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CHUNYU: FIRST MOVER IN THE CHINESE M-HEALTH INDUSTRY

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At the end of April 2015, Rui Zhang, founder and chief executive officer (CEO) of Chunyu Yisheng (Chunyu), was trying to decide how to create long-term business value and a loyal user base for his company. Chunyu, which Zhang had founded in July 2011, was a Chinese mobile health application (app) that connected patients with doctors over the Internet. Its business model was based on providing a health care question-and-answer (Q&A) service by telephonic and online consultation with doctors. By the end of 2014, the Chunyu app had been downloaded 19.18 million times from four main Android app stores in China.[[1]](#endnote-1) However, Zhang knew that he could not afford to be complacent with the app’s download volume because he was facing a series of issues that needed to be overcome.

First, the biggest challenge for Chunyu was to become profitable. Since its creation in 2011, Chunyu had been losing a significant amount of money each year. By the end of 2014, Chunyu’s loss for the year was expected to reach CN¥10 million.[[2]](#endnote-2) Second, insights gained by in-app data analytics over the previous three years indicated to Zhang and his team that users’ engagement and retention rates were relatively low. Recognizing this low user loyalty, they decided to move beyond just measuring application downloads and focus on building a sustained, active user base for Chunyu. The third challenge was the increasing number of mobile health (m-health) apps, which was rapidly increasing competition. A fiercely competitive market, along with low revenues and high expenses, was forcing Chunyu to create additional revenue streams to become profitable in the future.

Zhang had much to worry about, but the most significant concern was finding a cost-effective and long-term value-creation model. The question was, should Chunyu rebuild its current online-consultancy-based model or move to an alternative business model?

BACKGROUND

The Global M-Health Market

The Global Observatory of the World Health Organization defined *m-health* as “medical and public health practices supported by mobile devices.”[[3]](#endnote-3) In recent years, the global m-health market had increased rapidly. In 2010, the m-health market was valued at US$1.7 billion and was projected to reach more than $4.1 billion by 2014, at a compound annual growth rate of 24 per cent.[[4]](#endnote-4) With the increased adoption of smartphones, as well as continued global venture investment into the digital health care market, the number of m-health apps had grown steadily over the previous few years. As of June 2013, over 97,000 health apps were available in the top app stores worldwide, and this number was projected to grow approximately 23 per cent over the next five years.[[5]](#endnote-5)

The Rise of Mobile Health in China

The Chinese health care system, despite its lengthy process of reforms, still faced several critical issues. For instance, doctors were overworked and underpaid, and while urban community health centres and county hospitals were underdeveloped and inefficiently utilized, general hospitals in big cities remained overcrowded. Patient–doctor mistrust was widespread, and unnecessary patient visits to well-known hospitals, regardless of the severity of illness, were common.[[6]](#endnote-6)

In response to these emerging problems, new technologies had evolved in the Chinese health care system over the previous decade. For example, the smartphone app for patient health and fitness was one of the recent technologies influencing the Chinese health care industry. Mobile health apps enabled patients to access information about health care facilities, communicate and schedule appointments with doctors remotely, and order prescribed medications online. At the same time, m-health apps provided doctors with real-time access to patients’ medical records and facilitated monitoring patients’ symptoms, such as blood pressure, heart rate, and nutrition habits.

Meanwhile, the massive demand for online health care services in China attracted significant interest and investment from leading foreign enterprises. For example, in April 2014, Virtual Radiologic (vRad), the largest telemedicine company in the US market, signed a strategic partnership agreement with E-Techco Group, a Chinese high-tech firm providing cloud-based personalized health management.[[7]](#endnote-7) In addition, over the preceding few years, leading Chinese tech giants such as Tencent Holdings Ltd. and Alibaba Group Holding Ltd. had invested millions of dollars in the Chinese online health care industry.[[8]](#endnote-8)

