Quality Improvement Project Title

Shipping Error Documentation Process Standardization

Authors

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Background

The MSDH pharmacy ships thousands of packages to individual patient homes, affiliated outpatient clinics, and County Health Departments across the state of Mississippi each month. We work with the United Parcel Service (UPS) and Douglas Express Delivery (DED) to deliver a variety of medications and medical supplies to our patients. The current process for documenting shipping errors is not standardized across all pharmacy programs, leaving gaps in documentation. This hinders our ability to identify patterns in shipping errors which should be addressed. Our objective is to further improve the shipping error documentation process by developing and implementing a standardized electronic form for all reported shipping errors.

AIM Statement

An opportunity exists to improve the documentation of shipping errors, beginning with gathering information on common errors and ending with developing a standardized documentation form for all shipping errors. This effort should improve the pharmacy's ability to address patterns of shipping errors. This process is important to improve now to improve the pharmacy's ability to identify and address common shipping errors. The Baseline measurements are defined as the following metrics: the number of documented shipping errors reported each month and the level of understanding of the shipping error documentation process by pharmacy staff members.

Benefit of Successful Completion:

Standardizing the shipping error documentation process in an electronic format allows for easier identification of patterns of error. Identifying common shipping errors more consistently will allow the pharmacy to address issues more efficiently. This can lead to providing patients with prompt medication delivery and increased assurance of the protection of their private health information.

Methods

Utilizing Microsoft Office's Forms, pharmacy staff surveys were conducted during the month of February 2023. These pre-intervention surveys allowed us to identify staff attitude toward current shipping error documentation processes as well as gather information on specific changes staff recommended as a

subjective measurement. The average monthly number of reported shipping errors over the previous 6 months from September 2022 to February 2023 was used as the objective measurement.

A standardized electronic survey for all shipping errors reported was developed based on the current documentation process and staff survey recommendations. The new documentation process utilizing a Microsoft Office Forms survey launched around the pharmacy on March 1, 2023. Over the month of March 2023, survey results were reviewed weekly by project personnel to identify any updates or additional staff training needed.

- **Goal of Program**
    - Increase in the number of documented shipping errors and increase in staff satisfaction in the documentation process.
- **Timeframe to Achieve Goals**
    - One month (March 2023)
- **Issues to Address**
    - Staff remembering to document all reported shipping errors
    - Staff reluctant to document errors
- **Interventions Made**
    - Reminded staff verbally and in writing to document all reported shipping errors

SWOT Analysis

- Strengths
    - The majority of our shipments use UPS which already has an error documentation process in place for technicians.
    - Pharmacy staff members are eager to see the shipping error documentation process improve
- Weaknesses
    - Staff confusion exists on which shipping errors should be reported, leaving some errors undocumented
    - Only one pharmacist knows how to document errors correctly
    - Staff is not updated on shipping error rates regularly and are not engaged in monitoring these errors
- Opportunities
    - Ability to make electronic surveys through Microsoft Office Forms software
    - Increased staff engagement in pharmacy processes
    - Weekly meetings allow for additional staff training and reminders on documenting shipping errors
- Threats
    - May not be seen as a priority during busy work times by some staff
    - Forgetfulness of staff to document errors which were not documented in the past

Results and Conclusion

Pre-intervention survey results (Appendix - Table 2) and post-intervention survey results (Appendix - Table 3) were compared to determine changes in staff satisfaction of the shipping error documentation process between pre-intervention and post-intervention (Figure 1). An overall improvement in staff satisfaction was found. There was a significant decrease in Strongly Disagree, Neutral, and N/A responses and a significant increase in Strongly Agree responses (Figure 2)

