

AS PRESENTED AT **HIMSS19**

How Kaiser Permanente Drove Cost Savings with an Equipment Sharing Initiative

TWO-YEAR PERFORMANCE SNAPSHOT

20Kaiser Permanente
Facilities**29**Equipment
shares/month**64%**Total decrease in
rental volume**\$8.6M**Total capital expense
savings (identified)

Opportunity

Kaiser Permanente (KP) has been a leader in integrated care management and innovation, providing health care services for more than 60 years. KP recognized the unsustainable escalation of healthcare costs in the marketplace and saw significant value in implementing an equipment sharing initiative at their health system. The aim of this initiative was to proactively increase the utilization of owned equipment, reducing unnecessary rentals and redundant purchases. By sharing equipment between facilities, KP sought to decrease costs without limiting their ability to expand service lines and deliver care to more patients across Southern California, at the most affordable price.

Goals of the KP Program

- Demonstrate how often hospital equipment was being utilized
- Quantify and reduce total rental activities across the network
- Identify any available capacity for sharing owned equipment system-wide
- Increase utilization of owned equipment to avoid the need for additional network purchases

Solution

KP partnered with Cohealo to launch their equipment efficiency initiative, branding the Cohealo platform as the KP Exchange, allowing staff to schedule, track, and share equipment across the network. Together, they determined which clinical use cases, equipment, and hospitals were appropriate for a pilot, beginning initially with one service line in five facilities. At the same time, Cohealo worked with KP's team to understand hospital workflows to ensure a seamless introduction of the technology to clinical staff with the goal of making equipment scheduling less time-intensive and more automated.

Success

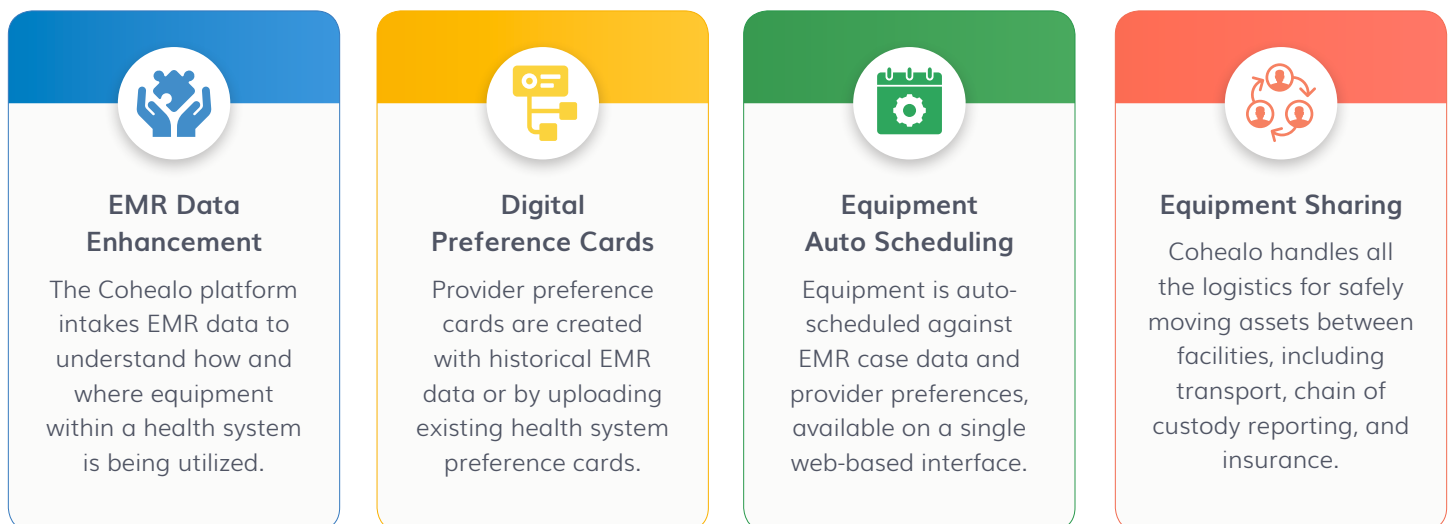
Within one year of deploying Cohealo's platform, KP captured meaningful savings, decreasing equipment rental volume by 49%. As clinical staff came to trust the platform, hospital teams began to share equipment instead of renting, starting with an average of five shares/month and growing this volume by almost 6x across two years. Additionally, the new sharing mindset enabled seamless cooperation between departments and facilities, broadening access to best-in-class equipment for outstanding patient care.

Background

Founded in 1945, KP has a mission to provide high-quality, affordable health care services. Headquartered in Oakland, California, KP currently serves more than 11.3 million members across 39 hospitals in nine states. With 720 facilities under management, KP's equipment sharing initiative was part of One KP – an overall change management plan to increase collaboration between hospitals for operational and clinical excellence.

