

Considerations for a Central Fill Pharmacy

A pharmacy executive's guide to driving economical, system-wide efficiency and standardization through consolidated medication distribution



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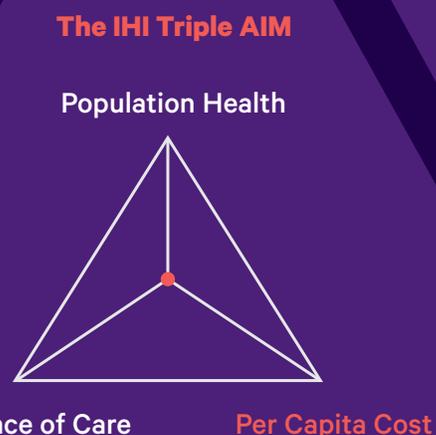
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Executive Summary

This paper helps pharmacy executives achieve two major goals: 1) to advance pharmacy’s impact on initiatives to improve clinical outcomes and 2) to investigate a cost-effective, real-world approach for execution. That “approach” appropriately considers health-system ecosystems at a macro level.

In recent years, healthcare system merger and acquisition (M&A) activity has mushroomed. Consider 92 transactions in 2019 alone.¹ The resulting confusion of entity processes, systems, technologies and formularies is a major driver of inefficiency. And because many health systems function at the facility level, supply-chain and operational activities exist in inefficient “silos.” Consequently, this heterogeneous mix of systems, technologies and processes is directly at odds with health systems’ strategic goals. That alone is a major impediment to promoting and realizing the Institute for Healthcare Improvement’s laudable Triple Aim goals. Simultaneously, it hampers the advancement of pharmacy Practice Advancement Initiative (PAI) goals across a health system. That leaves pharmacy executives looking for strategies to effectively reconcile and align their entity-wide resources with Aim and PAI objectives.



One such strategy is the implementation of a central fill pharmacy. One reason this is attractive is because it delivers benefits across a health system. The application of proven consolidation and standardization strategies to processes, formulary and systems promotes positive clinical outcomes at a lower cost.

That said, elements of a central fill pharmacy model can be complex, with multiple moving parts to account for. A successful central fill implementation requires a commitment to overcome the inevitable challenges required to realize its full potential. However, before pharmacy executives can dedicate themselves to such an endeavor, it is prudent to first make the clinical and business cases in favor of a central fill pharmacy model.

SOURCE

1 — Kaufman, Hall & Associates, LLC, "2019 Healthcare M&A In Review: In Pursuit of the New Bases of Competition," accessed January 6, 2021.



Why Implement a Central Fill Pharmacy?

The government-mandated transition from quantity-based (number of procedures) care to an outcomes-based reimbursement model² has pressured healthcare systems to meet the new standard. Philosophically, the change makes sense. The focus on patient outcomes, and being paid accordingly, is a value healthcare providers can get behind. However, putting that concept into practice is a major challenge. Not only must pharmacists contend with cost pressures from shrinking reimbursements, they must play a larger role in clinical care to drive improved outcomes.

Two major drivers of pharmacy's impact on clinical outcomes are:

1. Reducing errors that lead to adverse effects, i.e., improving patient safety
2. Increasing the efficacy of medication treatments

One strategy to improve patient safety and enhance clinical outcomes is to increase the time pharmacists spend applying their substantial domain expertise. Both at the patient level via consultations, for example, and at the health system level by advising decision makers on sound strategies.

Reallocating time to clinical activities is good. Reallocating that time via cost-effective measures is essential. In an environment of plummeting reimbursements and cost-conscious patient consumerism, health systems are cutting costs to be both viable and competitive. That in turn, has led to a significant focus on supply-chain operations. So much so that in a Modern Healthcare survey of executives, **“nearly 80% of respondents had incorporated reducing supply costs into their strategic [i.e., system-wide] plan.”**³ That explains why many health systems have implemented consolidated service centers (CSCs) to optimize their supply chain operations.

“The magnitude of hospitals and healthcare resource consolidations into health systems and IDNs has revealed the need to establish an enterprise-level solution to steward the breadth and depth of the pharmacy domain.”⁴

Conceptually, a central fill pharmacy model is a subset of a CSC. It can be applied within a CSC or on its own. What's relevant is that a central fill model provides consolidated services that strongly support Aim and PAI objectives.

SOURCE

- 2 — Burwell, Sylvia, Mathews, HHS Secretary, [“Progress Towards Achieving Better Care, Smarter Spending, Healthier People,”](#) January 26, 2015.
- 3 — [“Survey: Nearly 80% of hospital execs work supply costs into strategic plan,”](#) [www.advisory.com](#), from Modern Healthcare's 2012 Survey of Executive Opinions on Supply Chain Issues.
- 4 — Aguero, David, Pharm.D., Cooley, Thomas, BS Pharm., MBA, et al, [“Optimizing automation and technology across a pharmacy enterprise,”](#) Am J Health-Syst Pharm. 2016; 73: 1347-50.

