Bin Yuan Capital All China Strategy - February 2025

Bin Yuan Opinion

AI's ROLE IN HEALTHCARE

In our 2024 year-end letter, we discussed a variety of AI applications opportunities during the AI boom. In this review, we look at the unique characteristics of AI in Healthcare, China's strategic approach, phased AI Healthcare development, and the key beneficiary companies:

- Leaders in medical imaging: United Imaging, Mindray Bio
- AI medical solution providers: Xunfei Healthcare
- Medical e-commerce platforms with AI capabilities: Alibaba Health, JD Health
- Medical AIoT: Yuyue Medical

AI is becoming deeply integrated into China's healthcare system, with the core AI medical market expected to grow at a 32% CAGR, reaching $101 billion by 2030.

AI medical: medical treatment is the focus

In most consumer-facing AI applications like AIoT (AI of things), AIPC, AI advertising, AI in cars and mobile phones, the emphasis remains largely on 'AI'. These industries have highly competitive bases, with standardized products (PCs, mobile phones, cars) or services (advertising) and diminishing upgrade magnitudes. The demand for these AI applications, especially for consumer-oriented mobile phones and PCs, is standardized. With Deepseek's build-up, these AI sectors can quickly meet non-professional demands as large language models rapidly iterate.

However, AI healthcare stands out as its focus remains on 'healthcare', making it distinct in several aspects:

1. **Stringent Professionalism and Accuracy Demands**

   Medical practice is highly professional. Diagnosis and treatment must be tailored to each individual, resulting in a low degree of standardization. The demand for output accuracy is extremely high. While an acceptable accuracy rate for general AI may be sufficient in other fields, it falls short for AI in healthcare. There is a significant gap between merely assisting doctors in decision-making and fully replacing them.

2. **Emphasis on Quality Data over Quantity**

   In other fields, you often hear that 'whoever controls the data dominates the world'. But AI application in healthcare requires high-quality data predominantly from top-tier medical institutions, rather than just a large volume of data. Large models can serve as a foundation to boost R&D efficiency in certain areas. However, the true complexity of specialized medical problems demands resolution by professional 'small' models, which need to be jointly developed by medical and computer professionals.

3. **Heightened Data Security Requirements**

Medical data security is a sensitive issue. As relevant regulations continuously improve and patient awareness strengthens, the challenge of acquiring medical data will keep growing. Companies that can make patients trust them and be willing to hand over their health information have a very strong competitive advantage.

The above-mentioned characteristics of AI medical means that ordinary Internet giants and general AI platforms need to spend a longer time examining this field. As AI technology continues to iterate and the industry threshold keeps decreasing, it is those professional medical companies that have won customer trust and can leverage their own hardware and data advantages that stand a better chance of benefiting from the popularization of AI. The collaboration between medical companies and Internet giants, along with the model of giving full play to their respective technological strengths, can emerge as a guiding trend for future development.

AI healthcare in China: focus on equality and efficiency

AI in China's medical industry focuses on practical applications, emphasizing equality and efficiency. Unlike the broader global AI medical advancements, China's approach aligns with its current healthcare development stage, prioritizing accessibility and operational improvements.

1. **AI in China's medical sector helps reduce the quality gap between different tiers of healthcare institutions:**

While top-tier hospitals in big cities are overcrowded, primary healthcare facilities often provide lower-quality services. For example, in terms of diagnostic accuracy, data shows that the diagnostic accuracy rate in primary medical institutions is significantly lower than that in large-scale urban hospitals (Table 1). With the application of AI, it is possible to bridge the gap. According to the National Data Administration's typical cases study, the diagnostic accuracy of primary healthcare providers can be increased by 17.8% with the help of AI. This improvement not only enhances the confidence of patients in primary healthcare but also helps to distribute medical resources more evenly, reducing the over-concentration of patients in large-city hospitals. This boosts patient confidence in primary care and promotes a more balanced distribution of medical resources.