According to a report by Research and Markets, China’s m-health market was worth ¥ 2.21 billion in 2013 and was expected to reach ¥19.05 billion by the end of 2018.[[9]](#endnote-9) Another report, from the China–Britain Business Council, said China would be the world’s second-largest m-health market by the end of 2017.[[10]](#endnote-10)

Government support also could be credited for the rise of the m-health market. Over the preceding few years, the Chinese government had intensified its efforts to promote online health care and telemedicine. For example, in 2012, the National Health Commission (then the Ministry of Health) invested over $9.5 billion to develop electronic medical records and advance hospital information systems. In the latter half of 2014, China’s central government made a series of announcements to regulate telemedicine and online sales of pharmaceuticals.[[11]](#endnote-11) In July 2014, Beijing’s municipal government and Baidu, Inc., a leading Chinese Internet company, jointly launched a cloud-based health-management system to offer pre-diagnosis assessments for users.[[12]](#endnote-12) Government agencies such as China International Capital Corporation Ltd., China Venture Capital Association, and the China Development Bank were also providing funding support to new start-ups in the m-health market.[[13]](#endnote-13)

CHUNYU: THE COMPANY

Zhang, together with Boyi Zeng and Guanghui Li, founded Chunyu. Zhang was a former director of the *Beijing Times* news centre and deputy editor-in-chief at *NetEase*. Moving from the *Beijing Times* to *NetEase,* then to Chunyu, Zhang precisely grasped the opportunities that the Internet revolution presented. He handled overall management of the company while his two co-founder friends handled other essential company matters. Li, previously general manager of China Gamma Group Ltd., based in Hong Kong, was more inclined toward supervising day-to-day operations, while Zeng, who had worked at *NetEase*, preferred to manage the application-development team.

Zhang banked on the Internet to fulfill his vision of “resolving health care problems with innovative models.” The vision was realized through a smartphone application that offered a free health care Q&A service and five value-added services at a premium, including “quick call,” online consultation, telephonic consultation, personal doctor service, and private consultation scheduling (see Exhibit 1).

MAJOR PLAYERS IN the CHINESE M-HEALTH MARKET

As a first mover in the Chinese m-health market, Chunyu developed a basic business model for online health care services, but faced powerful competitors such as Kuai Su Wen Yi Sheng, Ping An Good Doctor, HaoDF Online, and DXY.

Kuai Su Wen Yi Sheng

Kuai Su Wen Yi Sheng was one of the top remote-consultation apps in the Chinese m-health market. Zhuhai Healthcare Cloud Technology Co., Ltd. launched the app in May 2012. The app provided three types of services: remote diagnosis, medication guidance, and appointments with doctors.[[14]](#endnote-14) Kuai Su Wen Yi Sheng’s business model resembled that of Chunyu. By October 2014, Kuai Su Wen Yi Sheng had amassed 13 million registered users and 60,000 qualified doctors, handling an average of more than 10 million daily queries.[[15]](#endnote-15)

Ping An Good Doctor

Ping An Good Doctor, another remote-consultation app, was officially launched on April 21, 2015, by the Ping An Insurance Company of China, Ltd., which was the first integrated financial services conglomerate in China.[[16]](#endnote-16) Specifically, Ping An Good Doctor followed Chunyu’s business model while it developed its own model. The Ping An app provided one-on-one consultations with doctors. The app was also equipped with an online drugstore, providing details on medications and other health care products.

HaoDF Online

HaoDF Online was one of China’s first disease management and post-surgery rehabilitation apps. Founded in 2006, HaoDF Online was also the first mobile application in China to provide free online medical advisory services, appointments with doctors, and follow-up services. Moreover, HaoDF Online was credited with introducing China’s first online hierarchical appointment and referral system to resolve problems with long queues in general hospitals. By using this hierarchical appointment and referral system, the HaoDF platform classified patients based on the severity of their illnesses. Less sick patients were treated at community medical centres, while those needing more serious care were sent to general hospitals. Importantly, HaoDF Online equipped its patients with the power to vote for their favourite doctors based on the patient’s service experience.[[17]](#endnote-17)

**DXY**

DXY was one of the largest online health care service communities for health care professionals.[[18]](#endnote-18) Founded in 2000 by Li Tiantian, the portal offered an extensive database of popular health and medical articles. DXY, similar to Chunyu, also offered online consultations with doctors and guidance on choosing hospitals. In addition to allowing users to check a drug’s authenticity and other detailed information, DXY enabled users to locate nearby pharmacies, providing accurate contact information and comprehensive data related to drug manufacturers.

