Identifying Unique Members – Part D Bid Impacts of Connecting Members that have Changed HICN

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INFORMATIONAL REPORT

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Identification of Unique Members and the Impact to Part D Pricing of Connecting Members that have Changed HICN

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Executive Summary

The Health Insurance Claim Number (HICN) is a unique number assigned to each Medicare beneficiary, and is used to determine each member's eligibility for Medicare services. During the course of any given year a Medicare eligible beneficiary may have their HICN changed. These changes occur for a variety of reasons, including the member changing their relationship with the primary account holder. The count of members with HICN changes is relatively small, and affects roughly 1% of all members in a year. These members then exist through the year with two different HICNs representing their eligibility for distinct time periods for the year.

There are many assumptions made during the development of Part D bids each year. One relatively common assumption is that each HICN in common data sources represents a single member. This report attempts to consider the assumption that each HICN represents a single member and the impact to Part D bid development and rates of this assumption. This report also suggests an efficient and reliable method to identify and connect members that have changed HICN during the year.

Data Sources

There are several CMS data sources commonly used for Part D bid development, each with different accumulations regarding members that have changed HICN. These data sources include the Monthly Membership Reports (MMRs), the beneficiary-level file to support Part D bids (Part D Bene-Level File), the PDE Transaction Validation files and the PDE Cumulative Beneficiary file.

Data within the MMRs contains monthly membership information and when properly compiled can contain data records that represent the information for each member for each month. In the compiled data, a member that has changed HICN during the year will be represented as the original HICN during the months prior to the change. That member will be represented as the final HICN for the months after the change. Original and final HICNs are not connected in the MMR data. Under certain circumstances, retro-active payment changes may cause the final HICN to be represented in months prior to the change – in this case two HICNs will be represented in a single month for a single member.

Data within the Part D Bene-Level file contain records that represent a single member enrolled along with indicators for each month in which the member was enrolled with the organization. Each member is identified by a single HICN (the final HICN). Importantly, if a HICN changes early in the following year, that new HICN is represented in the data, rather than the effective HICN for the base year.

Data within the PDE Transaction Validation files represent transaction level drug claim data, generally with a single record representing a single drug prescription filled. The HICN listed with each transaction is that which represented the member at the time of the prescription drug purchase – original HICN for months prior to the change and final HICN for the months after the change. These records contain a field titled Corrected HICN to represent the HICN if it has changed, but we have found this field to be inadequately populated and generally unreliable.

Data within the PDE Cumulative Beneficiary file contain records that represent a single member claimant along with total prescription drug expenditures accumulated from all PDE submitted through the date of the file. Each member is identified by a single HICN - the final HICN, even if that change is effective early the following year..

Part D Bid Development Impact

Drug pricing can be developed with the assumption that a single HICN in the MMR files represents a single member. Alternatively, HICN changes can be identified and a single member can be compiled recognizing these changes. The impact to Part D bids from these different methods is three-fold. First, the Worksheet 1 reported per member values are impacted by the definition and count of members in the base period. Second, Claims Probability Distributions (CPDs) developed from each method are different, impacting the distribution of forecasted allowed pharmacy costs and hence the expected net costs. Third, there are very small differences in the count of member months from each method, which impacts the base period PMPM starting costs and hence projected PMPM pharmacy costs.

The membership and pricing of 15 plans were reviewed, comparing the impacts of identifying HICN changes and not identifying these changes. Across these fifteen plans, there were 59,382 HICNs in force for the base year and we identified 523 HICN changes, or 0.88% of members had HICN changes. While HICN change rates did vary by plan, the relative changes were generally consistent, with a range of 0.18% to 1.89% of members with changes.

The impact to Worksheet 1 per member reported costs is directly related to the HICN change rates, for each percent that the membership is overstated the reported costs are understated by the same percent. Overall, there is 0.90% increase to per member reported costs on Worksheet 1 by recognizing membership having a HICN change. This differs from the 0.88% membership change due to rounding of costs to the penny.

By connecting the changed HICNs for each plan, developed CPDs are impacted. The projected net pharmacy costs as priced through Worksheet 3 for the Defined Standard benefit is impacted by the change to the CPD. Across all 15 plans, this impact is 0.08%. The largest impact is that for the plan having the largest membership change, 0.23% impact to net pharmacy costs (due to 1.89% membership impact).