Table 1: Quality gap between different medical institutions

	Primary care organizations in China	Tertiary hospitals in China
Diagnostic accuracy of acute appendicitis	82.7%	98.2%
Diagnostic accuracy of diabetes	78.9%	96.5%
Misdiagnosis leading to unnecessary puncture rate	18%	<5%
Indoor quality control compliance rate	77%	100%
Educational level of medical staff	Bachelor's degree or above = 39%	Masters/PhD >70%

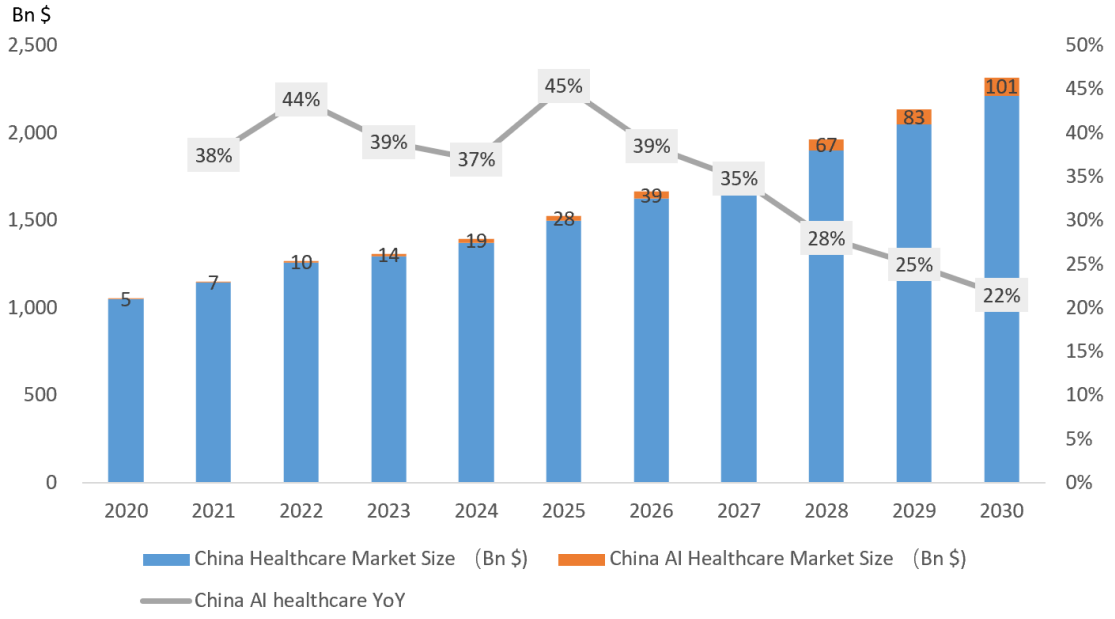
Source: Bin Yuan Capital, Medlive, Lancet, CN-Healthcare

2. **Corporations and the government in China are more willing to invest in AI-driven efficiency improvements than individual consumers:**

   Medical device manufacturers and pharmaceutical companies use AI to enhance diagnostics and accelerate drug development, while the government invests in AI to optimize healthcare resource allocation and streamline operations. However, individuals remain price-sensitive and hesitant to pay for premium AI services.

As a result, AI is becoming deeply integrated into China's healthcare system, with the core AI medical market expected to grow at a 32% CAGR, reaching $101 billion by 2030 and boosting the broader healthcare sector's growth from 8% to 10% during the forecast period (Chart 1).