Figure 1

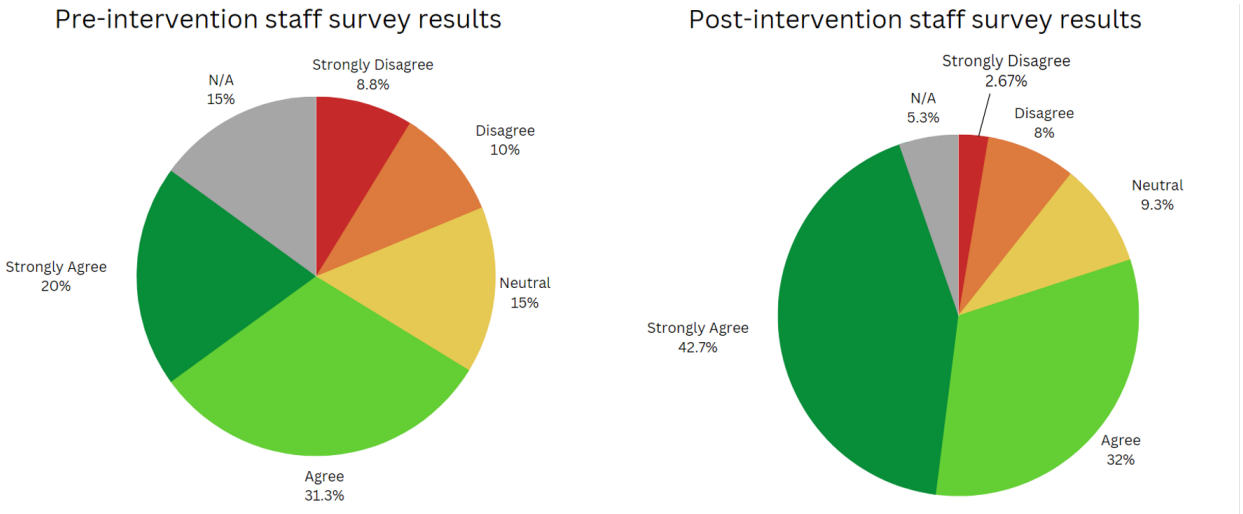
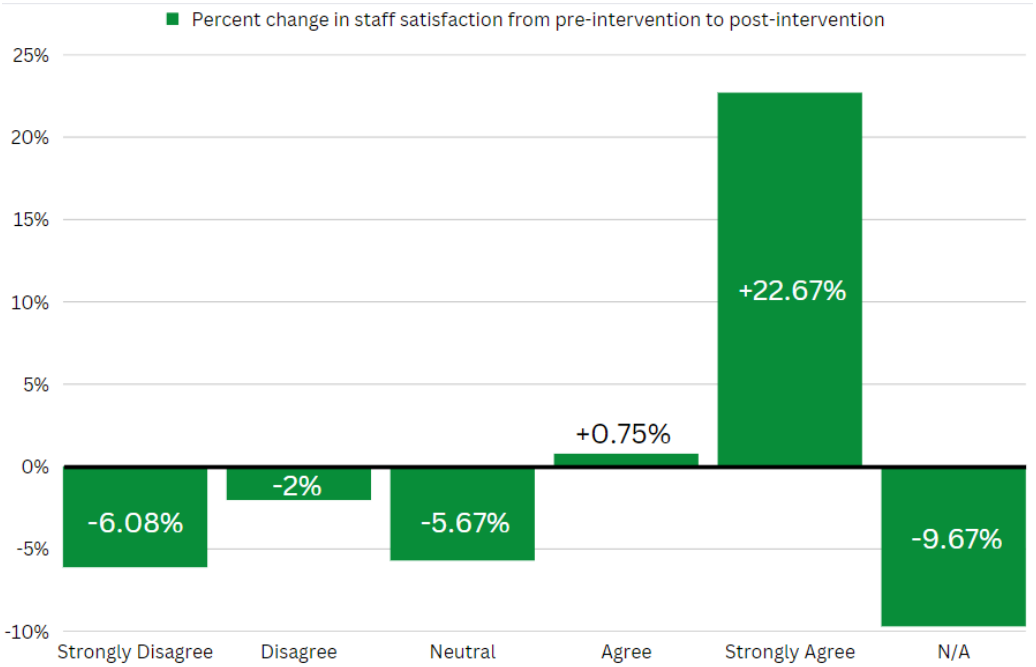