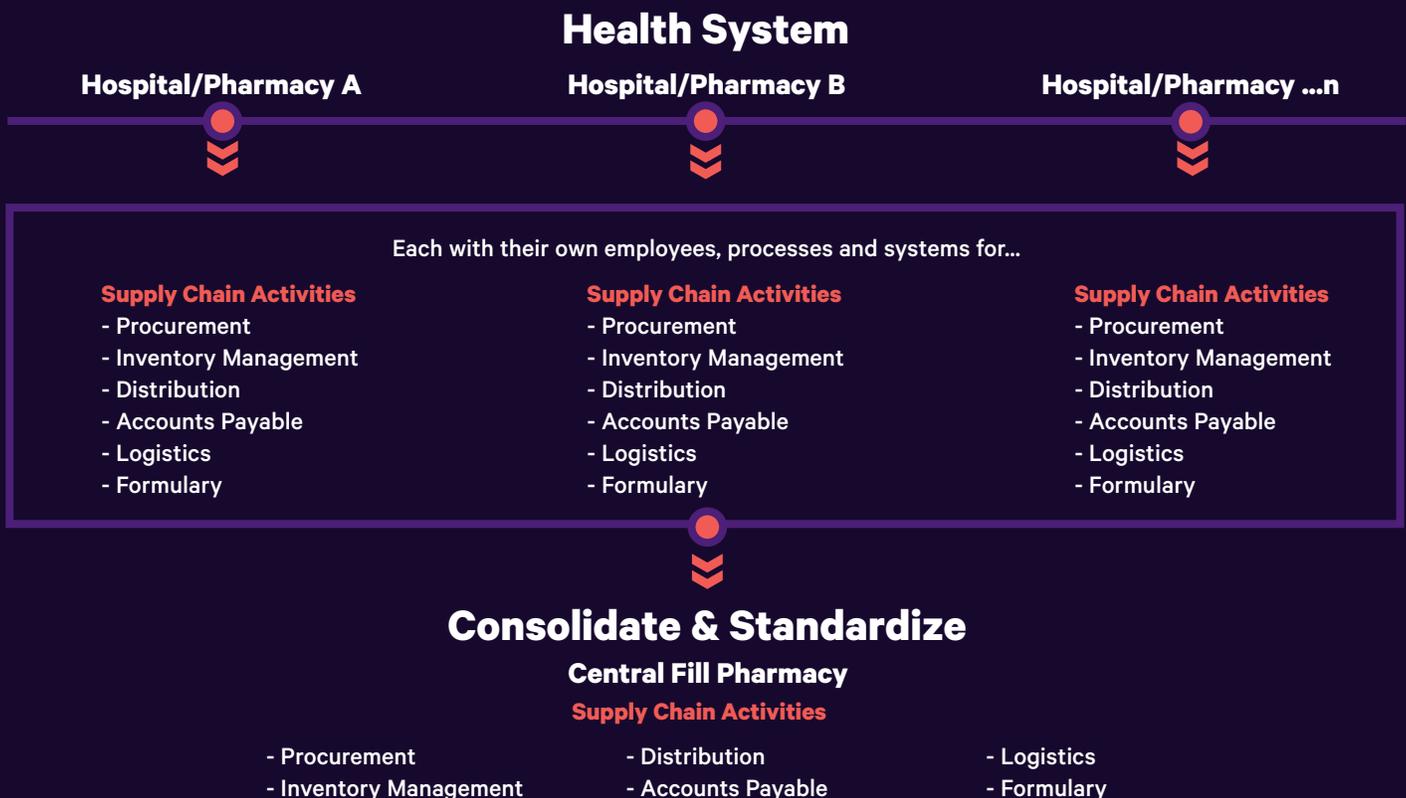


Key Benefits of a Health-System Central Fill Solution

At a strategic level, a central fill model promotes “systemness.” Systemness may be defined as: “...delivering patient-focused, seamless and high-quality care across the many parts of the [health] system to maximize value for customers.”⁵

Thus, health systems seek to manage their “continuum of care components,” pharmacies being one such element, to deliver greater, synergistic value that improves population health. In practice, this manifests itself in part through the consolidation and standardization of systems, processes and staffing.

«A large majority (89%) of [pharmacy] Forecast Panelists (FPs) predicted that at least half of health systems will significantly reorganize their information technology infrastructure to achieve true system-wide integration in the next five years. For pharmacy departments, such integration requires standardization of medication ordering, distribution, monitoring, documentation, and related processes.»⁶



SOURCE

5 — Zuckerman, Alan M., ACHE, FAAHC, “Systemness: The Next Frontier for Integrated Health Delivery,” Becker’s Hospital Review, March 10, 2014.

6 — Zellmer, William A., B.SPharm., MPH, FFIP, ed. “ASHP Foundation Pharmacy Forecast 2017: strategic planning advice for pharmacy departments in hospitals and health systems.” Am J Health-Syst Pharm. 2016; p. e626.



Central fill solutions promote efficient consolidation

The information technology (IT) industry has embraced consolidation strategies to dramatically lower costs and improve efficiencies at datacenters worldwide. A central fill model borrows this proven strategy to consolidate and standardize pharmaceutical supply chain operations across a health system.

«As reimbursements keep going south all the time, the only way we can survive is by filling high volumes efficiently. Rather than work three times as hard for less money, we decided to look to central fill and automation to help us.»⁷

- George Awad, RPh, Director of Pharmacy,
Medical Center Pharmacy, San Diego, Calif.

It consolidates personnel labor hours as well as supply-chain and fill activities to slash duplication of effort and waste. And it standardizes them onto a single formulary, central fill processes and support systems to streamline operations, drive up efficiency and lower costs.

SOURCE

7 — Lockwood, Will, “The Evolution of Central Fill,” ComputerTalk for the Pharmacist, September/October 2014.



Consolidation of fill resources and activities delivers significant savings⁸

To illustrate the point, Medical City Healthcare (MCH) delivers services via 16 hospitals, seven off-campus emergency rooms, 50+ ambulatory sites. It draws upon 7,000 active physicians and 15,000 employees in the Dallas-Fort Worth and Oklahoma City areas. To promote high-quality, cost-effective care, managers consolidated pharmacy resources and activities.

