

HEALTH QUALITY ASSESSMENT

GUIDELINES FOR DATA RETRIEVAL: FOR THE YEAR 2004 and 2005 year to date

Unless otherwise specified, claims data examined must be restricted to those claims where the service took place in the year 2004 and 2005 year to date and within the period of time the policy was on the benefit option. 2004 and 2005 data must be shown separately. Financial data is restricted to financial transactions taking place during the year 2004 and 2005 year to date. Policies and lives used must have been active on the benefit option for at least one calendar month in the year 2004 or in the case of 2005 data in the last month for which data is provided. When an age analysis is done, the age is defined to be 2004 (or 2005 for 2005 data) minus the year of birth of the principal member or beneficiary. Where age categories overlap use the fact that the From age is inclusive and the To age is exclusive.

Throughout this document it is assumed that all diagnosis information is captured in ICD10 codes and all claims are captured with either BHF or CPT tariff codes associated with them. If a scheme is not using these coding schemas then they must crossmap the codes supplied to their own coding schemas, but they must supply full details the crossmapping and which of their codes have gone into the categories to enable HQA to verify that the data is correct. Medicine claims are associated with a NAPPI code to identify the product, and six digit NAPPI codes are used throughout.

Claims data is examined for 2004 and 2005 year to date. Where references are made to 2004, it should be read as 2004 and 2005 year to date in two separate data sets.

Financial Information

Risk Benefits

Gross per Principal Member

For all policies

Determine the age of the principal member as above

Place the policy into a category as per the spreadsheet.

Sum the claims paid from the medical scheme's money (not the savings accounts) for all beneficiaries on the policy into the category

Gross per Beneficiary

Same as **Gross per Principal Member** except per beneficiary instead of per policy and using the age of the beneficiary instead of the age of the principal member.

Non Risk Benefits

Same as **Gross per Principal Member** and **Gross per Beneficiary** except use the savings accounts instead of the scheme's money

Solvency

Get the year-end risk reserve for the entire medical scheme from the actuaries or accountants

Divide by the sum of all categories of **Risk Benefits – Gross per Principal Member** for all benefit options of the scheme, multiply by 100 and round to 2 decimal places

Medical Benefit ratio

Sum all categories of **Risk Benefits** and **Non Risk Benefits – Gross per Principal Member** for the benefit option

Divide by the sum of all contributions to the benefit option, multiply by 100 and round to 2 decimal places

Loss Ratio

Get administration and reinsurance expenditure figures from accountants for the benefit option

Add to the sum all categories of **Risk Benefits** and **Non Risk Benefits – Gross per Principal Member** for the benefit option

Divide by the sum of all contributions to the benefit option, multiply by 100 and round to 2 decimal places

Average Contribution

For all policies for all months in 2004 where the policy was active on the benefit option

Sum the monthly contribution to the benefit option into y

Add one to a counter x

Divide x into y and round to 2 decimal places

Beneficiary Profile**Members**

For each policy active on 2004-01-01

Determine the age of the principal member as above

Add one to the age category under the Jan column

Do the same for 2004-12-31

Beneficiaries

For each beneficiary active on 2004-01-01

Determine the age as above

Determine the gender

Add one to the age category under the Jan column for the gender

Do the same for 2004-12-31

Beneficiaries' exposure

For each active beneficiary for each month for the benefit option

Add one to a counter x

x is the exposure in months

To get the exposure in years divide x by 12

Procedure Information

Admissions per 1000 beneficiaries (per year)

If scheme has concept of hospitalisation events

Count all events where at least one of the following BHF codes was paid to a private hospital:
001 002 003 004 005 007 009 012 030 020 021 200 201 202 215 216 217 218

Count all events where at least one of the following BHF codes was paid to a rehabilitation facility:
105 107 109

Count all events where at least one of the following BHF codes was paid to a psychiatric hospital:
004 005 006

Count all events where at least one of the following BHF codes was paid to a day clinic:
007 025 014

Count all events where at least one of the following BHF codes was paid to a hospice:
950

Count all events where at least one of the following BHF codes was paid to a public hospital:
001 002 003 004 005

else

Count the number of occurrences of the above combinations (codes billed by providers), making sure to only count 1 for each beneficiary in a 20 day period

These are the number of admissions

Divide by the **exposure in years** as calculated above, multiply by 1000 and round to 2 decimal places

% Single day admissions

Count all events as per above where a day clinic has been paid on BHF code 025.

