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Legislative Report

Corrective Plan to Address Duplicate Personal Identification Numbers

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I. Executive summary

The Department of Human Services (DHS) uses electronic records and personal identification numbers to track enrollee eligibility and enrollment and pay for services through managed care capitation payments or fee-for-service arrangements. Consistent with DHS's guidelines, only one person record and personal identification number should exist for each individual enrollee, however several issues have been identified that are causing the creation of duplicate personal identification numbers.

DHS relies on a manual process with worker involvement to create person records and personal identification numbers for people applying for health care coverage in its legacy eligibility system (MAXIS). Even within the legacy system, duplicate personal identification numbers are at times created, often due to typographical errors, incomplete information in existing records, significant changes in applicant information, or failure on the part of the worker to identify existing records before creating new ones.

The introduction of the Minnesota Eligibility Technology System (METS) in 2013 caused an increase in personal identification numbers by allowing applicants to enter data directly into the system, and by replacing the worker-aided process of preventing duplicate records and numbers with total reliance upon software. In addition to the increased volume of personal identification numbers, METS lacks the capability to effectively identify and remediate the duplicates.

When an individual is assigned more than one personal identification number, each number has its own record of eligibility and enrollment in fee-for-service or managed care. The state risks making improper concurrent payments on each number if both are active during the same time period. In addition, multiple records and numbers cause enrollee and worker confusion; service disruptions for enrollees; billing issues for enrollees, providers and managed care organizations; changes to managed care rate setting; increased labor costs; program integrity issues; and unreliable data.

DHS has made incremental improvements to METS to reduce the creation of personal identification numbers and is on track with a corrective plan that will deliver system capability and processes to more effectively prevent, identify and remediate duplicates on a timely basis going forward.

This report details the problems caused by duplicate personal identification numbers, quantifies the effects, and provides an update to the Legislature on the corrective plan.

II. Legislation

This report is mandated by the Laws of Minnesota 2019, First Special Session, Chapter 9, Article 7, Section 45:

CORRECTIVE PLAN TO ELIMINATE DUPLICATE PERSONAL IDENTIFICATION NUMBERS.

- (a) The commissioner of human services shall design and implement a corrective plan to address the issue of medical assistance enrollees being assigned more than one personal identification number. Any corrections or fixes that are necessary to address this issue are required to be completed by June 30, 2021.

- (b) By February 15, 2020, the commissioner shall submit a report to the chairs and ranking minority members of the legislative committees with jurisdiction over health and human services policy and finance on the progress of the corrective plan required in paragraph (a), including an update on meeting the June 30, 2021, deadline. The report must also include information on:
 - (1) the number of medical assistance enrollees who have been assigned two or more personal identification numbers;
 - (2) any possible financial effect of enrollees having duplicate personal identification numbers on health care providers and managed care organizations, including the effect on reimbursement rates, meeting withhold requirements, and capitated payments; and
 - (3) any effect on federal payments received by the state.

III. Introduction

Report purpose

This report is submitted to the Minnesota Legislature pursuant to Laws of Minnesota 2019, First Special Session, Chapter 9, Article 7, Section 45. This law addresses the creation of duplicate personal identification numbers for Medical Assistance enrollees and the resulting financial consequences of the duplicate personal identification numbers. We have also included MinnesotaCare enrollees in this report.

Duplicate vs. Multiple

The legislation refers to the creation of “duplicate” personal identification numbers. The word “duplicate”, can be understood to imply ‘the same’. That meaning suggests an individual could have more than one personal identification number that is the same number or two individuals could be assigned the same number. Personal identification numbers are not reused so the same number is not generated more than once to different individuals.

The intended meaning of “duplicate” in the context of this report is “multiple”, meaning the same individual has more than one personal identification number assigned to them, and those numbers are different. Throughout this report, the term duplicate applied to personal identification numbers means multiple.

IV. Background

Overview of personal identification numbers

The Department of Human Services (DHS) administers Minnesota's Medicaid program, called Medical Assistance, and its Basic Health Program, called MinnesotaCare, delivering the majority of health care services to people enrolled in these programs through health plans using a managed care model. In this model, DHS pays each health plan that has contracted with the agency a monthly rate for each enrollee assigned to the health plan, and the health plan then pays for all of the services those enrollees require.

Every person applying for public assistance gets assigned a unique personal identification number called a Person Master Index (PMI) in the Department's eligibility systems. The unique identifier serves to:

- Maintain a history of the person's participation in health care, economic and nutrition assistance, and child care programs,
- Track past activities in those programs that affect current or future eligibility,
- Affiliate household members when eligibility or benefits are interdependent within the household, and
- Support program and data integrity by identifying information inconsistent with historical data.

A person should have only one active personal identification number assigned to them at a time. When an individual is assigned more than one personal identification number, each number has its own record of health care eligibility and enrollment in either fee-for-service or managed care, and the state risks making improper payments for each number, particularly if both identification numbers have active coverage at the same time. To minimize this risk, DHS must identify and remediate duplicate personal identification numbers.

