NABP
National Association of Boards of Pharmacy

Report of the Task Force to

STUDY DRUGS LOST IN TRANSIT

Report of the Task Force to Study Drugs Lost in Transit

Members Present

Caroline Juran (VA), *chair*; Jonathan Beattie (WY); Richard Breeden (TN); Ruth Cassidy (NY); Saad Dinno (MA); Dorothy Love Farfone (SC); Jacqueline Hall (LA); Janet Getzey Hart (PA); Tim Koch (AR); Ed McGinley (NJ); Jerry Moore (AL); Krystal Brashears Stefanyk (NC); Tiffany Strohmeyer (KS); Darrell Switzer (OK); J. Lindsey Tankersley (AR).

Others Present

Debbie Mack, *Executive Committee liaison*; Robert Bramlitt (Cencora, Inc), Chuck Forsaith (Pharmaceutical Cargo Security Coalition (PCSC)), Gregory Gillming (United States Postal Inspection Service), Scott Mooney (McKesson Corporation), *guests*; Lemrey "Al" Carter, Josh Bolin, Melissa Becker, Andrew Funk, Neal Watson, Gertrude "Gg" Levine, Maureen Schanck, *NABP staff*.

Introduction

The task force met virtually on August 26 and 27, 2025. The task force was established pursuant to Resolution 121-1-25, Drugs Lost in Transit, which the NABP membership passed at the 121st NABP Annual Meeting in May 2025.

Review of the Task Force Charge

Charge of the task force:

1. Study the types of drugs that are lost in transit and the incidence of such losses.

2. Identify causes and develop effective strategies to minimize the incidence of drug losses during transit, including those that can leverage the Pulse by NABP™ platform.

3. Amend, if necessary, the *Model State Pharmacy Act and Model Rules of the National Association of Boards of Pharmacy* (*Model Act*) accordingly.

Background and Discussion

The discussion began with a review of the task force charge and the recognition that the task force was established pursuant to Resolution 121-1-25, Drugs Lost in Transit, which the NABP membership passed at the 121st NABP Annual Meeting in May 2025.

The resolution states that drugs lost in transit occur from pharmacies to patients, from wholesale distributors to pharmacies, and from pharmacies to reverse distributors. While the task force examined all such losses, the discussion began with a presentation focused primarily on last-mile cargo thefts involving deliveries from wholesale distributors to pharmacies. The information was based on research compiled by PCSC and presented by one of the task force guests.

Characterizing Incidences of Drugs Lost in Transit

Last-mile cargo thefts occur near pharmacy delivery destinations, often in public parking lots with no security, and frequently involve violence. They generally target driver-owned vehicles with minimal security features. Last-mile losses are usually “straight theft,” involving the physical taking of cargo, usually by force. Conversely, “strategic theft” involves trickery and social engineering to establish trust and bypass security measures. One example of strategic theft involves a bad actor impersonating a board of pharmacy representative, deceiving the pharmacy into revealing its wholesaler account number, then posing as the wholesaler to ask the pharmacy to “return” product, tricking them into providing it to the bad actor.

The task force learned that while last-mile deliveries where losses in transit occur are rare – less than 1% of over approximately 16 million deliveries annually (statistics derived from the three largest pharmaceutical distributors in the US: Cencora, Cardinal Health, and McKesson) – they are not the only areas where in-transit thefts occur. Cross-docks, where goods are transferred directly from line-haul vehicles (tractor-trailers traveling on predetermined routes) to smaller outbound pharmacy delivery vehicles (without being stored in a warehouse), are also areas where the risk of theft exists. Examining loss trends, task force participants noted that supply chain vendor pilferages tend to spike during the winter holidays when shipment volumes increase along with the number of temporary vendor staff. Those short employment periods make tracing theft activity back to when it may have occurred more difficult.

Unlike robberies that take place within pharmacies, where criminals target specific drugs, in-transit losses, especially for last-mile cargo, generally involve many types of drugs because shipments contain a variety of pharmaceutical products that are unidentifiable by their packaging. For this reason, the task force determined that identifying the types of drugs that are lost in transit and the incidence of such losses, as called for in the first charge of the task force, would offer little help in mitigating theft.

Considering Uses and Opportunities for Pulse by NABP

The task force then heard an overview of Pulse by NABP, a platform developed to facilitate compliance with the Drug Supply Chain Security Act (DSCSA) and enable trading partners to trace the movement of serialized products through the supply chain. Among other use cases, regulators and law enforcement authorities can utilize Pulse to identify diverted products. If a product is considered suspect, users can scan the product’s 2D barcode and use Pulse to identify the manufacturer and verify whether the product is legitimate or diverted.

