
| --- | --- | --- | --- |
| Combination: Diabetes and CHF | | | |
| **Comorbid HCC** | **Comorbid HCC** | **Comorbid HCC** | **Combination HCC** |
| HCC-15 | HCC-80 | NA | HCC-901 |
| HCC-16 | HCC-80 | NA | HCC-901 |
| HCC-17 | HCC-80 | NA | HCC-901 |
| HCC-18 | HCC-80 | NA | HCC-901 |
| HCC-19 | HCC-80 | NA | HCC-901 |

Risk Adjustment Weighting

For each IHS, use the following steps to identify risk adjustment weights based on presence of surgeries, discharge condition, comorbidity, age and gender.

**Note:** The final weights table will be released on November 2, 2015.

|  |  |
| --- | --- |
| *Step 1* | For each IHS with a surgery, link the surgery weight.   * *For Medicare product lines ages 18–64:* Use Table PCR-MA-OtherWeights-Under65. * *For Medicare product lines ages 65 and older:* Use Table PCR-MA-OtherWeights-65plus. * *For commercial product lines:* Use Table PCR-Comm-OtherWeights. |
| *Step 2* | For each IHS with a discharge CC Category, link the primary discharge weights.   * *For Medicare product lines ages 18-64:* Use Table PCR-MA-DischCC-Weight-Under65. * *For Medicare product lines ages 65 and older:* Use Table PCR-MA-DischCC-Weight-65plus. * *For commercial product lines:* Use Table PCR-Comm-DischCC-Weight. |
| *Step 3* | For each IHS with a comorbidity HCC Category, link the weights.   * *For Medicare product lines ages 18–64:* Use Table PCR-MA-ComorbHCC-Weight-Under65. * *For Medicare product lines ages 65 and older:* Use Table PCR-MA-ComorbHCC-Weight-65plus. * *For commercial product lines:* Use Table PCR-Comm-ComorbHCC-Weight. |
| *Step 4* | Link the age and gender weights for each IHS.   * *For Medicare product lines ages 18–64:* Use Table PCR-MA-OtherWeights-Under65. * *For Medicare product lines ages 65 and older:* Use Table PCR-MA-OtherWeights-65plus. * *For commercial product lines:* Use Table PCR-Comm-OtherWeights. |
| *Step 5* | Identify the base risk weight.   * *For Medicare product lines ages 18–64:* Use Table PCR-MA-OtherWeights-Under65. * *For Medicare product lines ages 65 and older:* Use Table PCR-MA-OtherWeights-65plus. * *For commercial product lines:* Use Table PCR-Comm-OtherWeights to determine the base risk weight. |

|  |  |
| --- | --- |
| *Step 6* | Sum all weights associated with the IHS (i.e., presence of surgery, primary discharge diagnosis, comorbidities, age, gender and base risk weight). |
| *Step 7* | Use the formula below to calculate the adjusted probability of a readmission based on the sum of the weights for each IHS.  Adjusted probability of readmission =  ***OR***  Adjusted probability of readmission = [exp (sum of weights for IHS )]/[ 1 + exp (sum of weights for IHS) ]  **Note:** “Exp” refers to the exponential or antilog function. |
| *Step 8* | Use the formula below and the adjusted probability of readmission calculated in step 7 to calculate the variance for each IHS.  Variance = Adjusted probability of readmission x (1 – Adjusted probability of readmission)  Example: If the adjusted probability of readmission is 0.1518450741 for an IHS, then the variance for this IHS is 0.1518450741 x 0.8481549259 = 0.1287881476.  ***Note:*** *The variance is calculated at the IHS level. Organizations must sum the variances for each age/gender and total category when populating the Total Variance cells in the reporting tables.* |

Sample Table: PCR—Risk Adjustment Weighting

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Member ID\* | Admiss. Counter | Base Risk Weight | Age | Gender | Age and Gender Weight | Surgical Weight | ICD-9 Diagnosis Code | Discharge CC | | HCC-PCR | | Sum of Weights | Adjusted Probability | Variance |
| Category | Weight | Category | Weight |
| 1250 | 1 | -1.08883 | 67 | Female | 0.1000 | -0.2800 | 250.4 | 15 | 0.0700 | 20 | 0.1400 | -0.8600 | 0.2976 | 0.2090 |
| 25 | 0.2000 |
| 4010 | 1 | -1.08883 | 50.00 | Male | 0.1200 | NA | 007.4 | 5 | 0.0300 | NA | NA | -0.9400 | 0.2811 | 0.2021 |
| 4010 | 2 | -1.08883 | 50.00 | Male | 0.1200 | NA | 298.00 | 77 | 0.0600 | 5 | 0.0100 | -0.5700 | 0.3615 | 0.2308 |
| 47 | 0.3300 |

\*Each Member ID field with a value represents a unique IHS.

|  |  |
| --- | --- |
| Numerator | At least one acute readmission for any diagnosis within 30 days of the Index Discharge Date. |
| *Step 1* | Identify all acute inpatient stays with an admission date on or between January 2 and December 31 of the measurement year. To identify acute inpatient admissions:   1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set). 2. Exclude nonacute inpatient stays (Nonacute Inpatient Stay Value Set). 3. Identify the admission date for the stay. |
| *Step 2* | ***Acute-to-acute transfers:***Keep the original admission date as the Index Admission Date, but use the transfer’s discharge date as the Index Discharge Date. Organizations must identify “transfers” using their own methods and then confirm the acute inpatient care setting using the steps above. |
| *Step 3* | Exclude acute inpatient hospital discharges with a principal diagnosis of pregnancy (Pregnancy Value Set) or a principal diagnosis for a condition originating in the perinatal period (Perinatal Conditions Value Set). |
| *Step 4* | For each IHS, determine if any of the acute inpatient stays have an admission date within 30 days after the Index Discharge Date. |

*Reporting:* Denominator

Count the number of IHS for each age and enter these values into the reporting table.