Chart 1: China Healthcare and AI Healthcare Market Size

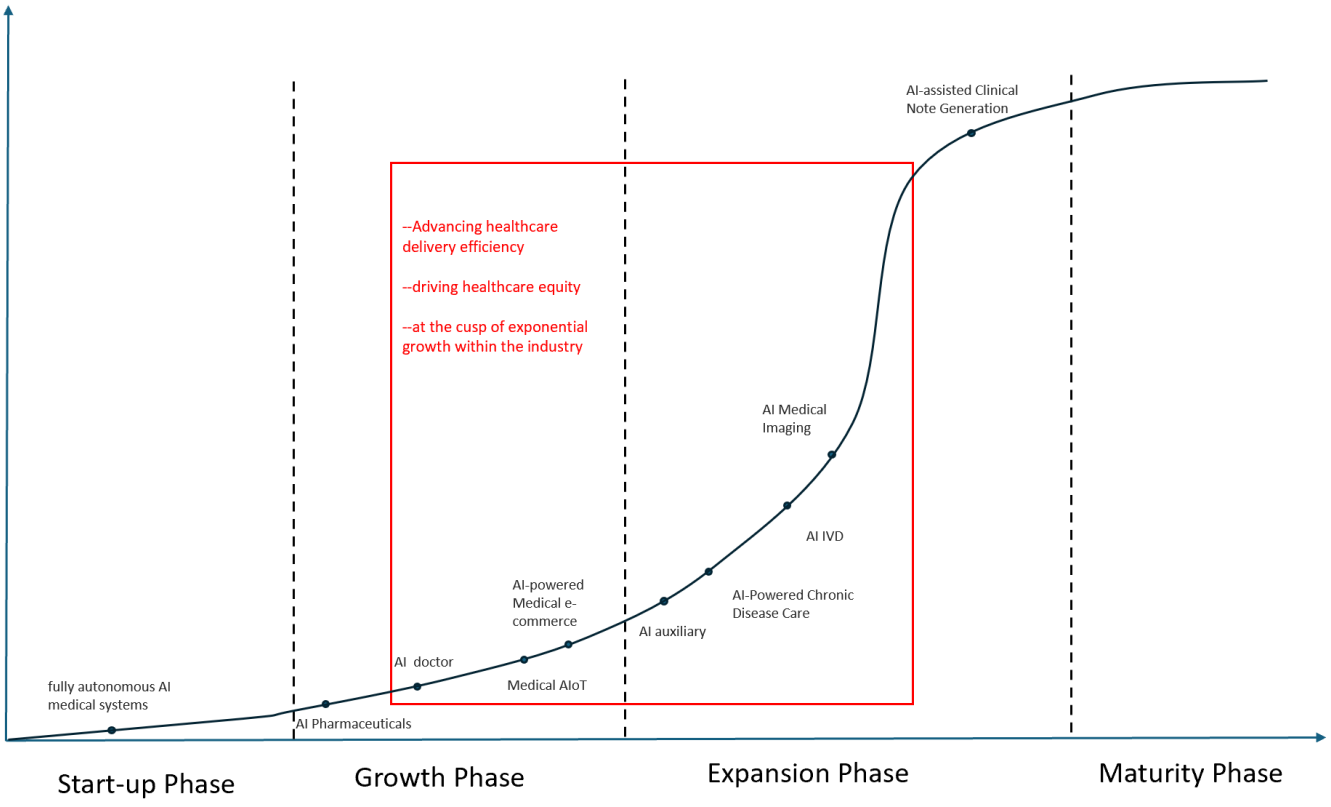


Source: Bin Yuan Capital, China AI Medical Industry Research Report, NAHIEM

Who will benefit first？

Considering the unique characteristics of AI healthcare and China's medical industry, we have ranked medical companies based on the sequential order of their potential to benefit (Chart 2).

Chart 2: AI healthcare applications in different phases



Source: Bin Yuan Capital
*AI auxiliary: augmenting clinical workflow efficiency, functions as a physician extender rather than a substitute; AI doctor: autonomous diagnostic protocols demonstrate competencies comparable to entry-level practitioners in specific clinical scenarios

AI hospital infrastructure and AI primary healthcare organizations infrastructure are the first to generate large-scale revenue from China's medical AI. These foundational platforms possess unique capabilities in attaining two key goals. They can optimize operations, aiming for a 30 - 40% increase in workflow efficiency, and ensure inclusive care, with a projection to extend service coverage to 78% of the rural population by 2025.

Within the realm of AI infrastructure, **AI healthcare imaging** is set to experience the most rapid growth. Many hospitals and primary healthcare organizations have already installed imaging equipment with partial AI-related features. AI imaging significantly boosts efficiency. For example, the "5G-integrated medical association image collaboration and innovation platform" in which United Imaging (688271.SH) participates can enhance diagnostic sensitivity by 15% and reading efficiency by 30%. At the primary healthcare level, since accurate image reading demands substantial knowledge

and experience from doctors, AI imaging can effectively offset the disadvantages faced by primary healthcare doctors. In fact, its potential for application is even greater than in high-level hospitals.

AI auxiliary is another essential component of AI healthcare infrastructure. While AI-assisted solutions in Tertiary hospitals optimize triage procedures and clinical productivity, their transformative power is most pronounced in primary care. Here, intelligent diagnostic aids play a vital role in reducing the gap in medical skills, thus becoming a key driver for promoting health equity.