As a result, MCH⁹:

- Increased inventory turns by two
- Standardized inventory management
 - Reduced drug stockouts and waste from expired meds
 - Reduced excess inventory stock by \$200,000
- Automated their drug replenishment process
- Consolidated drug purchasing to leverage volume discounts
- Liberated pharmacists' time to increase interventions by 30%
- Cut staff time spent on supply-chain functions
- Reduced NDCs carried by 48%

Consolidation benefits

A central fill solution helps health-system pharmacies achieve:

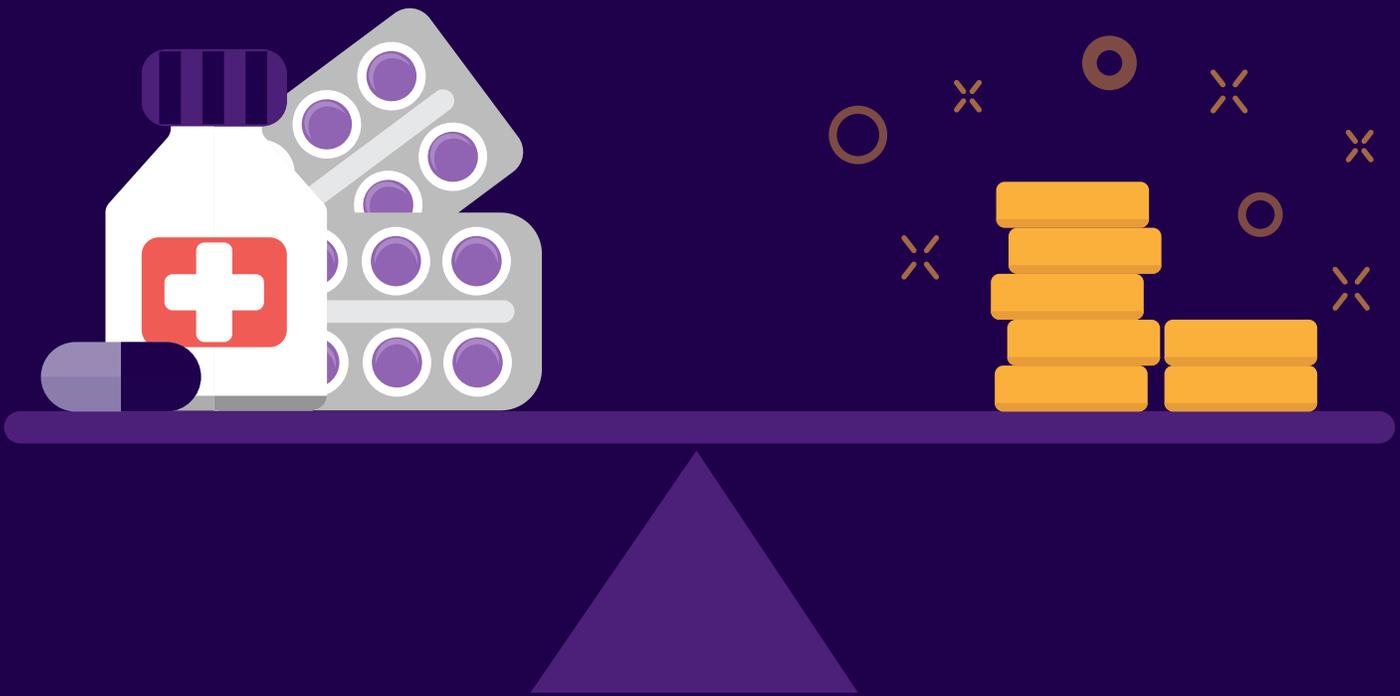
- **Significant cost savings.** A properly-tuned, equipped and staffed central fill pharmacy can deliver remarkable cost savings to health systems. These savings stem from a number of factors including the use of automation technologies and centralized inventory management. For some health systems, consolidated distribution enables an investment in automation that is not cost-feasible at each individual site.
- **Volume purchase discounts**—By aggregating med purchases across the health system— versus individual pharmacy purchase orders—all health-system pharmacies benefit from volume pricing.
- **Headcount realignment**—The consolidation of supply-chain activities reduces the personnel necessary to administer them across the health system. This frees budget to hire more pharmacists/technicians.
- **Cost-justifies the implementation of pharmacy technologies.** By aggregating thousands of scripts to be filled centrally, health systems can confidently implement automation technologies to achieve a favorable return on investment. Solutions that were previously unattainable at the facility level, are perfectly suited for the central fill's economies of scale. Thus, a lower cost-to-fill may be applied to thousands of scripts annually that were not eligible for such treatment previously.

SOURCE

8 — Formerly HCA North Texas.

9 — Kaylor, Trina, AVP, Pharmacy Operations and Expense Management, HealthTrust; Pehrson, Matt, CEO, HCA, North Texas Supply Chain. "Consolidated Pharmacy Distribution Management An Enterprise Deployment Program," Presentation of Learning Lab 8.2 at the AHRMM16 San Diego, CA conference, August, 2016.





— **Liberates pharmacists to spend more time on clinical activities.** A central fill model assumes responsibility for thousands of health system scripts annually. Thus, hospital pharmacists at each facility may reallocate time formerly spent on these activities to value-added clinical activities.

