

111, Inc.

YI: China's Healthcare Reform and What It Means for 111

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KEY POINTS

- CEO gives his insights on China's vast and complex healthcare system.** We recently had a chat with CEO Junling Liu to get his perspective on China's healthcare system, the reforms that China's government is implementing, and the role of and opportunities for 111 in the reshaping of the country's healthcare system. We have incorporated the transcript of our discussion in this update note.
- Access to healthcare in China is not straightforward.** China operates a healthcare system in which delivery of services is provided by multi-tiered institutions. The system lends itself to inefficiencies and regional disparities with respect to the quality of services. The supply chain of the medical system in China involves a quite complex network of drug manufacturers, distributors, pharmacies, and online pharmacies. For most Chinese, they would have to go to a hospital to get their prescriptions filled.
- China's healthcare reforms making progress.** The healthcare system has long been an ongoing target of policy reforms to address the problems within the system, namely high drug prices and access to medical care. These have included reforms targeting the drug procurement process. While there remains more work to be done to improve the system, Liu believes the country has made excellent progress in expanding access to care, reducing costs, and improving the quality of services because of the reforms.
- 111 ready to play its part in reforming China's healthcare system.** Undoubtedly, 111 has been a beneficiary of the government's reforms. Liu believes 111 can play a significant role in achieving the goals of these reforms, highlighting the platform's digital capabilities that have not only enabled it to become the one of the most cost-efficient operators in the pharmaceutical supply chain allowing it to report its first GAAP operating profit in 1Q24, but also to enable its upstream and downstream customers to operate more efficiently.
- Next update.** 111 is scheduled to report its 2Q24 earnings on August 29, 2024, before the US market opens. 111's management team will host an earnings conference call at 7:30 am ET on the same day.

KEY STATISTICS

Ticker:Exchange	YI:NASDAQ
Current Price	\$0.93
52-Week Range	\$0.90-\$2.99
Average Volume (30-Day)	92,365
Shares Outstanding (MM)	85.5
Market Cap (\$MM)	\$79.6
Enterprise Value (\$MM)	\$40.6
Fiscal Year-End	December

PRICE PERFORMANCE



ABOUT THE EXECUTIVE



Junling Liu
CEO

Mr. Junling Liu is 111's co-founder and has served as its chairman and chief executive officer since 2015. Mr. Liu co-founded and served as chief executive officer of YHD.com from 2008 to 2015. Prior to founding YHD.com, Mr. Liu served as the global vice president and president for mainland China and Hong Kong at Dell Inc. from 2006 to 2007. He also held numerous executive positions at internationally renowned technology companies such as Avaya China, Openwave Systems and Lucent Technologies Asia. Since January 2015, he has been an independent director of Autohome Inc. (NYSE: ATHM), the leading online destination for automobile consumers. Mr. Liu received his bachelor's degree in education from Flinders University in Australia in 1991 and master's degree in international business administration from Flinders University in 1998.

EXECUTIVE DISCUSSION

Robert Sassoon: Before we actually get into 111's role in the healthcare system in China, as it is a vast and complex system, it may be very helpful if you could describe the structure of the system and how it operates?

Junling Liu: That's a big question. I'll do my best. First up, Chinese healthcare expenditure last year was about RMB10 trillion (\$1.4 trillion) with drug consumption at about RMB2 trillion (\$280 billion) in value. Healthcare delivery is done by multi-tiered institutions, and these are classified based on their capacity and the scope of services. We have tertiary hospitals. Those are the large, specialized hospitals that provide comprehensive medical care and complex procedures, and they often serve as teaching hospitals and are affiliated with medical universities. An interesting phenomenon in China is that when people are sick, they typically go to tertiary hospitals to receive care. They don't necessarily need to get a GP's referral to see specialists. If you feel uncomfortable, let's say, in your lungs, you can simply go and try to line up for a slot to see the specialist who is on duty. In fact, most of the traffic for tertiary hospitals is outpatients. This is quite different from most other countries.

The next tier is the secondary hospitals. These are the hospitals that provide a range of medical services, including specialized care, but they are typically smaller and less complex than tertiary hospitals. These second-tier hospitals struggle a bit with traffic. We also have primary hospitals. Those are the local hospitals or clinics that offer basic medical care and preventative services. We also have the CHCs, which are the community health centers. They provide primary care services too, including preventative care, chronic disease management, and basic medical treatment. These centers are often located in urban neighborhoods and rural areas. The last tier includes the village clinics. These are the small healthcare facilities in rural areas that offer very basic healthcare services, but they play a critical role in providing access to medical care to remote regions. We also have some private hospitals in big cities, which usually offer a premium service, just like in the US, but they usually cater more for expats, and they are usually funded privately. They are principally outpatient facilities. If you need surgery, you will need to go to tertiary hospitals.