Figure 2

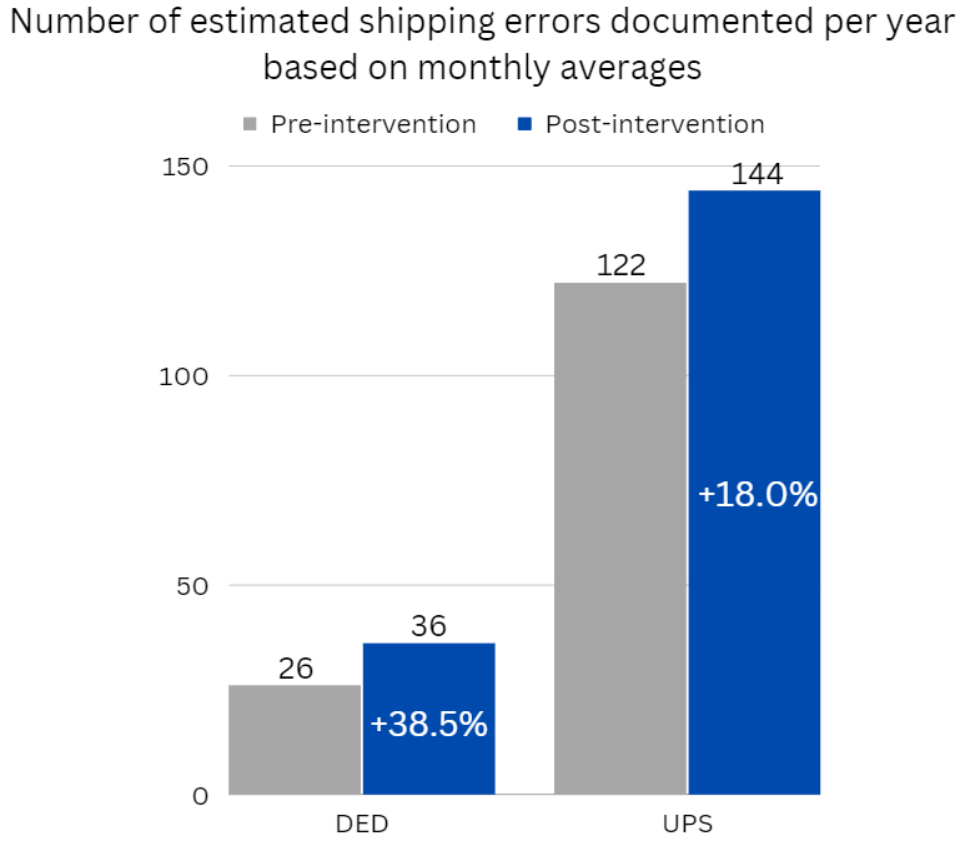


An increase in documented shipping errors was found when comparing the month of intervention with the average errors documented during the previous 6-month period (Table 1). This increase in documentation reflects an improvement in pharmacy documentation processes and an increased focus on shipping errors. With the improvement in the documentation of reported shipping errors, at least an additional 32 shipping errors are estimated to be documented within a year of the intervention's implementation. This corresponds with a 38.5% increase in Douglas Express Delivery errors documented and an 18% increase in United Parcel Service errors documented (Figure 3).

Table 1: Monthly documented shipping errors

Shipping Method	DED	UPS
Number of errors reported September 2022 – February 2023	13	61
Average number of shipping errors reported per month September 2022 – February 2023	**2.17**	**10.17**
Number of errors reported - March 2023	3	12

Figure 3:



Discussion

Improving and standardizing the shipping error documentation process ensures that more errors can be appropriately handled. The pharmacy's ability to identify and address trends in shipping errors can improve our shipping error rate and overall patient satisfaction. By adding a follow-up role into our workflow for an individual to follow-up with lost packages could help the pharmacy better recuperate costly medications in a timelier manner.

It is thought that additional updates to this documentation process are needed to see its full benefit. Improvement in the electronic form used for documenting reported errors will help further refine this documentation process to make it more efficient within the staff workflow. Additional trainings and staff reminders can help the pharmacy to better act upon errors in the future. As we continue to work on improving this documentation process, we hope that the additional data can provide us with more insight into areas of concern so that we may continue to provide the highest standard of care to all of our patients.

Appendix

Table 2: Pre-intervention staff survey results

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
1. I know how to document UPS shipping errors reported to me	1	3	2	6	2	2
2. I know how to document Douglas shipping errors reported to me	3	3	1	4	3	2
3. I think the current shipping error documentation process is beneficial to my job	1	0	2	6	4	3
4. I think the current shipping error documentation process is beneficial to my patients	1	0	1	6	6	2
5. I like the way we document shipping errors in the pharmacy	1	2	6	3	1	3
Total	7 (8.75%)	8 (10%)	12 (15%)	25 (31.25%)	16 (20%)	12 (15%)

Table 3: Post-intervention staff survey results with one participant lost to follow-up

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
1. I know how to document UPS shipping errors reported to me	0	3	0	5	6	1
2. I know how to document Douglas shipping errors reported to me	0	3	2	6	4	0
3. I think the current shipping error documentation process is beneficial to my job	1	0	1	4	8	1
4. I think the current shipping error documentation process is beneficial to my patients	1	0	1	5	7	1
5. I like the way we document shipping errors in the pharmacy	0	0	3	4	7	1
Total	2 (2.67%)	6 (8%)	12 (9.33%)	10 (32%)	32 (42.67%)	4 (5.33%)