The task force considered the potential role for Pulse in relation to the second charge of the task force, which is to identify causes and develop effective strategies to minimize the incidence of drug losses during transit, including those that can leverage the Pulse platform. Participants noted that while Pulse could be used to facilitate investigation, its role in minimizing losses has yet to be determined. The task force suggested that NABP explore other use cases for Pulse to assist in investigations and facilitate communication and information sharing between trading partners.

Participants also suggested that NABP review the proposed federal Combating Organized Retail Crime Act of 2025 (CORCA), which addresses the threat of organized theft groups to retailers, supply chains, and the national economy, to identify opportunities for input or involvement relating to Pulse.

Additionally, participants acknowledged the opportunity to continue leveraging Pulse to assist federal, state, and local regulators, including the law enforcement community, with investigations related to pharmaceutical products.

The task force suggested that NABP continue to investigate opportunities and determine whether Pulse can be enhanced to assist with loss reporting, mitigation, and data analysis. Participants also considered the educational benefit of using Pulse as a clearinghouse of information. They suggested that NABP continue to look for ways to share information regarding drugs lost in transit by using Pulse, as well as to utilize this information to help drive change.

Reviewing Previous Task Force Recommendations

Looking back on previous efforts to curtail in-transit losses, participants reviewed the report and recommendations of the 2007-2008 Task Force on Prescription Drug Diversion from Common Carriers. Staff explained that one of the most controversial of those recommendations was to amend the *Model Act* to require licensing of common carriers. The controversy arose from the fact that most states do not regulate common carriers.

Rather than adding this language to the *Model Act*, NABP amended the criteria for the accreditation program formerly called Verified-Accredited Wholesale Distributors, now known as Drug Distributor Accreditation, to require accredited drug distributors to more closely vet the common carriers they use. Task force members noted that from 2007-2008, accreditation was less common for wholesale distributors than it is now; however, many of the same challenges still exist. Participants noted that given their thin profit margins, a number of common carriers neglect to exercise the level of scrutiny needed.

The 2007-2008 task force also recommended that NABP collect and serve as a repository for information on incidents of drug diversion. Staff explained that NABP was focused on other priorities at that time and lacked the resources to implement the data collection recommendations. Now, however, the Association's technological capabilities are stronger and could potentially facilitate this action if the current task force were to recommend it.

Examining the Current Landscape

Task force members discussed incidents of drugs lost in transit in their states. Many of those included diversion through common carriers on delivery to patients. Other reported losses were en route to reverse distribution facilities, often involving controlled substances (CS).

Participants noted that reverse distribution is not covered under DSCSA and that this is a weak link in the supply chain that could be strengthened through regulation. Agreeing that reverse distributors experience frequent losses in transit, the task force considered whether states do or should require licensing of reverse distributors. Some states, such as Arkansas, license reverse distributors as they do wholesale distributors. Others, such as North Carolina, license reverse distributors only if they handle CS. Oklahoma only licenses reverse distributors that are located in that state, whereas Arkansas requires all reverse distributors that are used by Arkansas licensed pharmacies to be licensed there.

The *Model Act*'s *Model Rules for the Licensure of Manufacturers, Repackagers, Third-Party Logistics Providers, and Wholesale Distributors* does not include language specific to the licensure of reverse distributors, but because the *Model Rules* do not identify their activities as an exception to wholesale distribution, the *Model Act* implicitly requires licensure of reverse distributors as wholesale distributors. In the future, however, this language will be modified to align with DSCSA requirements when they are finalized. Given that reverse distribution is not considered distribution under DSCSA, two license categories may be needed: one for distributors as defined by DSCSA, and one for those excluded from it, such as veterinary product distributors and reverse distributors. While waiting for the final DSCSA requirements, the task force decided that amending the *Model Act*, as mentioned in the third charge of the task force, would be premature.

The task force suggested that NABP, in the meantime, research in what states and by what agencies reverse distributors are licensed, including nonresident licensure, and whether reporting requirements include only CS or all prescription drugs.

Clarifying Loss Reporting Requirements

The task force noted some confusion as to which parties should report incidents of drugs lost in transit and to whom. Participants agreed that the board of pharmacy should be the first point of contact. Losses can also be reported to NABP, which shares intelligence with state and federal regulators, and to PCSC, which acts as a conduit to law enforcement reporting.

Participants agreed that if a pharmacy takes ownership of a shipment and then later notices that some products are missing, the pharmacy should report the loss. Alternatively, if the pharmacy takes inventory of the shipment prior to accepting it from the carrier and discovers products missing at that time, the pharmacy should reject the shipment, and the carrier would report the loss. Members also noted, however, that it is not always possible for a pharmacy, particularly a small independent pharmacy, to inventory the contents of a shipment at the time of receipt. Most pharmacies and hospitals take ownership of the shipment and then take inventory later, especially if it is a large order, rather than asking the courier to wait while they scan all the products in the shipment. As a result, participants agreed losses often remain undiscovered for hours or even days or weeks, which can make tracing the lost products more difficult.