CHUNYU’S PATH TO GROWTH

When Chunyu was founded, no one on the management team except Zhang was familiar with the health care industry. Through frequent chats with his father, a long-time doctor, Zhang had learned about the difficulties that Chinese patients encountered, as well as the general challenges facing the Chinese health care system.

Chunyu’s strategy for growth remained consistent over the years, whereas products and pricing schemes were being fine-tuned regularly. According to Li, Chunyu’s chief operating officer, Chunyu progressed through three distinct development phases: application development, resource gathering, and commercialization.

Product Development and the Freemium Model

In the first six months following Chunyu’s inception, four critical advancements were made in funding, product development, and global recognition. A few months dragged on with financing problems, then on November 1, 2011, Chunyu raised $3 million in a Series A round of funding from BlueRun Ventures, a US-based venture capital firm (see Exhibit 2).

During that same month, with great zeal and effort, Chunyu completed development of its first mobile app and launched it for iOS (Apple) devices. Two months later, Chunyu launched an Android version. Within six months of the app’s launch, from November 2011 to April 2012, the app was downloaded approximately one million times. The Chunyu app was recognized in 2012 with a Microsoft BizSpark award, a global support program for start-up companies engaged in software development and technical support.[[19]](#endnote-19)

By August 2013, the number of users registered in Chunyu reached 12 million, with 5,000 registered doctors and 400,000 active users.[[20]](#endnote-20) During that same year, Chunyu was recognized as one of the top 50 most innovative Chinese business.[[21]](#endnote-21)

The app itself was free for patients and doctors to download. After registration, patients could access two free services. One service was for asking health care questions on the platform, and the other provided one free 90-second phone consultation with a doctor daily. As time passed, Zhang felt Chunyu could no longer afford to provide these free services. The challenge was that for the free services, Chunyu was paying doctors about ¥500,000 each month on behalf of its users.[[22]](#endnote-22) For Chunyu, this expense presented a significant barrier to becoming profitable. Zhang learned over time that while these payments that Chunyu made to its service providers provided immediate benefits to the company, in the long run, they proved to be challenging. Thus, he wondered how he should address this issue.

As a leader in the Chinese m-health market, Zhang was well aware of the performance of other market players. HaoDF, an online platform established five years earlier, which allowed users to search for and book appointments with doctors, faced a less severe profit challenge because it began charging its users for telephonic consultations in 2013.[[23]](#endnote-23)

Another challenge that attracted Zhang’s attention was the small fraction of active users on the platform: by August 2013, the platform had only 400,000 active users compared with 12 million registered users.[[24]](#endnote-24) Zhang recognized that it was still relatively common for users to download the Chunyu app, use it once, then remove it from their smartphone. Thus, Zhang and his team were keenly interested in learning more about loyalty-building hurdles.

Creativity and Innovation: Keys to Unlocking Value and Profitability

As time passed, Zhang began to get frustrated. He recognized that the company’s existing services were not generating sufficient revenue to keep up with the growing expenses, so he decided to be more creative in his thinking about developing paid services, commercially viable products, and a profitable business model. However, the process of introducing paid services and creating commercially viable products was not an easy task for Zhang. He expressed his concerns in an interview with *NetEase*: “I fear that users would be annoyed if you actually charged them, and then they would abandon you.”[[25]](#endnote-25) Thus, Zhang postponed commercialization until the end of 2013 and strived to continue with the existing business model and services.