Background on duplicate personal identification numbers

Applications for public assistance where eligibility is determined in the legacy eligibility system (MAXIS), always require manual help from a worker¹. (Refer to Diagram 1 below for a picture of the following interactions.) An eligibility worker enters an applicant's demographic data into MAXIS. This automatically triggers a list of person records already in the eligibility system that potentially match the applicant's data. The list of potential matches includes records with similar:

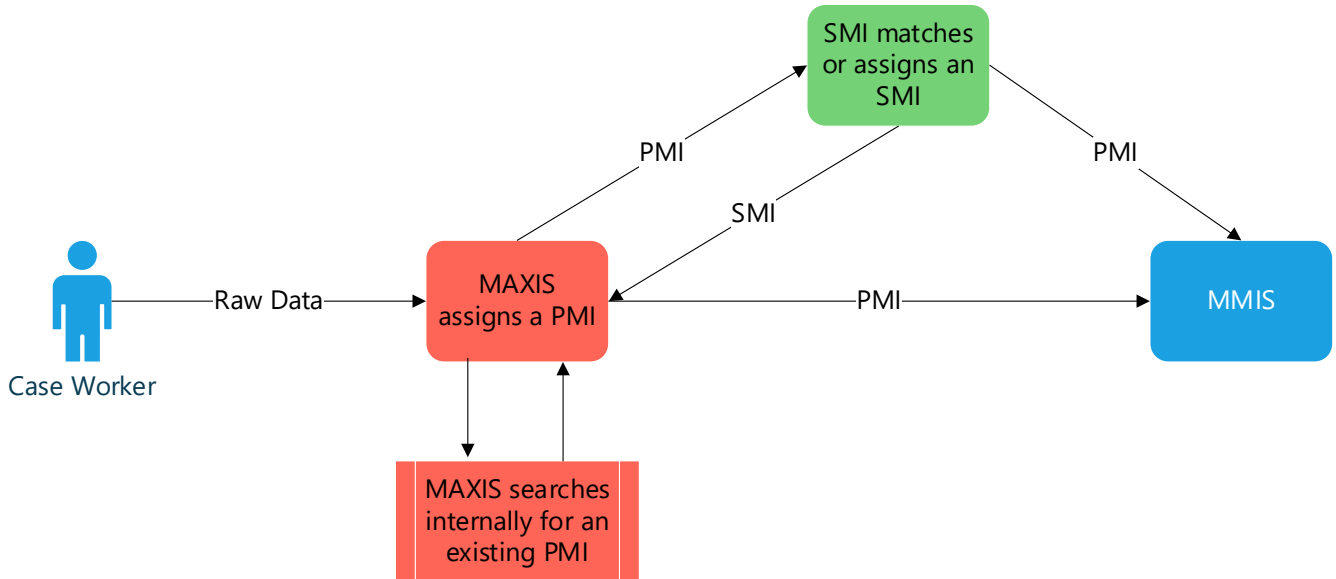
- Names
- Dates of birth
- Social security numbers (SSN)

The eligibility worker researches the list of potential matches to determine if any relate to the applicant. If a match exists, the worker uses the existing record and its personal identification number to determine eligibility for the applicant. If the worker does not find a matching record, they request the creation of a new person

¹ This is still the process for people applying for Medical Assistance under an aged/blind/disabled basis, or applying for MA payment of Long Term Care services, and people applying for cash/food/child care benefits.

record and a personal identification number in the system. All new personal identification numbers are systematically interfaced to the Medicaid Management Information System (MMIS) for use in claims payments.

Diagram 1



Even with this manual, worker-assisted process, the potential exists for individuals to have more than one personal identification number assigned to them. This occurs when workers begin a new person record and request a personal identification number for an applicant even though a record and number already exists, usually because the worker could not match the applicant to an existing record due to limited data or the data had changed substantially. Errors also occur when the worker fails to thoroughly research possible matches in the system.

The potential for duplicate personal identification numbers grew with the introduction of a new eligibility system in 2013 due in part to the system’s self-service environment. (Refer to Diagram 2 below for a picture of the following interactions.) The Minnesota Eligibility Technology System (METS) allows people to independently apply for health care coverage by entering their own demographic data into the system. The system does not notify applicants entering their own data if potentially matching demographic data already exists in the system due to data privacy laws and the risk of divulging other applicants’ information. As a result, applicants cannot positively match themselves to existing records. Instead, the system conducts automated up-front matching of applicant data.

