第八届全球中国对话:全球健康治理 GCD Ⅷ: Governance for Global Health

# 整合与创新:老龄化时代中国式 全动健康策略的逻辑与实践

Integration and Innovation: The logic and Practice of China's

Active Health Strategy in the Era of Population Aging

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挑战:全球老龄化

Challenge: Global aging

目录 Content.

策略: 主动健康

**Strategy: Active health** 



Solution: Chinese integrated innovation



A 总结: 未来展望
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挑战: 全球老龄化 Challenge: Global aging

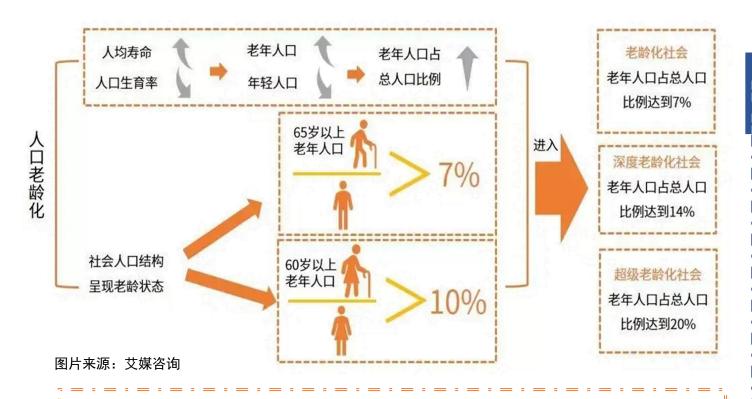
人类正在迈入"百岁时代"

老龄化社会面临的一大挑战——慢性病高发

Humans are entering the centenarian era.

A major challenge facing the aging society - the high incidence of chronic diseases.

# Global population aging



# **Aging population**

The dynamic growth of the proportion of the elderly population in the total population due to the decrease of the number of young people and the increase of the number of old people.

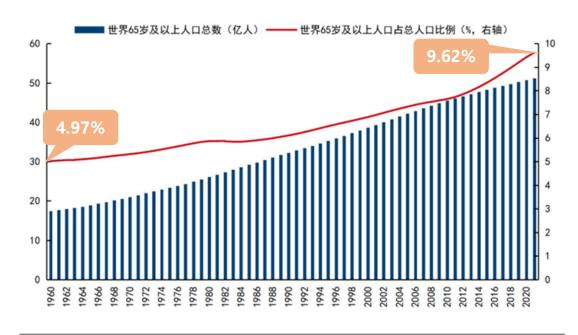
### **Criteria for an aging society**

The population over 60 years of age accounts for 10% of the total population; the population over 65 years of age accounts for 7% of the total population

A deeply aging society: the proportion of the elderly aged 65 and above in the total population reaches 14%

A super-aging society: reaches 20%

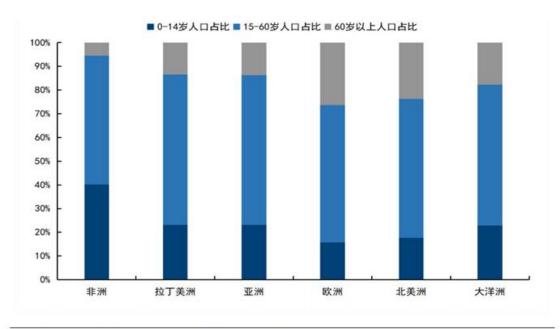
# Global population aging



资料来源:世界银行,国信证券经济研究所整理

Figure 1: World population aged 65 and over as a percentage of total population (%)

The world has entered the aging stage. The share of the global population aged 65 years or older increased from **7.86% in 1960 to 9.62% in 2021**, an average annual increase of 0.196 percentage points.



资料来源: 联合国统计司, 国信证券经济研究所整理

Figure 2: Proportion of population by continent in 2022 (%)

Looking at the age distribution of the population by continent, Europe is the oldest. Overall, Europe and North America are more aging, with the proportion of people over 60 years old reaching 26.3% and 23.7%, respectively.