After two-and-a-half years of exploration while suffering losses, Chunyu finally took a step toward commercialization: in December 2013, it introduced monthly and annual subscriptions for users. In the updated version, users could subscribe to the membership services, which cost ¥8 per month or ¥88 per year. Unlike the free services, membership enabled users to consult with doctors with no limitations on consultation frequency, and the response time was guaranteed to be no more than 30 minutes.[[26]](#endnote-26) Chunyu did not publicize these features and incorporated them only in the latest version of the application.

Besides generating additional revenues for Chunyu, the membership system was expected to provide three additional benefits. First, participating doctors could draw stable part-time income from Chunyu’s platform. Second, users could acquire more reliable health care services. Finally, the system would unlock commercial value for Chunyu.

Later, in May 2014, Chunyu updated its applicationwith five value-added services: Quick Call (users paid ¥15 to initiate a call request, but could not request a specific doctor); Online Consultation (users could schedule an online consultation with a particular doctor); Telephonic Consultation (users could schedule a telephone consultation up to 15 minutes long with a specific doctor); Personal/Private Doctor Service (users were allowed unlimited online and telephone consultations with a particular doctor); and Personal Consultation Scheduling (users could schedule face-to-face services in hospitals).[[27]](#endnote-27)

Meanwhile, in August 2014, Chunyu announced the completion of a Series C funding round, raising $50 million.[[28]](#endnote-28) Two months later, Chunyu launched yet another updated version of its app, and this one integrated with a patient remote monitoring device. It allowed physicians to access patients’ electronic health records, such as medical history, treatment plans, and laboratory test results.[[29]](#endnote-29) That same year, Chunyu earned three top awards—one identified Chunyu as a best start-up company, another acknowledged Chunyu as having the best mobile medical app, and the third recognized Chunyu’s contributions as an innovative health industry Internet company in China.

Chunyu had an impressive strategy of providing free medical information, additional medical services with a subscription, and finally value-added services at a premium. However, in addition to building a reasonable base of loyal users and doctors who could produce long-term value in the application, more business models needed to be investigated to address the profitability challenge and make the application more commercial.

The Decision to Appoint a Chief Marketing Officer

The main challenge for Chunyu came from its business model. Zhang reflected, “We tried membership services and value-added services, but all seemed to be less successful in capturing long-term value. They were unable to build a strong connection between the platform and its users.” The CEO wondered whether he had overlooked something that meant Chunyu was unable to achieve profitable growth.

As Chunyu continued to grow, Zhang recruited more experts. In October 2014, aiming to capture the desired commercial value for the application and to build a long-term connection between the platform and its users, Zhang appointed Chengping Liu as chief marketing officer (CMO), responsible for commercialization.

Liu’s approach was to use commercialization to build a long-term and robust connection between the platform and its users. After a detailed analysis of in-app data, Liu noted:

There was a weak connection between the platform and its users; therefore, it would be impossible to capture commercial value. It was hard to commercialize Chunyu’s online inquiry services wherein the patients interact with different doctors every time, leading to patient dissatisfaction. Premium services were also unsuccessful in capturing the desired commercial value due to patient–doctor mistrust. The commercial value could only be created if patients trusted doctors and were willing to pay the long-term subscription fees.

Under these circumstances, Liu contributed by introducing a ranking system for doctors and users. The Chunyu system identified the top-rated doctors based on users’ reviews and the top-ranked users who frequently used the application and were willing to pay for the services. The CMO used this system to work on the “brand effect” of individual doctors. In addition, Liu developed a fee-determination mechanism, enabling doctors to set charges for their services.

THE ROAD AHEAD

The fee-determination system became more widely accepted, and the brand effect of affiliated doctors showed steady growth. By March 2015, Chunyu had amassed 45,000 registered doctors addressing on average 60,000 queries a day.[[30]](#endnote-30) Chunyu also was among the top players in the industry, well on its way to realizing its vision of resolving health problems with innovative models. However, Zhang knew that the road ahead would present him with more choices and challenges.