— **Promotes higher safety and service levels across the health system.** The consolidation of scripts at a central facility allows pharmacy directors to apply stricter control over processes. That’s because it’s easier to focus on, and apply, best practices to, a single site. This leads to higher quality control. Specifically, changes to workflows may be efficiently applied to a single site versus updating them in each pharmacy across a health system.¹⁰ And, given the script volumes, the waste reduction (time/meds) alone would justify a LEAN¹¹ makeover.

SOURCE

10 — As discussed under “Outcomes.” Lockwood, Will, *ibid.*

11 — The revision of workflows to eliminate time, motion and product waste to optimize the value pharmacies deliver to patients. For a more detailed explanation, see the [Lean Enterprise Institute’s definition here](#).

«As the hospital pharmacy takes on an increasingly important role in systemwide clinical and strategic initiatives, and as reimbursements and patient satisfaction become top priorities, hospitals of all sizes are beginning to recognize the value of supplementing their pharmacies with remote clinical personnel.»¹²

Remote Pharmacy Services (RPS) enable further consolidation

When moving to a central fill model, health systems often consider further consolidation through inclusion of an RPS offering. A desire to ensure an uninterrupted continuity of care has prompted health systems to roll out RPS, centralizing 24/7 services across their system.

As a supplement to current staff, RPSs give hospital pharmacists the flexibility to cover 24/7 order entry while also meeting clinical and financial objectives—without having to hire additional FTEs. While there may be some apprehension among hospital staff about moving medications offsite, RPS can actually create an added sense of security—ensuring resources are always available, even in facilities that do not have a 24hr pharmacy staff.

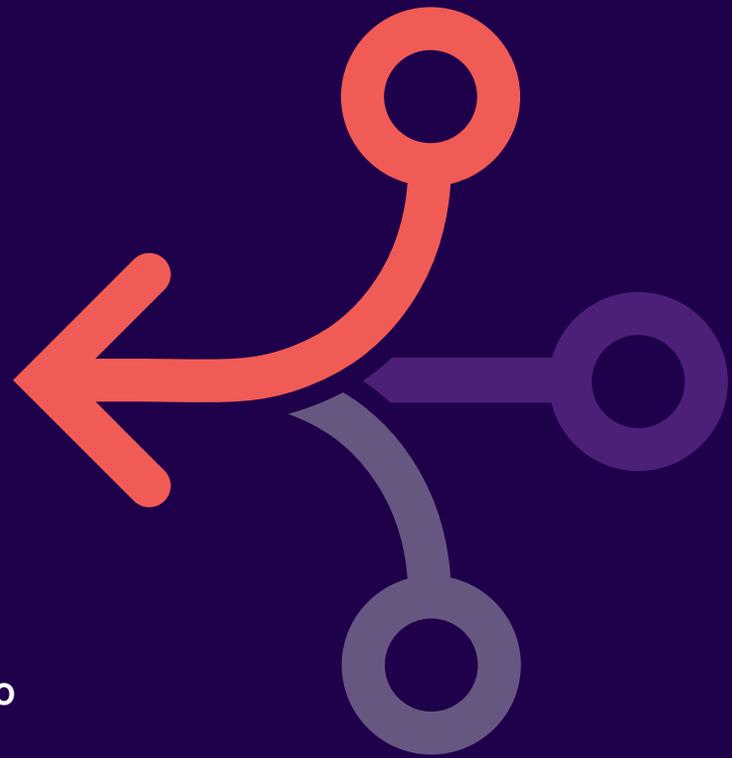
SOURCE

12 — Rosin, Tamara, “[Why more hospitals are seeing the value in remote pharmacy services partnerships.](#)” Becker’s Hospital Review, July 11, 2016.



Standardization benefits

Eliminating unjustified variation is essential to achieving systemness. A heterogeneous mix of processes, practices and systems is inefficient, error-prone, time-consuming and expensive to maintain. Consider the disparate training documents, SOPs and software/hardware systems all needing to be created/maintained. Furthermore, collecting and collating data from different systems leads to “apples-to-oranges” comparisons along with inconsistent and incomplete data sets. This precludes the possibility of “dashboard” or granular data analysis to drive sound decision making.



However, when health systems apply a central fill standardization strategy they get:

- **Greater adherence to a single formulary.** By consolidating multiple clinical committees across hospitals to one at the health system level, establishing a single formulary becomes manageable. By aggregating/standardizing med classes into a single line item, supply-chain specialists can negotiate favorable volume pricing. And the practice reduces the costly incidence of off-list purchases.
- **Tighter inventory control.** By standardizing onto a single inventory management solution, pharmacy directors get “dashboard-type” visibility and transparency into inventory operations. Armed with data, analytical tools

and reports, pharmacy executives can identify and account for (i.e., justify to management) usage/price trends and variances. And they can make better decisions to optimize operational practices.

This has a dramatic effect on pharmacies’ investments in inventory. By migrating from facility-specific, just-in-case inventory overages to system-wide surplus counts, this investment can be significantly lowered. Moreover, by having all pharmacies draw upon a central med pool, the number of turns are increased and waste from expired stock is reduced due to shared inventory.

Designing Your Best Central Fill Model

The design of a central fill pharmacy is contingent upon a number of parameters as discussed below.

Let the goals guide the design

Given the nature of a central fill facility—its emphasis on high-volume fills that leverage automation technologies to drive efficiency—its layout is quite different from the standard hospital pharmacy. Creating an ideal layout is best guided by the questions: What? Where? And how?

«IDNs located in a tight geography are more likely to succeed than those with far-flung locations which increase delivery costs.»¹³

What will the central fill pharmacy be doing?

