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Medinas Health: Building a Medical Equipment Marketplace

Imagine if there was no market for used vehicles. This mountain of used medical equipment is wasted capital that could be used to save lives.

—CHLOE ALPERT, CO-FOUNDER AND CEO

Chloe Alpert spent most of 2016 escorting her terminally ill grandmother in and out of hospitals. As she paced the hallways during her grandmother's treatments, she noticed excess supplies and equipment piling up along the walls. When newer equipment was installed, the older models were discarded: CT scanners, dialysis machines, x-ray equipment, and more. Out of curiosity, Chloe began researching the problem of medical waste. She learned that the healthcare and insurance industries often demanded the most current equipment. This constant upgrade cycle was especially prevalent in the San Francisco Bay Area, a region well known for its affluence and technological advancement. While Chloe was grateful to know that her grandmother was receiving state-of-the-art healthcare, she couldn't help but think about other hospitals in the U.S. and around the world in desperate need of equipment. The thought of last year's expensive medical equipment sitting unused while those in less affluent areas struggled with inadequate equipment gnawed at her.

Don Moore (Ph.D.) Professor at the University of California, Berkeley prepared this case study with Robert Girling (Ph.D.) Professor Emeritus at Sonoma State University, along with Marieshka Barton (MBA), Sonoma State University, and James Palleschi (M.D.) as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.

History and Background

In December 2016, while researching medical waste, Chloe attended a party where she serendipitously met a source who had a nonprofit that collected and donated surplus medical supplies. "He had first-hand experience starting a donation-based nonprofit that was trying to make a dent in the yearly amount of wasted medical surplus," Chloe remembered.

Seeing an opportunity for a crash-course in medical waste and secondary markets, she invited him to coffee the next morning and spent hours having him tell her everything he knew. She learned that donated equipment represented only a small fraction of the billions of dollars' worth of aging equipment. In actuality, a vast majority of "last year's models" were actually thrown away by the U.S. healthcare system every year. "I couldn't believe how big of a problem [it] really was and how it had gotten so bad," she noted. "So I asked myself, how might a business address this problem?"

Market Research

For the next months, Chloe turned her investigation toward secondary markets for medical equipment. What she discovered astonished her. As Chloe put it,

> If you were to walk into any surplus medical supply donation center in the U.S., you would immediately notice how much stuff lines the walls. More importantly, we wanted to know why something hadn't been done about it. With some research, we learned that the surplus problem is so big, all previous attempts to solve it hadn't reached the size necessary to really see progress.

The U.S. healthcare system generated billions of dollars in waste every year. A meta-analysis of medical waste estimated losses to be between $760 and $935 billion. Of this total, the report estimated that upwards of $15 billion worth of electronic medical equipment ended up in the waste stream, with volumes growing at 14 percent per year.[1]

Chloe compared the problem to the resale and reuse of automobiles:

> Imagine if there was no market for used vehicles. We would just throw our used cars away and they would go to landfill. What a waste of resources. This mountain of medical equipment is wasted capital that could be used to save lives.

Not only was the medical waste stream massive, it was also complex—as selling used medical equipment was not as simple as selling used cars. A hospital couldn't just list a piece of equipment on eBay and sell it. There were several logistical issues related to biohazard liability that needed to be documented prior to each transaction. There was also the issue of evaluating the equipment's condition and knowing its market value. Moreover, building transaction trust was an especially sensitive issue in the medical industry, where risk and liability represented life and death. For instance, small hospitals typically couldn't afford to buy equipment "as is" because they couldn't afford the risk of faulty equipment requiring maintenance, or worse—failing during an operation.

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[1] *Source: https://www.healthcarefinancenews.com/news/why-healthcare-wastes-750-billion-every-year-few-organizations-analyze-data-stop-it and https://www.npr.org/sections/health-shots/2017/12/21/572329335/a-prescription-to-reduce-waste-in-health-care-spending*

What was lacking was an integrated market for used medical equipment that could address these complexities and establish transaction trust.

The need for such a platform was clear. As hospitals struggled with mountains of discarded equipment, the average operating margin declined by almost 39 percent between 2015 and 2017, from 4.15 percent in 2015 to 2.56 percent in 2017.[2] With expenses growing faster than revenues, many small hospitals were barely surviving economically. But if a hospital could recover $100,000 by selling surplus equipment, its operating margin could be improved substantially: equivalent to bringing in $4 million of additional revenue.