Add a count where a private hospital has been paid on BHF code 007, or the total amounts paid for the event for the following codes are less than or equal to the amounts listed (one day amounts), and only one of the following codes are billed:

001

002

003

004

005

020

021

or where either 009 or 012 have been paid, and none of 010 017 013 018 have been paid

Divide by **number of admissions** calculated above, multiply by 1000 and round to 2 decimal places.

Multiple admission rate

For all beneficiaries who had hospital admissions as defined above

Determine the age and add one to the category counter (x)

If the beneficiary had more than one hospitalisation

Add the number of events for the beneficiary minus one to a different counter for the category (y)

Divide y into x, multiply by 100 and round to 2 decimal places for each of the age categories

Average Length of Stay

For all events excluding events defined as single day admissions as above and excluding Fixed Fee arrangements

Determine beneficiary age and add one to counter in age category (x)

If time billed for is stored

Use time billed for all codes listed above in days

Else

Divide amounts paid for codes listed by daily rate (rates differ for day clinics and psychiatric hospitals) to estimate number of days and add to get time billed:

001, 002, 003, 004, 005, 020, 021, 025, 007, 014, 009, 012, 030, 200, 201, 202, 215, 216, 217, 218, 105, 107, 109, 950

Add time billed to age category (y)

Divide x into y and round to 2 decimal places for each age category

Average Cost per Admission (one days)

For all events defined as **single day admissions** as above

Determine beneficiary age and add one to counter in age category (x)

Add amount paid for hospitalisation to age category (y)

Divide x into y and round to 2 decimal places for each age category

Average Cost per Admission (>1 day stays)

As above for **Average Cost per Admission (one days)** using the remaining events

Caesarean Deliveries

For all events where one of the following BHF private hospital codes exists

009 012 030

or where one of the following BHF tariff codes exists

2614 2615

Determine age of beneficiary and add one to age category (x)

If event has code 012 or 2615

Add one to age category (y)

Divide y into x, multiply by 100 and round to 2 decimal places for each age category

Spinal Fusion

For each hospitalisation **admission** as defined above where any provider has billed at least one of the following BHF codes

0938 0941 0942 0944 0931 0946 0948 0950 0929 0939 0940 0963 0952 0954 0955 0956 0957 0958 0960 0962 0964 0966 0968 0970 0972 0974 5750 5751 5752 5753 0927 0928 0930 0932 0933 0936 5755 5756 5757 0943 5758 5759 5760 5761 5763 5764 5765 5766

CPT codes

22548 22554 22556 22558 22585 22590 22595 22600 22610 22612 22614 22630 22632 22800 22802 22804 22808 22810 22812 22818 22819 22840 22841 22842 22843 22844 22845 22846 22847 22848 22849 22850 22851 22852 22855 22100 22101 22102 22103 22110 22112 22114 22116 63001 63003 63005 63011 63012 63015 63016 63017 63020 63030 63035 63040 63042 63045 63046 63047 63048 63055 63056 63057 63064 63066 63075 63076 63077 63078 63081 63082 63085 63086 63087 63088 63090 63091 63170 63172 63173 63180 63182 63185 63190 63191 63194 63195 63197 63198 63199 63200 63250 63251 63252 63265 63266 63267 63268 63270 63271 63272 63273 63275 63276 63277 63278 63280 63281 63282 63283 63285 63286 63287 63290 63300 63301 63302 63303 63304 63305 63306 63307 63308

Determine the age and gender of the beneficiary as above

Add one to a category counter (x)

Add the number of codes as above billed for to a category counter (y)

Add the total cost of the hospitalisation to a category counter (z)

Add the **length of stay** as defined above for the event to a category counter (u)

If the beneficiary has already had a hospitalisation previously in 2004 for **Spinal Fusion** as defined above add one to a category counter (v). Do not count the first **Spinal Fusion** hospitalisation of 2004 for the beneficiary

Determine **exposure per year** as above for each category (t)

For each category

To get number of cases per 1000 beneficiaries divide x by t, multiply by 1000 and round to two decimal places

To get number of fusions per case divide y by x and round to two decimal places

To get average cost per case divide z by x and round to two decimal places

To get average length of stay per case divide u by x and round to two decimal places