What types of scripts will be filled? Cabinet replenishment? Patient-specific? Compounding? Specialty? Will controlled substances be filled? What service offerings will be added in the future? How will the new facility enable the pharmacy to bring outsourced services back in house?

The answers to these questions will shape the technologies, systems and layout of the design. It is not unusual for a central fill facility's role to evolve over time. As base operations are established, personnel accept and adhere to new processes, and decision makers better understand what's possible, new services may confidently be added.

Where will the central fill pharmacy be distributing to?

The central fill model is sometimes referred to as a “hub-and-spoke” model. Note that the distance between the hub and the termination points of each spoke (other pharmacies) matter a great deal.

As the distance between the central fill pharmacy and its client facilities increases, so do the time and transportation costs. At some point, the distance exceeds what's economically feasible. Research related to consolidated service centers has pegged that “point” at about 200 miles.

SOURCE

13 — “Evaluating Self-Distribution: A Guide For Healthcare Executives.” Health Industry Distributor's Association, p. 2.



Because transportation distances influence fulfillment/replenishment TATs, desired service levels will influence the facility's chosen location. The "where" of distributing scripts includes addressing intra-state and inter-state regulations, especially as they apply to controlled substances. While delivering over the border to a nearby state may economically satisfy the distance requirement, care should be taken not to run afoul of Federal and state regulations prohibiting this action.

Another "where" consideration is the site itself. The most logical location would be to co-locate it with an existing consolidated service center (CSC). That's not an option for every health system. So a viable alternative would be a stand-alone facility.

One critical parameter is the larger footprint of a central fill facility compared to a hospital pharmacy.

«Of course hardware that automates the fulfillment process plays a major role in central fill as well. This ranges from countertop counting to counting cabinets, robotics, and conveyor systems.»¹⁴

For the latter, real estate tends to be both scarce and expensive. As a result, retrofitting an existing pharmacy is capital intensive. For these reasons, many health systems choose to site their central fill facility at more spacious and cost-effective locations.

How will the central fill pharmacy distribute?

The "how" of fulfillment is heavily dependent upon "when." For example, lead times must be established to ensure that automated dispensing cabinets (ADCs) are replenished to satisfy administration time frames. This affects both the frequency and timing of deliveries. Note that for metro-based operations, traffic conditions affect delivery times more than distance. So delivery schedules—for example, during off hours - are configured to account for this. Another "how" consideration is whether to contract delivery services or to develop the infrastructure to support them in house.

The what, where and how considerations are foundational to concepting the ideal central fill design. It is equally important to effectively bring that idea to fruition. The incorporation of pharmacy automation solutions plays a key role in making this happen.

SOURCE

14 — Lockwood, Will, *ibid.*



Leverage central-fill pharmacy automation solutions

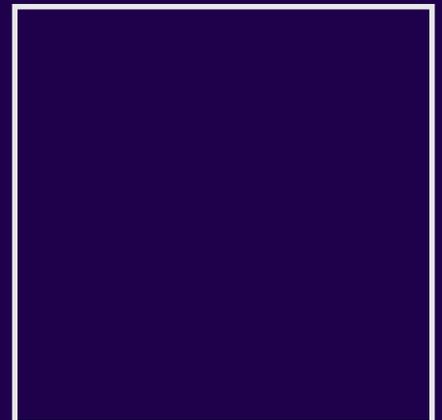
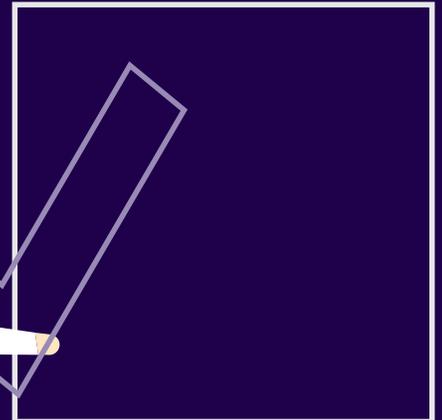
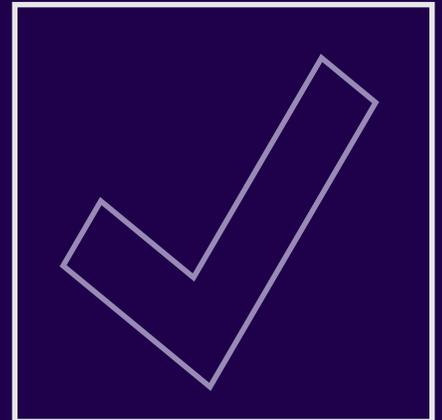
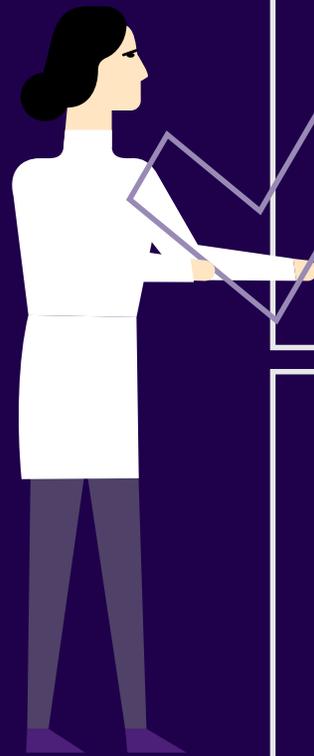
When selecting automation for a central fill pharmacy distribution center, it is important to consider how the facility's needs will change in a consolidated model. While some vendors may pressure executives to contract for a sole source agreement, the highest level of efficiency can be gained through a best-of-breed strategy, Central fill pharmacy automation technologies may be grouped into four categories. These are:

Enterprise Pharmacy Inventory Management Software (IMS).