# Ten threats to global health in 2019

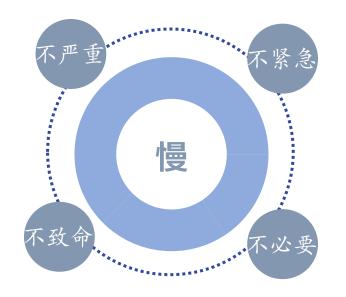
- 空气污染和气候变化 Air pollution and climate change
- 慢性非传染性疾病 Chronic noncommunicable diseases
- 23 全球流感大流行 Global influenza pandemic
- 104 脆弱、恶劣的环境 Fragile and vulnerable settings
- 抗微生物药物耐药性 Antimicrobial resistance

- 埃博拉病毒等高威胁性病原体 Ebola and other high-threat pathogens
- 基层医疗薄弱
  Weak primary health care
- 208 疫苗犹豫 Vaccine hesitancy
- 登革热 Dengue Fever

# Chronic noncommunicable diseases

#### Chronic disease refers to the long-term accumulation of non-infectious diseases

According to a study published in the Lancet Global Health, if the United Nations Sustainable Development Goal (SDG) is achieved - reducing premature mortality from chronic noncommunicable diseases by one-third by 2030 - the global average life expectancy of people aged 30 to 70 will be increased by 0.8 years. At the same time, achieving a one-third reduction in the four major chronic noncommunicable diseases would add 0.64 years to life expectancy.



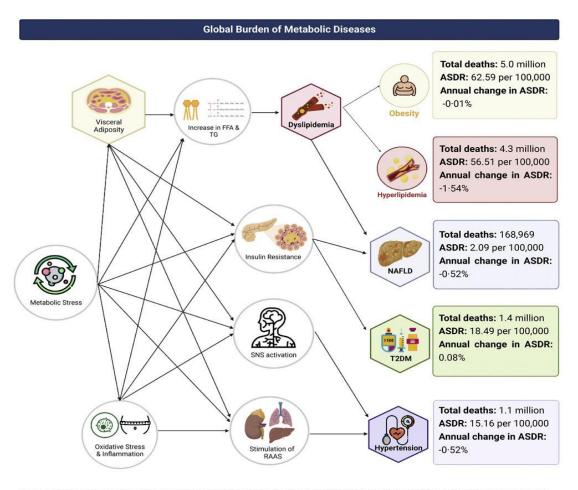
- > Cardiovascular and cerebrovascular diseases
- > Metabolic disease
- > Chronic malignant disease
- > Chronic respiratory disease

Chronic diseases have never been given less attention than their seriousness.

### Chronic noncommunicable diseases

According to the Global Burden of Metabolic Diseases 2000-2019 Report, the prevalence of type 2 diabetes (T2DM) increased by more than 1.5% per year over a 20-year period, the prevalence of hypertension (HTN) increased by 0.2% per year, and the prevalence of non-alcoholic fatty liver disease (NAFLD) increased by 0.83% per year. In addition, obesity and hyperlipidemia (HLD) have created a huge health burden worldwide.





Legend: FFA: Free fatty acids; TG: Triglycerides; SNS: Sympathetic Nervous System; RAAS: Renin- Angiotensin Aldosterone System, NAFLD: Non-Alcoholic Fatty Liver Disease; T2DM: Type 2 Diabetes Mellitus; ASDR: Age standardised death rates; SDI: Socio-Demographic Index; Annual percentage change rates are from 2000 to 2019

Figure 3 Overview of epidemiological investigation of metabolic diseases

# China's aging population

#### 《2022年民政事业发展统计公报》

By the end of 2022, the number of elderly people aged 60 or above in China reached 2804 million, accounting for 19.8 percent of the total population, according to the Ministry of Civil Affairs communique. Among them, the elderly population aged 65 and above reached 209.78 million, accounting for 14.9 percent of the total population.

It is expected that around 2025, the total number of elderly people aged 60 and above will exceed 300 million, accounting for more than 20%, entering the stage of moderate aging. Around 2035, the elderly population aged 60 and above will exceed 400 million, accounting for more than 30% of the total population, entering the stage of severe aging.

