Application and Practices in Enhancing the Accessibility and Quality of Health Services

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Implemented the Healthy China strategy, **in 2016 the "Healthy China 2030" blueprint was issued**, and established the world's largest **healthcare system**, largest **traditional medicine system**, and largest disease **prevention and control system** covering both urban and rural areas**. Building a Healthy China** became one of the overarching goals for achieving basic socialist **modernization by 2035**.

Strategic Objective: **Promote Health Equity**

“ensuring all people can equitably and conveniently access systematic health services”。

The core objective is to enhance the overall health of the population, committed to providing equitable, accessible, and systematic continuous health services to the people.

National Strategy: A Grand Blueprint for the "Artificial Intelligence+" Action

In 2025, China successively issued 《The **Recommendations** of the Central Committee of the Communist Party of China on Formulating **the 15th Five-Year Plan** for National Economic and Social Development》《**The Opinions** of the Social Development on Further Implementating **the 'Artificial Intelligence+' Action**》《**The Implementation Opinions** on Promoting and Regulating the Application and Development of **"AI+ Medical and Health Care**》,These development have **elevated the AI development to the national strategic level**, pointing out the direction for industry development. This signifies that **the integration of AI and healthcare** has officially transitioned from the stage of **pure technological exploration to a new stage of state-guided large-scale and industrialization** advancement, officially opening a new chapter in smart healthcare.

Core objective: **inclusive health services**

Explicitly proposes promoting "high-caliber resident health assistants available to all" and advocates for the application of AI in areas such as auxiliary diagnosis, treatment, and health management, thereby **substantially boosting the capacity and efficiency of primary healthcare services**.

2030: Comprehensive coverage and system improvement

Full coverage of intelligent auxiliary applications in primary diagnosis, popular AI imaging and decision support in secondary and above hospitals. The standard and normative system is basically complete.

Eight key application directions

- **grassroots application**
- **clinical diagnosis and treatment**
- **Patient Services**
- **Traditional Chinese Medicine**
- **public health**
- **research and teaching**
- **industry governance**
- **health industry**

China-WHO 2024-2025 Biennial Cooperation Project

"People-Centered Digital Health Applications and Information Interoperability and Sharing"

This project introduces the current status of medical artificial intelligence development in China and conducts and an in-depth analysis of its underlying contradictions and challenges.

AI facilitates the establishment of a medical collaboration network.Promote the balance of medical resources and enhance the accessibility of services.

- **Promote the deployment of high-quality medical resources to the grassroots level**, and narrow the gap between grassroots medical institutions and large hospitals.
- Breaking geographical constraints, **enabling remote areas and grassroots people to enjoy high-quality medical services**, and eliminating the inequality caused by geographical barriers.
- Leveraging intelligent assistance systems to **enhance the diagnostic and treatment capabilities of primary care physicians.**

Inter-hospital remote consultation

Remote radiological diagnosis

AI-assisted primary care diagnosis and treatment

AI aids in the full-chain optimization of the entire process of medical services

Optimize the allocation of medical resources and improve service quality and efficiency

- **To enhance the efficiency of diagnosing and treating difficult and complex diseases** in hospitals, AI-assisted diagnostic systems can quickly **analyze medical images, medical records, and other data**, reducing misdiagnosis and missed diagnoses, and improving service capabilities.
- **Intelligent scheduling and sharing of medical resources** are achieved through AI technology, **enhancing the operational efficiency** of the entire medical system.
- **strengthened continuous medical services**, **provided prescription review and follow-up management support**, and AI-assisted **smart healthcare**. Relying on digital and intelligent services throughout the entire life cycle, **Realizes full-cycle service from in-hospital treatment to out-of-hospital rehabilitation**.

AI-assisted Diagnosis System

Fully leveraging computer vision and medical image segmentation, as well as multimodal large models(imaging+text+genomics) and other technologies.

Imaging and Pathology AI-assisted Reading：

- **Chest Imaging:** Lung nodule/lung cancer screening, pulmonary tuberculosis film reading
- **Ultrasound/Fundus:** Two-cancer screening, diabetic retinopathy
- **Neurology/Orthopedics:** Rapid diagnosis of stroke, fracture identification
- **Whole Slide Imaging (WSI):** Improved efficiency of digital pathological slice analysis
- **Tumor Diagnosis:** Diagnosis of breast cancer/lung cancer/cervical cancer