An IMS is rudimentary to garner desired supply-chain efficiencies. A single, system-wide IMS solution drives and enables all the clinical, operational and financial benefits that a health-system-wide inventory view can provide.

An IMS provides holistic, dashboard and granular inventory counts across facilities. System-wide inventory management (ordering, procurement, entering into inventory, distributing to sites for use and providing accurate stock counts) empowers executives to reduce med investments, prevent stockouts, share meds among facilities and lower waste from expirations. In fact, an IMS delivers so much value that it can, and we would argue should, be implemented whether in concert with a central fill deployment or not.

A robust IMS also works seamlessly with other pharmacy automation technologies to boost the value they deliver.



Robotic Automated Storage and Retrieval System (ASRS).

A robotic ASRS provides pharmacies with secure, high-density storage of medications—controlling access, improving pharmacy workflow efficiency and expediting the picking process. Thus, it supports **clinical** (safe, scan in/scan out technology to reduce picking errors,) **supply-chain** (global inventory tracking,) **efficiency** (dramatic productivity gains via automation) and **cost-cutting** (high-volume throughput, fewer FTEs, etc.) goals.

When selecting an ASRS for a central fill, consider technology that incorporates a **modular design**, enabling the facility to scale storage as needed. A modular approach also yields an efficient footprint. So not only does it optimize the usage of square footage at a central fill facility, it frees up prime real estate that is, or would be, occupied at health system pharmacies.

The efficiency gains of robotic ASRSs are particularly notable for ADC replenishment. So much so that hundreds of line items can be picked and distributed in time windows that are orders of magnitude faster than traditional carousel storage. A robotic ASRS is a significant advancement in performance and safety over static shelving and vertical pharmacy carousel systems. Beyond the efficiency gains, it dramatically reduces human “touches” to eliminate wasted motion and picking errors. **When evaluating this technology, consider a solution that features multiple workstations, avoiding bottlenecks and enabling high-volume dispensing.**



Penn Presbyterian Medical Center’s deployment of IMS, ASRS and RPDS pharmacy automation technologies illustrates this point. Its solution serves over 30 facilities: 3 other pharmacies, 2 infusion centers and 25 physician practices. To wit, six months after implementation, pharmacy executives:¹⁵

- Reduced inventory overhead by \$350,000**
- Reduced missing doses by 40% «due to a change in the presentation to nursing»**
- Reduced cart-fill times by 300% (from 12 to 4 hours, or by 2.5 FTEs)**
- Led to pharmacy managers saying they are «far more confident in the safety of our medication distribution»**

SOURCE

15 — Nishaminy Kasbekar, PharmD, FASHP, “PillPick® and BoxPicker® from Swisslog Healthcare,” Pharmacy Purchasing & Products, July 2013, Vol. 10, No. 7, p. 40.



Robotic Packaging and Dispensing System (RPDS).

An RPDS leverages robotics and automation to safely package meds in unit-dose format. Thus a central fill facility can cost-effectively leverage bulk med purchases and package them in unit doses. The use of bar coding promotes safety, maintains inventory control and reduces errors. The use of automated imaging systems provide quality control by identifying ineligible doses (such as smashed or broken tablets), and culling them from available inventory. Advanced RPDSs include features that improve safety, reduce errors and contribute to nurses' productivity.¹⁶

An RPDS represents a significant advancement in performance and safety over legacy hospital unit-dose systems. Beyond the efficiency gains, it dramatically reduces human "touches" to eliminate wasted motion and errors.

Automated Tablet Packaging System (ATPS).

An ATPS packages oral solids in unit-dose format. A central fill facility may use it to replenish ADCs or complete patient-specific cart fills. ATPSs utilize automation and barcoding technologies to promote safety and productivity goals.



SOURCE

16 — For example, Swisslog Healthcare's PillPick solution incorporates the patented PickRing® feature. This conveniently delivers patient-specific medications on a single ring. Access to a 24-hour supply of patients' meds reduces missed doses, quickens administration and, with barcoding, reduces errors. The PickRing feature may be tailored to nurse workflows and be assembled by drug name or sequenced by administration time. And it can use multiple transportation routes including via cassettes, carts or pneumatic tube systems.

The University Of California San Francisco (UCSF) consolidated its pharmacy operations to create an integrated medication management system. It leverages IMS, ASRS, ATPS and APDS solutions to fill scripts for three area hospitals. The automated solution packages, picks and distributes 10,000+ patient-specific unit doses per day. That includes batch-fills for 200 ADCs across several facilities.

The implementation delivered two primary benefits.

First, it boosted patient safety. By significantly reducing human “touches” and leveraging other technologies, as of this writing, nearly 1.5 million doses have been prepared without a single error.¹⁷ Moreover, according to UCSF’s chief nursing officer, «The automation also has resulted in increased satisfaction for the nurses.» This stems from the use of patient-and time-specific barcoded PickRing™ (see explanatory footnote) unit-dose fulfillment.

Secondly, productivity increased significantly. The number of FTE techs needed to complete daily batch fills has dropped by 57%, (from 7 to 3 techs.) The remaining techs were reassigned to other duties, such as supporting fill services formerly outsourced to private vendors. Additionally, pharmacist labor hours were freed to be reallocated to clinical activities.

The implementation also allowed UCSF to streamline and further automate its med fulfillment process.

