



## Vision

For individuals facing the financial burden of medical costs and families seeking closure from the remnants of their loved ones' battles, MediShare is a new healthcare redistribution service that provides affordable access to essential medications. Unlike traditional pharmacies or donation programs, we offer a platform where surplus medicines are vetted by healthcare professionals for safety and efficacy before being made available to those in need. This ensures trust and peace of mind for both donors and recipients, making medication management more compassionate and sustainable.

## Motivation

### Customer Segments

#### Individuals with surplus medication:

Many individuals complete their treatment courses or undergo changes in their medication dosage, often resulting in an excess of expensive, unused medication. The idea extends to situations where a relative has passed away, leaving behind medications slated for disposal. Similarly, this concept refers to individuals who have medical equipment they no longer need, whether it be after recovery or due to an upgrade in their medical coverage. According to our survey of 18 people, 72% expressed a willingness to "donate" or "sell" their medications, especially if it benefits someone truly in need (See Appendix A for survey results). Our hypothesis suggests that instead of disposing or hoarding unused medications, individuals can benefit from them by selling to MediShare. This approach ensures that surplus medication is used to help someone in urgent need.

#### Underprivileged Patients:

Numerous individuals with chronic illnesses face challenges in affording their medication, either due to financial constraints, lack of insurance coverage, or inadequate support from their insurance plans, resulting in insufficient coverage for essential medications. These patients encounter difficulties in accessing the necessary medication due to a lack of resources. After conversing with a few individuals from India, the common sentiment was that they would be willing to purchase medications if the products were validated by a professional and offered at a significantly lower price. This insight underscores a potential solution to address the financial

challenges faced by individuals in obtaining essential medications. Our hypothesis poses that instead of contending with the financial strain associated with acquiring these medications, individuals facing these challenges could leverage the services of MediShare to access unused, expensive medications at a more affordable price. This approach not only provides a viable solution to the financial barriers but also ensures the efficient and ethical redistribution of surplus medications to those in need.

#### Homebound Elderly Patients:

Elderly individuals dealing with chronic illnesses and confined to their homes necessitate a convenient medication delivery service that brings their prescribed medications directly to their doorstep. When coupled with more affordable pricing, the integration of MediShare could significantly enhance the accessibility and affordability of essential medications for this demographic. This not only caters to the unique needs of homebound elderly patients but also addresses financial considerations, making healthcare more inclusive and accessible to a vulnerable segment of the population.

To validate our hypothesis, we conducted interviews with 20 potential buyers and 18 potential sellers. Buyers were presented with inquiries such as:

- “Where do you currently buy the medication, you need?”
- “Have you ever faced difficulties in buying medications due to cost? Can you share your experience?”
- “What concerns do you have with buying unused and sealed medicines (verified by a professional) for cheaper through a validated and approved platform?”

Sellers were presented with inquiries such as:

- "How many strips of unopened medicines do you dispose of quarterly?"
- “What do you do with your medicines/medical equipment once your treatment is over?"
- "Have you considered giving away your unused medications? What would influence this decision?"

Early adopters of MediShare may differ from mainstream users particularly as they may include friends and family of the app creators. This connection can foster a higher level of trust in our product, creating a foundation of confidence and openness to embracing the concept of minimizing medication wastage. The familial or friendly relationship with the app creators may lead these early adopters to be more actively involved in the app's initial stages, providing valuable feedback and insights. Their association with the creators might also mean they are more willing to try out the platform, acting as advocates who help build the initial user base.

Mainstream users engaging with the app are likely to place a significant emphasis on cost-effectiveness and affordability. In their interactions with MediShare, they may express a need for additional assurances regarding the app's reliability, recognizing the importance of entrusting their health and well-being to MediShare's validation process. We acknowledge that

establishing customer trust is a gradual process and understand the necessity for transparency in the validation process. This transparency ensures users understand how their medications are verified, fostering confidence in the platform. By emphasizing both cost-effectiveness and transparent validation, we aim to create an environment where mainstream users feel secure, supported, and assured in their use of the MediShare app.