Within the MMR there are certain circumstances in which retro-active payment changes cause the final HICN to be represented in months prior to the change. This presents an overstatement of member months when not recognizing HICN changes. Base period pharmacy costs PMPM and projected pharmacy costs are understated by this impact. Overall, member months in these fifteen plans are adjusted by 0.06% when recognizing HICN changes.

Aggregating the pricing impact for the Defined Standard benefit, for CPD corrections and the member month corrections, the average impact across all plans is increased net costs of 0.11%.

Methods to Connect HICNs for Unique Members

Method 1 – Direct Application of TRR Reports

The Transaction Reply Report (TRR) is a daily report providing information on many items, including the reporting of HICN changes. Collecting the daily reports and developing automated methods to accumulate the HICN changes is possible.

HICN changes are indentified in the TRR reports by transaction reply codes (field #15) of 22, 25, or 86. The titles and short descriptions of these specific transaction reply codes are as follows;

22

Title = Transaction Accepted, Claim Number Change
Description = New HICN

25

Title = Disenrollment Accepted, Claim Number Change
Description = Disenrol-New HICN

86

Title = Claim Number Change
Description = New HICN

When these transaction reply codes are listed, the original HICN is listed in the HICN field (#1) and the new HICN is listed in Claim Number (new) field (#24). The effective date field (#18) is used to identify HICN changes that occurred within a specific time frame.

Relying on this report to determine connected HICNs for a unique member has the difficulty of collecting and processing these daily reports.

Method 2 – Empirical Method

Within a set of compiled MMRs it is possible to develop an accurate estimate of unique members through an empirical method which determines members that are changing HICN and connects the HICNs associated with those members. The following two-pass method identifies members with changing HICN.

The first pass is a simple determination of enrollment changes. Identify all HICNs where their greatest enrollment month is not December of the year (potential "leavers", or Subset #1) and all HICNs where their least enrollment month is not January (potential "new enrollees", or Subset #2). By comparing certain data elements of each of these subsets, members having a HICN change during the year can be identified.

The two subsets are joined where gender, date of births, first initial and Part D Risk score match. The maximum enrollment month for Subset #1 is matched to the minimum enrollment of Subset #2, recognizing the one-month offset of the two for HICNs that "connect". The chart below displays the matching technique.

Subset #1

HICN	Gender	DOB	FI	PartDRAF	MaxOfEnrollMo
000000001D	F	19440503	M	0.788	201009
000000002A	M	19451105	A	1.199	201005
000000003A	F	19310331	H	0.823	201002
000000004T	F	19441023	K	0.788	201005
000000005T	M	19440128	M	0.669	201003

Subset #2

HICN	Gender	DOB	FI	PartDRAF	MinOfEnrollMo
000000006A	F	19441023	K	0.788	201006
000000007A	M	19440128	M	0.669	201004
000000009B	F	19450829	N	0.788	201009
000000010D6	F	19431002	K	0.812	201011
000000011B6	F	19440503	M	0.788	201010

HICN Mapping

OrigHICN	MaxOfEnrollMo	MinOfEnrollMo	FinalHICN
000000005T	201003	201004	000000007A
000000001D	201009	201010	000000011B6

In this first pass, most members with HICN changes are identified. The original HICN and the final HICN are determined for each member.

The second pass involves identifying members with retro-active payment changes attributable to the new HICN for months prior to the HICN change. In the MMR data, identify the least enrollment month for the combination of (1) HICN and (2) the total Part D payment (including adjustments) - where it is not January (call this Subset #3). Assess the total Part D payment for each HICN from subset#3 for the previous month. Calculate the difference in the total Part D payments between the two consecutive months - this will correspond to the original total Part D payment for the original HICN prior to the retro-active enrollment changes. Match the gender, date of birth, first initial, prior enrollment month and either (1) the total Part D payment difference or (2) the surname with the corresponding fields in subset #1 created in the first pass – be sure to also match the greatest enrollment month from Subset #1 to the minimum enrollment month from Subset #3 allowing for a single month offset. The chart below displays the matching technique for the second pass.