As a first mover in the Chinese m-health market, Chunyu developed a well-established market share and competitive advantages, but Zhang wondered what the next step should be. How should Chunyu address the concerns that the CMO had raised? How could Chunyu sustain its revenue and reduce profitability pressures in a competitive market?

In memory of Mr. Rui Zhang

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EXHIBIT 1: CHUNYU consultation charges

|  |  |  |  |
| --- | --- | --- | --- |
| **Services** | **Ability to Choose a Specific Doctor** | **Consultation Charges (CN¥)** | **Mode of Consultation** |
| Quick Call | No | ¥15 per call | Voice call with no limit on call duration |
| Online Consultation | Yes | ¥6–50 per consultation | Text messaging and graphics |
| Telephonic Consultation | Yes | ¥60–400 per consultation | Voice call up to 15 minutes |
| Personal Doctor Service | Yes | ¥30–300 per week | Unlimited online consultations and unlimited telephonic consultations |
| Personal Consultation Scheduling | Yes | ¥0–300 per appointment | Fee depended on the examination; no specific time constraint |

Note: ¥ = CN¥ = Chinese yuan renminbi; US$1 = ¥6.206 as of December 31, 2014.

Source: “Spring Rain Allows Doctors to Set Own Prices,” Marbridge Consulting, April 29, 2014, accessed March 27, 2017, www.marbridgeconsulting.com/marbridgedaily/201430/article/74632/spring\_rain\_allows\_doctors\_to\_set\_own\_prices.

exhibit 2: CHunyu financial Support

|  |  |  |
| --- | --- | --- |
| **Year** | **Financial Support** | |
| **Amount\*** | **Source** |
| 2011 | $3 million | US-based venture capital firm BlueRun Ventures |
| 2013 | $8 million | Bertelsmann Asia Investments |
| 2014 | $50 million | China International Capital Corporation Limited, Pavilion Capital Group, and BlueRun Ventures |
| Total | $61 million |  |

Note: \* In USD; US$1 = CN¥6.206 as of December 31, 2014.

Source: “Spring Rain Gets Fund Inflow to Expand Database of Users, Doctors,” *China Daily*, August 21, 2014, accessed March 28, 2017, http://usa.chinadaily.com.cn/epaper/2014-08/21/content\_18463235.htm.