### **Personas:**

**Jahnavi** suffered a severe ankle sprain, prompting her visit to an urgent care facility for a thorough examination. The medical advice she received recommended wearing a boot and utilizing crutches for the initial two weeks or until the considerable pain in her ankle or heel subsided. Having successfully healed from her injury, Jahnavi is now eager to part with her crutches and boot, considering the space they occupy in her room. She seeks a platform that facilitates connections with individuals in need of these medical equipment, promoting a responsible and beneficial exchange within the community.

**Revathi**, recently widowed due to her husband's passing from a cardiovascular disease, faces the dilemma of having numerous untouched medications leftover from his prolonged illness. Being from a middle-class background, she encounters difficulty in disposing of these costly medications. However, the emotional weight attached to these medicines serves as constant reminder of her late husband and causes her to feel unsettled. In search of a solution, Revathi seeks a platform where she can sell the unused medication, ensuring they find utility in the hands of individuals who genuinely need them, thereby transforming a poignant reminder into a source of support for others in need.

**Janaki**, a dedicated house servant in India, diligently works across multiple households with a singular goal – to accumulate funds for her daughter's essential asthma medication. Diagnosed with severe asthma at a tender age, Janaki's daughter requires consistent and often costly medication. Compounded by the fact that Janaki and her family lack insurance coverage due to their work in various households, the financial burden intensifies as they must purchase medications at full price. Due to these financial constraints, Janaki actively seeks a platform that could provide her access to the necessary medication at a more affordable cost. Her pursuit reflects the pressing need for solutions that can alleviate the economic hardships faced by individuals like her, ensuring that essential healthcare remains within reach despite financial limitations.

### **Unmet Needs**

#### **Individuals with surplus medication:**

Customers currently face a dilemma in dealing with expensive and unused medications they no longer need, as there is a lack of an efficient and responsible solution. The options are either to store the medications in the hopes of future use, which takes up valuable space and risks

waste, or to discard them, leading to environmental and financial concerns. This underscores the pressing need for a streamlined platform that enables individuals to repurpose or share their surplus medications. Such a solution would not only address the challenges of medication waste and storage but also provide an ethical means for individuals to contribute to the well-being of others in need, fostering a more sustainable and accessible healthcare system.

#### Underprivileged Patients:

There is a lack in the accessibility and affordability of vital medications for individuals dealing with chronic illnesses. Many of them encounter challenges in affording their necessary medications due to various factors such as financial constraints, lack of insurance coverage, or inadequate support from their insurance plans. The existing gaps in the healthcare system leave these individuals with insufficient coverage for the medications crucial for managing their chronic conditions. As a result, there is a pressing need for solutions that address these barriers, ensuring that individuals with chronic illnesses can access and afford the medications they require for effective management of their health, thereby improving overall well-being and quality of life.

#### Homebound Elderly Patients:

There is also a lack of a convenient medication delivery service tailored to elderly individuals dealing with illnesses and confined to their homes. This calls for a service that can efficiently bring prescribed medications directly to their doorstep. A tailored service will promote their well-being and independence.

### **Existing Solutions**

The prevalent solutions in the healthcare landscape largely focus on patient payment programs, strategically designed to provide financial assistance or facilitate recurring payments with the aim of increasing the likelihood of receiving the full payment. These programs often offer the flexibility for patients to break down their outstanding balance and make monthly payments, allowing for early payoff before the deferment period concludes. However, the critical limitation of these approaches is their inability to cater to individuals facing the challenge of affording necessary, expensive medications regularly. While they offer a structured payment plan, it does not effectively reduce the overall cost for individuals; it merely outlines a method for gradual full payment over time. Furthermore, these solutions overlook the issue of individuals who have incurred significant expenses on medications but no longer require them, leaving these individuals without a practical means to recoup some of their costs or assist others in need. There exists a clear gap in the current healthcare system that requires innovative solutions addressing affordability, ongoing financial support, and responsible disposal of expensive medications.