Hospital Asset Management

Hospital asset managers are responsible for equipment acquisition, installation, and end-of-life disposal. Their role requires both personal expertise and strong working relationships with vendors and refurbishers built over the course of many years. As a result, when asset managers leave a hospital, much of their knowledge and network is lost. Medinas Health needed to produce a product that served the needs of hospital asset managers while also ensuring hospitals retained historical records and network access.

When researching the functions of an asset manager, Chloe found that a multi-layer economy existed in the medical equipment surplus market. Disposing of surplus equipment was tedious, risky, and unscalable. When a piece of equipment like a C-arm[2] became available, a hospital would look at its remaining value to determine what to do with it. They could donate, sell, store, scrap, or trade-in the item. The decision needed to be made quickly due to limited space. And while trade-ins were an appealing option, the equipment needed to qualify first: "Sometimes distributors will take in trades, but the benchmarks are set by the OEM," Chloe noted. Most often, hospitals needed channels other than the original equipment manufacturer (OEM) to move surplus equipment.

The logistics associated with those alternative channels for disposal or sale were complicated. Medical equipment could not simply be passed on to another hospital or end-user via sale or donation, as the machines often contained patient data subject to federal privacy laws. Any such data had to be removed. Then there was the issue of transportation: how should a huge and heavy piece of delicate equipment such as a 2-ton CT Scanner be removed and transported to the buyer? The timing of a transaction also presented a challenge. Chloe explained:

> One of the biggest problems for hospitals is that the asset managers may only get two days' notice to completely clean out an imaging suite…. [and] to remove and dispose of a 20,000 lb. imaging machine!

Next was the matter of valuation. There were over 150,000 types of medical equipment. How was the value of a piece of pre-used equipment determined? Was the value based on (1) book value on the hospital's capital account, (2) trade–in value offered by the equipment manufacturer, or on (3) similar pieces of equipment sold to private refurbishers? And how did the condition affect value?

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[2] A C-arm machine is a device used by a physician to guide surgical instruments while watching the instrument being driven on a live x-ray machine. The C-arm is also referred to as an X-ray image intensifier. Prices range fro $19,000-$40,000.

For the typical hospital, there was no easy way to know the value of a particular piece of equipment and nowhere to source an independent valuation.

Furthermore, the hospital selling the equipment often did not have a clear idea of the features most important to the buyer. For example, did buyers prioritize fast delivery? Or a piece of equipment's remaining useful life? Or price? Regarding price, hospitals needed to price accurately to avoid risking a lost sale and having to further store equipment while its value fell to scrap. See **Exhibit 1** for a list of medical surplus market terms.

Company Launch

As an experienced entrepreneur, Chloe went to work right away, forming a business partnership with Tim Growney and Jesse Ashalomotov, two IT professionals whom she had worked with previously. She insisted they find a solution to deal with the billions of dollars of medical equipment surplus. They launched Medinas Health in 2017 with Tim Growney as Chief Technical Officer, Jesse Avshalomov as Chief Marketing Office, and Chloe Alpert as Chief Executive Officer.

The co-founders of Medinas Health (**Exhibit 2**) envisioned a more sustainable healthcare industry based on equipment reuse; they aimed to make sure every unit of medical equipment in the U.S. would get a second chance at being used before it expired. The company's goal was to create a digital marketplace that would enable hospitals to manage the end-to-end logistics of an equipment transaction—like selling or donating an MRI machine, for example. An expanded secondary market for used equipment would reduce waste and improve a hospital's financial bottom-line through the sales of surplus equipment. "We wanted to do something that made money but also did good in the world," Chloe said.

If Medinas Health could match surplus equipment to demand in a custom marketplace, they would simultaneously create cost savings for all parties and reduce the volume of supplies going to waste. They needed to make it easy and convenient for medical facilities to sell their surplus to other medical entities.

Because equipment pricing would be such an essential component of the new marketplace, the team began by building a proprietary dataset of secondary market transaction values—"specifically orderly liquidation values." According to Chloe, the raw data came "through data aggregation, analyzing our own transactions, and through partnerships."

Early Milestones

Chloe had submitted a skeleton business plan to the Forbes Under 30 Summit's Global Change the World For-Profit Competition. She had all but forgotten about this when in October 2017 a letter arrived informing her she was a finalist and had to be in Boston in five days. Chloe arrived just in the nick of time to make her presentation and win a $500,000 award. (**Exhibit 3**) Following the investment, the company incorporated as a Delaware C corporation in October 2017.