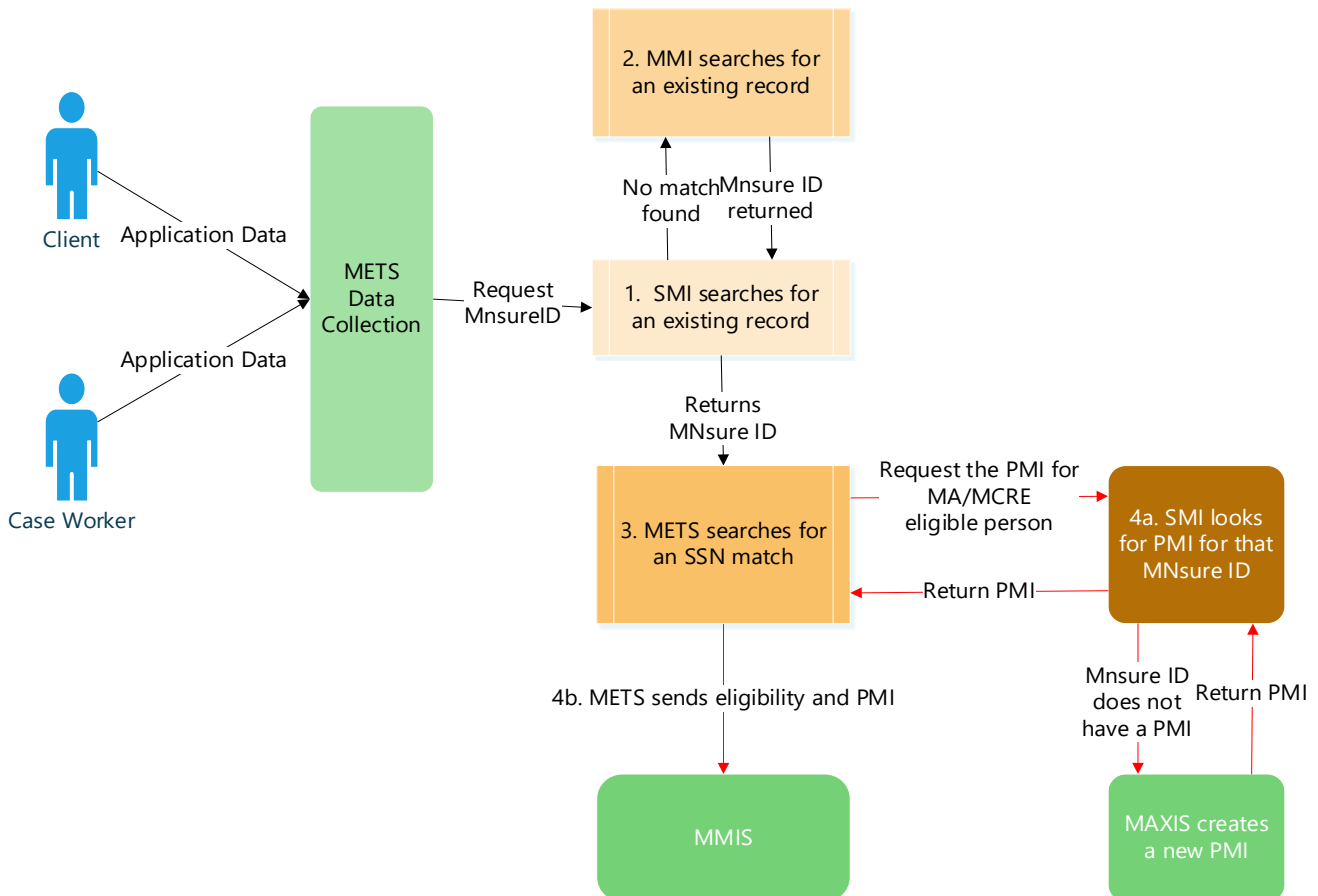
Replacing the worker-aided process with total reliance upon software to match applicants to existing records caused the success rate of matches to drop due to:

- Rudimentary, non-robust and imprecise identifiers used for matching (e.g., a person does not provide or does not yet have a social security number),
- Applicant and/or worker data entry/input errors,
- System inability to correctly decide which duplicate person record or personal identification number to choose, and

- Data-matching inconsistencies among systems (e.g., name changes are not copied to all systems)

METS relies on a series of steps to match applicants to an existing person record and personal identification number, or assign them a new one, without worker intervention. When a person applies, METS sends the data to the Shared Master Index (SMI). This database houses cross-reference identifiers from multiple systems and uses commercial off-the-shelf software to match the applicant’s data to existing records with industry-standard probabilities and practices for identity matching. (Step 1 in Diagram 2 below.) If a match is not found in the SMI, an attempt is made to match the applicant data against records in the MNSure Master Index (MMI), a database that stores customer information entered into METS in order to create MNSure ID numbers. MMI attempts to match the data to its existing records. If a match is found, the existing MNSure ID is returned to METS. If a match is not found in MMI, a new identification number is created for the person. (Step 2 in Diagram 2 below.) The data and new number are both sent to METS. Within METS, a final match is attempted comparing just the SSN of the new record against all SSNs known to METS. If no match is found, eligibility processing proceeds under the new personal identification number. If a match is found, eligibility does not proceed and the application is placed in a pending status until a worker intervenes to resolve the match. (Step 3 in Diagram 2 below.)

Diagram 2



In each of these steps, the individual may already have a person record and ID number that the system was unable to find due to variation in demographic data (e.g., a name change or data entry error). In these cases, the person now has duplicate records and MNsure ID numbers. This extraneous MNsure ID number leads to duplicate (i.e., multiple) PMI numbers if the person is determined eligible for MA or MinnesotaCare. Because MMIS requires a PMI number to pay MA and MinnesotaCare capitation payments and claims, METS sends a request to SMI to obtain the PMI for this specific person record/MNsure ID. Because METS and SMI consider the person/ID as a new person, a new PMI number will also be assigned. As a result, this person now has duplicate person records (and multiple IDs) across the systems that manage MA and MinnesotaCare eligibility and coverage. (Steps 4a and 4b in Diagram 2 above.)

In addition to the increased volume of duplicate personal identification numbers that occurred with METS, the system also lacks the capability to effectively identify and remediate duplicates. As a result, the duplicate personal identification numbers persist in the system and can cause a variety of issues.