SOURCE

17 — “UCSF Automated Pharmacy Wins 2011 Popular Science “Best of What’s New” Award,” November 16, 2011.



Central fill workflow planning for an optimized and seamless transition

An efficient pharmacy design, along with optimized (LEAN¹⁸) workflows, greatly improve turnaround times and increase volumes produced in less space with fewer FTEs. Thus, workflow planning is vital to the success of a central fill pharmacy implementation.

However, the creation of a central fill facility introduces new variables to pharmacy operations. These include its location, use of automation technologies and a staff assembled to support the new endeavor. All these elements impact pharmacy

processes. Therefore, simply overlaying existing workflows would not be an effective approach.

Instead, the logical tactic is to revise existing processes to adapt to the new facility. And the best way to improve performance is to apply the LEAN process. That means analyzing/ revising workflows to a) identify and remove wasteful steps and b) identify and keep/add steps that drive value.

At a high level, the LEAN process follows these major steps.

Create a process map of current-state workflows	Revise the process to optimize value	Review workspace layout
<p>By understanding current-state workflows, it's possible to make intelligent decisions about future-state workflows. A flowchart (aka "process map") is created to document each step in the process. Of notable consideration is evaluation and revision of the batching schedule to meet the needs of the new distribution model and better leverage technicians.</p>	<p>With a process map in hand, each step is analyzed and labeled as either "adds value," "wasteful but required," or "waste." The steps labeled "waste" are then stripped from the workflow.</p> <p>Within the pharmacy, value-added work may include: order processing, inventory management and consulting with patients. Non-value-added work may include: sorting, moving or storing medications, loading/unloading inventory, and quality and product integrity checks.</p>	<p>After removing non-value-added tasks from workflows, the pharmacy's layout may be designed. That's because the placement of equipment can be dependent upon process steps. Moreover, technologies may be configured to allow more than one user to operate them at a time.</p>

SOURCE

18 — For a more detailed description see [The LEAN Enterprise Institute's page here](#).



Change management considerations

By managing the change that comes with implementing a central fill pharmacy, executives dramatically increase the chances of achieving their clinical and financial goals.

The greatest obstacle to implementing a new facility is human nature. People just don't like to do things differently. Specialists have found that engaging stakeholders—early and often—moves employees down the “acceptance” and “adoption” paths. This is especially important for leadership at each facility's pharmacy who may be concerned about losing control of the medication distribution process.

Engage to create the desire to change and to overcome resistance

When moving medication distribution offsite, there can be a significant amount of resistance from the individual sites. Pharmacy staff may wonder what it means for their role in the process. Because the goal is to promote behavioral and attitudinal changes among staff members, it's best to communicate with and engage them. Involving employees and constituents in the change process accomplishes a few critical things. By getting their input, executives cultivate their emotional investment in the project, as well as in the desired outcomes. Their involvement also undercuts the perception of a dictatorial process and replaces it with a feeling of collaboration. In short, this means growing the team's will to successfully implement and use the new central fill processes/systems/automation.

Create a communications plan

A communications plan provides a change management roadmap. It includes:

- **Key messaging**

Core messaging guides all project communications. Key messages include: benefits to stakeholder groups, the expression of management's ardent support for the project, the expectations managers have of employees and a project timeline.

- **Periodic project implementation updates.**

These reinforce the idea that the project will indeed come to an end and that the team can get back to a normal work life.

- **Multiple communication channels.**

(Face-to-face, emails, newsletter.) In-person communications allow project leaders to project confidence and to address stakeholders' concerns. Written communications are just not as effective in this regard.



Health-System Stakeholder	Concerns	Central Fill Benefits
Pharmacy VPs, Directors, Managers, Technicians	<ul style="list-style-type: none"> — Patient safety — Clinical outcomes — Increase clinical time - reduce administrative, dispensing time — Loss of local control 	<ul style="list-style-type: none"> — Leverages automation technologies, systems & processes to reduce errors — Liberates staff to devote to clinical activities — Supports PAI goals — Fewer tedious logistics activities and more time spent on clinical initiatives
Nursing VPs/ Directors, Nurses	<ul style="list-style-type: none"> — Patient safety — Clinical outcomes — More time with patients — Less time “running the process” 	<ul style="list-style-type: none"> — Clear distribution channels clarify for patient meds — Distribution technologies (i.e., bar codes & med rings) promote safety at the point of care
Supply Chain VPs, Directors & Managers	<ul style="list-style-type: none"> — Optimized procurement — Efficient supply-chain processes and systems — Tight inventory management — Visibility into variances, pricing and med utilization/counts 	<ul style="list-style-type: none"> — System-wide medication inventory systems deliver unprecedented visibility & ability to manage supply chain. — Eligible for volume price discounts — System-wide accountability for med inventory — Faster turns — Reduced waste
IT VPs, Directors & Managers	<ul style="list-style-type: none"> — Systems integrate/interoperate with legacy solutions — Low-maintenance, affordable 	<ul style="list-style-type: none"> — Consolidate disparate systems onto single platform reduces administration, support and IT labor hours



340B in a Central Fill Model

While a central fill model delivers major benefits to a health system, it also poses a few challenges. One of these is ensuring 340B compliance.

Many health-system pharmacies have their own licenses and thus manage their own 340B meds. Pharmacy managers are therefore understandably nervous about “outsourcing” this function to a central fill facility. They are being asked to relinquish their surplus 340B meds to a “neutral” centralized inventory system. And they’re taking it on faith that the central fill can appropriately account for it and “owe” them the rest.