Early funding allowed Medinas Health to formalize operations, attracting more clients and resources. Medinas Health had begun to build needed healthcare partnerships and develop its proprietary software platform in January 2018. Then in August 2018, the company received an

investment of $120,000 and business mentoring from Y Combinator, one of the leading startup accelerators.[3] These early investments helped establish legitimacy and further attracted investment capital. See **Exhibit 4** for a list of total investments from October 2017 to October 2019.

By the summer of 2018, Medinas Health was fully operational and had its first revenue. It signed a contract with a chain of six hospitals in Arizona to build software tailored to handle surplus equipment. Medinas Health then began to source used equipment from hospitals in Arizona, Florida, Ohio, and Wisconsin. The company rented a network of warehouses to store equipment. Medinas Health employees cataloged items in hospital storage rooms and warehouses, which consequently provided the company firsthand knowledge of the inventory problems hospitals faced. By October 2019, Medinas Health had 20 employees located across the U.S., and the company was on track to break $1 million in gross merchandise value by year-end. Sales were made in many U.S. states, as well as in Canada, India, Mexico, Europe, and the Middle East. During its first year of business, Medinas Health gross monthly sales ranged from $10,000 to $150,000 with an average of $83,000.

Competitive Advantage and Key Products

Medinas Health produced a software platform capable of both product integration and communication—an innovation that differentiated Medinas from other surplus sellers. Additionally, the company's proprietary software was maintained by a highly-talented pool of expert IT developers, further strengthening its competitive edge. The software platform offered a suite of service products that extended the range of tasks an asset manager was able to perform; it provided managers with market data and other information needed to make informed decisions, and also maintained web-based backups of the information.

The following key products helped Medinas Health streamline the used medical equipment market.

1. **Price Book.** Medinas Health used big data to develop life-cycle pricing models for every type of equipment. For example, buyers could see the value of a Bright Speed 16 slice CT scanner at each year of its lifetime. The Price Book listed hundreds of products with valuations based on varying conditions or remaining years of service. A client could see a summary of each asset listed, a bell-curve of its pricing, and an estimated depreciation projection. Reliable pricing information would help medical buyers assess more than 9,000 discrete pieces of essential equipment. The Price Book also helped to fill information gaps occurring when a hospitals' main buyer retired or left, taking with them a wealth of knowledge of equipment sources and buyers.

2. **Inventory Manager.** The Inventory Manager provided member hospitals with a list of the hospital's current inventory. Many hospitals did not have an integrated inventory management system, which often resulted in inefficiency: operating units might order redundant equipment because they could not coordinate reliably with other units within the hospital. The Inventory Manager allowed each hospital unit to order and store its own equipment and supplies, and enabled coordination with other units. By storing information about a hospital's entire equipment inventory—both in-use and in storage—all units could easily coordinate equipment exchanges.

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[3] Twice a year, Y-Combinator invests a small amount of money ($150k) in a large number of startups. The startups move to Silicon Valley for a three-month period, during which YC advisors work intensively with startup founders to get the company into the best possible shape and refine their pitch to investors. Each cycle culminates in Demo Day, when the startups present their companies to a carefully selected, invite-only audience.

For example, one hospital unit needed an infant warmer; meanwhile, unbeknownst to them, a $20,000 warmer was sitting idle in a storage room. Because the Medinas Health Inventory Manager held a record of the hospital's warehoused equipment, the unit was able to obtain the necessary equipment much more quickly, and a redundant purchase was avoided.

3. **Redeployment Manager.** The Redeployment Manager assisted hospitals in redeploying surplus equipment within a hospital system. A healthcare professional could use the software to ask, "Does anyone have 10 defibrillators?" The hospital's defibrillators would be displayed and could then be redeployed, saving significant time versus physically checking each storeroom. To clarify the distinction between the inventory manager and redeployment manager, Chloe explained:

> Inventory management is understanding where your assets are, what condition they are in, and how many you have. The redeployment manager is a closed marketplace interface where a hospital can list a piece of equipment it no longer needs and make it available for "free" to another hospital within their own hospital system. If no one within the system wants it, we will then move to sell it.