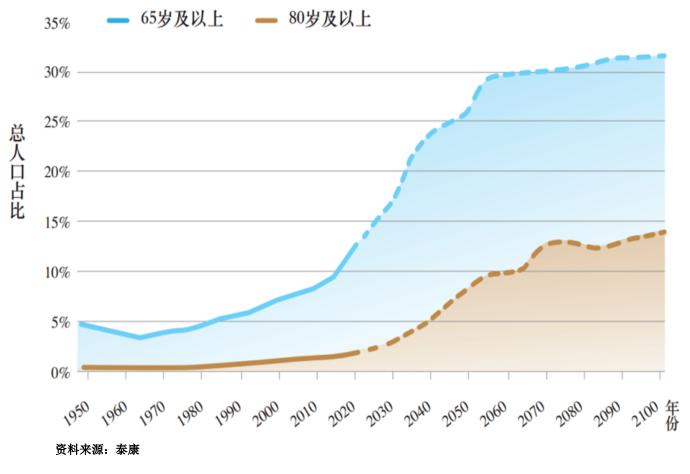
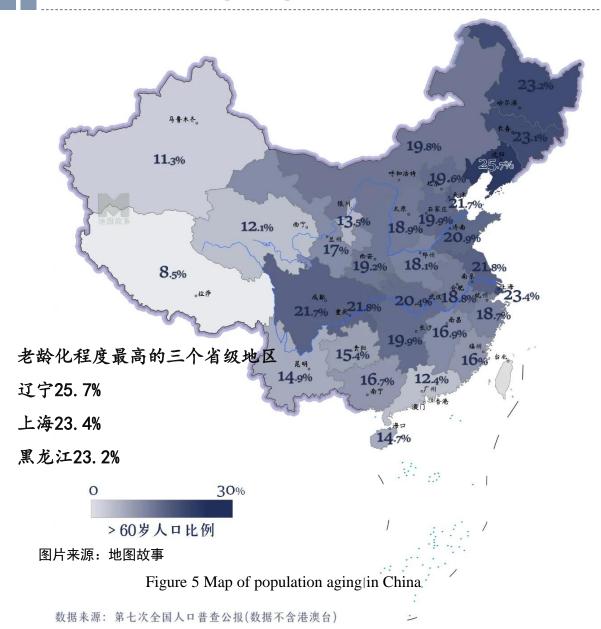


Figure 4 Growth trend of China's elderly population

# China's aging population



#### Five trends of China's aging population



The degree of population aging continues to increase, and the trend of aging is obvious.



The speed of population aging has accelerated significantly.



The gap between urban and rural population aging is expanding rapidly.



Regional differences in population aging are increasing.



The degree of population aging deviates from the level of economic development to a certain extent.

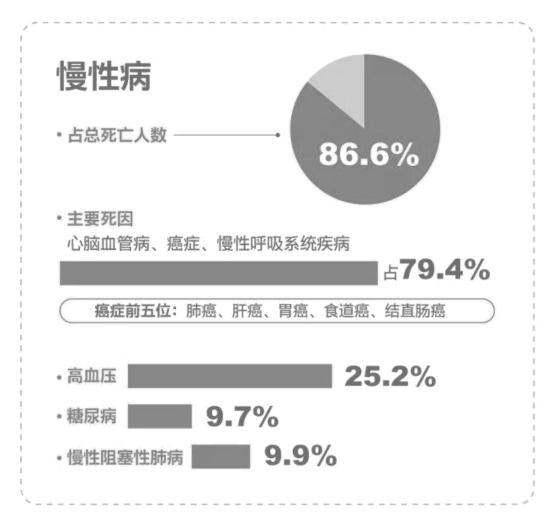
资料来源:来源:cctv.com背景资料中国人口老龄化现状与趋势;《积极应对人口老龄化战略研究报告2021》、青浦卫健新声

### Chronic noncommunicable diseases in China

According to the "China National Health and Nutrition Big Data Report", 70% of Chinese people are at risk of dying from overwork, 76% of white-collar workers are in sub-health, 20% of Chinese people suffer from chronic diseases, and the mortality rate of chronic diseases accounts for 86.6%.

According to statistics, China now has more than 100 million people with dyslipidemia, more than 300 million people with hypertension, more than 100 million people with diabetes, 200 million people who are overweight or obese, and more than 100 million people with fatty liver. On average, one person develops cancer every 10 seconds, one person develops diabetes every 30 seconds, and one person dies of cardiovascular and cerebrovascular disease every 30 seconds.

Diseases tend to be younger. 22% of middle-aged people died of cardiovascular and cerebrovascular diseases, and 70% of adults were at risk of death from overwork.



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#### High time cost

• New drug research and development usually takes several years or even more than ten years, and is hugely expensive, requiring strong research and development strength and huge capital investment, while being restricted and supervised by many laws and regulations.