*Reporting:* Risk Adjustment

|  |  |
| --- | --- |
| *Step 1* | Calculate the average adjusted probability for each IHS for each age and the overall total.  Organizations must calculate the probability of readmission for each hospital stay within the applicable age group to calculate the average (which is reported to NCQA). For the total age category, the probability of readmission for all hospital stays in the age categories must be averaged together; organizations cannot take the average of the average adjusted probabilities reported for each age. |
| *Step 2* | Round to four decimal places using the .5 rule and enter these values into the reporting table.  **Note:** Do not take the average of the cells in the reporting table. |
| Example | For the “18–44” age category:   * Identify all IHS by 18–44 year-old males and calculate the average adjusted probability. * Identify all IHS by 18–44 year-old females and calculate the average adjusted probability. * Identify all IHS by all 18–44 year-olds and calculate the average adjusted probability.   Repeat for each subsequent group. |
| *Step 3* | Calculate the total (sum) variance for each age and the overall total. |
| *Step 4* | Round to four decimal places using the .5 rule and enter these values into the reporting table. |

*Reporting:* Numerator

Count the number of IHS with a readmission within 30 days for each age and enter these values into the reporting table.

*Note*

* *Organizations may not use Risk Assessment Protocols to supplement diagnoses for calculation of the risk adjustment scores for this measure. The PCR measurement model was developed and tested using only claims-based diagnoses and diagnoses from additional data sources would affect the validity of the models as they are current implemented in the specification.*

Table PCR-A-2/3: Plan All-Cause Readmissions Rates by Age and Risk Adjustment

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Count of Index Stays (Denominator) | Count of 30-Day Readmissions (Numerator) | Observed Readmissions (Num/Den) | Average Adjusted Probability | Total Variance | O/E Ratio (Observed Readmissions/Average Adjusted Probability) | Lower Confidence Interval (O/E Ratio) | Upper Confidence Interval (O/E Ratio) |
| 18-44 | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 45-54 | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 55-64 | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| ***Total*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

Table PCR-B-3: Plan All-Cause Readmissions Rates by Age and Risk Adjustment

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age | Count of Index Stays (Denominator) | Count of 30-Day Readmissions (Numerator) | Observed Readmissions (Num/Den) | Average Adjusted Probability | Total Variance | O/E Ratio (Observed Readmissions/Average Adjusted Probability) | Lower Confidence Interval (O/E Ratio) | Upper Confidence Interval (O/E Ratio) |
| 65-74 | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 75-84 | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| 85+ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |  |  |  |
| ***Total*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

## Inpatient Hospital Utilization (IHU)

## Summary of Changes to HEDIS 2016

* First-year measure.

Description

For members 18 years of age and older, the risk-adjusted ratio of observed to expected acute inpatient discharges during the measurement year reported by Surgery, Medicine and Total.

Definitions

|  |  |
| --- | --- |
| Classification period | The year prior to the measurement year. |
| PPD | Predicted probability of discharge. The predicted probability of a member having any discharge in the measurement year. |
| PUCD | Predicted unconditional count of discharge. The predicted unconditional count of discharges for members during the measurement year. |

Eligible Population

|  |  |
| --- | --- |
| Product lines | Commercial, Medicare (report each product line separately). |
| Ages | 18 and older as of December 31 of the measurement year. |
| Continuous enrollment | The measurement year and the year prior to the measurement year. |
| Allowable gap | No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. |
| Anchor date | December 31 of the measurement year. |
| Benefit | Medical. |
| Event/diagnosis | None. |

Calculation of Observed Events

For organizations that use MS-DRGs:

* Identify all acute inpatient stays with a discharge date during the measurement year for the following categories:
* Surgery (Surgery MS-DRG Value Set).
* Medicine (Medicine MS-DRG Value Set).
* Total Inpatient (the sum of Surgery and Medicine).

For organizations that do not use MS-DRGs follow these steps to identify inpatient discharges.

|  |  |
| --- | --- |
| *Step 1* | Identify all acute inpatient discharges during the measurement year. To identify acute inpatient discharges:   1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set). 2. Exclude nonacute inpatient stays (Nonacute Inpatient Stay Value Set). 3. Identify the discharge date for the stay. |
| *Step 2* | Exclude discharges with:   * A principal diagnosis of mental health or chemical dependency (Mental and Behavioral Disorders Value Set). * A principal diagnosis of live-born infant (Deliveries Infant Record Value Set). * A maternity-related principal diagnosis (Maternity Diagnosis Value Set). * A maternity-related stay (Maternity Value Set). * Inpatient stays with a discharge for death. |
| *Step 3* | Calculate total inpatient using all discharges identified after completing steps 1 and 2. |
| *Step 4* | Calculate surgery. Identify the surgery discharges (Surgery Value Set) from the total inpatient discharges (step 3). |
| *Step 5* | Calculate medicine. Categorize any remaining discharges after removing surgery discharges under medicine. |

**Risk Adjustment Determination**

For each member in the eligible population, use the following steps to identify risk adjustment categories based on presence of comorbidity, age and gender.