4. **Maintenance Manager.** Biomedical engineers and clinical engineers provided preventative equipment maintenance, yet few hospitals coordinated maintenance with inventory management. Medinas Health Maintenance Manager provided subscribing hospitals with an online record of past maintenance and scheduled upcoming maintenance. The Medinas Health software provided a modern, cloud-based platform for full life-cycle management of clinical assets across an entire enterprise or an entire network of hospitals.

5. **Marketplace.** Medinas Health developed an online marketplace for sellers and buyers of medical equipment, where buyers could see what items were on offer. For each piece of equipment offered, a listing would be created with the product's condition, asking price, and terms in the negotiation for the piece of equipment. Medinas Health would then broadcast this information to the thousands of potential buyers in its network. Through the platform, the listing hospital would then receive offers, review them, and decide whether to accept an offer.

Medinas Health's innovative marketplace software allowed hospitals to manage all aspects of the sale by way of a *project* created to manage the logistics of getting the equipment to the buyer. The *project* would list payment details and shipping logistics, with information being transparent to all parties. The buyer could then arrange for an inspection of the item in order to confirm description accuracy. In addition, buyers could respond to an offer by sending a counteroffer, including setting the terms such as delivery deadlines.

Medinas Health not only verified the equipment and details of the transaction, but it also verified the sellers and buyers to create trust and a safe space for negotiations. As Chloe explained, "It's easy for us to create the supply through affiliate partnerships and then attract buyers by creating a value-add layer of service to their procurement/buying experience."

Business Model

Medinas Health created an ecosystem were the majority of buyers—hospitals—were also the suppliers. As stated on its website, Medinas offered buyers a "trusted marketplace for quality pre-owned medical equipment," and offered hospitals "cloud-based asset management remarketing solutions."

To fulfill its dual-channel value proposition, Medinas Health's strategy involved locating a small warehouse in each region with a sales director focused on "high-touch" servicing of clients. Once a hospital signed an exclusive agreement with Medinas Health, it was assigned a dedicated manager, access to warehouse space, software for managing inventory and sales, and access to Medinas Health's list of approved buyers. Medinas Health's Price Book, Inventory Manager, and Marketplace would all be free to customers. Medinas Health would not charge hospitals a seller's fee as some competitors do, but would instead earn revenue by taking a percentage of the gross sales of each piece of equipment. Medinas Health made money when hospitals made money. In this way, its incentives were aligned with hospital needs. The maintenance manager and redeployment management services would be available by payment of a subscription fee.

Trust is an important condition of medical equipment purchases involving the exchange of substantial sums of money. The Medinas Health platform increased trust and reduced risk through quality assurance. As Chloe stated:

> Medinas sells equipment in "as-is" condition, which are often purchased by refurbishers, OEMs or other businesses who are in the business of refurbishing equipment. We do a light inspection that guarantees the equipment is in the condition we say it is and make no warranties or guarantees.

To further enhance transaction trust on its platform, Medinas Health (a) inspected and assured the quality of the equipment, (b) removed patient data, (c) ensured legal compliance of offered equipment, (d) verified all parties, and (e) acted as an escrow agent in order to mitigate the risk of non-payment or non-performance of a medical asset. See **Exhibit 5** for an example of medical surplus equipment stored and prepared for the secondary market.

As an escrow agent, Medinas Health required a 20 percent deposit from buyers. Once the equipment had been inspected and accepted, the remaining 80 percent was due—with the funds held in a secure escrow account until the terms of the agreement were fully met. Once the equipment was delivered successfully, the payment was released less Medinas Health's share.

In addition, Medinas Health helped hospitals reduce their environmental footprint, both downstream and upstream. Downstream, Medinas Health prevented toxic and radioactive e-waste from entering landfills, and since its founding "has diverted nearly 40,000 pounds of hazardous electronic waste from landfills."[5] Upstream, Medinas Health helped prevent the unnecessary manufacture of new hospital equipment by ensuring the beneficial reuse of that equipment, resulting in considerable savings.