Subset #3 with prior month data

HICN	Gender	DOB	Surname	FI	Total PartD Pay	MinOf EnrollMo	Prior EnrollMo	Prior Total PartD Pay	Diff Total PartD Pay
100000001A	M	19410102	First	A	53.88	201003	201002	59.61	-5.73
100000002A	M	19420203	Second	B	397.3	201009	201008	319.21	78.09
100000003A	F	19430405	Third	C	69.43	201007			
100000004A	M	19440506	Fourth	D	8.13	201007			
100000005A	F	19450607	Fifth	E	416.3	201007	201006	43.95	372.35

Subset #1

HICN	Gender	DOB	Surname	FI	Total PartD Pay	MaxOf EnrollMo
100000001D	M	19410102	Sixth	A	-5.73	201002
200000001A	F	19180808	Seventh	FI	27.23	201005
200000002A	M	19190909	Eighth	G	295.88	201002
200000004B	M	19201010	Ninth	H	-7.85	201005
100000005B6	F	19450607	Fifth	E	300.35	201006

HICN Mapping

OrigHICN	MaxOf EnrollMo	MinOf EnrollMo	FinalHICN
100000005B6	201006	201007	100000005A
100000001D	201002	201003	100000001A

This method of determining members with a HICN change is reliable and accurate. Through several distinct populations there is an average of 0.88% of members have changing HICN during a single year. This method provides a single final HICN for a single member. With this information, the PDE Transaction Validation data can be accumulated across both HICNs to represent the costs for a single unique member. Table 1 below displays the results of this method of matching HICNs for members that have changed during the year.

Table 1 – HICN Changes and Connections				
Plan Identifier	Count of Original HICNs in the MMRs	Count of Members in the MMRs After Recognizing HICN Changes	Count Difference	Percent Difference
Plan #1	1,959	1,949	10	0.51%
Plan #2	1,364	1,352	12	0.88%
Plan #3	283	281	2	0.71%
Plan #4	2,267	2,259	8	0.35%
Plan #5	2,097	2,083	14	0.67%
Plan #6	866	860	6	0.69%
Plan #7	1,541	1,530	11	0.71%
Plan #8	391	390	1	0.26%
Plan #9	1,697	1,694	3	0.18%
Plan #10	424	422	2	0.47%
Plan #11	1,116	1,113	3	0.27%
Plan #12	15,499	15,403	96	0.62%
Plan #13	5,921	5,827	94	1.59%
Plan #14	15,737	15,631	106	0.67%
Plan #15	8,220	8,065	155	1.89%
Total	**59,382**	**58,859**	**523**	**0.88%**

Comparison of the Two Methods

The Empirical Method identified 523 HICN changes across the fifteen plans available for our review. We had TRR reports available for five of these plans.

The direct application of the TRR Reports to identify HICN changes confirmed all HICN changes made through the Empirical Method we accurately connected to the final HICN. The TRR reports identified no addition HICN changes that were not identified by the Empirical Method. From the available information, the Empirical Method exactly matches the direct application of TRR Reports.

Comparison of HICN Changes to Other Data Sources

There are two data additional sources to which the matching of HICNs can be compared; the Part D Beneficiary Level file and the PDE Cumulative Beneficiary file. For each distinct population we have compared the results of final connected members from the MMR to each of the data sources.

Part D Bene-Level File

The Part D Beneficiary Level file provides a listing of unique members and lists only their final HICN – if a member's HICN changed during the year the original HICN is not reported. In an effort to understand the contents of the Part D Bene-Level File, we have compared the HICNs from the MMR after applying the Empirical HICN Connection Method to the HICNs in the Part D Bene-Level file.

The Part D Beneficiary Level files for these fifteen plans matched very well to the MMR data after connecting HICNs that have changed during the year. We saw that HICNs that changed early the following year were reported in the Part D Beneficiary Level file as the new year's HICN in the data representing the prior year. Relatively few members are shown in the MMR to have been retroactively dis-enrolled and were reported in the Part D Beneficiary Level file as active in the period.

PDE Cumulative Beneficiary File

The PDE Cumulative Beneficiary (Cum Bene) file provides a summary of total drug claims for each claimant during the year. Members are listed by their final HICN only – if a member's HICN changed during the year the original HICN is not reported. Importantly, this is not a listing of all members for the year, as members with no claims are not included. Given this understanding, it is possible to verify only a subset of the members with HICN changes, testing only if any original HICNs of members identified as having changed are present in this dataset. Results of this comparison are as follows:

Across the fifteen plans reviewed, 32 members were discovered in the Cum Bene files that did not match membership in the HICN connected MMR files. Twenty-eight of these members in the Cum Bene files are shown to have been retro-actively dis-enrolled in the MMRs, and it is believed that either the PDE data will eventually catch-up to this status, or these members costs will be reconciled to other plan sponsors through the P2P process.

Two of the HICNs were not found to have any enrollment in the MMR files. We believe it is possible that these HICNs reflect member changes made effective the following year.