#### Process uncertainty

• The uncertainty process of drug development includes the determination of drug targets, compound screening, clinical trial phase and post-marketing regulation. These uncertainties can lead to research and development failures or poor product promotion.

#### Clinical trial limitation

• Clinical trials require patient consent, and some patients may be reluctant to participate in clinical trials, or they may be difficult to carry out because of the difficulty of the disease or the high mortality rate.

#### 异质化疾病多

• There are many heterogeneous diseases.



策略: 主动健康 Strategy: Active health

# 医学的发展方向是群体医学与个体医学的有机结合

The development direction of medicine is the organic combination of group medicine and individual medicine

# **WHO** definition of health

Health and disease are the result of the interaction of biological, psychological and social factors. It has had a wide impact in the field of medicine and health, promoting the transformation of a purely biomedical model to a bio-psycho-social medical model.

1977年

Gradual deepening

Health is a state of complete physical, mental and social adaptation, not merely the absence of disease and infirmity.

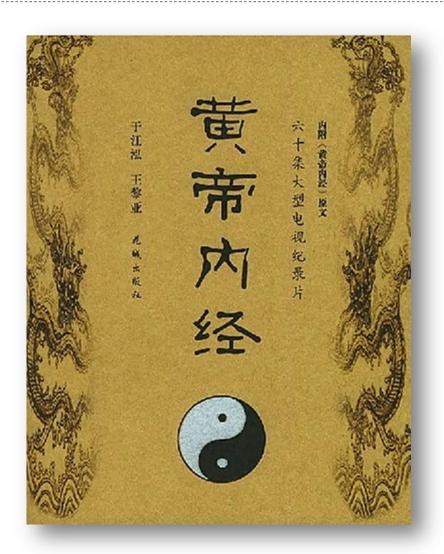
1948年

1989年

Health includes physical health, mental health, social adjustment and moral health. The modern concept of health takes into account not only the natural attributes of human beings, but also the social attributes of human beings, and gets rid of the one-sided understanding of health.

# The concept of health in Chinese medicine

通



Huangdi's Inner Classic

和 和 人之血气精神者, 司关合者也 志意者 调柔 劲 关节清 是 腠理致密矣。 利 收

脏 志意

肢节得安矣

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# The concept of health in Chinese medicine

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#### Ordinary people

#### Human function is normal

"血和"、"卫气和",简称气血和,以 血气运行畅通为标志。具体表现在身体无 痛苦,肢体功能活动正常。

#### Human mental activity is normal

"志意和",以精神和谐,心理健康,情绪稳定为标志。

# The human body can actively adapt to environmental changes

"寒温和",具体表现为根据外界环境、气候变化等情况来适当调节生活起居、衣物和饮食,不因为外界气候变化而引发疾病。以 主动适应外界环境变化为标志。



#### Healthy people

#### 合天时

处天地之和,从八风之理,法于阴阳,和 于术数

#### 合人事

适嗜欲于世俗之间,无意嗔之心,行不 欲离于世,被服章,举不欲观于俗,外 不劳形于事,内无思想之患,以恬愉为 务,以自得为功

#### 养肾惜精

志闲而少欲,心安而不惧,形劳而不倦,恬 淡虚无,真气从之,精神内守,病安从来

资料来源:无心(华中科技大学经济法学硕士):对比世卫组织和黄帝内经中关于健康的标准,可以发现什么?

# **Population Medicine**



#### **Individual medicine**

Taking the individual as the unit, the diagnosis and treatment are carried out to achieve the purpose of individual health, and the evaluation and diagnosis of the individual are emphasized.



#### **Population Medicine**

It is oriented from the perspective of groups, compatible with natural sciences, social sciences and humanities, and seeks the health and life dignity of human beings or populations.

中国工程院院士王辰: 群医学是医者的责任, 它是一种价值观、一种方法论, 是一种理念, 也是一种行动。

Population Medicine, founded by Academician Wang Chen's team, is based on the differences in health and disease characteristics of different groups, the application of multidisciplinary technology and methods, the study of relevant factors affecting population health, the prevention and treatment of diseases in a certain group, so as to maximize the health benefits of the group or the whole human life. Optimize the cost and resource allocation of health care.