Example Transactions

A Medinas Health client decided to dispose of 50 defibrillators,[6] which were no longer supported by the OEM (original equipment manufacturer). "Sometimes an OEM will take a competitor

[5] *Source: https://www.medinas.com/about-medinas/*

[6] Defibrillators are devices that restore a normal heartbeat by sending an electric pulse or shock to the heart. They are used to prevent or correct an arrhythmia, a heartbeat that is uneven or that is too slow or too fast. Defibrillators can also restore the heart's beating if the heart suddenly stops. Automated external defibrillators (AEDs), were developed to save the lives of people experiencing sudden cardiac arrest. In this case, the OEM was no longer providing software or maintenance support, and will produce a new model with features that only fit that new model.

product, but they will just scrap it because they don't want it to cannibalize their market, which is extremely wasteful," Chloe explained. Medinas Health assisted the asset manager with the cost-benefit analysis of the defibrillators in order to decide whether to redeploy, sell, trade-in, donate, or scrap the defibrillators. Hospital equipment managers typically knew an equipment's purchase value but did not know an equipment's secondary-market value. When Medinas Health learned that Hospital X wanted to sell the items, the equipment was listed on the Medinas Health's site for sale "as is; where it is." A refurbisher then offered a price to Hospital X on the Medinas Health website using the Medinas Health Price book as a guide to its offer. When the hospital accepted the offer, the Medinas Health manager helped with the logistics of packing and shipping the equipment to the buyer. The refurbisher then repaired the equipment, listed it for sale on the Medinas Health website as a reconditioned defibrillator, and the product was then sold to a new end user.

Another example transaction was the sale of a mobile CT scanner to Vietnam. A new mobile CT scanner will sell for $1 to $2 million. One of Medinas Health's partners purchased refurbished CT scanners and shipped them to areas of the world in need of imaging equipment, such as disaster zones. Medinas Health added value by verifying the refurbished equipment's quality, helping to facilitate the sale of reconditioned mobile scanners and providing access to lifesaving technology around the world.

Continued Growth

With funding in hand, Medinas Health's leaders were able to find people with domain expertise in healthcare supply chain procurement to join the team. Among the company's first high-profile hires was the former executive from competitor BidMed. The company also hired former employees of GE Healthcare who possessed knowledge of reconditioned medical equipment sales.

Medinas Health then began testing each of its revenue segments to determine which would be most profitable and effective. Medinas Health tested manufacturers, surgical centers, hospitals, distributors, refurbishing companies, nonprofits, scrappers, and recyclers using pilot tests for each segment to see which would (a) have the biggest impact on the environment, and (b) best fit Medinas Health's territorial strategy in growing the business.

Startup Challenges

1. **Scale.** A pressing priority for Medinas Health was scaling while maintaining quality. Questions of scale are difficult to answer during the early stages of business. Would Medinas Health be able to maintain its growth trajectory while building out its infrastructure of warehouses and high-quality, high-touch services? What would traffic patterns look like after the early adopters settled in? What would costs look like in a year? There was a maddening amount of uncertainty. As Chloe explained, "Under normal circumstances, we'd make an estimate based on the amount of press we'll be receiving, promotion to our target users, some margin for other visitors, and a whole host of other variables in order to model some sort of rough expected traffic pattern. However, even the best of these models tend to be wildly inaccurate."

2. **Inventory.** In early December 2019, Medinas Health only had 85 as-is and reconditioned pieces of medical equipment on its website, compared to Bimedis' 2,000 pieces, DOTmed's 202,000

pieces, and Centurion's annual inventory of 100,000 pieces across 42 categories. When Medinas Health looked into the listings of competitors, they discovered that many listed items were "phantom" listings not actually available from the listing company. However, because customers were not aware that phantom listings were relatively common, the larger inventory listings on competing platforms remained an attractive business feature for most customers.

In contrast, Medinas Health reported a sell-through rate of 80 percent, with over 90 percent of the items selling directly to refurbishers. Very few items that Medinas Health handled were listed on its site.

3. **Asset Manager Relations.** Asset managers tended to have extensive responsibilities and generally limited medical and technical knowledge, along with limited financial accountability. Consequently, asset managers were just as satisfied to have refurbishers or salvage companies simply dispose of surplus equipment and supplies.

4. **Technology Adoption.** A further issue facing Medinas Health was whether and how quickly hospitals would adopt Medinas Health's cloud-based software. As Medinas Health's Sustainability Manager, Daniel Brian, quipped: "it's as if healthcare managers speak French, while software people speak Mandarin." Chloe further elaborated:

> We've seen the rapid adoption of cloud-based strategies in many other enterprise industries, including the banking and services sectors, but the healthcare sector has lagged in its adoption. It has trailed other industries because of … the introduction of the Affordable Care Act in 2010, which forced hospitals to shift to a fee-for-value reimbursement model over a fee-for-service one. The overwhelming nature of this foundational shift in healthcare reimbursements slowed down IT investment and adoption of IT innovations for almost a decade.