|  |  |
| --- | --- |
| *Step 1* | Use the following value sets to identify all encounters during the classification period based on the discharge date.   * Outpatient visits (Outpatient Value Set). * Observation visits (Observation Value Set). * Nonacute inpatient encounters (Nonacute Inpatient Value Set). * Acute inpatient encounters (Acute Inpatient Value Set). * ED visits (ED Value Set). |

|  |  |  |
| --- | --- | --- |
| *Step 2* | Assign each diagnosis to one comorbid Clinical Condition (CC) category using Table CC—Comorbid.  Exclude all diagnoses that cannot be assigned to a comorbid CC category. For members with no qualifying diagnoses from face-to-face encounters, skip to the Risk Adjustment Weighting section.  All digits must match exactly when mapping diagnosis codes to the comorbid CCs. | |
| *Step 3* | Determine HCCs for each comorbid CC identified. Refer to Table HCC—Rank.  For each member’s comorbid CC list, match the comorbid CC code to the comorbid CC code in the table, and assign:   * The ranking group. * The rank. * The HCC.   For comorbid CCs that do not match to Table HCC—Rank, use the comorbid CC as the HCC and assign a rank of 1.  **Note:** One comorbid CC can map to multiple HCCs; each HCC can have one or more comorbid CCs. | |
| *Step 4* | Assess each ranking group separately and select only the highest ranked HCC in each ranking group using the *Rank* column (1 is the highest rank possible).  Drop all other HCCs in each ranking group, and de-duplicate the HCC list if necessary.  **Note:** Refer to the Plan All-Cause Readmissions (PCR) measure for a comorbid CC calculation example. | |
| *Step 5* | Identify combination HCCs listed in Table HCC—Comb.  Some combinations suggest a greater amount of risk when observed together. For example, when diabetes and CHF are present, an increased amount of risk is evident. Additional HCCs are selected to account for these relationships.  Compare each stay’s list of unique HCCs to those in the HCC column in Table HCC—Comb and assign any additional HCC conditions. |
|  | For fully nested combinations (e.g., the diabetes/CHF combination is nested in the diabetes/ CHF/renal combination), use only the more comprehensive pattern. In this example, only the diabetes/CHF/renal combination is counted.  For overlapping combinations (e.g., the CHF, COPD combination overlaps the CHR/renal/ diabetes combination), use both sets of combinations. In this example, both CHF/COPD and CHF/renal/diabetes combinations are counted.  Based on the combinations, a member can have none, one or more of these added HCCs. |
| Example | *Refer to the PCR measure for a combination HCC calculation example.* |

**Risk Adjustment Weighting and Calculation of Expected Events**

Calculation of risk-adjusted outcomes (counts of discharges) uses predetermined risk weights generated by two separate regression models. Weights from each model are combined to predict how many discharges each member may have during the measurement year, given age, gender and presence or absence of a comorbid condition. Refer to the Risk Adjustment Weight Process diagram for an overview of the process.

For each member in the eligible population, assign Predicted Probability of Discharge (PPD) risk weights. Calculate the PPD for each service utilization category: Surgery, Medicine, Total.

|  |  |
| --- | --- |
| *Step 1* | For each member with a comorbidity HCC category, link the PPD weights.   * *For the Medicare product line,* use the following tables: * *For Surgery:* Use Table IHUS-MA-PPD-ComorbidHCC. * *For Medicine*: Use Table IHUM-MA-PPD-ComorbidHCC. * *For Total:* Use Table IHUT-MA-PPD-ComorbidHCC. * *For the commercial product line,* use the following tables: * *For Surgery*: Use Table IHUS-Comm-PPD-ComorbidHCC. * *For Medicine:* Use Table IHUM-Comm-PPD-ComorbidHCC. * *For Total:* Use Table IHUT-Comm-PPD-ComorbidHCC. |
| *Step 2* | Link the age-gender PPD weights for each member.   * *For the Medicare product line,* use the following tables: * *For Surgery:* Use Table IHUS-MA-PPD. * *For Medicine*: Use Table IHUM-MA-PPD. * *For Total:* Use Table IHUT-MA-PPD. * *For the commercial product line,* use the following tables: * *For Surgery*: Use Table IHUS-Comm-PPD. * *For Medicine:* Use Table IHUM-Comm-PPD. * *For Total:* Use Table IHUT-Comm-PPD. |
| *Step 3* | Identify the base PPD risk weight for each member.   * *For the Medicare product line,* use the following tables: * *For Surgery:* Use Table IHUS-MA-PPD. * *For Medicine*: Use Table IHUM-MA-PPD. * *For Total:* Use Table IHUT-MA-PPD. * *For the commercial product line,* use the following tables: * *For Surgery*: Use Table IHUS-Comm-PPD. * *For Medicine:* Use Table IHUM-Comm-PPD. * *For Total:* Use Table IHUT-Comm-PPD. |
| *Step 4* | Sum all PPD weights (i.e., HCC, age, gender, base weight) associated with the member for each category (Medicine, Surgery, Total). |
| *Step 5* | | Calculate the predicted probability of having at least one discharge in the measurement year based on the sum of the weights for each member, for each category (Surgery, Medicine, Total), using the formula below.  PPD = |

**Note:** The risk adjustment tables will be released on November 2, 2015, and posted to www.ncqa.org.

For each member in the eligible population, assign Predicted Unconditional Count of Discharge (PUCD) risk weights.