Medical e-commerce is also playing a role in promoting healthcare equality by providing AI-enabled medical services. Some medical e-commerce platforms are already offering AI services such as auxiliary diagnostic guidance, health management, and simple prescription-related functions. As the underlying AI technology used in hospitals continues to be refined, the scope and quality of these services are expected to expand and improve. Internet-giant -backed large medical e-commerce companies can collaborate with more medical enterprises to develop **medical AIoT**.

In contrast, the development of the highly complex **AI pharmaceutical** industry occurs a bit later in China. Basic AI applications such as molecular screening, crystal type prediction, and synthesis possibility analysis, which can significantly enhance efficiency, are rapidly adopted in the CRO (Contract Research Organization) field. However, in-depth prediction models that can comprehensively improve the clinical success rate of drugs still need time for validation and refinement.

Which companies to focus on?

Considering the development of China's medical industry and the sequential development of AI application within it, we believe the companies that can benefit at this stage are required to have one or more of the following characteristics in China:

- *Own a professional and accurate medical database;*
- *Possess the first-mover advantage of winning customers' trust;*
- *Make great contributions to improving efficiency and promoting equality.*

We have selected these companies that meet these criteria (Table 2).

Table2: Companies' Dominance in Various Characteristics

	United Imaging	Mindray Bio	Xunfei Healthcare	Alibaba Health	JD Health	Yuyue Medical
High Quality Database	+++	+++	+++	+	+	++
First-mover	+++	+++	+++	+++	+++	+++
Medical Efficiency	+++	+++	+++	++	++	+++
Medical Equality	+++	+++	+++	+++	+++	+++
Medical Expertise	+++	+++	++	+	++	+++
AI Development Capabilities	++	++	+++	+++	+++	+

Source: Bin Yuan Capital

1. **AI healthcare imaging**: United Imaging (688271.SH), Mindray Bio (300760.SZ)

   As a leading company in China's medical imaging industry, United Imaging has a leading edge in CT (Computed Tomography), MRI (Magnetic Resonance Imaging), and MI (Molecular Imaging). Its affiliated company, United Image Intelligence, has been deeply engaged in AI for many years. The AI technology developed by United Imaging not only boosts the detection capacity of its devices but also effectively reduces the operational complexity, making them more accessible for users.
   Mindray Bio, a frontrunner in the field of ultrasound and life monitoring, has seamlessly integrated AI into its relevant products. Its Qiyuan Critical Care AI Model integrates medical device data, enabling 5-second patient history consolidation, predictive trend analysis, 1-minute clinical documentation generation, and 95% accurate critical care queries, enhancing diagnostic precision and treatment quality.

   The new-generation products equipped with AI offer enhanced user-friendliness, which is anticipated to substantially increase hospitals' inclination to update their equipment. Both companies' long-standing technological accumulations serve as a solid foundation, empowering them to not only maintain their leading market positions but also further fortify their competitive edges during the process of product iterations.

2. **AI auxiliary**: Xunfei Healthcare (2506.HK)

   Xunfei Healthcare, a dedicated medical solution provider, centers its efforts on AI-powered healthcare solutions. Its product portfolio comprehensively covers primary care, hospital services, and patient management. Its core offering, the 'Smart Medical Assistant', has successfully passed the national licensed medical practitioner examination and is currently serving over 60,000 primary healthcare organizations.

   Benefiting from the first-mover advantage amassed through long-term and professional data processing in the medical domain, Xunfei Healthcare demonstrates a pronounced edge in AI applications.

3. **AI + medical e-commerce**: Alibaba Health (0241.HK), JD Health (6618.HK)

   In the context of China's medical e-commerce landscape, Alibaba Health and JD Health stand as two prominent gateways. Boasting vast customer bases, they possess the capacity to effectively utilize AI-enabled doctors to carve out a significant share in the burgeoning AI-powered primary healthcare industry. Taking JD Health's AI Physician Agent as an illustrative example, this advanced tool enables doctors to generate personalized digital replicas by analyzing their professional knowledge, decision-making paradigms, and communication styles. As a result, it can offer round-the-clock patient consultation services. When further diagnostic procedures are necessary, it automatically arranges appointments with the original doctor and compiles previous consultations into clinically-relevant briefs generated by AI for easy reference.