Cluster medicine is an interdisciplinary discipline integrating basic medicine, clinical medicine, preventive medicine and rehabilitation medicine, integrating the research object, research content and research direction of the four disciplines. We not only pay attention to the occurrence mechanism and diagnosis and treatment of individual diseases, but also pay attention to the prevention and health maintenance of group diseases, and advocate the cooperation of the whole society and multiple departments to maximize the health benefits of the whole life of the population.

Medical requirements for health have changed from individuals to groups, such as the slogan "Health for all, all for health" put forward by the WHO.

# The logic of proactive health policies

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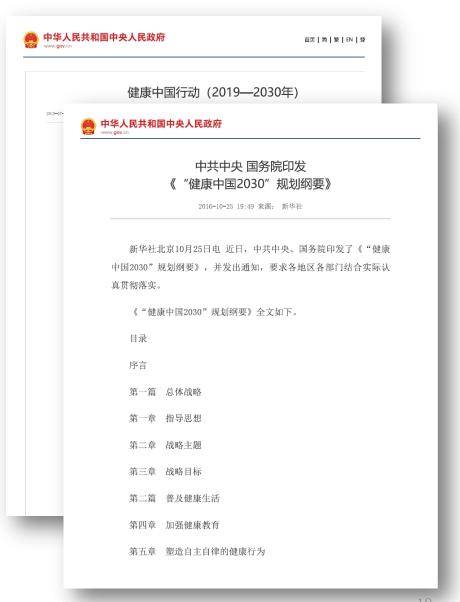
The core concept of active health is to focus on the goal of transforming from the focus on medical treatment to the focus on people's health as proposed in the Outline of the Healthy China 2030 Plan, and use physical, psychological and other nondrug means to exert controllable stimulation on the human body, stimulate and improve the self-repair and self-organization ability of the human body, so as to achieve a new path of low-cost and sustainable health protection. Construct a new paradigm of human health medicine and open up the "second field" of health security.

Characteristics of self-management

Characteristics of early prevention

Characteristics of broad participation

Characteristics of active intervention



资料来源:科技日报、河南省医院管理研究院

# The logic of proactive health policies

Everyone is the first person responsible for their own health, and takes the initiative to carry out functional maintenance, risk factor control and health behavior intervention in the life process, so as to achieve individual active health and promote the health of the whole people.



Aging problem

Through health management and intervention for the elderly, the medical and social pressure brought by aging can be alleviated.

Chronic noncommunicable diseases

By taking the initiative to carry out functional maintenance, risk factor control, behavioral intervention and health services in the course of life.

Prevention and control of infectious diseases

By strengthening disease prevention and control, the occurrence and spread of infectious diseases can be effectively reduced.

The unequal distribution of medical resources

Optimize the allocation and use of medical resources and improve the utilization efficiency of medical resources



# 方案: 中国式整合创新

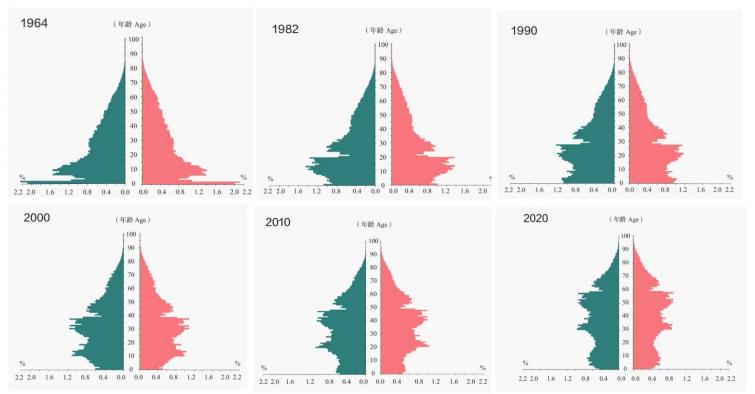
**Solution: Chinese integrated innovation** 

中国面临着人口众多的现实国情,但有传承干年的中医药体系。

China is faced with the reality of a large population, but it has a traditional

Chinese medicine system that has been passed down for thousands of years.

# Huge population and medical needs in China



亿人次 □诊疗人次 100.0 83.1 81.8 80.0 60.0 40.0 20.0 0.0 2016 2017 2018 2019 2020 2021

Figure 7 Volume of consultations in medical and health institutions nationwide

Figure 6 Changes of China's population pyramid

From 1963, the age of 0-5 years old is the base, showing the shape of a triangle, by 2020, 40 years old to 60 years old has become very strong, 60-70 years old is also growing rapidly, aging has begun to show.