The table below describes potential competitors, highlighting key goals and features and comparing them to the concept of Medi-Share:

Features	MediShare (Our app)	MrMed.in <sup>5</sup>	Sparsh by Dr Reddy's <sup>6</sup>	SaveMed <sup>7</sup>	MedMaze <sup>8</sup>
Primary Goal	Users can sell unused, unopened prescriptions to MediShare  Affordable prices for buyers	Provide financial assistance to help these patients access drugs for little or no cost	Patient assistance program to help economically challenged patients' complete chemotherapy treatment.	Helps donors find and gather unused medicines in a collection hub, sort them out and give it to the people in need.	Enables donors to give unused medicines to government hospitals, which sell them at discounted rates to those in need.
Lower Selling Prices	Yes	Yes	Yes	Yes	Yes
Get Paid to Donate	Yes	No	No	No	No
Prescription Delivery/ Collection	Yes. Prescriptions are collected and delivered at your doorstep	Prescriptions are delivered to your doorstep	No. Only online services and multiple physical stores	Donors are required to submit the medicines at the designated collection centers	Buyers collect medicines directly from government hospitals
Medicine Validation	Yes. Tested by third party professionals	Yes. Bought from Pharma companies	Yes. Government approved Pharma company	Not mentioned.	Not mentioned.
Automated Chat Service	Yes. If questions are complex, will be redirected to a call service	Yes	No	No	No
Collaboration with Pharmacies	No. The focus is on collecting medications from individuals to reduce wastage.	Yes	Multiple business and Pharma partners	No	Reportedly collaborating with government hospitals, but no visible evidence.
Active Company (Marketing)	Yes	Yes	Yes	Last active project on Dec 9, 2021	No
Geographical reach	Gujarat	All of India	Global Reach	Collection hubs located in Bangalore and Chennai	Not mentioned

## Why Now?

Technological advancements, particularly in healthcare and app development, may enhance the feasibility and security of a medication-sharing platform. Evolving healthcare policies that support responsible medication sharing and environmental sustainability could create a conducive regulatory environment. Increased awareness of the environmental impact of medication waste, coupled with a societal shift towards community-driven healthcare solutions, may foster a more receptive audience. Financial strains in healthcare, such as rising medication costs and gaps in insurance coverage, could drive individuals to actively seek alternative and more affordable healthcare options. Internally, changes in the team's capabilities, resources, or strategic direction could further contribute to the opportune moment for launching MediShare.

## Use Cases

### **Use Case 1: Budget-Conscious Parent**

Namitha is a single mother of two who has recently encountered a significant financial hardship due to unexpected medical bills. Her youngest child was prescribed a new medication essential for his treatment but not covered by their insurance. Namitha needs a more affordable option to obtain the medication.

#### Steps:

1. Namitha downloads the MediShare app and signs up by providing necessary details.
2. She searches for the prescribed medication using the app's search feature.
3. The app displays a list of available listings of medication that MediShare has procured from individuals who have excess medications.
4. Namitha reviews the listings, checking the medication details, expiration dates,
5. She selects the medication available at an affordable price through the app.
6. After verifying the medication's authenticity and safety, Namitha chooses a delivery method.
7. Namitha receives the medication, ensuring her child's health needs are met affordably.
8. After the delivery, MediShare contacts Namitha to ensure her satisfaction and to address any concerns. Namitha can provide feedback, which MediShare uses to improve the service.

### **Use Case 2: Environmentally Conscious Senior**

Manoj, a retired pharmacist, is environmentally conscious and dislikes wasting resources. He has leftover medications from a recent treatment. Aware of the environmental impact of disposing

medications improperly and wanting to help others, he looks for a way to distribute his excess medication safely.

Steps:

1. Manoj downloads the MediShare app and completes the registration process, verifying his identity and the medication's legitimacy.
2. He lists the excess medications on the app, providing detailed information including the drug name, dosage, quantity, expiration date, and a photo of the medication.
3. Manoj gets notified about the price he will be paid for the medication after evaluation.
4. Manoj agrees to offer made from MediShare and chooses the pick-up method to be [Post/Drop-off/Pick Up]
5. MediShare procures the medication and stores the medication at the inventory.