However, Chloe noted that a generational shift was taking place in healthcare:

> Nearly nine years later, we're finally starting to see the healthcare industry catch up in its adoption of cloud-based strategies. The next ten years will be all about healthcare providers adopting overall cloud-based strategies. Driven by consumer tech demand, generational turnover in healthcare system executive leadership, and the need to efficiently serve an ever-increasing number of patients, the days of limited, expensive, legacy software are numbered.

Additionally, while its price book, quality assurance, and coordination of sales offered an advantage over competitors, Medinas Health still faced a major hurdle in getting potential adopters to join its network. Resale of surplus equipment was not a high priority of hospital managers or CFOs as enforcing medical quality key performance indicators (KPIs) exceeded earning revenue from obsolete and surplus equipment.

Case Discussion Questions

1. How critical is the issue of medical waste nationally? To what extent and in what way is it an issue facing hospitals?

2. What is the nature of the marketplace for used medical equipment?

3. Do you think Medinas Health's platform will address the financial concerns and constraints facing hospitals?

4. How viable is Medinas Health's business model?

5. What issues did Medinas Health face in getting started and how did it attempt to develop a competitive advantage?

6. What are the obstacles that MH needs to overcome in order to establish itself as a player in the reused medical equipment marketplace, and how can it overcome them?

7. What lessons does MH offer companies seeking to profit from helping other firms or individuals increase efficiency?

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Appendix A

Exhibit 1 Medinas Health's Medical Surplus Equipment Definitions

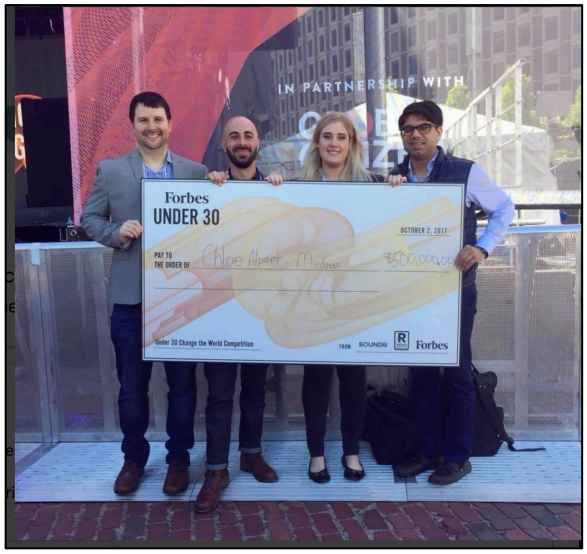
Term	Definition	Example
As-Is	Equipment that is being sold in its current state, without any warranty, and having undergone no repair, reconditioning, refurbishment or remanufacture.	
Reconditioned	Equipment that has undergone decontamination, HIPAA-compliant removal of personal health information (PHI), cosmetic repair, and has been tested to ensure that it is fully functional.	A C-arm is removed from a hospital by a third party reconditioner. It is cleaned, PHI wiped, painted, and the reconditioner determines it is fully operational. That C-arm is reconditioned.
Refurbished	Equipment that has been restored to OEM standards of performance through decontamination, PHI removal, repair, replacement of worn parts, full cosmetic rehabilitation, calibration, and any other necessary procedures. A refurbished piece of equipment has been restored "to a condition of safety and effectiveness that is comparable to when new."	A CT scanner is cleaned, wiped, has a new tube installed, worn parts are replaced, is painted, and is calibrated through full testing to perform to original OEM specifications. That CT scanner is refurbished.
Remanufactured	Equipment that has been significantly altered in such a way as to no longer fit it's prior use or design, by being processed, conditioned, renovated, repackaged, restored in a manner "that significantly changes the finished device's performance, safety specifications, or intended use." (FDA: 81 FR 11477, P. 79, available here.) A remanufactured device is essentially a new device and must comply with FDA device labeling requirements at 21 CFR 801.1(c).	An MRI machine is completely disassembled, and its parts are combined with significantly different components to create what is essentially a new MRI machine with different performance specifications. That MRI machine has been remanufactured.