Problem statement

When an individual is assigned more than one personal identification number, each number has its own record of eligibility and enrollment in fee-for-service or managed care, and the Department risks making improper concurrent payments on each number, particularly if both numbers have active coverage at the same time. In addition, multiple records can cause enrollee and worker confusion; service disruptions for enrollees; billing issues for enrollees, providers and managed care organizations; increased labor costs; program integrity issues; and unreliable data.

Duplicate personal identification numbers arise in METS due to a variety of reasons but are most commonly caused by:

- Applicants who have changed their names.
- Applicants with common names and birthdates.
- Input errors (i.e., typos) by applicants or workers. An incorrect social security number, birthdate or address, can lead to a duplicate.

Steps previously taken to address this issue

Software enhancements to prevent new duplicates

In 2016 incremental improvements to the METS system were made to reduce the number of duplicate person IDs being created in METS going forward. This included replacing the previous search logic that was case-sensitive and required character-by-character exact matches with robust name-matching software and probabilistic matching algorithm to better account for name variations and misspellings. This change also switched which database is used for the search, going from a METS-specific database to the State's standard person indexing database, the State Master Index (SMI), as a first step for addressing duplicate METS personal identification numbers on other systems and processes that rely on eligibility information ("downstream" systems).

Discovery effort

In 2018 DHS and Minnesota IT Services (MNIT) kicked off the discovery phase of the Unique Person ID (UPI) project to define the project roadmap which serves as the basis of the Corrective Plan described in this report. During this discovery effort, the project team identified problems caused by duplicate personal identification numbers, analyzed the “as-is” state and current processes that create and merge duplicates, developed a comprehensive understanding of the “to-be” solution, identified system capability gaps, and identified a sequenced list of phases/activities to build and rollout person merge capability throughout METS and downstream systems.

Duplicates Identification and Cleanup

In early 2019 DHS and Minnesota IT Services (MNIT) staff began an iterative effort to analyze, develop, and validate logic to systematically identify potential duplicates using various search criteria (e.g., matching on social security numbers and dates of birth that may be one or more digits different, social security number patterns such as all zeros, looking for individuals open on multiple programs, etc.) This logic will be further automated in a future track of the Unique Person ID project. Potential duplicates identified through this effort are passed to the person master index (PMI) Merge team to resolve.

Many system upgrades have already occurred and more are planned.

- Completed work includes:
 - Replacing the previous case-sensitive search logic that required exact matches with software and algorithms that better account for name variations and misspellings.
 - Requiring online applicants to enter their Social Security number twice identically to reduce the likelihood of typos.
 - Discontinuing a system feature that automatically populated the SSN field with an artificial six-digit number.
 - Switching the database that is used to search for matches from METS to the state’s standard person indexing database.

V. Number of enrollees with multiple personal identification numbers

The number of enrollees identified in this report as having more than one personal identification number is not exhaustive. The total excludes people whose multiple personal identification numbers have been remediated (i.e., identified and merged) at the time of the analysis. The total also excludes people who did not have active enrollment for multiple personal identification numbers in the same year (e.g., an enrollee is not counted if they have two personal identification numbers where one of the numbers had enrollment active only in 2016 and the other number only had enrollment active in 2018). These cases are excluded because it is assumed that they have low impact on enrollees, work processes or payments.

The following tables show both the number of people in each year having multiple identification numbers and the subset of those people with overlapping multiple identification numbers. As noted earlier, the subset of people with identification numbers with active enrollment/coverage periods that overlap are the ones with the greatest potential impact to DHS, enrollees, and providers/health plans. As long as coverage spans are distinct (i.e., non-overlapping) for people with more than one identifier, we find little evidence of wrongful payment of health care claims or capitation payments attributable to those identification numbers. This is because payments can only be made on dates of service where the enrollee has active enrollment/coverage.

Number of enrollees with multiple personal identification numbers

State fiscal year	All Instances		Overlapping Instances	
	Number of enrollees with multiple personal identification numbers within the same year	Percent of enrollees with multiple personal identification numbers overall	Number of enrollees with overlapping multiple personal identification numbers within the same year	Percent of enrollees with overlapping multiple personal identification numbers
2019	47,390	3.19%	3,315	0.22%
2018	41,575	2.69%	3,513	0.23%
2017	42,401	2.74%	3,026	0.20%

VI. Impact of duplicate personal identification numbers

Duplicate personal identification numbers affect:

- Enrollees
- Providers and managed care organizations
- County and state workers

Impact on enrollees

Barriers to services

- Enrollees may not receive services if providers cannot verify their eligibility in the Eligibility Verification System due to duplicate personal identification numbers. The provider may have difficulty finding the person's current coverage information when searching with demographic data. The provider may find the wrong coverage information when searching under a duplicate personal identification number. (Note: The Eligibility Verification System enhancement planned for January 2021 is expected to alleviate this problem.)
- Enrollees may be unable to manage their Minnesota Family Investment Program and Supplemental Nutrition Assistance Program electronic benefit transfer (EBT) PIN through the self-service system if they have duplicate personal identification numbers. The self-service functions for the EBT card rely on accurately matching the person's social security number to the PMI on their MAXIS case. If the person has more than one PMI, their SSN cannot be uniquely matched.