**Use Case 3: Sreekala's Road to Medication Independence**

Sreekala is an 82-year-old who lives alone and struggles with mobility, making it difficult for her to visit the pharmacy for her medications. She seeks a convenient solution that respects her independence while ensuring she receives her necessary medications on time.

Steps:

1. Sreekala downloads the MediShare app with the help of a neighbor. She registers by providing her basic information, medical history, and current prescription details.
2. Sreekala searches for her prescribed medications. The app provides clear information, including drug details, dosage, and possible generics for cost efficiency.
3. Sreekala selects her medications and chooses a delivery schedule that fits her routine. She appreciates the option to set up recurring deliveries, ensuring she never runs out.
4. A MediShare service representative gives Sreekala a call to confirm her order and discuss specific needs, such as where to leave deliveries and any special instructions for opening containers, catering to her physical limitations.
5. Secure Payment and Verification Sreekala securely pays for her medications through the app, which confirms her order and provides a detailed receipt. The platform also verifies her prescription with her healthcare provider to ensure accuracy and legality.
6. On the scheduled day, Sreekala receives her medications at her doorstep.

**Conclusion**

These use cases highlight how MediShare serves different customer segments: those looking for affordable medication options, those wanting to distribute excess medication responsibly and those who want to procure medication with ease. Each persona interacts with the system to achieve their specific goals: affordable healthcare for Namitha and waste reduction plus community support for Manoj and easy procurement of medicine for elderly citizens like Sreekala.

## Market Size

MediShare targets a pressing issue in the healthcare sector: medication wastage juxtaposed with scarcity. Focused initially on the Gujarat region, the market size is quantified based on the population affected by heart diseases and Parkinson's, with an emphasis on those who face challenges in accessing or affording medications.

Heart Disease	Heart Disease	Parkinson's
Gujarat population affected by the chosen diseases	2,80,000	29,400
Yearly Medication cost	₹ 15,000	₹ 12,000
Narrowing cost to unused strips (4 out of 10)	₹ 6,048	₹ 4,000
Assumption : 20% of patients face challenges in accessing/affording their medication	56,000	5,880
Market value	₹ 33,80,00,000	₹ 2,40,00,000
<b>Total Market size (INR)</b>	<b>362 million</b>	
<b>Total Market size (USD)</b>	<b>\$ 4.3 million</b>	

In Gujarat, there are approximately 280,000 individuals affected by heart diseases and 29,400 by Parkinson's. A substantial portion of medication costs are attributed to unused medicinal strips, estimated at ₹6,048 for heart disease and ₹4,000 for Parkinson's annually. With the assumption that 20% of these patients encounter affordability or access issues, we identify a significant subset: 56,000 heart disease and 5,880 Parkinson's patients in dire need of MediShare's services.

The market value for these underserved segments stands at a striking ₹33.8 crores for heart disease medications and ₹2.4 crores for Parkinson's treatments. This translates into a total market size of 362 million INR or approximately \$4.3 million USD.

MediShare's unique approach creates a sustainable model that not only addresses the financial strain on patients but also contributes to the larger societal good by minimizing medicinal waste. This model is designed to be scalable, with potential growth beyond the initial market as we integrate more diseases and expand geographically.

## Caveats / Risks / Key Dependencies

Risk	Description	Mitigating factors
Privacy Concerns	MediShare's handling of sensitive medical data may raise privacy issues if not adequately protected.	<ul style="list-style-type: none"> <li>• Implement robust data encryption protocols</li> <li>• Ensure strict access controls and limited data sharing</li> <li>• Comply with HIPAA regulations to safeguard patient information.</li> </ul>