ENDNOTES

1. “Data Analysis: Kuai Su Wen Yi Sheng, Good Doctor, Spring Rain Doctor Online Inquiry: Which Is Strongest?” [in Mandarin], VC Beat, January 21, 2015, accessed April 11, 2017, http://vcbeat.net/9142.html. [↑](#endnote-ref-1)
2. CN¥ = Chinese yuan renminbi; all yuan are CN¥ unless otherwise indicated; US$1 = ¥6.206 as of December 31, 2014; “Full Internet Medical Data Report: What Is the Enthusiasm of the Doctor Who Does Not Stand in the Team?” [in Mandarin], Real Blog, December 2, 2014, accessed May 19, 2017, http://realblog.zkiz.com/greatsoup38/123541. [↑](#endnote-ref-2)
3. *mHealth: New Horizons for Health through Mobile Technologies: Second Global Survey on eHealth*, vol. 3 of *Global Observatory for eHealth* (Geneva, Switzerland: World Health Organization, 2011), accessed March 28, 2017, www.who.int/goe/publications/goe\_mhealth\_web.pdf. [↑](#endnote-ref-3)
4. “The Rise of the Global Mobile Health Applications Market,” Technavio Blog, December 2, 2011, accessed July 15, 2017, www.technavio.com/blog/rise-global-mobile-health-applications-market. [↑](#endnote-ref-4)
5. Guillermo Molina-Recio, Laura García-Hernández, Antonio Castilla-Melero, Juan M. Palomo-Romero, Rafael Molina-Luque, Antonio A. Sánchez-Muñoz, Antonio Arauzo-Azofra, and Lorenzo Salas-Morera, “Impact of Health Apps in Health and Computer Science Publications: A Systematic Review from 2010 to 2014,” in *Bioinformatics and Biomedical Engineering, IWBBIO 2015*, vol. 9044, ed. F. Ortuño and I. Rojas (Granada, Spain: Springer, 2015), accessed June 20, 2018, https://link.springer.com/chapter/10.1007/978-3-319-16480-9\_3. [↑](#endnote-ref-5)
6. Franck Le Deu, Rajesh Parekh, Fangning Zhang, and Gaobo Zhou, “Health Care in China: Entering ‘Uncharted Waters,’” McKinsey & Company, November 2012, accessed February 06, 2017, www.mckinsey.com/industries/healthcare-systems-and-services/our-insights/health-care-in-china-entering-uncharted-waters. [↑](#endnote-ref-6)
7. “vRad and E-Techco Partnership Creates First Direct-to-Patient Remote Radiology Services in China,” Market Wired, April 18, 2014, accessed April 4, 2018, www.marketwired.com/press-release/vrad-e-techco-partnership-creates-first-direct-patient-remote-radiology-services-china-1901038.htm. [↑](#endnote-ref-7)
8. Tracey Xiang, “Tencent Leads US$100M Investment in Chinese Medical Service Guahao,” Tech Node.com, October 13, 2014, accessed March 27, 2018, https://technode.com/2014/10/13/tencent-leads-us100m-investment-chinese-medical-service-guahao; Tracey Xiang, “Alibaba Launches Healthcare App for Prescription Purchases,” Tech Node.com, December 4, 2014, accessed March 27, 2018, https://technode.com/2014/12/04/alibaba-launches-healthcare-app-for-prescription-purchases. [↑](#endnote-ref-8)
9. “Research and Investment Prospect of China Mobile Health Market, 2014 – 2018,” ResearchMOZ, March 2014, accessed December 7, 2018, www.researchmoz.us/research-and-investment-prospect-of-china-mobile-health-market-2014-2018-report.html. [↑](#endnote-ref-9)
10. Jared Reitzin, “mHealth Market Catching Fire in China,” mHealth Watch, January 08, 2014, accessed March 27, 2018, http://mhealthwatch.com/mhealth-market-catching-fire-in-china-22356. [↑](#endnote-ref-10)
11. Benjamin Shobert, “China’s Telemedicine Industry Gets Ready to Roar,” *Forbes*, March 3, 2015, accessed April 09, 2018, www.forbes.com/sites/benjaminshobert/2015/03/03/chinas-telemedicine-industry-gets-ready-to-roar. [↑](#endnote-ref-11)
12. Meng Jing, “Cloud Initiative Helps Promote Health Service,” *China Daily*, July 31, 2014, accessed April 19, 2018, www.chinadaily.com.cn/cndy/2014-07/31/content\_18220278.htm. [↑](#endnote-ref-12)
13. “China Healthcare: Telemedicine Guidelines Issued for the First Time,” Norton Rose Fulbright, October 2014, accessed April 21, 2018, www.nortonrosefulbright.com/knowledge/publications/122272/china-healthcare-telemedicine-guidelines-issued-for-the-first-time. [↑](#endnote-ref-13)