To get multiple admission rate divide v by x and round to two decimal places

Hysterectomy

As above for **Spinal Fusion** using the following codes

Vaginal

BHF codes

2343 2345 2357 2361

CPT codes

58260 58262 58263 58267 58270 58275 58280 58285

Lap Assisted Vaginal

BHF codes

Hospital will bill a 364 on same hospitalisation as normal Vaginal Hysterectomy BHF codes

CPT codes

58550

Abdominal

BHF codes

2469 2471 2473 2475

CPT codes

58150 58152 58180 58200 58210 58240

Hip Replacement

As above for **Spinal Fusion** using the following codes

BHF codes

0637 0639 0641 0643

CPT codes

27125 27130 27132 27134 27137 27138

For each **Hip Replacement** hospitalisation as defined above

Add the cost of any items billed as BHF code 0200 or BHF hospital code 286 to a category counter (r)

If the beneficiary has ever previously had a **hip replacement** (including years prior to 2004 and other benefit options)

Add the number of days between the last hip replacement and the current hip replacement to a category counter (q)

Add one to a category counter (p)

For each category

To get the average cost of prostheses divide r by x and round to two decimal places

To get the average time since last procedure divide q by p

Stents/Bypass grafts

As above for **Spinal Fusion** using the following codes

Stents

BHF codes

1286 1287

CPT codes

92980 92981

Grafts

BHF codes

1346 1347 1358 1348 1349 1350 1351 1254

CPT codes

33510 33511 33512 33513 33514 33516 33517 33518 33519 33521 33522 33523 33530 33533 33534 33535

33536 35501 35506 35507 35508 35509 35511 35515 35516 35518 35521 35526 35531 35533 35536 35541

35546 35548 35549 35551 35556 35558 35560 35563 35565 35566 35571 35582 35583 35585 35587 35601

35606 35612 35616 35621 35623 35626 35631 35636 35641 35642 35645 35646 35650 35651 35654 35656

35661 35663 35665 35666 35671

Tonsillectomy

As above for **Spinal Fusion** using the following codes

Laser

BHF codes

1102

Non Laser

BHF codes

1101

CPT codes

42820 42821 42825 42826

Chronic conditions

Ischaemic Heart Disease

(Exclude hospital events that are not related to IHD, e.g. trauma, childbirth):

Get a count of all beneficiaries who were registered for chronic benefits for 2004 (x)

Get a count of all beneficiaries who were registered for chronic benefits for hypertension and nothing else for 2004 (y)

ICD10 codes

I20, I21, I22, I23, I24, I25

Divide x into y, multiply by 100 and round to 2 decimal places for first block

For all beneficiaries with **Hypertension** only as identified above

Determine age as above, add one to category counter (x)

If beneficiary had an admission

Add one to age category (y)

Add one to admission counter (j)

Add paid amount to counter (k)

Divide x into y, multiply by 100 and round to 2 decimal places

Divide k by j and round to 2 decimal places for average cost of HT hospital admission

Diabetes Mellitus

(Exclude hospital events that are not related to Diabetes Mellitus, e.g. trauma, childbirth):

Count the number of beneficiaries registered for chronic benefits for the following codes

ICD10 codes

E10 E11 E12 E13 E14

A visit is one interaction by a provider with the beneficiary on one day

If the provider is a BHF type 14 or 15 provider, this is a GP

BHF type 68 is a podiatrist

BHF type 18 is a physician

BHF type 26 is an ophthalmologist

Add number of visits to each of the providers grouped by type for identified beneficiaries

Divide by number of identified beneficiaries

Count number of HbA1c tests for the beneficiaries as per the following codes

BHF codes

4182 4172

Divide by number of identified beneficiaries

Rest as per **Hypertension**

Depression

(Exclude hospital events that are not related to Depression, e.g. trauma, childbirth)

As per **hypertension** using the following codes

ICD10 codes

F32 F33

Asthma

(Exclude hospital events that are not related to Asthma, e.g. trauma, childbirth)

As per **diabetes** using the following codes

ICD10 codes

J45 J46

Lung function tests

BHF codes

1186 1188 1189 1191 1192 1193 1195 1196 1197 1198 1199 1200 1201

Casualty nebulisation

BHF codes

1136 and private hospital 232

Ignore any 232 codes that occurred during a hospitalisation as defined above

BHF practice type 17 is a pulmonologist and 32 is a paediatrician

Routine Procedures

Benzodiazapines

For each claim with any of the following drug codes on

Add one to a counter (x)