KP recognized the opportunity of leveraging their owned equipment in more facilities, but needed additional visibility into which equipment had available capacity. KP required a platform that would centralize inventory, track the usage of that inventory, and provide actionable insights for launching a sharing program. KP did not want extra work layered onto clinicians' already busy calendars, so they sought to use existing systems, like their electronic medical records, and Cohealo's automation tools, to simplify the logistics around scheduling equipment within the perioperative suite.

How it Works



Starting with Clinical Engagement

Hospital staff are naturally very protective of equipment that is expensive, in high demand, and critical to providing patient care. To validate sharing these resources across the pilot facilities, and to build trust with staff on the front lines – specifically charge nurses, circulating nurses, schedulers, & operating room surgeons – KP started small. Doctor Ron Loo, a physician with Kaiser Permanente Medical Group, was a key leader in identifying a launch and scaling strategy.

The KP equipment efficiency initiative began with the following components:

1. Starting small with a few facilities

KP began their program by addressing just a few facilities, the urology service line, and key pieces of equipment where the rental cost was highest. The process was first to benchmark usage, and then begin sharing. Dr. Loo looked to where there was an immediate need, such as a Lumenis urological laser, which allowed an operating room to schedule cases more tightly.

2. Prioritizing behavior change

KP placed an emphasis on behavior change as it came to renting equipment, substituting renting with sharing. Part of the reason for rental spending was cultural. Rental cost is an operational expense, so there's no need for multiple layers of approval to rent equipment. A simple phone call will do it. KP sought to shift staff mindsets.

3. Centralizing scheduling & minimizing wasted time

KP's staff had been making multiple phone calls to schedule equipment. Information on equipment preferences and cases was not centralized in one location. KP focused on making this data available to clinical staff on a single platform, using auto-reservations to minimize manual scheduling on eligible cases.

4. Making the platform their own

KP white labeled the Cohealo platform as the KP Exchange. KP's equipment efficiency initiative was heavily driven by executive and clinical teams. Choosing the name KP Exchange made the technology their own and encouraged buy-in from the stakeholders participating in the program.

Implementing the Equipment Sharing Initiative

To choose the first five facilities, Dr. Loo sought locations that were geographically close for easy sharing and transport of equipment. KP's initial inventory was 13 Lumenis urological lasers, which were selected due to high-demand from clinicians. At these initial pilot facilities, on average, KP found they were renting 21 times per month to meet the requirements of their case load. The rental equipment was billed per procedure for both the unit and the associated consumables, so even moving a single piece of equipment to cover multiple cases could help reduce costs.

The organization set out to achieve four broad goals with its equipment sharing initiative in these preliminary facilities. The goals were to:

1. Embed Cohealo's equipment scheduling and sharing platform with clinical staff to identify any implications on their existing workflow.
2. Create baselines on equipment utilization to understand which assets had available capacity, were optimized at their current usage, or potentially, were being over-used.
3. Develop a comprehensive picture of equipment utilization and all rental activities. KP was tracking a portion of their rentals. However, other untracked rental activity was happening out of necessity, which couldn't be easily-measured without centralized scheduling.
4. Demonstrate that saving could be derived from sharing between facilities, even with just a few pieces of equipment.

Within seven months of beginning the program, there was a positive clinical response and an internal push to add more participating facilities, expanding from five facilities to nine facilities. There were also immediate opportunities for savings and collaboration. For example, one facility found itself short of exam tables, and to buy new exam tables meant a year-long capital expense budgeting process. Whereas before they might have rented or simply made do without the tables, the facility identified another hospital that had a surplus of exam tables, filling the need immediately.

As facilities were added, they grouped them by location and identified a "superuser" in locations where an influx of sharing activities warranted a knowledgeable resource to manage the KP Exchange. The superuser was a member of the operating room team with broad knowledge of all the surgical service lines and key stakeholders of those service lines. This individual proactively scheduled equipment for the small portion of cases not covered by an auto-reservation, and enhanced equipment preferences as needed.

Soon, there was demand from surgeons outside of the pilot facilities and service lines, who were requesting access to the KP Exchange. KP expanded from one service line, urology, to a total of nine service lines: general

surgery, head and neck, orthopedics, gynecology, ophthalmology, plastics, podiatry, and vascular. KP invested some of the savings to hire a business analyst to work directly with KP Exchange superusers and the executive team at KP headquarters. This new team member was charged with vetting new service lines, growing the amount of shared equipment across KP's participating hospitals, and working directly with the superusers on day-to-day logistics.

“I’ve been very impressed by the different types of folks who have jumped to the forefront wanting to participate. They understand what this concept is all about and how this will be a routine part of the way Kaiser Permanente does business in the future.”



Dr. Ron Loo, Kaiser Permanente Medical Group

Program Results

KP derived a return on investment from the Cohealo platform in multiple areas.