In addition to that, for basic healthcare insurance, there are two classes. Basic medical care insurance for urban residents covers the majority of medical expenses with some co-pay. We also have rural medical schemes which offer very basic care for rural residents. There is also commercial health insurance which is supplementary insurance that covers additional services beyond the basic medical insurance scheme. All the above is how the Chinese healthcare system works at the big picture level.

Robert Sassoon: Let's talk about the supply chain. How does a patient go about filling a prescription?

Junling Liu: The supply chain of the medical system in China involves a quite complex network of drug manufacturers, distributors, pharmacies, and online pharmacies, but each has distinct roles and responsibilities. Of course, it involves issues like quality control, logistics, and regulatory compliance. Let me start with the manufacturers. When the drug manufacturer successfully obtains approval from CFDA (China Food & Drug Administration) to bring a drug into the market, the commercialization typically will engage a sales team to cover the tertiary hospital's doctors to market the drug. Interestingly enough, in China, there are a few million medical representatives. We call them the medical reps who work with doctors to issue prescriptions. Then the drug sales will start from hospitals and then onto the pharmacies.

On the supply chain side, the pharmaceutical manufacturer usually appoints a bunch of Tier 1 distributors at the national level, and then the Tier 2 distributors at the provincial level, and also Tier 3 and, in some cases, Tier 4 distributors for lower tier cities. For a patient to receive a prescription, there are a number of means. The most common one is for the doctor to issue the prescription, and they will get the drug filled at the hospital. Of course, there is tremendous encouragement from the government for those prescriptions to flow outside of the hospitals. That's one way. The other way is to really go to a nearby pharmacy. Another way that is very popular now is to simply go online and get the prescription filled by those online service providers, like 111.

WTR Comment: See [here](#) for a basic explanation of China's tiered city system.

Robert Sassoon: Hospital prescriptions are the dominant source of prescriptions. Is that true?

Junling Liu: Yes, indeed. Especially when a new drug hits the market, that's where the drug is marketed, and prescriptions are issued.

Robert Sassoon: Thanks for that information. It seems like the healthcare system in China has been a constant target of government policy reforms, which suggests that there are problems with the system. Maybe you can highlight for us what the key issues are and the challenges that are facing the healthcare system.

Junling Liu: Well, you're right. First, there is a tremendous regional disparity in healthcare access and quality between urban and rural areas, with urban areas typically having better healthcare facilities and resources. Usually, a significant portion of the patients in tertiary hospitals in those big cities are from rural places with critical illnesses who have to travel to big cities to get better diagnoses and better treatments. The other

challenge is over prescriptions from the hospitals. The country historically relied on a scheme that allowed the hospitals to markup drug sales to keep the hospital system running for many years. Hospitals are incentivized to sell more drugs to make the P&L look better. That is a major issue and there is a huge reversal in that policy, which I can cover later. The other important issue they face is really the corruption in the healthcare system. The country is currently going through a major campaign addressing deep-rooted problems like fraud and unethical practices.

Let me briefly cover the manufacturers and pharmacies and the problems they face daily. For a manufacturer, once its product goes into a multi-tiered distribution system, it usually has data at the Tier 1 level, which often diminishes marketing effectiveness and results in a loss of control of prices. The other issue is that by the time the drug reaches the consumer with so many layers and the inefficient supply chain, drug prices become quite expensive. The manufacturers do not typically benefit from these high prices as the multi-layered distribution channels usually swallow up the margins. The pharmacies face a lot of challenges as well. I'm quite familiar with this space. There are about 650,000 pharmacies across China, but it is a highly fragmented market with the top 10% or the top 10 biggest chains covering, I think, in the range of 10% of the market. This is very different from the US market, where your top two or three big chains will take 80% of the total market. Fragmentation is the reality here in China. Due to size limitations, the standalone and the small chains don't really have the resources and skills to manage business in a modern way. But that's where 111 comes in and we use a suite of digital tools to help those pharmacies to manage their business in a much more efficient manner.

Today, 111 serves almost half a million pharmacies out of the 650,000 in the country. When we purchase directly from the pharmaceutical companies to supply the end users, both consumers and pharmacies, we can create significant savings in the value chain.