|  |  |
| --- | --- |
| *Step 1* | For each member with a comorbidity HCC Category, link the PUCD weights.   * *For Medicare product line,* use the following tables: * *For Surgery:* Use Table IHUS-MA-PUCD-ComorbidHCC. * *For Medicine*: Use Table IHUM-MA-PUCD-ComorbidHCC. * *For Total:* Use Table IHUT-MA-PUCD-ComorbidHCC. * *For the commercial product line,* use the following tables: * *For Surgery*: Use Table IHUS-Comm-PUCD-ComorbidHCC. * *For Medicine:* Use Table IHUM-Comm-PUCD-ComorbidHCC. * *For Total:* Use Table IHUT-Comm-PUCD-ComorbidHCC. |
| *Step 2* | Link the PUCD age-gender weights for each member.   * *For Medicare product line,* use the following tables: * *For Surgery*: Use Table IHUS-MA-PUCD. * *For Medicine:* Use Table IHUM-MA-PUCD. * *For Total:* Use Table IHUT-MA-PUCD. * *For the commercial product line,* use the following tables: * *For Surgery*: Use Table IHUS-Comm-PUCD. * *For Medicine:* Use Table IHUM-Comm-PUCD. * *For Total*: Use Table IHUT-Comm-PUCD. |
| *Step 3* | Identify the base PUCD risk weight.   * *For Medicare product line* use the following tables: * *For Surgery:* Use Table IHUS-MA-PUCD. * *For Medicine*: Use Table IHUM-MA-PUCD. * *For Total:* Use Table IHUT-MA-PUCD. * *For the commercial product line,* use the following tables: * *For Surgery*: Use Table IHUS-Comm-PUCD. * *For Medicine:* Use Table IHUM-Comm-PUCD. * *For Total:* Use Table IHUT-Comm-PUCD. |
| *Step 4* | Sum all PUCD weights (i.e., HCC, age, gender and base weight) associated with the member for each category (Surgery, Medicine, Total). |
| *Step 5* | Calculate the predicted unconditional count of discharges in the measurement year, based on the sum of the weights for each member, for each category (Surgery, Medicine, Total) using the formula below. These predicted counts are not adjusted for the likelihood of having any events. PUCD = |
| *Expected count of hospitalization* | | Report the final member-level expected count of discharges for each category using the formula below:  ***Expected Count of Discharges = PPD x PUCD*** | |

*Note*

* *Organizations may not use risk assessment protocols to supplement diagnoses for calculation of the risk adjustment scores for this measure. The IHU measurement model was developed and tested using only claims-based diagnoses and diagnoses from additional data sources would affect the validity of the models as they are current implemented in the specification.*

### **Risk Adjustment Weighting Process**



*Reporting:* Number of Members in the Eligible Population

The number of members in the eligible population for each age and gender group and the overall total. Enter these values into the reporting table (Table IHU-A-2/3).

*Reporting:* Number of Observed Events

The number of observed discharges within each age and gender group and the overall total for each category (Surgery, Medicine, Total).

*Reporting:* Observed Discharges per 1,000 Members

The number of observed discharges divided by the number of members in the eligible population, multiplied by 1,000 within each age and gender group and the overall total for each category (Surgery, Medicine, Total).

*Reporting:* Number of Expected Events

The number of expected discharges within each age and gender group and the overall total for each category (Surgery, Medicine, Total).

### Table IHU-A-2/3: Number of Members in the Eligible Population

|  |  |  |
| --- | --- | --- |
| Age | Sex | Members |
| 18-44 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 45-54 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 55-64 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 65-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |

### Table IHU-B-2/3: Inpatient Discharges by Age and Risk Adjustment: Surgery

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age | Sex | Observed Inpatient Discharges | Observed Inpatient Discharges/1000 Members | Expected Discharges | O/E Ratio (Observed Discharges/ Expected Discharges) |
| 18-44 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 45-54 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 55-64 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 65-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

### Table IHU-C-2/3: Inpatient Discharges by Age and Risk Adjustment: Medicine

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age | Sex | Observed Inpatient Discharges | Observed Inpatient Discharges/1000 Members | Expected Discharges | O/E Ratio (Observed Discharges/ Expected Discharges) |
| 18-44 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 45-54 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 55-64 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 65-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

### Table IHU-D-2/3: Inpatient Discharges by Age and Risk Adjustment: Total Inpatient

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age | Sex | Observed Inpatient Discharges | Observed Inpatient Discharges/1000 Members | Expected Discharges | O/E Ratio (Observed Discharges/Expected Discharges) |
| 18-44 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 45-54 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 55-64 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 65-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

## Emergency Department Utilization (EDU)

## Summary of Changes to HEDIS 2016

* First-year measure.

Description

For members 18 years of age and older, the risk-adjusted ratio of observed to expected emergency department (ED) visits during the measurement year.

Definitions

|  |  |
| --- | --- |
| Classification period | The year prior to the measurement year. |
| PPV | Predicted probability of a visit. The predicted probability of a member having an emergency department visit in the measurement year. |
| PUCV | Predicted unconditional count of visits. The unconditional count of emergency department visits for members during the measurement year. |

Eligible Population

|  |  |
| --- | --- |
| Product lines | Commercial, Medicare (report each product line separately). |
| Ages | 18 and older as of December 31 of the measurement year. |
| Continuous enrollment | The measurement year and the year prior to the measurement year. |
| Allowable gap | No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. |
| Anchor date | December 31 of the measurement year. |
| Benefit | Medical. |
| Event/diagnosis | None. |

Calculation of Observed Events

|  |  |
| --- | --- |
| *Step 1* | Count each visit to an ED that does not result in an inpatient encounter once, regardless of the intensity or duration of the visit. Count multiple ED visits on the same date of service as one visit. Identify all ED visits during the measurement year using either of the following:   * An ED Visit (ED Value Set). * A procedure code (ED procedure Code Value Set) with an ED place of service code (ED POS Value Set). |

|  |  |
| --- | --- |
| *Step 2* | Exclude encounters with any of the following:   * A principal diagnosis of mental health or chemical dependency (Mental and Behavioral Disorders Value Set). * Psychiatry (Psychiatry Value Set). * Electroconvulsive Therapy (Electroconvulsive Therapy Value Set). * Alcohol or drug rehabilitation or detoxification (AOD Rehab and Detox Value Set). |