Billing issues

- If a person on a METS case is marked as a duplicate, no eligible person on the case will be enrolled in coverage (managed care or fee for service) because enrollees eligibility is not sent from METS to MMIS due to the duplicate marking.
- Enrollees may be billed directly by providers if the provider's claim is rejected for payment due to a provider being unable to correctly identify the enrollee's coverage.

Impact on providers and managed care organizations

Billing issues

- Provider claims can be rejected if they bill under a duplicate personal identification number that has not been merged or does not have active enrollment/coverage associated with it.
- Rejected claims cause delay in payments and extra effort to submit a new claim.

Eligibility verification issues

- When a provider searches enrollee eligibility using a personal identification number, the search returns only information for that number. If the number is a duplicate, the enrollee may appear to have no coverage.

- If a provider uses demographic data (e.g., name or date of birth) to search for enrollee eligibility and the enrollee has more than one personal identification number with different demographic information, the system might report no eligibility.

Unenforceable program requirements

- The restricted recipient program which limits enrollees to certain health care providers may not be properly enforced due to multiple identifiers if the restriction is only associated with one identification number.

Impacts to state and county workers

Currently without the means to effectively merge a client's data held on multiple person records, county and state workers spend increased labor hours to:

- Access and interpret a client's comprehensive public assistance program participation held on multiple person records,
- Perform time-intensive workarounds to close and re-enter cases if service agreements or authorizations are entered into different duplicate personal identification numbers for the same person,
- Intervene and assist with claims reprocessing when a provider's claims are submitted on a duplicate personal identification number, and
- Recover duplicate provider and capitation payments.

Merging an enrollee's historical data is an extremely complex and time-consuming, manual process and, is therefore limited to a small group of experts. State and county workers must submit "merge requests" when duplicates are found and wait for that small group of experts to remediate the duplicates. (Note: The Unique Person ID project will deploy the capability to effectively merge a client's duplicate person records in METS and replicate that merge to downstream systems.)

VIII. Financial impacts to providers and managed care organizations

This section addresses the possible financial impacts of duplicate personal identification numbers on health care providers and managed care organizations, including the impacts on reimbursement including provider payments, incentive payments and capitation payments. The financial impact table below displays the potential impact for those situations where the financial risk is high – where an enrollee has more than one personal identification number with overlapping active enrollment/coverage periods. Further in this section, potential impacts on incentive payments, risk adjustment, and capitation rate setting are discussed, along with relevant analysis that is regularly performed in order to determine whether any adjustments are warranted. These are areas that pose far lower financial risk, however, DHS continues to work to ensure the accuracy of payments.

Potential overpayments caused by overlapping eligibility spans

The most substantial financial impacts created by duplicate personal identification numbers occur within these three categories of potential overpayment caused by overlapping enrollment²:

- 1) Overlapping managed care payments: These overpayments occur when it is determined that an enrollee with duplicate personal identification numbers has overlapping eligibility periods associated with two or more distinct identification numbers, resulting in more than one capitation payment made to a managed care organization in the same month.
- 2) Overlapping fee-for-service (FFS) payments: These overpayments occur when it is determined payments were made more than once for the same service provided to the same person on the same date with the same provider but under more than one personal identification number.
- 3) Overlapping managed care and FFS payments: These overpayments occur when it is determined that an enrollee has duplicate personal identification numbers with at least one number for which capitation payments were made to a managed care organization and at least one other number for which FFS payments were made in the same month for the same service(s). The methodology used to calculate this potential impact excluded “carve-out” service arrangements as overpayments so only payments were included when they were paid for the same person under a FFS personal identification number that:
 - a) Was different from a capitated personal identification number.
 - b) Was not for covered services carved-out of the MCO contract.

For each of these categories, a range of the potential monetary impact is displayed to avoid bias in the results by assuming, without compelling evidence, which of the concurrent payments is correct, or by using a strict rule that the higher- or lower-valued payment is correct. The actual financial impact likely falls someplace between

² While other categories are possible, they have little to no significant financial impact on the results but require substantial staff time to evaluate.

the maximum and minimum values presented. It is essential to note that this data cannot be confirmed until the processes to validate and merge these potential duplicates has been completed. This analysis is based on a query used to identify likely duplicates. It is possible that once further investigation and analysis is completed, some of these may not actually be duplicates. The corrective plan and further implementation of the Unique ID project is expected to help address this.

For example:

1. Overlapping managed care payments: A monetary impact range is used to protect against falsely assigning accuracy to either capitation payment value. If two capitation payments were made during that time period, only one is assumed to be correct. In fact, neither capitation payment may be correct because the unification of the enrollee’s eligibility and medical claims history might result in a slightly different capitation value than either of the payment amounts.

2. Overlapping FFS payments: As the FFS dollar amounts may be different due to copays, deductibles and other factors, randomly selecting one payment as correct might systematically overestimate or underestimate the true impact. A monetary impact range is used in this report to guard against falsely assigning accuracy to the dollar amount of one FFS payment over any others.