To allay these fears, a central fill facility needs to demonstrate granular and accurate bookkeeping. Its IMS must be able to precisely track what 340B meds are purchased as well as quantities dispensed and

owed to each site. The key to success is to deploy an IMS that satisfies both hospital pharmacy directors as well as Health Resources and Services (HRSA) auditors.

Split-billing software solutions ease this administrative burden. This works particularly well for health systems that manage all hospital pharmacies under one license. That eases the tracking of 340B accumulations to document eligible purchases. In this scenario, a health system can acquire and administer meds at full price then replenish them with 340B-qualified accumulations.

That said, effectively administering a 340B program is complex, however, managing virtual inventory through a central fill location can ensure consistency and compliance throughout a health system.



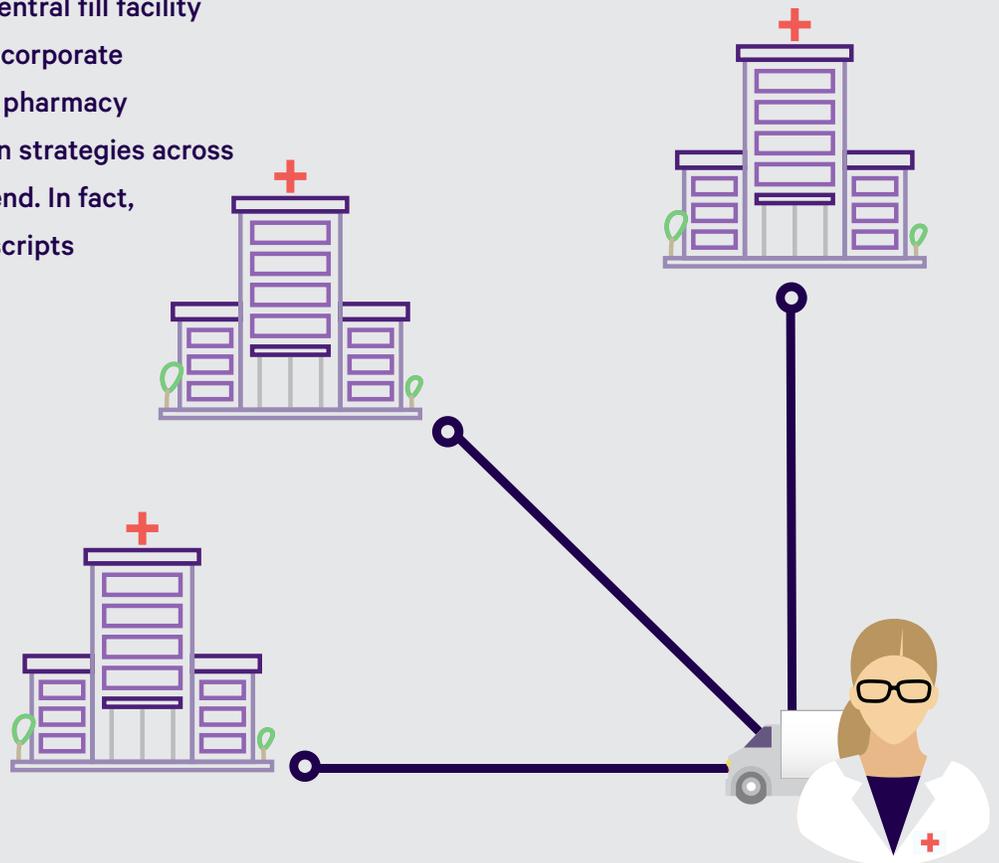
Conclusion

Properly implemented, a central fill pharmacy aligns with ASHP’s Practice Advancement Initiative (PAI). By moving repetitive fills to a consolidated facility, pharmacists’ time is freed to be reallocated to patient care activities. This supports PAI’s Care Team Integration goal. So too do automation technologies that promote PAI objects to improve quality of care, patient safety and efficiency while cutting costs. Collectively, the benefits of a central fill facility allow it to make a greater impact across a health system. And in so doing satisfy Triple Aim objectives by improving the patient experience (faster TATs, more pharmacist consultation) and lowering per-capita costs (via consolidation and standardization benefits) to improve population health.

In order to optimize the value a central fill facility delivers, care must be taken to incorporate “systemness.” The application of pharmacy consolidation and standardization strategies across the health system achieves this end. In fact, the aggregation of high-volume scripts at a central fill satisfies this requirement to such a degree that it is our opinion that they will be common place in the near future.

Today’s technologies strengthen the benefits of a central fill pharmacy. IMS solutions deliver granular visibility and accountability for med inventories across a health system. Never before have senior pharmacists been able to make such informed decisions to optimize inventory levels, to reduce stockouts, to intelligently respond to system leaders regarding variances, to maximize the value of volume purchasing, to reduce waste from expirations and to provide more accurate utilization and cost forecasts.

The central fill pharmacy model fortifies pharmacists’ ability to deliver safer fills, faster, for better clinical outcomes at a lower price. In so doing, pharmacists go beyond their sacred oath of “doing no harm” to “doing more good.”



Steps for Success

Discover how Swisslog Healthcare pharmacy automation solutions can help you optimize the value delivered to a health system through a consolidated model:

- Dramatically increase efficiency to cut costs
- Leverage system-wide inventory/purchasing/utilization intelligence to improve operational activities and processes
- Reduce inventory carrying costs
- Reduce waste - time, motion, expirations and “lost” medications
- Reduce errors to improve patient safety via bar coding and a marked reduction in human “touches”
- Improve the patient experience and clinical outcomes via speedier TATs and more pharmacist consultations



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