**Risk Adjustment Determination**

For each member in the eligible population, use the following steps to identify risk adjustment categories based on presence of comorbidity, age and gender.

|  |  |
| --- | --- |
| *Step 1* | Identify all diagnoses for encounters during the classification period. Include the following when identifying encounters:   * Outpatient visits (Outpatient Value Set). * Observation visits (Observation Value Set). * Nonacute inpatient encounters (Nonacute Inpatient Value Set). * Acute inpatient encounters (Acute Inpatient Value Set). * ED visits (ED Value Set). |
| *Step 2* | Assign each diagnosis to one comorbid Clinical Condition (CC) category using Table CC—Comorbid.  Exclude all diagnoses that cannot be assigned to a comorbid CC category. For members with no qualifying diagnoses from face-to-face encounters, skip to the Risk Adjustment Weighting section.  All digits must match exactly when mapping diagnosis codes to the comorbid CCs. |
| *Step 3* | Determine HCCs for each comorbid CC identified. Refer to Table HCC—Rank.  For each member’s comorbid CC list, match the comorbid CC code to the comorbid CC code in the table, and assign:   * The ranking group. * The rank. * The HCC.   For comorbid CCs that do not match to Table HCC—Rank, use the comorbid CC as the HCC and assign a rank of 1.  **Note:** One comorbid CC can map to multiple HCCs; each HCC can have one or more comorbid CCs. |
| *Step 4* | Assess each ranking group separately and select only the highest ranked HCC in each ranking group using the Rank column (1 is the highest rank possible).  Drop all other HCCs in each ranking group, and de-duplicate the HCC list if necessary. |

|  |  |
| --- | --- |
| *Step 5* | Identify combination HCCs listed in Table HCC—Comb.  Some combinations suggest a greater amount of risk when observed together. For example, when diabetes and CHF are present, an increased amount of risk is evident. Additional HCCs are selected to account for these relationships.  Compare each stay’s list of unique HCCs to those in the HCC column in Table HCC—Comb and assign any additional HCC conditions.  *For fully nested combinations (e.g., the diabetes/CHF combination is nested in the diabetes/ CHF/renal combination),* use only the more comprehensive pattern. In this example, only the diabetes/CHF/renal combination is counted.  *For overlapping combinations (e.g., the CHF, COPD combination overlaps the CHR/renal/ diabetes combination),* use both sets of combinations. In this example, both CHF/COPD and CHF/renal/diabetes combinations are counted.  Based on the combinations, a member can have none, one or more of these added HCCs. |
| Example | *Refer to the PCR measure for a HCC calculation example.* |

**Risk Adjustment Weighting and Calculation of Expected Events**

Calculation of risk-adjusted outcomes (counts of ED visits) uses predetermined risk weights generated by two separate regression models. Weights from each model are combined to predict how many visits each member may have during the measurement year. Refer to the Risk Adjustment Weight Process diagram for an overview of the process.

For each member in the eligible population, assign Predicted Probability of a Visit (PPV) risk weights.

|  |  |
| --- | --- |
| *Step 1* | For each member with a comorbidity HCC Category, link the PPV weights.   * *For the Medicare product line:* Use Table EDU-MA-PPV-ComorbidHCC. * *For the commercial product line:* Use Table EDU-Comm-PPV-ComorbidHCC. |
| *Step 2* | Link the age-gender PPV weights for each member using the following tables.   * *For the Medicare product line:* Use Table EDU-MA-PPV. * *For the commercial product line*: Use Table EDU-Comm-PPV. |
| *Step 3* | Identify the base PPV risk weight for each member using the following tables.   * *For the Medicare product line*: Use Table EDU-MA-PPV. * *For the commercial product line*: Use Table EDU-Comm-PPV. |
| *Step 4* | Sum all PPV weights associated with the member (i.e., HCC, age, gender, base weight). |
| *Step 5* | Calculate the predicted probability of each member having at least one visit based on the sum of the weights for each member using the formula below.  PPV = |

**Note:** The risk adjustment tables will be released on November 2, 2015, and posted to www.ncqa.org.

For each member in the eligible population, assign Predicted Unconditional Count of Visits (PUCV) risk weights.

|  |  |
| --- | --- |
| *Step 1* | For each member with a comorbidity HCC Category, link the PUCV weights.   * *For the Medicare product line:* Use Table EDU-MA-PUCV-ComorbidHCC. * *For the commercial product line:* Use Table EDU-Comm-PUCV-ComorbidHCC. |
| *Step 2* | Link the PUCV age-gender weights for each member using the following tables.   * *For the Medicare product line:* Use Table EDU-MA-PUCV. * *For the commercial product line:* Use Table EDU-Comm-PUCV. |
| *Step 3* | Identify the base PUCV risk weight for each member using the following tables.   * *For the Medicare product line:* Use Table EDU-MA-PUCV. * *For the commercial product line:* Use Table EDU-Comm-PUCV. |
| *Step 4* | Sum all PUCV weights associated with the member (i.e., HCC, age, gender, base weight). |
| *Step 5* | Calculate the predicted unconditional count of visits in the measurement year based on the sum of the weights for each member using the formula below. These predicted counts are not adjusted for the likelihood of having any events. PUCV = |
| *Expected count of hospitalization* | Report the final member-level expected count of ED visits for each category using the formula below:  ***Expected Count of ED Visits = PPV x PUCV*** |

*Note*

* *Organizations may not use Risk Assessment Protocols to supplement diagnoses for calculation of the risk adjustment scores for this measure. The EDU measurement model was developed and tested using only claims-based diagnoses and diagnoses from additional data sources would affect the validity of the models as they are currently implemented in the specification.*

### Risk Adjustment Weighting Process



*Reporting:* Number of Members in the Eligible Population

The number of members in the eligible population for each age and gender combination and enter these values into the reporting table (Table EDU-A-2/3).