Source: https://www.medinas.com/definitions/

Exhibit 2 Medinas Branding

Source: https://www.medinas.com

Exhibit 3 Forbes Under 30 Summit's Global Change the Work For-Profit Competition Award



Source: http://metricsparrow.com/speaking/media/

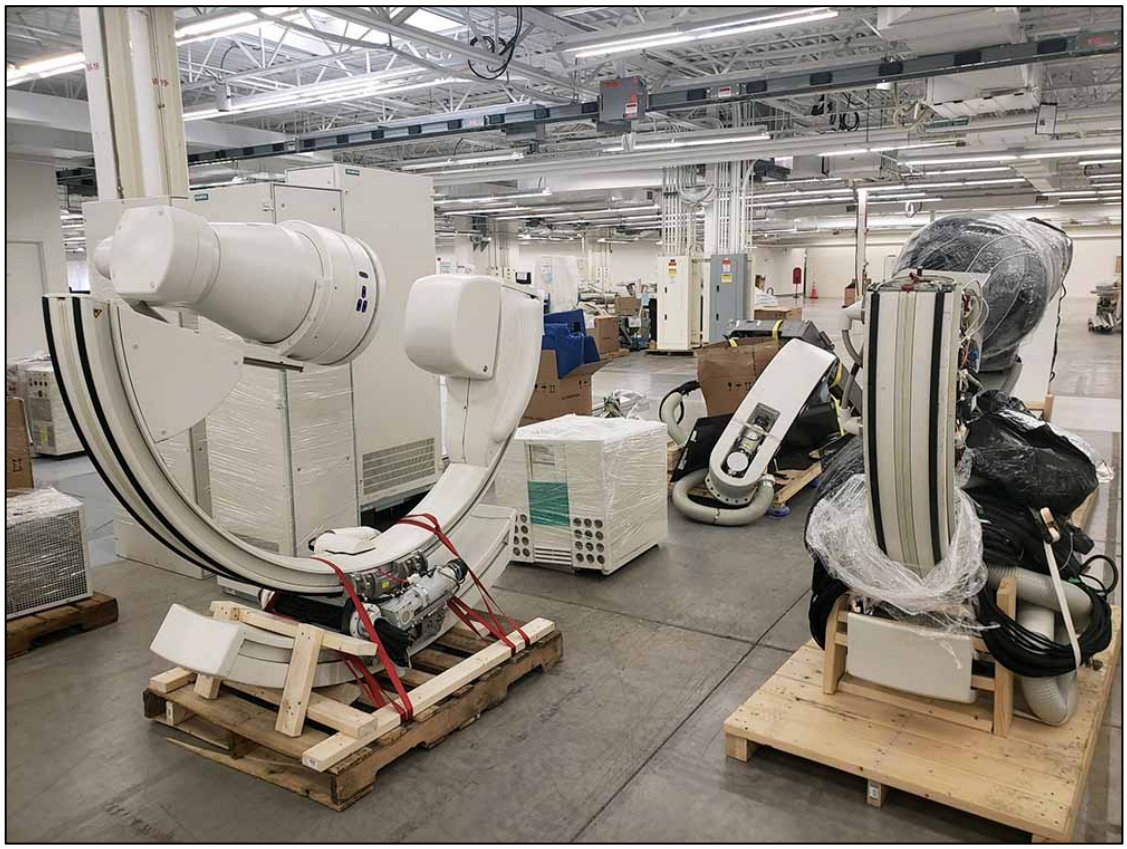
Left to right: Tim Growney, Jesse Avshalomov, Chloe Alpert, Romy Seth (Medinas Health Board Member)

Exhibit 4 Medinas Health's Funding

Date	Investment Type	Investor	USD Investment
October 21, 2019	Seed	FJ Labs and 3 other investors	5,000,000
March 1, 2019	Seed	WeWork Creator Fund	1,000,000
October 18, 2018	Seed	Alan Rutledge and 8 other investors	2,475,000
August 4, 2018	Pre Seed	Y Combinator	120,000
June 15, 2018	Seed	WeWork Creator Fund	360,000
March 15, 2018	Pre Seed	Julie McDermott and 4 other investors	1,000,000
October 2, 2017	Award	Forbes Under 30 Summit's Global Change the Work For-Profit Competition	500,000

Source: https://www.crunchbase.com/organization/medinas#section-overview

Exhibit 5 Medical surplus equipment for the secondary market



Source: https://thedoctorweighsin.com/medinas-health-creates-new-solution-old-problem/