Legal/ Patent Risks	Legal challenges related to intellectual property rights or patent infringements could pose a threat to the service.	<ul style="list-style-type: none"> <li>• Conduct thorough patent searches before offering medications</li> <li>• Obtain legal advice to ensure compliance with all relevant laws and regulations</li> <li>• Secure necessary licenses for distributing medications.</li> </ul>
Piracy Concerns	Unauthorized distribution or replication of medications could lead to piracy concerns, impacting the services credibility and legality.	<ul style="list-style-type: none"> <li>• Implement stringent tracking mechanisms for medication distribution.</li> <li>• Conduct regular audits to detect any unauthorized activities.</li> <li>• Collaborate with law enforcement agencies to combat piracy effectively.</li> </ul>
Interdependencies with Key Internal Systems	Relying on interconnected systems for medication checking and distribution can be risky if these systems fail or get hacked.	<ul style="list-style-type: none"> <li>• Establish backup systems and disaster recovery plans to ensure continuity</li> <li>• Regularly update and maintain internal systems to mitigate risks of failure or cyberattacks.</li> <li>• Conduct thorough testing of interdependent systems to identify and address any weakness proactively.</li> </ul>
Availability of Required 3 <sup>rd</sup> party compliments	Dependence on third-party providers for essential services or medications may lead to disruptions if these complements are not readily available or reliable.	<ul style="list-style-type: none"> <li>• Diversify partnerships with multiple third-party providers to mitigate supply chain risks.</li> <li>• Maintain open communication channels with suppliers</li> </ul>

		to address any potential shortages or issues promptly.
Supply chain Disruptions	Disruptions in the supply chain, whether due to shortage or logistical issues, could impact the availability of essential medicines through the service.	<ul style="list-style-type: none"> <li>• Maintain strong relationships with multiple suppliers.</li> <li>• Monitor supply chain performance regularly to address potential issues proactively.</li> </ul>
Ethical Concerns	Ethical dilemmas related to medication redistribution, such as equitable access and fair allocation, could impact the service's reputation.	<ul style="list-style-type: none"> <li>• Establish clear guidelines for medication allocation based on medical need.</li> <li>• Ensure transparency in recipient and donor selection processes.</li> </ul>

## Appendix A- Survey Results

Two surveys were conducted: one aimed at prospective users and the other directed towards potential donors. Table 1 describes the responses from potential users.

<b>User Survey Analysis: Potential Buyer</b>	
<b>Q1: "Where do you currently buy the medication you need?"</b>	
Local Pharmacy	13
Government Clinic	2
Private Clinic	2
Online Pharmacy	2
<b>Q2: "Have you ever faced difficulties in buying medications due to cost? Can you share your experience?"</b>	
Yes	7
No	13
<b>Q3: "Have you faced any difficulties in obtaining medications, such as issues with collection or delivery methods?"</b>	
Yes	10
No	10
<b>Q4: Concerns with buying sealed and unused medicines for cheaper through a subsidized platform</b>	
Quality	2
None	11
Reliability	7

Table 1: Interview responses from Potential Buyers

Using this data our team was able to make visuals like graphs to simplify our findings. For example, Figure 1 describes where potential users currently buy their medication.

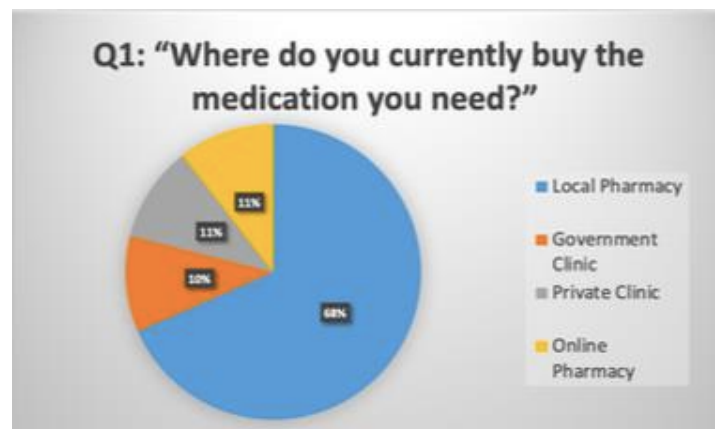


Figure 1: Depiction of where potential buyers currently buy their medication

Based on the data presented it is evident that 68% of customers currently obtain their prescriptions from local pharmacies, 10% prefer government clinics, 11% opt for private clinics, and the remaining percentage purchase medications online. This information helps identify competitors and assess whether individuals are already using platforms to manage medical expenses. Additionally, it offers insights into medication expenditure by distinguishing between those visiting government versus private clinics.