*Reporting:* Number of Observed Events

The number of observed ED visits within each age and gender group and the overall total.

*Reporting:* Observed Visits per 1000 Members

The number of observed ED visits divided by the number of members in the eligible population, multiplied by 1,000 within each age and gender group and the overall total.

*Reporting:* Number of Expected Events

The number of expected ED visits within each age and gender group and the overall total.

### Table EDU-A-2/3: Number of Members in the Eligible Population

|  |  |  |
| --- | --- | --- |
| Age | Sex | Members |
| 18-44 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 45-54 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 55-64 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 65-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ |

### Table EDU-B-2/3: Number of ED visits by Age and Risk Adjustment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age | Sex | Observed ED Visits | Observed ED Visits/1,000 Members | Expected ED Visits | O/E Ratio (Observed ED Visits/Expected ED Visits) |
| 18-44 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 45-54 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 55-64 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 65-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

## Hospitalization for Potentially Preventable Complications (HPC)

## Summary of Changes to HEDIS 2016

* First-year measure.

Description

For members 67 years of age and older, the rate of discharges for ambulatory care sensitive conditions (ACSC) per 1,000 members and the risk-adjusted ratio of observed to expected discharges for ACSC by chronic and acute conditions.

Definitions

|  |  |  |
| --- | --- | --- |
| ACSC | Ambulatory care sensitive condition. An acute or chronic health condition that can be managed or treated in an outpatient setting. The ambulatory care conditions included in this measure are:   * Chronic ACSC: * Diabetes short-term complications. * Diabetes long-term complications. * Uncontrolled diabetes. * Lower-extremity amputation among patients with diabetes. * COPD. * Asthma. * Hypertension. * Heart failure. * Acute ACSC: * Bacterial pneumonia. * Urinary tract infection. * Cellulitis. * Pressure ulcer. | |
| Classification period | | The year prior to the measurement year. |
| PPD | | Predicted probability of discharge. The predicted probability of a member having any discharge in the measurement year. |
| PUCD | | Predicted unconditional count of discharge. The predicted unconditional count of discharges for members during the measurement year. |

Eligible Population

|  |  |
| --- | --- |
| Product lines | Medicare. |
| Ages | 67 years and older as of December 31 of the measurement year. |
| Continuous enrollment | The measurement year and the year prior to the measurement year. |
| Allowable gap | No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. |
| Anchor date | December 31 of the measurement year. |
| Benefit | Medical. |
| Event/diagnosis | None. |
| Required exclusions | Members who are enrolled in an Institutional SNP (iSNP) any time during the measurement year. |

Calculation of Observed Events

Report each ACSC category separately and as a combined total. The total is the sum of the acute and chronic ACSC categories.

|  |  |
| --- | --- |
| Chronic ACSC | Follow the steps below to identify the number of chronic ACSC acute inpatient discharges. |
| *Step 1* | Identify all acute inpatient discharges during the measurement year. To identify acute inpatient discharges:   1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set). 2. Exclude nonacute inpatient stays (Nonacute Inpatient Stay Value Set). 3. Identify the discharge date for the stay. |
| *Step 2* | *Acute-to-acute transfers:* Keep the original discharge and drop the transfer’s discharge. Organizations must identify “transfers” using their own methods and then confirm the acute inpatient care setting using the process in step 1. |
| *Step 3* | For the remaining acute inpatient discharges, identify discharges with any of the following:   * Primary diagnosis for diabetes short-term complications (ketoacidosis, hyperosmolarity or coma; Diabetes Short Term Complications Value Set). * Primary diagnosis for diabetes with long-term complications (renal, eye, neurological, circulatory or unspecified complications; Diabetes Long Term Complications Value Set). * Primary diagnosis for uncontrolled diabetes (Uncontrolled Diabetes Value Set). * A procedure code for lower extremity amputation (Lower Extremity Amputation Procedures Value Set) ***and*** any diagnosis for diabetes (Diabetes Diagnosis Value Set). * Exclude any discharge with a diagnosis for traumatic amputation of the lower extremity (Traumatic Amputation of Lower Extremity Value Set) ***or*** toe amputation procedure (Toe Amputation Value Set). |