   Currently, the AI applications in medical e-commerce primarily serve to provide medical assistance and drive traffic for the sales of medicines and medical devices. However, as the medical AI capabilities of these two companies continue to advance in the future, the in-built AI systems within medical e-commerce platforms are likely to emerge

as a pivotal option for patients seeking their initial medical consultations. This transformation will enable them to evolve from merely selling products to becoming service providers.

4. **Medical AIoT**: Yuyue Medical (002223.SZ)

   As a leading home medical equipment manufacturer, Yuyue Medical has developed an extensive array of products related to AI-enabled chronic disease management. This product portfolio encompasses ventilators, sphygmomanometers, blood glucose monitors, and rehabilitation equipment. The software integrated with these products is designed to be AI-accessible in the future, laying a solid foundation for intelligent upgrades. Through a strategic alliance with Alibaba, Yuyue Medical is well-positioned to become the leading terminal enterprise in the medical AIoT (Internet of Things) domain.

In summary, AI in healthcare has unique characteristics, including a high demand for professionalism, a focus on high-quality data over quantity, and strict data privacy requirements. In China, AI applications prioritize efficiency and equality, addressing disparities in medical services. Companies with strong medical databases, customer trust, and a commitment to improving efficiency and equality are well-positioned for success in the evolving AI healthcare landscape.

Sincerely,

Ping and the Team

March 7, 2025

Bin Yuan on the Road

February 12, 2025

We met Meitu's Chairman and CEO to better understand the impact of Deepseek's AI technology on the company.

Meitu is developing products that can streamline the production of image, video, design, and solutions to advance industry digitalization. Continuous innovation of AI technology helps Meitu Company upgrade its imaging algorithms and expand its product matrix, thus meeting diversified user needs in image processing, creative design, etc., and attracting more users to pay for subscriptions. Meanwhile, the company emphasized that it will focus on expanding overseas markets starting this year, which will provide further growth drivers.

" Meitu is an AI-driven technology company, Deepseek not only provides us with highly cost-effective AI models, but also enhances our confidence in the AI industry " – CEO, Mr. Wu

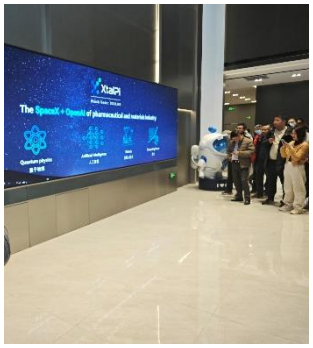
February 11, 2025

We visited Kingdee in Shenzhen to learn about potential impacts from speeding AI application.

Kingdee is a leading global enterprise management cloud SaaS company in China, providing cloud services and ERP solutions with a product matrix covering various scenarios. The integration of AI into its SaaS applications enables clients to optimize business processes and enhance decision-making in various management fields like finance and supply chain. Moreover, by integrating DeepSeek into its Sky Agent platform, Kingdee can assist clients with customized needs in quickly building their own intelligent agents. Safer and stabler features of DeepSeek with lower costs make this service more appealing, and will potentially expand Kingdee's customer base and market share.

" Deepseek will further enhance the competitiveness of Chinese AI application software. " – IR, Mr. Wu

February 10, 2025



We met with two AI Healthcare companies, XtalPi Holdings and Runda Medical, to understand the current condition and potential models for AI healthcare in the coming future.