A 49% reduction in rental volume in the first year

With equipment tracking, KP was able to more strategically manage their owned assets, efficiently addressing the changing needs of clinical staff and decreasing the necessity of rentals. For example, an ESWL table was shared for three days with another facility and used on nine cases, saving KP over \$11,000 on rental expenses.

Additionally, since scheduling was centralized in the Cohealo platform, KP was able to gain additional details on rental activities that were not being documented at a network level. For instance, a Lumenis Novus Spectra ophthalmological laser was rented 49 times from a vendor with less favorable pricing. The insights from the platform allowed KP to capture all their rental activities in one place. This helped to ensure that all KP facilities worked with network-approved vendors and that their case volume could contribute to a discounted rate.

ONE-YEAR IMPACT

49%

Reduction in network rental volume

\$4.2M

Savings out of \$21 million in capital requests

2/3

Capital expense requests where sharing could substitute buying

A data-driven capital planning process

KP leveraged data generated from the KP Exchange to inform their purchasing decisions. One facility needed a laser and borrowed it from another facility that already had three. However, the facility that borrowed the laser found themselves using it so often, it soon became clear it was more efficient to relocate the “home base” of that piece of equipment. Soon, the facility that had originally lent the laser built a new operating room suite and needed all three of their lasers. With a clear need and proven patient volume, the facility that had borrowed a laser was able to justify the purchase of a new device for their hospital.

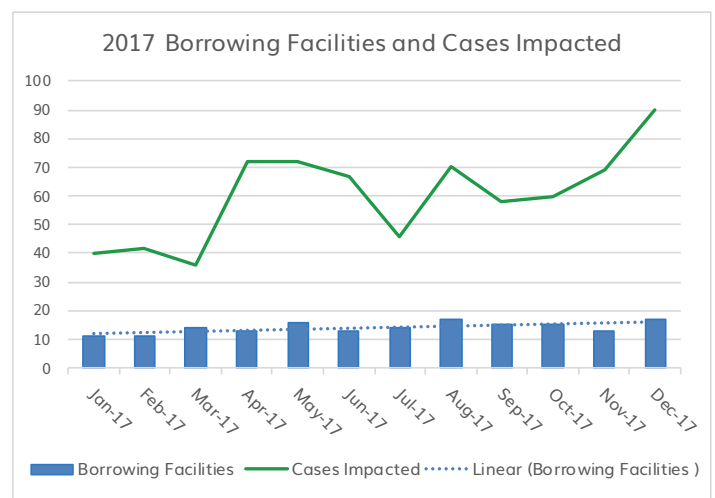
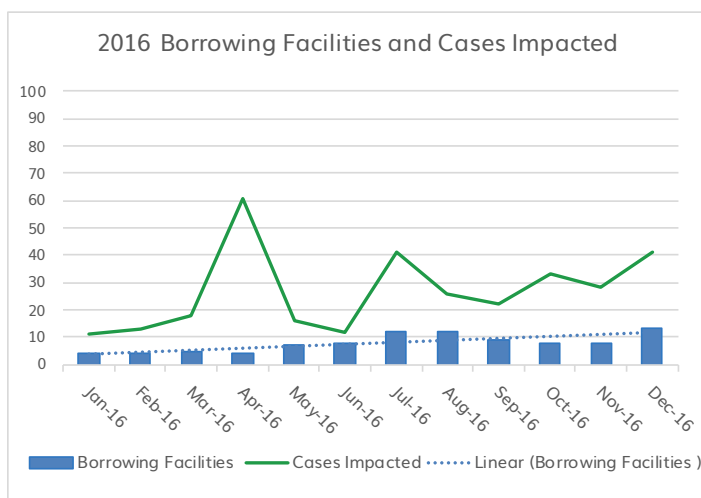
During the end-of-year capital expense planning process, KP identified additional opportunities for savings by combining equipment purchase requests from multiple facilities. In some cases, purchase requests were made for equipment that was owned by sister facilities, but not yet available on the KP Exchange for sharing. KP added this equipment to the KP Exchange, and yet another portion of their capital expense requests became unnecessary. Lastly, where equipment did not exist in their network, but was being requested by multiple facilities, hospitals were able to pool resources to buy a new device and share that resource.

In 2016, out of the 293 capital expense requests, the KP Exchange was crucial in showing that two out of three requests could be addressed by mobilizing equipment that was already in the KP network. Across the KP portfolio of equipment, there were 52 potentially unneeded requests, which yielded over \$4.2 million in savings opportunities for the first year.

Minimal sharing at maximum value

KP found that sharing just a few pieces of equipment, even at a limited number of facilities, resulted in both capital expense and operational expense savings. For example, during the 2016 capital planning cycle, three facilities submitted requests for phacoemulsification units. Satisfying these three requests with one shared unit enabled over \$230K in capex savings.