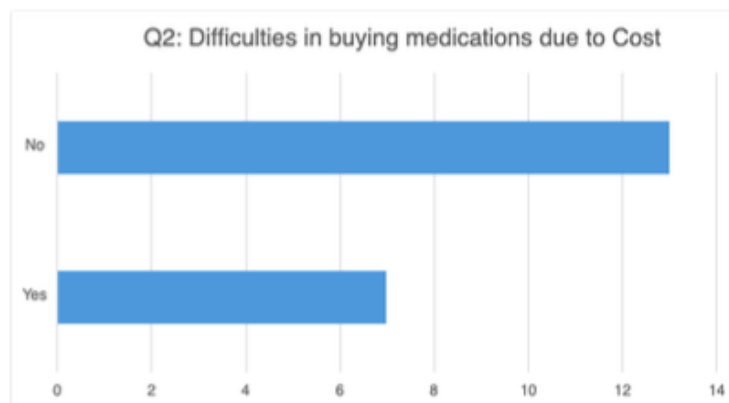


Figure 2: Number of people facing difficulties in purchasing medication due to cost

The second survey question asks about challenges in affording medications. While many respondents didn't report difficulties, this may be due to limited interviews with our target buyer segments, mainly affluent individuals. Some without insurance faces affordability issues. However, this subset doesn't fully reflect market needs. Future interviews will include individuals from homeless shelters or non-profit healthcare organizations in India for a broader market understanding.

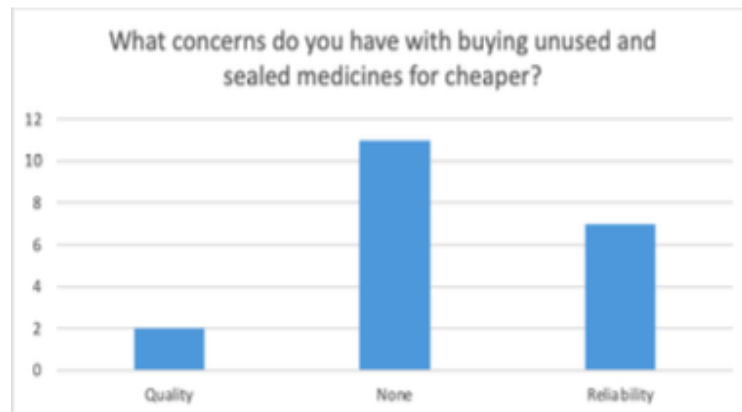


Figure 3: Concerns people have buying sealed and unused medicines for cheaper through a validated and approved platform.

We also explored customer concerns about buying subsidized medications from a certified platform. While many respondents trust the process if the platform is verified and medications are quality checked, some individuals expressed worries about potential drug abuse and the overall quality of subsidized medications. This feedback helps us understand diverse perspectives in our target audience and address specific concerns, guiding our strategy to build trust with buyers.

responses:	18
<b>User Survey Analysis : Potential Seller</b>	
Q1: "How many unopened medicines do you dispose of quarterly"	
1-2 Strips	7
3-5 Strips	5
6-10 Strips	2
11-15 Strips	1
16-20 Strips	1
None	2
"What do you do with your medicines/medical equipment once your treatment is over?"	
Keep them with me for potential future use	7
Throw them out	7
Give them to someone who needs them	4
Q3: "Have you considered donating your unused medications? What would influence this decision?"	
Yes	13
No	5

Table 2: Interview responses from Potential Sellers

Using this data, our team was able to make visuals like graphs to make it easier to understand. For example, Figure 4 illustrates the practices of potential sellers in managing their prescription medication when no longer required.