From January to September 2023, the total number of visits to medical and health institutions in China reached 5.11 billion.

Population distribution is uneven and mobility is increasing

The mismatch between the inverted triangle of natural resources and the positive triangle of medical demand

医疗资源倒三角与医疗需求正三角的不匹配

Medical service system and personnel training

医疗资源 倒三角

医疗资源集中在大城市、大医院

患者流向大城市、 大医院

**Economic development** level and medical input

医疗需求 正三角

医疗需求集中在农村和基层

"看病难、 看病贵" Medical culture and health concept

# **Traditional Chinese medicine system**

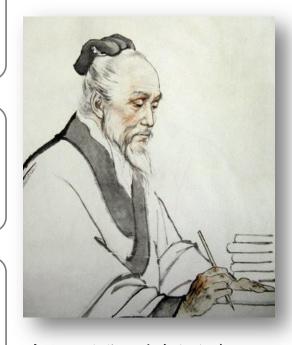
二十大报告

"坚持人民至上、生命至上" "增进民生福祉,提高人民生活品质" ,要"推进健康中国建设" "把保障人民健康放在优先发展的战略位置" "促进中医药传承创新发展" "增强中华文明传播力影响力" "深化以公益性为导向的公立医院改革

"十四五" 中医药发 展规划

从十方面对"十四五"时期中医药工作重点任务进行了部署。包括建设优质高效中医药服务体系,提升中医药健康服务能力,建设高素质中医药人才队伍等。

中医药振兴 发展重大工 程实施方案 明确到2025年,优质高效中医药服务体系加快建设,中医药防病治病水平明显提升,中西医结合服务能力显著增强,中医药科技创新能力显著提高,高素质中医药人才队伍逐步壮大,中药质量不断提升。



唐代孙思邈: 消未起之患, 治未病之疾, 医之于无事之前

The people's multi-tiered and diversified health needs are growing rapidly. They not only need to see and treat diseases well, but also want to avoid and reduce the number of diseases. The unique advantages and important role of treating non-disease are indispensable. Giving full play to the advantages of traditional Chinese medicine and integrating the concept of curing diseases in the whole process of health promotion, the prevention and treatment of major diseases, and the diagnosis and treatment of diseases, we will be able to better protect people's health in an all-round and full cycle.

资料来源:人民日报

# The uniqueness of Chinese-style integrated innovation

#### **Active health model**

Adhere to the government-led, fully mobilize the enthusiasm of the whole society, emphasize that individuals are the "first responsible person" for health, with the support of new technologies such as Informatics and Biological omics, promote a healthy lifestyle, effectively monitor and intervene in health risk factors, and promote a new model of health management for the health of the whole people.

Uniqueness 5

Emphasize social participation: encourage and support the cooperation and linkage of individuals, families, communities, governments and other aspects.

Uniqueness 4

<u>Combining traditional medicine:</u> Combining traditional Chinese medicine theory and method.

Uniqueness 3

<u>Integrated health management:</u> An integrated approach to health management that focuses on the multiple factors that affect health.

Uniqueness 2

Emphasis on prevention: pay attention to early intervention and health management to prevent the occurrence and development of diseases.

Uniqueness 1

<u>People-centered:</u> the primary goal is to improve people's health, taking into account people's health needs and interests.

# **Practice - Integrated medical service**

In 2016, the research report "Deepening the Reform and Construction of China's medical and Health System - Value-Based Quality Service Delivery System" proposed to build a people-oriented integrated service (PCIC). International experience shows that the integrated medical and health service system cannot be achieved overnight and needs long-term efforts due to the influence of many factors such as residents' medical habits, resource allocation, and medical insurance payment. The main forms of China's integrated medical and health service system include urban medical groups, county medical communities, specialty alliances and telemedicine collaboration. The core purpose of the integrated medical and health service system is to promote the formation of cooperation and interest mechanism between hospitals and grass-roots medical and health institutions through institutional reform, and improve the service capabilities of both sides.



# **Practice - Integrated medical service**

#### Key points for a future integrated healthcare delivery system

The first is information continuity, that is, the continuous provision of medical information services.