Additionally, in the first year, KP only had an inventory of 445 pieces of shareable inventory, addressing 314 cases – an average of 3 cases per month at 9 facilities. These numbers demonstrated that savings could be realized without a large inventory of equipment, a high volume of shares, or many facilities in the network. An initial focus on limited moves of high value equipment to cover multiple cases could drive meaningful results.



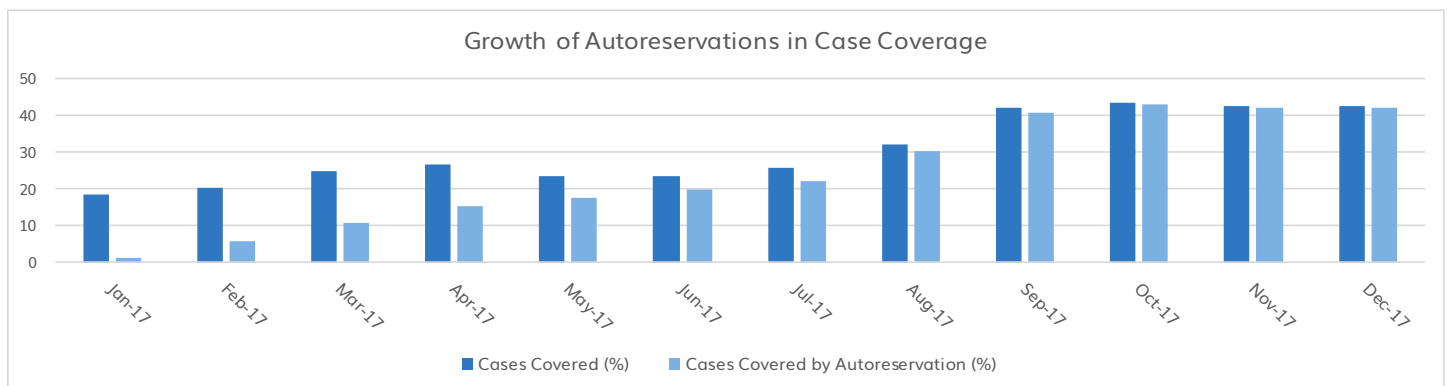
Facilitating exceptional patient care

Equipment sharing resulted not just in reduced costs, but also in helping clinical teams to deliver timely and exceptional patient care. Operating room staff found Cohealo to be an invaluable resource in equipment-related emergencies, especially in keeping procedures on schedule, ensuring patients with painful symptoms received treatment without delay.

For example, on the day of a pediatric kidney stone removal, an operating room team discovered that they did not have the ESWL table needed for the procedure. Even with short notice, Cohealo was able to find equipment within the network, which enabled the case to proceed as planned. Another facility had severe flooding in their operating room, making a sizable portion of their equipment unusable. With close collaboration between Cohealo and the operating room team, shared equipment was sourced for a week of cases, all of which proceeded without needing to be rescheduled.

Positive clinical engagement

While many clinical staff were initially hesitant to engage with the platform, the KP Exchange was able to seamlessly operate in the background, causing minimal impact to existing workflows. When a new case was added to the EMR, the platform would automatically reserve equipment by procedure type and the preferences of the physician conducting the surgery. Subsequently, staff would go in and approve these reservations and any manual updates were saved and applied to future cases. With every update, the platform automation became smarter and more attuned to the everyday needs of staff.



Additionally, the KP Exchange often served as a dynamic link to the EMR, and the changing equipment needs for an ever-updating case mix. This brought details to nurses' attention that might otherwise have been missed. At one hospital, an add-on case in the head and neck service line had been scheduled late in the evening to be performed the next day. The KP Exchange automatically reserved equipment to this case and scheduled a laser to be shared from another facility. Before the KP Exchange, there might not have been enough notice for owned equipment to be made available and the clinical team would rely on costly rentals. Much to the surprise of the clinical staff, Cohealo's logistics partner arrived on the morning of the case with a laser – no phone calls or additional coordination required.

Scaling the KP Program

To date, KP's equipment efficiency initiative has scaled to all service lines in 22 facilities in the Southern California region. Rental volume has decreased by another 15% in 2017, for a total decrease of 64% since beginning their partnership with Cohealo. The KP team will continue to add equipment and enhance preferences as new case types and physicians are introduced into the sharing ecosystem. In the future, KP is planning to expand to medical centers in Northern California, and to being applying the solution to specialty bed management.

“If we can collectively act as one, we will be able to deliver the best healthcare imaginable, at the most affordable price. This is an extension of the One KP concept, where you have independently functioning hospitals collaborating to share their equipment and the cost savings. We believe this is similar to a potluck. If each medical center is willing to share a nice dish, they can partake in an entire feast.”



Dr. Ron Loo, Kaiser Permanente Medical Group