The final 2 unmatched HICN's were identified as having a HICN change through the Empirical Method and were subsequently mapped to another HICN. A review of these two members along with the original HICN for each identified in the MMRs, reveals that these members were appropriately connected by the Empirical Method. It is believed that the Cum Bene files will eventually connect these members - the Cum Bene file data shows each of these connected HICN pairs as having the same "Last Submitted Cardholder ID" (Field #6).

Impact of Connecting HICNs for Members Having Changed

Drug pricing can be developed with the assumption that a single HICN in the MMR files represents a single member. Alternatively, HICN changes can be identified and a single member can be compiled recognizing these changes. The impact to Part D bids from these different methods is three-fold. First, the Worksheet 1 reported per member values are impacted by the definition and count of members in the base period. Second, Claims Probability Distributions (CPDs) developed from each method are different, impacting the distribution of forecasted allowed pharmacy costs and hence the expected net costs. Third, there are very small differences in the count of member months from each method, which impacts the base period PMPM starting costs and hence projected PMPM pharmacy costs.

Impact on Reported Worksheet 1 Per Member Cost:

The differences in bids as a result of the different assumptions for identifying unique members will be seen in Worksheet 1 reported drug costs and in the pricing of the drug costs for the contract period. Under the assumption that a HICN is a unique member, the values reported in Worksheet 1 on a per member basis will be misstated equivalent in percent to the misstatement of members. Of lesser impact will be the claimant interval in which these costs will be reported, as HICNs that are correctly connected to a single unique member will potentially accumulate to costs in a higher claimant interval.

The reduction of members through connecting the HICN's directly impacts the base period average allowed per member costs on Worksheet 1. The increases to base period reported per member allowed pharmacy costs are measured in Table 2 below.

Table 2 – Impact to W-1 Per Member Reporting				
Plan Identifier	Allowed Rx per Member Costs Without Connecting HICNs	Allowed Rx per Member Costs With Connecting HICNs	Dollar Difference	Percent Difference
Plan #1	$4,338.11	$4,360.43	$22,32	0.51%
Plan #2	1,735.26	1,751.69	16.43	0.95%
Plan #3	1,786.60	1,799.55	12.95	0.72%
Plan #4	3,989.23	4,003.50	14.27	0.36%
Plan #5	N/A	N/A	N/A	N/A
Plan #6	1,481.52	1,491.92	10.40	0.70%
Plan #7	2,743.65	2,763.53	19.88	0.72%
Plan #8	1,406.03	1,409.77	3.74	0.27%
Plan #9	3,072.22	3,077.74	5.52	0.18%
Plan #10	1,954.86	1,964.59	9.73	0.50%
Plan #11	3,033.58	3,042.26	8.68	0.29%
Plan #12	1,914.33	1,926.30	11.97	0.63%
Plan #13	1,162.92	1,181.77	18.85	1.62%
Plan #14	1,958.89	1,972.24	13.35	0.68%
Plan #15	1,159.10	1,181.42	22.32	1.93%
Total	**$1,967.73**	**$1,985.50**	**$17.77**	**0.90%**

Note: Organization #1 – Plan 5 was 100% manually rated. Therefore, there was no Worksheet 1 base period statistics reported.

Impact on Worksheet 3 Net Plan Liability PMPM Due to Changing CPD:

As HICNs are connected for a single member, this adjusts the claim probability distribution (CPD) for use in developing the contract period net costs. This CPD is used for understanding the cost sharing applied to each drug transaction, as each member progresses through the various claimant intervals. As a member progresses through the intervals, the cost sharing changes and the net plan liability is impacted.

As a method of developing the net plan liability for the allowed cost pricing by tier (developed through Worksheet 2 of the bid forms), it is possible to balance the base period drug costs for all claimants from the base period for a plan to the pricing for each of the eight tiers from Worksheet 2. By balancing the experience for each of the eight tiers to the utilization and to the allowed PMPM priced, the various bid amounts that require distribution to claimant interval can be developed. The development of each of these claimant interval values will depend on the accumulation of costs to a unique member. The identification of a unique member impacts these values, and hence the projected plan liability.