Robert Sassoon: Right. That's very interesting. You mentioned that the government is targeting the healthcare system. It's been a multi-year process in terms of the reforms that they've been trying to implement. Can you run through the key reforms the government is implementing to resolve some of the issues, particularly the supply chain issues you've mentioned?

Junling Liu: There are lots of reforms that are underway. Let me talk about a few that I'm more familiar with. The first policy is the zero-markup policy whereby the government no longer allows the hospitals to markup drug prices in the hope of providing affordable drugs to citizens, and of course they're going to have other measures to incentivize the doctors to make more money and get better paid. Of course, policies to encourage prescription outflow from hospitals is another measure that the central and local governments are doing, and we

are excited about that reform. Hopefully that plays right into our strength because if the drug sales flow out of hospitals, it naturally will go either the offline pharmacies or the online pharmacies, which is where our sweet spot is. The other relevant reform to mention is the digitization of the healthcare system. All the policies I have mentioned are very relevant and helpful to our business, as we focus on our digital capabilities and bring a whole suite of products, which not only enables us to operate efficiently internally, but also, to enable both our upstream and downstream customers to operate more efficiently. We welcome these reforms and believe we can play a significant role in contributing to their implementation. I'll give you an example, for rural disparity, our platform can assist rural patients to access online doctors and online refills for their medication. Instead of having them travel to big cities purely for medicine refills, we can deliver the drug to patients' doorsteps, no matter how remote they live. Our coverage of almost half a million pharmacies can extend the pharmaceutical companies' reach. They don't usually cover those lower tier cities. Of course, those pharmacies can also bring much better accessibility to new drugs. The government's goal and priorities are to provide a good platform for public health and disease prevention. The government's continuous reforms and policy adjustments aim to address the existing challenges. I think one of the very big priorities is to control the ever-expanding expenditure. With the size of the country and the rapidly aging population, there will be tremendous challenges, so, as entrepreneurs, we chose this sector and hope to make some contributions.

Robert Sassoon: Do you think that the government has been successful thus far or there's much more to do?

Junling Liu: Well, in my opinion, tremendous progress has been made. We are the beneficiary of those reforms. First of all, the regulatory bodies were at the forefront in adopting new technology. I believe China is one of the earliest countries that allowed online drug sales. The country has also made excellent progress in expanding access to care, reducing costs and improving the quality of services. However, long-time challenges remain, particularly in addressing the regional disparities and systematic corruption in the overall system and so on. No doubt lots of work remains to be done and more reforms will be needed.

Robert Sassoon: Great, that's very useful. Maybe you could give us a history of the development of independent retail pharmacies. Those are the pharmacies that you service and how the supply chain is evolving and expected to evolve in the years ahead.

Junling Liu: Before 2000, the retail pharmacy sector in China was relatively underdeveloped. Most pharmacies were state owned or operated by hospitals, and the market was largely dominated by those big institutions. Post 2000, there has been tremendous economic reform and also rapid urbanization which spurred the growth of the independent retail pharmacy sector in China. The

government began to encourage private investment and the development of independent pharmacies. From the 2010s, there was a huge boom especially in the independent retail pharmacies. Growth was driven by increased consumer demand, rising healthcare awareness, and expansion of urban areas. I think it's going to continue to evolve. The large chain pharmacies will emerge, but now the supermajority of the pharmacy space is still predominantly made-up of small chains and the standalone pharmacies. I believe this will remain the case for the foreseeable future. There will also be adoption of digital technology to improve its efficiency. The small guys won't have the know-how or the resources to do so, but they can opt for partnering with platforms like 111. I think pharmacies may play a larger role in managing chronic diseases by offering specialized services. The other thing that I'm betting on is that online pharmacies will play a much more important role in the future.

Robert Sassoon: I know that there are about 14,000 distributors involved in the supply chain and supplying the pharmacies around China. Do you think there's going to be a consolidation as B2B players such as yourselves play a more important role in the supply chain ecosystem?

Junling Liu: I'm pretty sure. Of course, too many layers in the overall supply chain creates a lot of chaos and inefficiency. There are also some practices that we don't believe are ethical. We are bringing digital technology into the space, and we make everything transparent. We want to be the industry's most efficient operator. We expect consolidation as some of the smaller distributors, I think, will find it hard to survive. That's going to take a little time, but I think that's going to be the overall trend.

Robert Sassoon: Right. If you were to summarize the role of 111 and the opportunities that the reforms and other factors that you've mentioned that are currently prevalent, how would you do that?