14. “The Mobile App ‘Kuai Su Wen Yi Sheng’ Can Ask Doctors Questions Free of Charge and Respond to Patient Questions in a Few Minutes” [in Mandarin], 36 Kr, July 23, 2012, accessed August 3, 2017, http://36kr.com/p/137255.html. [↑](#endnote-ref-14)
15. “Kuai Su Wen Yi Sheng to Rise Rapidly” [in Mandarin], 163 News, October 16, 2014, accessed November 12, 2017, http://news.163.com/14/1016/08/A8LRI6D900014AED.html. [↑](#endnote-ref-15)
16. Huang Qi, “PingAn Mobile Medical: Self-Owned Doctor Resources to Be a User Portal” [in Mandarin], IFeng News, April 22, 2015, accessed March 27, 2017, http://tech.ifeng.com/a/20150422/41063807\_0.shtml#\_zbs\_baidu\_bk. [↑](#endnote-ref-16)
17. “About Us” [in Mandarin], HaoDF (website), accessed March 29, 2017, www.haodf.com/info/aboutus.php. [↑](#endnote-ref-17)
18. Emma Lee, “Tencent Injects US$70M in Health Service Community DXY to Tap China’s Red-Hot Healthcare Industry,” Tech Node, September 2, 2014, accessed May 23, 2018, https://technode.com/2014/09/02/tencent-injects-us70m-health-service-community-dxy-tap-chinas-red-hot-healthcare-industry. [↑](#endnote-ref-18)
19. “Dr. Chun Yu and Zhang Rui: Great Products Are Rooted in Human Suffering” [in Mandarin], Cy Zone, May 22, 2012, accessed March 3, 2018, www.cyzone.cn/a/20120522/227313.html. [↑](#endnote-ref-19)
20. “Healthcare App Developer Spring Rain Wins Series B Funding,” Marbridge Consulting, August 8, 2013, accessed March 9, 2018, www.marbridgeconsulting.com/marbridgedaily/2013-08-09/article/68210/health. [↑](#endnote-ref-20)
21. “Spring Rain Mobile Health Introduction and Case Sharing -141010” [in Mandarin], study.baidu.com, December 11, 2014, accessed December 8, 2018, https://study.baidu.com/view/e075a91ff242336c1eb95ecf?from=wenku. [↑](#endnote-ref-21)
22. “Pathfinder Mobile Medical Charging Mode, Spring Rain Doctor Charges” [in Mandarin], Everyone is a Product Manager, January 3, 2014, accessed December 7, 2017, www.woshipm.com/it/61527.html. [↑](#endnote-ref-22)
23. “Good Doctor Online Founder Wang Hang: Internet Medical Talk about Making Money Too Early” [in Mandarin], 163 Tech, September 19, 2012, accessed May 11, 2018, http://tech.163.com/12/0919/09/8BOLTVLR00094MOK.html. [↑](#endnote-ref-23)
24. “Healthcare App Developer Spring Rain Wins Series B Funding,” op. cit. [↑](#endnote-ref-24)
25. “Spring Rain Doctor Troubles: Why Charges Are Difficult to Open Teeth,” 163 Money, January 3, 2014, accessed June 1, 2018, http://money.163.com/14/0103/10/9HLHPTNO00253I4M.html. [↑](#endnote-ref-25)
26. “Dr. Chunyu: The Domestic mHealth Concept Pioneer” [in Mandarin], Sina, May 7, 2012, accessed May 16, 2018, http://finance.sina.com.cn/chuangye/internet/20120507/175412008547.shtml. [↑](#endnote-ref-26)
27. “Spring Rain Allows Doctors to Set Own Prices,” Marbridge Consulting, April 29, 2014, accessed July 18, 2017, www.marbridgeconsulting.com/marbridgedaily/archive/article/74632/spring\_rain\_allows\_doctors\_to\_set\_own\_prices. [↑](#endnote-ref-27)
28. Michael Essany, “Success of Chinese Health App Gets Global Attention,” **mHealth Watch,** November 10, 2014, accessed June 29, 2017, http://mhealthwatch.com/success-of-chinese-health-app-gets-global-attention-24423. [↑](#endnote-ref-28)
29. Yiyi, “Integrating Home Medical Monitoring Equipment, Spring Rain Upgraded Medical Services with Medical Data Analysis,” MD Tech-Ex, October 22, 2014, access August 12, 2018, http://md.tech-ex.com/medical/2014/35902.html. [↑](#endnote-ref-29)
30. Zhang Qian, “Other Online Medical Services,” *Shanghai Daily*, March 28, 2015, accessed May 17, 2018, www.shine.cn/archive/feature/news-feature/Other-online-medical-services/shdaily.shtml. [↑](#endnote-ref-30)