|  |  |
| --- | --- |
|  | * Primary diagnosis of COPD (COPD Diagnosis Value Set), excluding any discharge with a diagnosis for cystic fibrosis and anomalies of the respiratory system (Cystic Fibrosis and Respiratory System Anomalies Value Set). * Primary diagnosis for asthma (Asthma Diagnosis Value Set), excluding any discharge with a diagnosis for cystic fibrosis and anomalies of the respiratory system (Cystic Fibrosis and Respiratory System Anomalies Value Set). * Primary diagnosis for acute bronchitis (Acute Bronchitis Diagnosis Value Set) ***and*** diagnosis for COPD (COPD Diagnosis Value Set). * Exclude any discharge with a diagnosis for cystic fibrosis and anomalies of the respiratory system (Cystic Fibrosis and Respiratory System Anomalies Value Set). * Primary diagnosis for heart failure (Heart Failure Diagnosis Value Set), excluding any discharges with a cardiac procedure (Cardiac Procedure Value Set). * Primary diagnosis for hypertension (Hypertension Value Set), excluding any discharge with a cardiac procedure (Cardiac Procedure Value Set) ***or*** diagnosis of Stage I-IV kidney disease (Stage I-IV Kidney Disease Value Set) ***with*** a dialysis procedure (Dialysis Value Set).   **Note:** For criteria that include multiple events, codes must be on the same claim. |
| Acute ACSC | Follow the steps below to identify the number of acute ACSC acute inpatient discharges. |
| *Step 1* | Identify all acute inpatient discharges during the measurement year. To identify acute inpatient discharges:   1. Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set). 2. Exclude nonacute inpatient stays (Nonacute Inpatient Stay Value Set). 3. Identify the discharge date for the stay. |
| *Step 2* | *Acute-to-acute transfers:* Keep the original discharge and drop the transfer discharge. Organizations must identify “transfers” using their own methods and then confirm the acute inpatient care setting using the process in step 1. |
| *Step 3* | For the remaining acute inpatient discharges, identify discharges with the any of the following:   * Primary diagnosis of bacterial pneumonia (Bacterial Pneumonia Value Set), excluding any discharge with a diagnosis of sickle cell anemia, HB-S disease (Sickle Cell Anemia and HB-S Disease Value Set) ***or*** procedure or diagnosis for immunocompromised state (Immunocompromised State Value Set). * Primary diagnosis of urinary tract infection (Urinary Tract Infection Value Set), excluding any discharge with a diagnosis of kidney/urinary tract disorder (Kidney and Urinary Tract Disorder Value Set) ***or*** procedure or diagnosis for immunocompromised state (Immunocompromised State Value Set). * Primary diagnosis of cellulitis (Cellulitis Value Set). * Primary diagnosis of pressure ulcer (Pressure Ulcer Value Set).   **Note:** For criteria that include multiple events, codes must be on the same claim. |
| Total ACSC | Count of inpatient stays with a discharge date during the measurement year for a chronic or acute ACSC.  Sum the events from the Chronic ACSC and Acute ACSC categories to obtain a total ACSC. |

Risk Adjustment Determination

For each member in the eligible population, use the following steps to identify risk adjustment categories based on presence of comorbidity, age and gender.

|  |  |  |
| --- | --- | --- |
| Comorbidities | |  |
| *Step 1* | Identify all diagnoses for encounters during the classification period. Include the following when identifying encounters:   * Outpatient visits (Outpatient Value Set). * Observation visits (Observation Value Set). * Nonacute inpatient encounters (Nonacute Inpatient Value Set). * Acute inpatient encounters (Acute Inpatient Value Set). * ED visits (ED Value Set). | |
| *Step 2* | Assign each diagnosis to one comorbid Clinical Condition (CC) category using Table CC—Comorbid.  Exclude all diagnoses that cannot be assigned to a comorbid CC category. For members with no qualifying diagnoses from face-to-face encounters, skip to the Risk Adjustment Weighting section.  All digits must match exactly when mapping diagnosis codes to the comorbid CCs. | |
| *Step 3* | Determine HCCs for each comorbid CC identified. Refer to Table HCC—Rank.  For each member’s comorbid CC list, match the comorbid CC code to the comorbid CC code in the table, and assign:   * The ranking group. * The rank. * The HCC.   For comorbid CCs that do not match to Table HCC—Rank, use the comorbid CC as the HCC and assign a rank of 1.  **Note:** One comorbid CC can map to multiple HCCs; each HCC can have one or more comorbid CCs. | |
| *Step 4* | Assess each ranking group separately and select only the highest ranked HCC in each ranking group using the *Rank* column (1 is the highest rank possible).  Drop all other HCCs in each ranking group, and de-duplicate the HCC list if necessary. | |
| Example | *Refer to the Plan All-Cause Readmissions (PCR) measure for a Comorbid CC calculation example.* | |
| *Step 5* | Identify combination HCCs listed in Table HCC—Comb.  Some combinations suggest a greater amount of risk when observed together. For example, when diabetes *and* CHF are present, an increased amount of risk is evident. Additional HCCs are selected to account for these relationships.  Compare each stay’s list of unique HCCs to those in the *HCC* column in Table HCC—Comb and assign any additional HCC conditions. | |

|  |  |
| --- | --- |
|  | *For fully nested combinations (e.g., the diabetes/CHF combination is nested in the diabetes/ CHF/renal combination),* use only the more comprehensive pattern. In this example, only the diabetes/CHF/renal combination is counted.  *For overlapping combinations (e.g., the CHF/COPD combination overlaps the CHF/renal/ diabetes combination),* use both sets of combinations. In this example, both CHF/COPD and CHF/renal/diabetes combinations are counted.  Based on the combinations, a member can have none, one or more of these added HCCs. |
| Example | *Refer to the PCR measure for a combination HCC calculation example.* |

Risk Adjustment Weighting and Calculation of Expected Events

Calculation of risk-adjusted outcomes (counts of discharges) uses predetermined risk weights generated by two separate regression models. Weights from each model are combined to predict how many discharges each member may have during the measurement year given their age, gender and the presence or absence of a comorbid condition. Refer to the Risk Adjustment Weight Process diagram for an overview of the process.