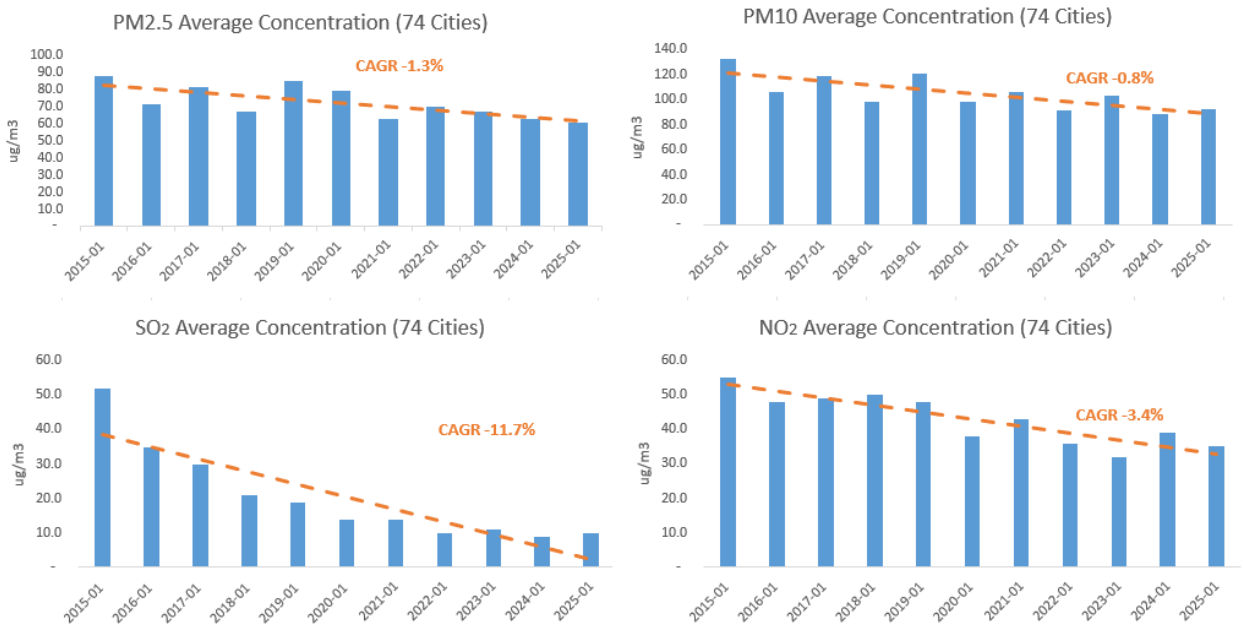
One of the companies we visited is XtalPi Holdings, which focuses on AI pharmaceuticals. The company uses advanced AI technology and exclusive data to screen drug molecules and accelerate the drug development process. The other company is Runda Medical which focuses on AI healthcare services. The company helps hospitals to use AI in assisting diagnosis and treatment and improving efficiency. Both companies demonstrate the potential of AI to transform healthcare. Looking at the direct scale alone, AI healthcare still represents a limited share of the total healthcare market. But virtually all future healthcare will be transformed by AI, and AI may become one of the essential attributes that healthcare companies must have.

" From designing molecules and predicting synthesizability to predicting synthetic conditions, we are 90% accurate. With AI, pharmaceutical R&D is transforming from the previous trial-and-error mode to a prediction mode." – XtalPi Chairman, Mr. Wen

Bin Yuan Environment Tracking

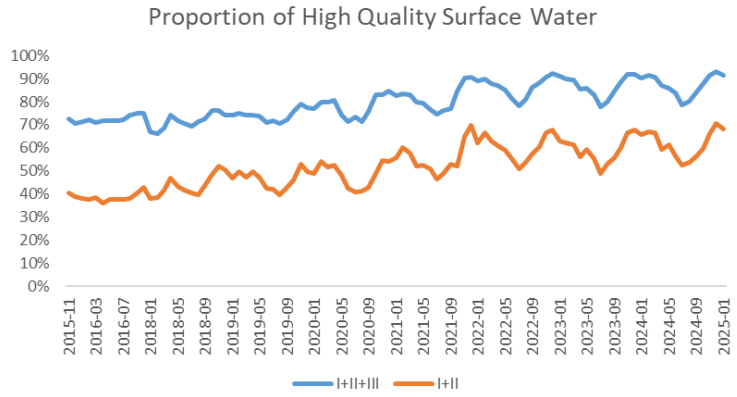
This tracking includes monthly air and water quality data, both showed steady improving trend in the last 5 years. Air pollution concentration dropped due to reduced coal combustion, increased proportion of new energy vehicles, and tightened emission control measures. Water quality improved mainly from the strengthen control of wastewater emissions since 2017.

China air pollutant concentration data June 2016-2024



**PM2.5, PM10 and SO_2 are mainly from fossil fuel combustion, and NO_2 is mainly from vehicle emissions.*

The proportion of high-quality water in China data June 2016-2024



**Water quality in China breaks down to 5 levels, with level I being the best and level V being the worst. Level I+II represents water that can be used for drinking purpose. Level I+II+III represents water that can directly contact human body.*

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