Financial impact of duplicate personal identification numbers with overlapping enrollment (totals include federal share)

State fiscal year	Estimated minimum financial impact	Estimated maximum financial impact
SFY 2019	-	-
Category 1: Managed care overlap	\$2,336,592.00	\$3,321,977.00
Category 2: FFS overlap	\$15,035.00	\$15,735.00
Category 3: Managed care and FFS overlap	\$1,496,337.00	\$6,557,977.00
SFY 2019 total	\$3,847,965.00	\$9,895,689.00
Federal share of SFY 2019 total	\$2,202,315.00	\$5,584,972.00
SFY 2018	-	-
Category 1: Managed care overlap	\$3,904,318.00	\$5,079,458.00
Category 2: FFS overlap	\$9,334.00	\$9,484.00
Category 3: Managed care and FFS overlap	\$1,236,210.00	\$6,792,406.00
SFY 2018 total	\$5,149,861.00	\$11,881,348.00
Federal share of SFY 2018 total	\$2,867,260.00	\$6,505,459.00
SFY 2017	-	-
Category 1: Managed care overlap	\$2,903,980.00	\$3,535,097.00
Category 2: FFS overlap	\$35,987.00	\$36,662.00
Category 3: Managed care and FFS overlap	\$656,630.00	\$3,558,574.00
SFY 2017 total	\$3,596,598.00	\$7,130,333.00
Federal share of SFY 2017 total	\$1,890,105.00	\$3,868,444.00

State fiscal year	Estimated minimum financial impact	Estimated maximum financial impact
SFY 2017 through SFY 2019	-	-
Grand total	\$12,594,424.00	\$28,907,369.00
Federal share of SFY 2017-2019 grand total	\$6,959,680.00	\$15,958,875.00

The prior table represents an estimate of the financial impact of multiple personal identifiers based on a range of minimum and maximum overpayment values. Category 3, overlapping managed care and fee for service payments, consistently had the widest gap between the minimum and maximum overpayment values. This is most likely due to the greater variability between a paid capitation amount and a fee for service payment for medical care. Categories 1 and 2 had smaller differences between the minimum and maximum potential overpayment because duplicated fee for service payments and duplicated managed care capitations are more likely similar in value. Also worth noting is that category 2, overlapping fee for service overpayments, was the least impactful category by a wide margin, most likely due to the fewer number of enrollees in fee for service arrangements.

Considerations when evaluating these results include:

- Duplicate personal identification numbers that do not have overlapping eligibility spans were excluded in the financial analysis.
- The overwhelming majority of the financial impact of duplicate personal identification numbers comes from overlapping eligibly spans. However, for many other data purposes, duplicate personal identification numbers with non-overlapping eligibility spans might have nonfinancial impacts.
- Remediated duplicate personal identification numbers including recovery of any duplicate payments have been excluded from this analysis. As a result, there could be a slight underestimation of the financial impact for very recently remediated numbers where financial remediation has not yet been completed.
- Approximately 2% of people with duplicate personal identification numbers have more than two personal identification numbers. This complicates the impact analysis given that only one of the paid amounts may be correct (i.e., the high value, the low value or some intermediate value; no adjustment on the range was performed to account for this).
- Delays in getting complete enrollment data make it difficult to assess the current state of duplicate personal identification numbers.

Impacts to incentive payments

DHS uses a payment incentive known as a “withhold” in its managed care contracts. Withholds retain a small percentage of payment from a managed care plan with the promise of receiving the withheld amount if the plan meets performance goals.

Some performance measures only include enrollees in the data if they have been enrolled for a certain length of time because sufficient enrollment time is necessary to give a health plan opportunity to change behavior.

Multiple eligibility spans due to duplicate personal identification numbers could theoretically impact health plan performance rates if enrollees are excluded from measurements based on an incorrect number of eligibility months.

DHS' analysis shows that while duplicate personal identification numbers impact the overall number of enrollees included in performance measures, the impact on the performance rates themselves is negligible. For example, the 2018 measure on dental service utilization carries the most impact on a health plan's revenue accounting for about 85% of a health plan's total withhold points. Across all health plans, the change in this withhold rate ranged from +0.0009 to +0.0050 for enrollees of all ages. In no cases was a change this minor impactful on the dollars that would have been returned to the health plans since all plans still fell short of their dental performance improvement goal by anywhere from 4.9 to 14.3 percentage points even after accounting for duplicate personal identification numbers. DHS has implemented a process to account for duplicate personal identification numbers from reported withhold rates going forward to eliminate as best as possible any future financial impact on incentive payments.

Impacts to risk adjustment

Risk adjustment increases or decreases a managed care organization's capitation rate based on the relative morbidity risk among managed care organizations in a region. The State's consulting actuary conducted an analysis of the potential impact on revenue that duplicate personal identification numbers may have on risk adjustment results in the managed care Prepaid Medical Assistance Program (PMAP) and MinnesotaCare (enrollees who must use the METS system for eligibility determinations). The analysis was performed by comparing projected revenue using risk scores from the second half 2018 both before and after combining the projected duplicate personal identification numbers based on an internal algorithm developed at DHS. Combining the projected duplicate personal identification numbers resulted in a decrease of approximately 1,200 enrollees in PMAP and MinnesotaCare in April 2018.

The risk adjustment methodology calculates a risk score for each enrollee with six months or more of enrollment during a 12-month assessment period. Enrollees with less than six months of enrollment during the assessment period are assigned the average risk score of scored members in a given region and rate cell. Accounting for the potential duplicate personal identification numbers resulted in a 3.7% increase in members receiving a calculated risk score in PMAP and a 2.4% increase in scored members for MinnesotaCare.