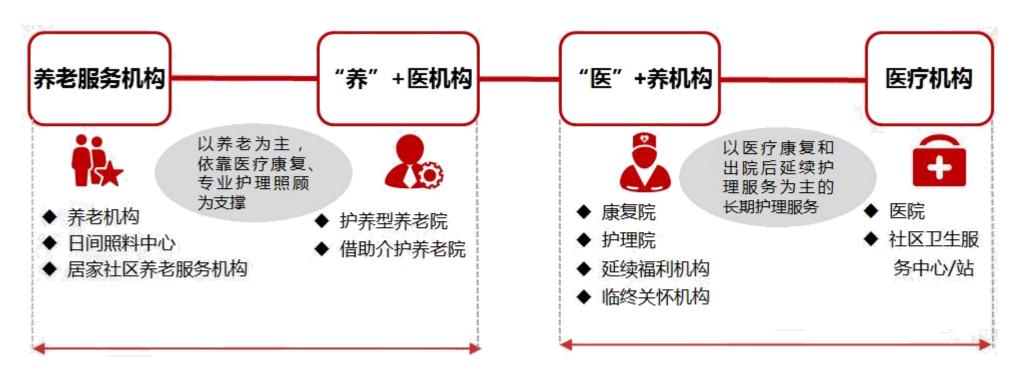
The second is relationship continuity, which requires high-quality relationships that are consistent between providers and patients.

The third is management continuity, that is, the need to provide timely, coordinated and integrated services.

# **Practice - Innovative health management**

#### 医养结合

In March 2015, The General Office of the State Council issued the Outline of the National Medical and Health Service System Planning (2015-2020), which officially clarified the concept of "combining medical and nursing care", and put forward requirements for promoting the cooperation between medical institutions and elderly care institutions and developing community health and elderly care services in a special space.



图片来源: 昱言养老

# 第八届全球中国对话:全球健康治理 GCD Ⅷ: Governance for Global Health

### Innovative Practice - Active health promotion integration practice







图片来源: 多彩贵州网









#### 第八届全球中国对话: 全球健康治理 GCD VIII: Governance for Global Health

#### 康养旅居



暖冬旅居康养旅居 夏季避暑康养旅居 景区康养旅居



中医养生康养旅居 西医护理康养旅居



古城古镇旅居康养 民俗民风旅居康养 宗教禅修旅居康养





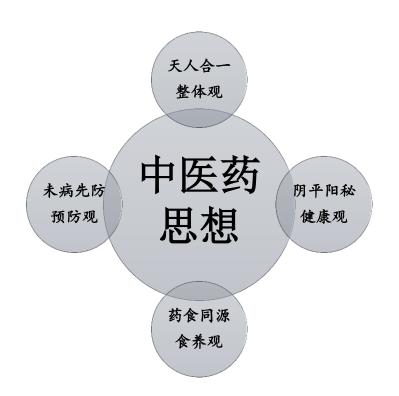
# **Practice - Innovative health management**

#### 药膳

Medicinal diet, as a special form of diet combining medicine and food, plays the function of food maintenance and food therapy, which contains rich ideas of traditional Chinese medicine. The application of medicinal diet should be based on the health concept of traditional Chinese medicine and give full play to the advantages of traditional Chinese medicine food.











参考文献:张玉苹,郭紫薇,李杰,等. 药膳在中医药健康旅游中的应用研究[A]. 侯胜田. 中医药健康旅游发展报告(2022)[C]. 北京:中国商业出版社, 2022: 273-286.

图片来源:修养堂食补小店



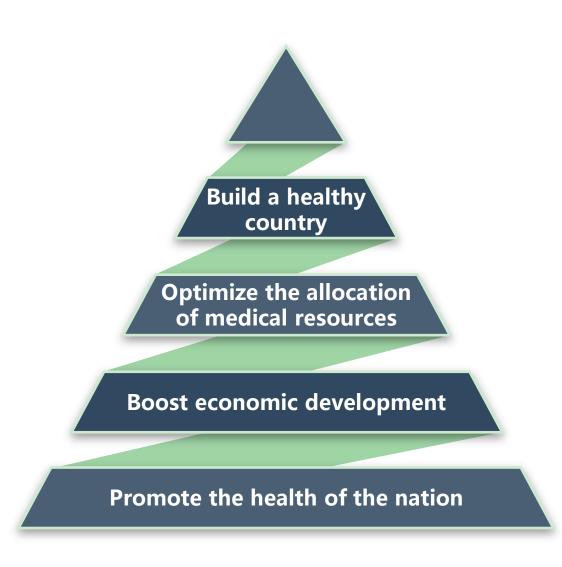
# 总结:未来展望 Summary: Future outlook

中国式主动健康策略对于老龄化时代的贡献无疑是巨大的,可以为其他国家和地区提供重要的借鉴和启示。

The contribution of Chinese-style active health strategies to the aging era is undoubtedly huge. It can provide important reference and inspiration for other countries and regions.