Clinical Decision AI-assisted Comprehensive Diagnosis

- **ECG AI:** Arrhythmia/myocardial ischemia screening
- **Endoscopy AI:** Real-time identification of gastrointestinal polyps/early-stage cancer and intelligent lesion marking
- **Multimodal Fusion:** Comprehensive diagnostic recommendations based on laboratory data, medical images, and medical history
- **Traditional Medicine:** AI-assisted syndrome differentiation and treatment for TCM clinical intelligent diagnosis and treatment

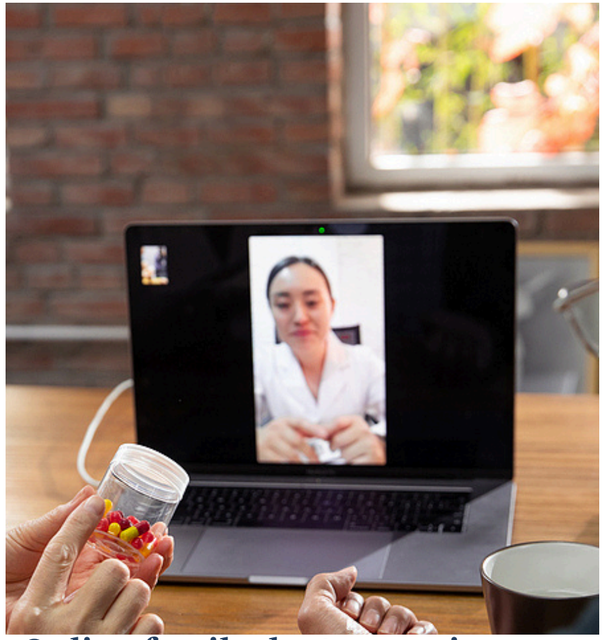
Intelligent imaging interpretation

Intelligent Assisted Surgery

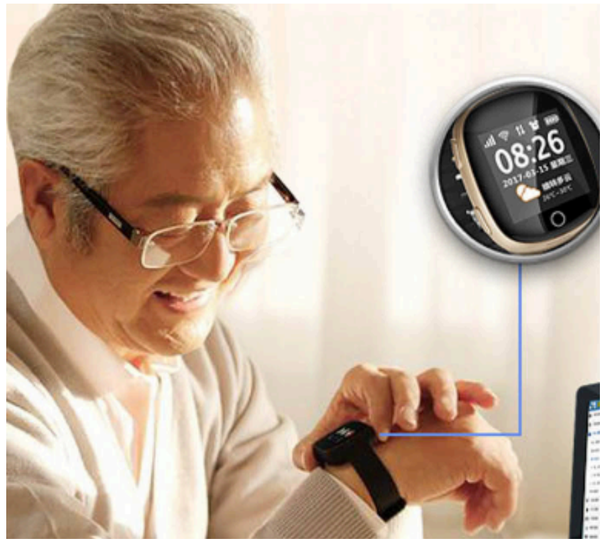
AI-powered public service health management

Promote personalization and inclusiveness, and enhance residents' ability for independent health management.

- **Provide real-time health monitoring and diagnostic assistance**, **aid doctors in disease screening and diagnosis**, and enhance the ability to detect diseases early.
- **Provide residents with proactive health management**, **personalized health advice**, **abnormal indicator alerts**, **medication management**, Realizes full-cycle health management services.
- Promote the integration of in-hospital diagnosis and treatment with out-of-hospital health management, **popularize the "digital family doctor" model**, integrate functions such as **online registration and intelligent follow-up**, and enhance the service capabilities of family doctors



Online family doctor services



Intelligent health monitoring

Challenges faced by the healthy development of AI in healthcare

Data sample representativeness and fairness issues

Biases in training data of artificial intelligence across various application scenarios may lead to a lack of representativeness in AI systems, thereby **affecting the objectivity of diagnosis**.

Data security and privacy protection risks

Medical data is highly sensitive, posing significant **risks of leakage and abuse**. Therefore, it is necessary to establish a strict security protection system

Ethical and responsibility identification challenges

The "black box" nature of intelligent algorithms , **leads to a blurred boundary of responsibility**, sparking ethical debates and a crisis of public trust.

Promote the development and governance of medical artificial intelligence

Strengthen data governance	Improve the level of multimodal data fusion	Promote the construction of ethical and governance	Strengthen data security
Establish strict standards for data collection, collation, and annotation, carry out data governance, and ensure the accuracy, completeness, and consistency of medical data.	By integrating various types of medical data, such as electronic medical records, medical images data etc, artificial intelligence models can become more precise.	Strengthen ethical evaluation and supervision of the application of artificial intelligence in the medical field to ensure its compliance with ethical principles.	Utilize encryption technology, access control, blockchain, and other means to ensure the security and privacy of medical data during storage, transmission, and use

Thank you for listening