While risk adjustment is a revenue-neutral process across all plans, each managed care organization is impacted by an upward or downward change in their risk scores. Actuarial analysis of the revenue change experienced by managed care organizations due to risk score changes fell within a range of -0.2% to 0.2% for PMAP and -0.4% to 0.4% for MinnesotaCare. In dollars, this represents a change in revenue for an individual health plan in the range of a loss of \$1.5 million to a gain of \$374,000 for PMAP and a loss of \$72,000 to a gain of \$36,000 in revenue for MinnesotaCare. The impact of these changes would be greatest to plans with the largest changes in risk scores of their members.

Impacts to managed care rate setting

Managed care rate setting is the process used by the state and its consulting actuary to project managed care organization claims, administrative expenses and profit to a future contracting period. Claims are projected on a per member per month (PMPM) basis. When multiple capitations are paid in a month for a single member, the number of member months will be overstated in the PMPM calculation and the resulting capitation rate understates expected average costs per member. The total amount paid to the MCOs would still be correct. A financial impact could be introduced if a large number of duplicate personal identification numbers were merged between the rate-setting process and the contracted rate period. To date this has not occurred. Similar to the impact on the withhold payments the number of potential duplicate identification numbers is not material. A large merge of identification numbers that are part of the base year data for rate setting would cause a deficit in the number of capitations paid from those expected and therefore reduce revenue to the managed care organizations without a corresponding reduction in expected claims.

The projected financial impact of this risk is considered immaterial as the number of duplicate capitation payments made in a month is currently very small relative to the total number of capitation payments. Also, if a corrective action removed all duplicate capitation payments at one time, the impact on the capitation rate-setting process would be evaluated. If the evaluation was determined to have a material impact, then a mid-year capitation rate adjustment would be made to maintain actuarially sound rates.

IX. Corrective action plan

The corrective plan to address duplicate personal identification numbers comprises four primary objectives:

1. Preventing the creation of new duplicate personal identification numbers by improving person matching.
2. Remediating existing duplicate personal identification numbers.
3. Implementing system processes and procedures to resolve duplicate person numbers going forward.
4. Minimizing the effect of duplicate personal identification numbers on county and state staff, providers, and enrollees.

This plan entails a very large effort that involves multiple system deployments, which started in mid-2016 and is estimated to continue into 2021. The work is organized into parallel tracks aligned with the objectives stated above.

Objective 1: Prevent the creation of new duplicate person identification numbers

This objective is aimed at improving deficient person-matching and faulty system logic and minimizing human data-entry errors. Below are the projects aligned with Objective 1.

Improve person-matching logic

Before METS assigns a new personal identification number, the system checks whether an applicant already exists in the system by attempting to find a match on the person's name, SSN and date of birth as entered by the individual or worker. System and procedural enhancements can be developed to increase the likelihood of finding a person's existing record by increasing the accuracy of the data entered or enhancing the match logic.

December 2016 — Project Name: Unique Person ID (UPI) Improved Matching — Status: COMPLETED

This project replaced the previous search logic that was case-sensitive and required character-by-character exact matches with robust name-matching software and probabilistic matching algorithm to better account for name variations and misspellings.

This improved logic incorporates industry standard practice for identity matching on an individual's names to find "Robert" if "Bob" is entered. This change also switched which database is used for the search, going from a METS-specific database to the State's standard person indexing database as a first step for addressing duplicate METS personal identification numbers on downstream systems.

October 2019 — Project Name: UPI SMI Exact Match — Status: COMPLETED

This project enhanced matching logic to more precisely isolate, choose and return an existing MNSure ID if one exists. Before this change, the system did not contain any logic for choosing among two or more matching records and would consequently create a new personal identification number.

January 2020 — Project Name: UPI SSN Data Entry — Status: COMPLETED

This project enhanced the validity of SSNs by modifying the user interface to require users to enter the SSN twice to improve the accuracy of the information entered.

January 2021 — Project Name: UPI METS Person Data Update — Status: NOT STARTED

This project will synchronize person-identification data in data sources used for matching. Currently, a name change in METS is not copied to the State’s person-indexing databases, greatly reducing the rate of matches for names and dates of birth.

September 2021 — Project Name: UPI SMI Additional Search Attributes — Status: NOT STARTED

This project will add more demographic data to the State’s person-indexing database and matching logic to help determine an exact match.

Fix defects

This involves identifying, analyzing, correcting and deploying fixes for known defects that are causing unnecessary duplicates.

March 2016 — Project Name: UPI 16.1 Release —Status: COMPLETED

This project corrected logic in METS to discontinue populating the SSN field with an artificial six-digit number.

June 2019 — Project Name: UPI 19.2 Release — Status: COMPLETED

Two defects were corrected and deployed in the METS June 2019 release. One defect fix corrected logic to send the SSN to MMI when a caseworker entered a paper application submitted by a citizen. The other defect resolved how SSNs are handled when a person was changed from a non-applicant to an applicant on a case.

June 2021 — Project Name: UPI Project Backlog — Status: NOT STARTED

This project will identify and fix additional defects causing unnecessary duplicates and post-implementation defects from prior UPI project releases.