# Contribution of Chinese style active health strategy and innovative practice of integrating medical care

# 第八届全球中国对话:全球健康治理 GCD Ⅷ: Governance for Global Health



The primary goal is to improve the national health level, reduce the incidence of disease and mortality, and improve the life span and quality of health of the people through prevention, treatment and rehabilitation.

Improve the supply of human resources and the quality of labor force, and promote the accumulation of human capital and scientific and technological innovation; We will reduce the burden of medical expenses, increase people's spending power, stimulate social consumption potential, and promote economic development.

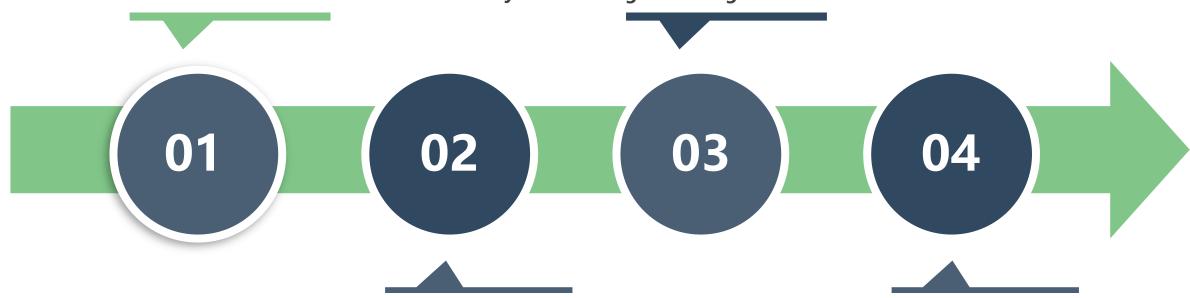
We will promote the reform of the medical and health care system, adjust the layout and allocation of medical resources, improve the quality and efficiency of medical services, and solve problems such as the difficulty and high cost of seeing a doctor

It emphasizes the concept of people-centered development and gives strategic priority to ensuring people's health. Achieving historic leaps in the development of health care is of great significance to building a healthy China and realizing the great rejuvenation of the Chinese nation.

# Future development direction and strategy adjustment suggestions

To adapt to the trend of globalization and strengthen international cooperation and coordinated actions

Attach importance to the application of digital intelligence technology, and build a smart health system and digital intelligence health service model



To meet the challenges of aging and chronic diseases, and promote the development and innovative research of the health industry

Strengthen global health security, prevent the transnational spread of infectious diseases and respond to public health crises

### **Future outlook**



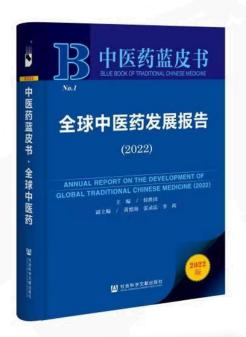
Strengthen international cooperation, especially on traditional medicine, and promote the building of a community with a shared future for human health

Improve the coordination mechanism of global health governance, improve the efficiency of governance, and pay attention to the needs and capacity improvement of developing countries

Promote innovation and promote the advancement and application of global health technologies

While actively head participating in international medical and health cooperation, we will promote cooperation in the health care industry

# Promoting TCM to the world







近年来,中医药对外交流合作不断深入,中医药融入国际医学体系的步伐逐渐加快,全方位、多层次的中医药国际深度合作基础已经形成。十四五《规划》明确提出:

- ✓ 贯彻落实《推进中医药高质量融入共建"一带一路"发展规划(2021-2025年)》,不断拓展中医药"一带一路"全方位合作新格局。
- ✓ 实施中医药国际合作专项,以中医药海外中心和中医药国际合作基地建设为抓手,高质量建设国家中医药服务出口基地,推动中医药服务贸易做大做强。
- ✔ 并积极推进中医药参与新冠肺炎等重大传染病防控国际合作。

In the future, Chinese medicine will further go global, serve the world, and help build a community of human health!



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