Junling Liu: This is my favorite topic, Robert. First, I feel very lucky to be in a space where the macroenvironment is favorable. Our core capabilities are ready to scale to help more customers. We developed a few dozens of systems with a super capable tech team for our internal operations. Everything in our operation is online. For example, I can access real-time sales data with a mobile terminal anytime, anywhere. I would know how a region is doing, how different categories of products are doing, and how each of the customer types are doing. Also, when our sales team wakes up in the morning, they are automatically allocated tasks such as which customers to visit and what products to promote. This is all done digitally by our system. The greatest advantage of our digital capabilities is really to achieve operational efficiency. We reported that we became profitable after years of investment and development, which is a major milestone. The profit was achieved thanks to our digital operating system. Let me provide you with some data here to give you a big picture view and you can draw the

comparisons yourself. Last quarter, our operating expenditure was slightly over 5% and our revenue last year was roughly about RMB15 billion, which is a little north of \$2 billion. We believe that when we scale our business to RMB20 billion (\$2.8 billion), we will be able to keep our opex under 5% as a percentage of revenue. A simple comparison is to compare us to some of the large, established traditional players which generate revenues of hundreds of billions of RMB. By comparison, our opex as a percentage of revenue is not inferior. Another comparison I can draw is that when they ship an order to hospitals, the value of that order is at least a few hundred thousand RMB, whereas some of our orders are as small as RMB300, which we commit to deliver to customers' premises free of charge. We have used some of our digital suite modules to enable upstream and downstream customers. During the pandemic, we felt extremely proud to be able to deliver essential medications for many chronic patients. We received loads and loads of thank you letters letting us know how our services helped them survive the pandemic. With the current reforms underway, one of the biggest trends we bet is that more and more drug sales will be squeezed out of the hospital system and flow to both the online and offline pharmacies, which is really our sweet space. We won't be shy to take advantage of that.

Robert Sassoon: Right. There are estimates suggesting that about two-thirds of prescriptions in China are still filled in hospitals, but retail pharmacies are increasing their penetration. Some industry projections suggest that that split could move to about 50:50 over the next three to four years.

Junling Liu: One of the data I saw is that by 2027, the split between pharmacies and hospitals will be 47:53. That is almost half and half, with the pharmacy space addressable market reaching about a RMB1 trillion (\$140 billion).

Robert Sassoon: Right. The competitive landscape has some very high barriers to entry. Can you just wrap up by telling us about your views on that?

Junling Liu: Well, indeed, I think the entry barrier is getting harder and harder. For us to achieve profitability it involved 10 years of investment in logistics. We have 11 fulfillment centers across the country. Each fulfillment center is built, which needs a couple of years to run them to profitability. Initially, you must invest because of the strict requirements of the regulatory bodies. You need a bunch of advanced engineers to develop systems internally to do e-commerce, and a big sales team to visit the pharmacist to exchange permits so it can start a transaction. Without exchanging physical documents, you're not allowed to initiate business. Especially in today's economic environment, new startups are finding it harder and harder to access capital. From that perspective, we feel very fortunate we have invested early, and we have achieved scale. Our first step was to build infrastructure, and our second step was to build scale. Of course, now we are onto our third stage of

UPDATE NOTE

HEALTHCARE SPECIAL SITUATIONS

development, which is to make some profit. We were very pleased that we reported that we started making a profit from 1Q this year.

Robert Sassoon: That's fantastic. Thank you very much. Junling. It's been great to get your help in navigating the complexities of China's healthcare system as well as your insights on the impact of the reforms that the government is implementing to improve the system and how that is trickling down to your prospects going forward.

ABOUT THE ANALYST



Robert Sassoon

Senior Research Analyst

Robert Sassoon has been an equity analyst for more than three decades, focusing primarily on global special situations. During his career, Robert has worked for several sell-side institutions in London, Hong Kong, and New York, including Credit Suisse, NatWest Capital Markets, and Societe Generale. In 2017, Robert founded AlphaSituations, an independent idea-generating event driven/special situations investment research service, which produced comprehensive research on early stage/emerging publicly traded and privately owned companies with the goal of telling an underappreciated or unknown story to relevant investors.

Robert has developed a uniquely broad and deep knowledge base in multiple industries from a global perspective and has achieved top five rankings in various analyst surveys, including the Extel and Greenwich surveys. Robert holds an MSc in Economics from the London School of Economics and Political Science, and has held FINRA licenses Series 7, 63, 86, 87, and 24.

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