Add the cost of the item identified to a counter (y)

Divide y by x to get the average cost per script and round to two decimal places

Divide x by yearly **exposure** as above, multiply by 1000 and round to two decimal places

NAPPI codes

705500 705519 707694 707708 708062 710784 710792 718300 719536 719617 737933 737941 738026
751758 751766 753173 753181 758183 758191 758205 763500 763519 763527 764922 771694 771759
771767 773999 774006 774464 774472 774480 774510 778702 778710 778729 782394 782408 783242
783250 785296 796999 800066 811696 815241 816787 821071 821098 821101 821608 821616 823244
823252 823260 825212 826685 826693 826707 827185 827193 827207 838454 895173 897929 897930
897965 897968 900230 900249 901741 901768 901776 902004 902012 902020 905747 905755 905763

Antibiotics

For each claim with at least one item from all three categories below

Add one to a counter (x)

Add the cost of the items to a counter (y)

Divide y by x to get the average cost per script and round to two decimal places

Divide x by yearly **exposure** as above, multiply by 1000 and round to two decimal places

Penicillins

NAPPI codes

700174 700217 700609 700611 700966 701081 701087 701380 701383 703028 703036 703044 703087
703176 703230 703265 703273 705691 714755 714763 726605 736635 744689 744697 751111 754153
754161 755486 755494 757160 757179 765619 767824 773611 779571 779598 779725 780022 780081
781231 782203 783188 784494 784583 784591 784605 784613 784656 784664 784672 784680 785229
785571 785598 786764 786772 787280 788155 788546 789283 789747 791334 791350 791369 792047
792055 795313 795348 797553 797561 800244 808342 808539 808547 808741 809616 809632 809640
810894 811440 812897 815268 820954 824798 824836 824860 824879 829099 829102 829110 829129
829145 829153 829161 829218 829226 829250 829269 829277 829307 829358 829366 829951 830089
830208 830216 830224 830232 830240 830259 830267 830291 830305 830364 830410 830429 830437
830445 830488 830496 830550 830569 830577 830585 830593 830739 830747 835021 842516 842524
842532 853542 856835 861936 861944 861952 861960 865524 865532 865540 865559 867373 867381
868426 868434 868566 869902 873489 873497 873500 877204 877212 877220 877247 878766 878774
878782 889702 889709 893218 893224 893374 893375 893382 893404 893409 893889 893890 894123
894125 897292 899097 899100 900087 901733 901806 902462 902497 903280 904333 904821 905089
906034 906042 906050 906069 906077 906204 906778 906786 906794 906808 906891 906905 907073

Co-trimoxazole

NAPPI codes

700972 700976 701743 701754 706418 706426 706434 706442 716731 721751 721778 735698 758221
758248 758256 763292 763306 765708 773573 773603 773638 779881 780464 782793 785644 789836
789844 792373 793310 793698 795070 798177 798223 816337 839477 857742 857750 867977 870757
894842 901865 901873 901881 904309

Erythromycin

NAPPI codes

724076 724084 724181 732346 732354 732362 732370 758388 758396 758418 761613 765651 765678
780561 783277 786608 787086 787108 792063 793329 823570 824682 829927 841196 841218 841226
899147 901903 901911 901938 904996 905003

Pathology Tests

Count the number of times each of the following codes were paid for in the categories given using the age as above, divide by **exposure** per age category as above, multiply by 1000 and round to 2 decimal places

BHF codes

Lipogram

4025

Total Cholesterol

4027

T4

4481 4482

TSH

4507 4484

ANF
3934 4529

Mammogram

Determine the exposure for beneficiaries who are female and whose age as calculated above is over 50
Count the number of beneficiaries identified above who have had at least one of the following BHF codes paid during the year
BHF codes
3605 3606 6472 3608

Pap Smear

As per **Mammogram** but with age 20 and codes as follows
BHF codes
4566

PSA test

As per **Mammogram** but with age 40 and gender male and codes as follows
BHF codes
4519

Bone Densitometry

As per **Pathology Tests** but split into male and female, and with the following codes
BHF codes
3600 3604 3612 6469