For each member in the eligible population, assign Predicted Probability of Discharge (PPD) risk weights. Calculate the PPD for each ACSC category: Chronic ACSC, Acute ACSC,Total ACSC.

|  |  |
| --- | --- |
| *Step 1* | For each member with a comorbidity HCC Category, link the PPD weights.   * *For Chronic ACSC:* Use Table HPCCh-PPD-ComorbidHCC. * *For Acute ACSC:* Use Table HPCA-PPD-ComorbidHCC. * *For Total ACSC*: Use Table HPCT-PPD-ComorbidHCC. |
| *Step 2* | Link the age and gender weights for each member.   * *For Chronic ACSC:* Use Table HPCCh-PPD. * *For Acute ACSC:* Use Table HPCA-PPD. * *For Total ACSC*: Use Table HPCT-PPD. |
| *Step 3* | Identify the base risk weight.   * *For Chronic ACSC:* Use Table HPCCh-PPD. * *For Acute ACSC:* Use Table HPCA-PPD. * *For Total ACSC*: Use Table HPCT-PPD. |
| *Step 4* | Sum all PPD weights associated with the member (i.e., HCC, age, gender and base weight) for each category (Chronic ACSC, Acute ACSC, Total ACSC). |
| *Step 5* | Calculate the predicted probability of having at least one discharge in the measurement year, based on the sum of the weights for each member, for each category (Chronic ACSC, Acute ACSC, Total ACSC) using the formula below.  PPD = |

**Note:** The risk adjustment tables will be released on November 2, 2015, and posted to [www.ncqa.org](http://www.ncqa.org).

For each member in the eligible population, assign Predicted Unconditional Count of Discharge (PUCD) risk weights. Calculate the PUCD for each ACSC category: Chronic ACSC, Acute ACSC, Total ACSC.

|  |  |
| --- | --- |
| *Step 1* | For each member with a comorbidity HCC Category, link the weights.   * *For Chronic ACSC:* Use Table HPCCh-PUCD-ComorbidHCC. * *For Acute ACSC:* Use Table HPCA-PUCD-ComorbidHCC. * *For Total ACSC*: Use Table HPCT-PUCD-ComorbidHCC. |
| *Step 2* | Link the age and gender weights for each member.   * *For Chronic ACSC:* Use Table HPCCh-PUCD. * *For Acute ACSC:* Use Table HPCA-PUCD. * *For Total ACSC*: Use Table HPCT-PUCD. |
| *Step 3* | Identify the base risk weight.   * *For Chronic ACSC:* Use Table HPCCh-PUCD. * *For Acute ACSC:* Use Table HPCA-PUCD. * *For Total ACSC*: Use Table HPCT-PUCD. |
| *Step 4* | Sum all PUCD weights associated with the member for each category (Chronic ACSC, Acute ACSC, Total ACSC). |
| *Step 5* | Calculate the predicted unconditional count of event in the measurement year, based on the sum of the weights for each member, for each category (Chronic ACSC, Acute ACSC, Total ACSC) using the formula below. These predicted counts are not adjusted for the likelihood of having any events. PUCD = |
| *Expected count of hospitalization* | Report the final member-level expected count of discharges for each category using the formula below:  ***Expected Count of ACSC Discharges = PPD x PUCD*** |

*Note*

* *Organizations may not use Risk Assessment Protocols to supplement diagnoses for calculation of the risk adjustment scores for this measure. The HPC measurement model was developed and tested using only claims-based diagnoses and diagnoses from additional data sources would affect the validity of the models as they are current implemented in the specification.*

### Risk Adjustment Weighting Process



*Reporting:* Number of Members in the Eligible Population

The number of members in the eligible population for each age and gender group and the overall total. Enter these values into the reporting table (Table HPC-A-3).

*Reporting:* Number of Observed Events

The number of observed discharges within each age and gender group and the overall total for each ACSC category and Total ACSC.

*Reporting:* Observed Discharges per 1,000 Members

The number of observed discharges divided by the number of members in the eligible population, multiplied by 1,000 within each age and gender group and the overall total for each ACSC category and Total ACSC.

*Reporting:* Number of Expected Events

The number of expected discharges within each age and gender group and the overall total for each ACSC category and Total ACSC.

*Note*

* *Organizations may not use risk assessment protocols to supplement diagnoses for calculating risk adjustment scores for this measure. The HPC measurement model was developed and tested using only claims-based diagnoses; diagnoses from additional data sources would affect the validity of the models as they are currently implemented in the specifications.*

### Table HPC-A-3: Number of Members in the Eligible Population

|  |  |  |
| --- | --- | --- |
| Age | Sex | Members |
| 67-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ |

### Table HPC-B-3: Hospitalization for Potentially Preventable Complication Rates by Age and Risk Adjustment: Chronic ACSC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age | Sex | Observed Chronic ACSC Discharges | Observed Chronic ACSC Discharges/1,000 Members | Expected Chronic ACSC Discharges | O/E Ratio (Observed Discharges/ Expected Discharges) |
| 67-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

### Table HPC-C-3: Hospitalization for Potentially Preventable Complication Rates by Age, Gender and Risk Adjustment: Acute ACSC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age | Sex | Observed Acute ACSC Discharges | Observed Acute ACSC Discharges/1,000 Members | Expected Acute ACSC Discharges | O/E Ratio (Observed Discharges/ Expected Discharges) |
| 67-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |

### Table HPC-D-3: Hospitalization for Potentially Preventable Complication Rates by Age, Gender and Risk Adjustment: Total ACSC

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age | Sex | Observed Total ACSC Discharges | Observed Total ACSC Discharges/1,000 Members | Expected Total ACSC Discharges | O/E Ratio (Observed Discharges/ Expected Discharges) |
| 67-74 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 75-84 | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| 85+ | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Total | Male | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| Female | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |
| ***Total:*** | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_ |