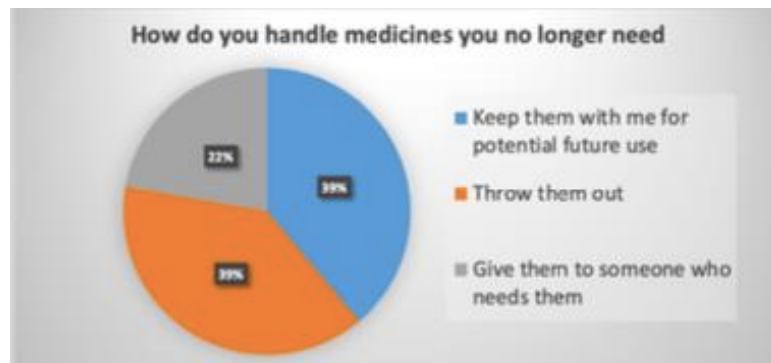


Figure 4: Depiction of how people deal with their prescription when they no longer require them.

Figure 4 outlines how individuals manage their unused prescriptions. The data shows that 39% keep them for future use, 39% dispose of them, and 22% donate to those in need. This information is crucial for understanding medication disposal practices and guides us in promoting the donation of unused medications to reduce wastage.

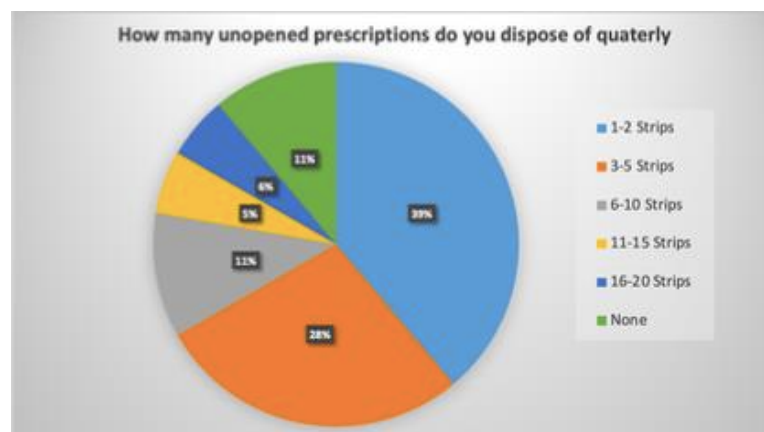


Figure 5: Number of unopened prescriptions disposed quarterly.

Figure 5 shows how often individuals dispose of unopened prescription medication quarterly. Around 40% discard 1-3 strips, 28% dispose of 3-5 strips, and 11% do not dispose of any medication. This data helps gauge market behavior and reveals substantial wastage. It also hints at the volume of medications that could be repurposed for those in need or the monetary value by specifying the types of medicines discarded.

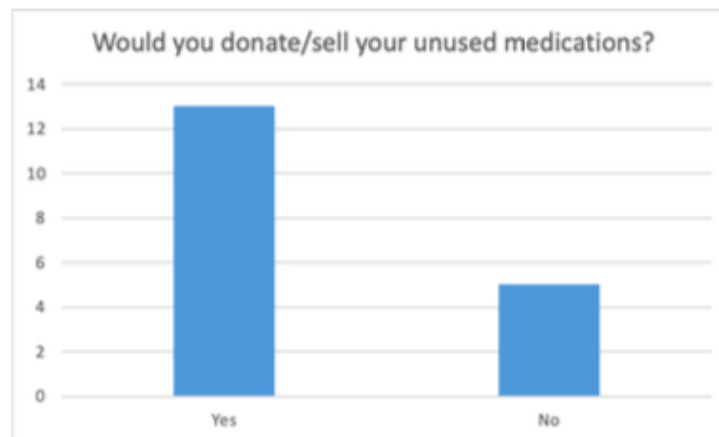


Figure 6: Considerations regarding donating or selling unused medication.

To support our goal of subsidizing medication expenses, we asked potential sellers about their readiness to sell or donate unopened, unexpired medications they have. While most showed eagerness to participate, a few had reservations possibly due to legal concerns, trust issues, or lack of awareness. Concerns about medication quality due to improper storage were also noted. Understanding these factors is crucial in improving our platform's strategy and increasing overall participation.