The task force deliberated on whether loss reporting requirements should apply only to CS medications or also to non-CS legend drugs. Participants noted that many non-CS drugs, such as HIV medications, have a high street value and that losses of these drugs are often under reported because they are not required to be reported in all states. There was general agreement that these losses should be reported. Participants noted that, at the same time, there may be reluctance to report losses for fear of disciplinary measures. They also considered whether requiring more reporting would overwhelm some boards of pharmacy or if they have the resources to accept and process the reports.

Exploring Opportunities to Mitigate Losses

The task force considered several possible approaches to mitigating in-transit losses. Participants noted that while a portion of the courier workforce receives background checks, many workers in this field do not. With this in mind, the task force considered whether background checks should be

required of all courier personnel. They also considered other potential solutions, such as security standards for last-mile couriers, a voluntary accreditation program, or a mandate that all shipments containing CS require a signature. Participants noted that pharmacies and manufacturers who use couriers should look closely at their contracts to ensure accountability.

Additionally, the task force considered ways to better secure cargo by obscuring package contents. While manufacturers are increasingly disguising package contents, such as with tamper-evident tape that does not appear tamper-evident, there are still unavoidable clues, and many experienced couriers can identify packages containing items of value.

The task force also considered ways to create national standards for practices shown to reduce losses, rather than having a patchwork of rules across the states. They again discussed CORCA, which mandates the creation of the Organized Retail and Supply Chain Crime Coordination Center within the Department of Homeland Security. The task force weighed opportunities to introduce Pulse into the CORCA conversation.

Educating Trading Partners

The task force discussed the potential roles of various stakeholders in educating trading partners on the prevalence of, and ways to mitigate, drugs lost in transit. Participants considered whether NABP should contact common carriers to express concerns regarding losses of pharmaceutical products but did not agree on whether such outreach would be beneficial or appropriate. Participants suggested that facilitating education may have more impact. They emphasized that trading partners should be familiar with the logistics of drug distribution, develop contacts for each phase of distribution, create a supply chain security program, practice for emergencies, work with organizations and individuals they know, implement strongly worded contracts for transportation service providers, look for multiple points of verification, and ask questions when things seem askew.

Participants suggested that NABP educate applicants about product shipment integrity through the Association's accreditation and inspection programs. They recommended that educational content cover common carrier contractual terms, such as employee background checks and drug screening, as well as best practices for minimizing the visibility of pharmaceutical product shipments. The task force noted, however, that this approach would not benefit distributors that do not seek accreditation or inspection.

The task force considered ways to broaden NABP's educational outreach, such as including in publications and social media information about in-transit losses to educate pharmacies and pharmacy staff about the issue. NABP should also consider educating appropriate audiences about the existence of accreditation programs for common carriers. In addition, participants mentioned that NABP should continue to look for ways to share information regarding this issue by using Pulse, and that stakeholders should also be informed about PCSC resources.

Recommendations

After careful review and deliberation, the task force made the following recommendations:

1. Once Food and Drug Administration finalizes the national licensing standards for prescription drug wholesale distributors and third-party logistics providers, NABP should review its *Model Rules for the Licensure of Manufacturers, Repackagers, Third-Party Logistics Providers, and Wholesale Distributors* to ensure alignment with those standards, as well as create new model language to register or license supply chain participants that fall outside of DSCSA, such as reverse distributors.

2. In anticipation of the first recommendation, NABP should evaluate the current status of state regulations pertaining to the licensure and regulation of supply chain participants that fall outside of DSCSA, such as reverse distributors, and determine if licensure standards/requirements should be amended.

3. NABP should review the proposed federal CORCA to determine if there are opportunities for input or involvement relating to the potential utilization of Pulse by NABP.

4. NABP should continue to leverage Pulse by NABP to assist federal, state, and local regulators, including the law enforcement community, with investigations related to pharmaceutical products. Additionally, NABP should continue to review use cases for Pulse to determine if it can be enhanced to facilitate the reporting and tracking of in-transit losses and the analysis of loss-incidence data to help with mitigation efforts.

5. NABP should review all NABP accreditation and inspection program standards to ensure issues related to product shipment integrity are addressed.

6. NABP should utilize all NABP accreditation and inspection programs as opportunities to educate applicants regarding product shipment integrity. Educational content should cover common carrier contractual terms, such as employee background checks and drug screening, as well as best practices for minimizing the visibility of pharmaceutical product shipments.

7. NABP should include in publications and social media information about in-transit losses to educate pharmacies and pharmacy staff about the issue, including the existence of accreditation programs for common carriers.

8. NABP should continue to look for ways to share information regarding in-transit losses by using Pulse by NABP and utilize this information to help drive change.