We have measured the impact to the net plan liability for the Defined Standard benefit as priced through Worksheet 3. The measurement of the plan liability as developed through each CPD and the impact of each method of identifying unique members is provided in Table 3 below:

Table 3 – Impact to W-3 Net Plan Liability

Plan Identifier	Net Rx PMPM Costs Without Connecting HICNs	Net Rx PMPM Costs With Connecting HICNs	PMPM Difference	Percent Difference
Plan #1	$131.01	$130.96	($0.05)	(0.04%)
Plan #2	74.46	74.51	0.05	0.06%
Plan #3	82.69	82.78	0.09	0.11%
Plan #4	136.46	136.49	0.03	0.03%
Plan #5	54.49	54.52	0.03	0.06%
Plan #6	76.40	76.44	0.04	0.05%
Plan #7	118.83	118.93	0.10	0.08%
Plan #8	86.54	86.63	0.09	0.10%
Plan #9	121.44	121.58	0.14	0.11%
Plan #10	87.71	87.71	0.00	0.00%
Plan #11	75.47	75.50	0.03	0.03%
Plan #12	82.84	82.85	0.01	0.01%
Plan #13	57.37	57.42	0.05	0.09%
Plan #14	84.48	84.58	0.10	0.12%
Plan #15	55.54	55.67	0.13	0.23%
Total	**$81.06**	**$81.12**	**$0.06**	**0.08%**

Impact on Member Month Count and Base Period PMPM's:

There are instances in the MMR where a member who had a HICN change had overlapping enrollment months listed in the MMR's under both HICN's. We take this into consideration after we determined the final HICN's and then calculated the member months for the members who had a HICN change. From what we found, very few of the members with HICN changes had overlapping enrollment months and those that did had at most only 6 months. The average decrease in member months after final HICN's are assigned is -0.06%. Table 4 below summaries the impact by plan.

Table 4 – Impact to Member Months & W-3 Net Plan Liability

Plan Identifier	Base Period Member Months Without Connecting HICNs	Base Period Member Months With Connecting HICNs	Member Month Difference	Percent Difference
Plan #1	20,426	20,412	14	0.07%
Plan #2	14,097	14,076	21	0.15%
Plan #3	2,898	2,897	1	0.03%
Plan #4	22,729	22,720	9	0.04%
Plan #5	21,738	21,724	14	0.06%
Plan #6	9,206	9,205	1	0.01%
Plan #7	15,082	15,067	15	0.10%
Plan #8	3,224	3,224	0	0.00%
Plan #9	16,720	16,720	0	0.00%
Plan #10	3,971	3,970	1	0.03%
Plan #11	11,253	11,253	0	0.00%
Plan #12	173,051	172,959	92	0.05%
Plan #13	61,800	61,770	30	0.05%
Plan #14	175,179	175,076	103	0.06%
Plan #15	87,877	87,811	66	0.08%
Total	**639,251**	**638,884**	**367**	**0.06%**

Overall Impact to Net Plan Liability:
The cumulative effect of the allowed PMPM and distribution changes due to connecting HICN's are listed in Table 5 below.

Table 5 – Overall Impact to W-3 Net Plan Liability				
Plan Identifier	Net Rx PMPM Costs Without Connecting HICNs	Net Rx PMPM Costs With Connecting HICNs	PMPM Difference	Percent Difference
Plan #1	$131.01	$131.01	$0.00	0.00%
Plan #2	74.46	74.58	0.12	0.17%
Plan #3	82.69	82.80	0.11	0.14%
Plan #4	136.46	136.52	0.06	0.05%
Plan #5	54.49	54.55	0.06	0.13%
Plan #6	76.40	76.44	0.04	0.05%
Plan #7	118.83	119.00	0.17	0.14%
Plan #8	86.54	86.63	0.09	0.10%
Plan #9	121.44	121.58	0.14	0.11%
Plan #10	87.71	87.73	0.02	0.02%
Plan #11	75.47	75.50	0.03	0.03%
Plan #12	82.84	82.88	0.04	0.04%
Plan #13	57.37	57.45	0.08	0.13%
Plan #14	84.48	84.62	0.14	0.16%
Plan #15	55.54	55.71	0.17	0.30%
Total	**$81.06**	**$81.15**	**$0.09**	**0.12%**

Conclusion

During the course of any given year a Medicare eligible beneficiary may have their HICN changed. These changes occur for a variety of reasons, including the member changing their relationship with the primary account holder. The count of members with HICN changes is relatively small, and affects roughly 1% of all members in a year.

The impact to Part D Bid Worksheet 1 per member reported costs is directly related to the HICN change rates, for each percent that the membership is overstated the reported costs are understated by the same percent.

Aggregating the Part D Bid Worksheet 3 pricing impact for the Defined Standard benefit, for CPD corrections and the member month corrections, the average impact across all plans is increased net pharmacy costs of 0.12%.

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