Objective 2: Remediate existing duplicate personal identification numbers

This objective is aimed at identifying a repeatable, reliable method to find duplicates and incrementally remediate them (until Objective 3 is completed) so that:

- Accurate metrics are used to measure duplicates remediation progress.
- Duplicate payments are proactively avoided and recouped as soon as possible (even before system development completes).
- The strategy to identify duplicates is defined and vetted before being operationalized.

The scope of work for this objective includes formulating and validating the means to identify duplicates by defining and running ad-hoc data extracts and analyzing the data to validate the selection criteria and logic. Any found duplicates through this process are then remediated using normal duplicate remediation process. This

work initially centers on duplicates that cause duplicate capitation payments but will broaden beyond that. Key learnings from this work effort directly feed into objective 3.

This work has been initiated and will continue as the standard process into the future.

Objective 3: Implement end-to-end merge capability and process

This objective is aimed at developing and operationalizing tools and a process to proactively detect and remediate duplicate personal identification numbers on a continual basis including ongoing metric reporting so that:

- Duplicate personal identification numbers are proactively detected and remediated before causing duplicate payments and other business problems.
- The number of duplicate personal identification numbers are reduced to a manageable level.
- Fewer clients experience service disruptions.
- Help desks receive fewer calls.
- Management has reliable metrics to effectively monitor, report and manage duplicate personal identification number creation and remediation progress.
- Worker productivity increases and labor costs decrease due to fewer duplicates to discover, research, report and remediate; fewer duplicate payments to recoup; and fewer failed claims to resolve.

September 2020 — Project Name: UPI METS Person Merge — Status: IN PROGRESS

This project will add new system capability to merge data between person records in METS and synchronize person merges across METS and downstream systems.

The project team has completed requirements for this project and design and development is in progress.

March 2021 — Project Name: UPI Proactive Merge Report — Status: IN PROGRESS

This project will systematically identify and queue up potential duplicates for proactive remediation. Currently, potential duplicate records are not normally identified until they cause a problem for clients, providers, the business process, or system processing. This project will develop tools to find potential duplicates and remediate them before a problem occurs. The tools and data from Objective 2 will inform the priorities and best practices for this project.

March 2021 — Project Name: UPI Metrics Reporting — Status: NOT STARTED

This project will implement reporting of operational metrics on how many potential duplicates exist and the rate by which they are remediated.

June 2021 — Project Name: UPI Ongoing Merge Process Implementation — Status: NOT STARTED

This project will define, document, pilot and operationalize the ongoing merge process. This involves process re-engineering, system development and training.

August 2021 — Project Name: UPI Ongoing Merge Process Warranty — Status: NOT STARTED

This project will support the ongoing merge process until it achieves a steady state and the process is moved into operational status.

Objective 4: Reduce impact

This objective is aimed at reducing the impact of duplicate personal identification numbers on the process of eligibility verification thereby reducing barriers to care and billing issues for enrollees, claims rejections and labor costs to resolve eligibility issues.

January 2021 — Project Name: UPI EVS Enhancement — Status: IN PROGRESS

Providers commonly use the Eligibility Verification System to confirm an enrollee’s eligibility by searching for the enrollee’s personal identification number, name, date of birth or SSN. If the personal identification number entered is a duplicate number that has been deleted or the name search matches to more than one record, the verification system returns an inaccurate “non-covered” response.

This project will deploy modifications to the Eligibility Verification System to better handle multiple personal identification numbers — both merged and unmerged — by giving providers a more accurate “covered” response.

Confidence in meeting the June 30, 2021, deadline

The project team has high confidence of meeting the June 30, 2021, deadline with all planned scope items with two exceptions:

- The update to the search attributes in the Shared Master Index will deploy in September 2021, after the deadline.
- A final warranty release will occur in March 2022, after the deadline. This release will address problems that arise from the deployed code or new processes and procedures.

X. Report recommendations

Continue corrective action plan

This project is and should continue to be a high priority.

Expected improvements

Completing this project should net the following benefits:

1. Fewer new duplicate personal identification numbers

- Fewer new duplicate personal identification numbers get created in METS, reducing incidences of duplicate coverage and payments.

2. Creation of a more sustainable, comprehensive and proactive process that detects and remediates duplicate personal identification numbers before they cause financial and human impacts

- Avoids duplicate payments.
- Reduces the number of duplicate personal identification numbers to the degree possible.
- Provides reliable metrics to management to effectively monitor, report and manage duplicate creation and remediation progress.
- Provides feedback to leadership more quickly if increased duplicates occur.

3. Increased worker productivity and reduced labor costs

- Worker productivity increased and labor costs reduced due to:
 - Improved visibility for county workers into historical person identities.
 - Fewer duplicates to discover, research, report, remediate.
 - Fewer duplicate payments to recoup.
 - Fewer failed claims to resolve.
 - Fewer Help Desk phone calls.

4. Improved experience for providers and managed care organizations

- Providers and managed care organizations will gain an improved experience because:
 - Claim denials will occur less often.
 - Accounts receivable days decrease for providers and managed care organizations.

5. Improved experience for enrollees

- Improve enrollee experience by:
 - Reducing service disruptions.
 - Reducing inappropriate billing issues.