The Chinese Nursing Association (CNA), which was established in 1909, has a history of 108 years. It is currently the only national nursing society representing 3.5 million nurses in China. Through its hard work and unremitting efforts, the CNA was granted membership of the International Council of Nurses (ICN) in 2013.

1. Current situation of Chinese nursing development

1.1. Achievements of healthcare in China

In 2015, the average life expectancy increased to 76.34 years. The infant mortality rate, mortality rate of children under five years old, and maternal mortality ratio decreased to 8.1 per 1000 live births, 10.7 per 1000 live births, and 20.1 per 100,000 live births, respectively. These values are better than the average levels of middle and high-income countries.

The share of personal health expenditure in the total health expenditure decreased from 35.3% in 2010 to 28.9% in 2016. The Lancet published a profile of healthcare access and quality (HAQ). For China, the HAQ index increased from 49.5 in 1990 to 74.2 in 2015. The gap decreased from 6.7 in 1990 to 1.2 in 2015. This change reflects the progress in improving HAQ alongside gains in development.

1.2. Strengths

1.2.1. Nurse Regulations

“Nurse Regulations” was officially published and came into effect in 2008.

It protects the legitimate rights and interests of nurses and regulates the registration and practice of nurses.

1.2.2. Nurse registration rules

At least three years of college education (including eight months of internship).

Passer of the national registration exam.

Implementation of nurse electronic registration management.

1.2.3. Powerful management system

The central and local governments have administrative departments in charge of nursing to ensure that the nursing development plan, standards, and norms are implemented efficiently nationwide.

At the end of April 2017, the number of national medical and health institutions reached 987,000. The number of hospitals was 29,000, 12,602 of which are public hospitals. The nursing management of most public hospitals is mainly composed of the hospital dean (in charge of nursing) — nursing department — general head nurse — head nurse.

1.2.4. Improvement of quantity and quality of nurses

For every 1000 population, the number of nurses increased from 1.52 in 2010 to 2.54 in 2016.

The physician-to-nurse ratio also improved from 1:0.85 in 2010 to 1:1.17 in 2016.

Approximately 65% of registered nurses hold a college (bachelor’s) degree or above.

1.2.5. Improved quantity and quality of nurses

Trend in the number of registered nurses in China is shown in Fig. 1. Trend in the proportion of RNs with college degree or above in China is shown in Fig. 2.

1.2.6. Quality of nursing earned high recognition

The CNA conducted a national survey on the satisfaction of 12,750 inpatients in 2015. The results showed 92.5% of the inpatients were satisfied with the nursing service provided.

The patients acknowledged that nurses were the most helpful to them among the medical staff.

1.2.7. Growing of nursing discipline

In 2009, the Ministry of Science and Technology of the PRC approved the establishment of the “Chinese Nursing Association...
Science and Technology Award," which is the highest award in the nursing discipline in China.

The nursing science discipline was granted as a first-level discipline by the Academic Degree Commission of the State Council in 2010.

1.3. Weakness

1.3.1. Number of nurses cannot meet the demand

With continuously growing population, a gap still exists between the number of nurses per 1000 population in China and five nurses per 1000 population recommended by the World Health Organization, which is far below the number in OECD countries and BRICS countries, such as South Africa and Brazil.

1.3.2. Quality of nurses to be improved

The educational level of nurses is still low. Registered nurses with secondary technical education account for nearly 35% of all nurses.

The average age of nurses has also decreased. In 2010, registered nurses aged younger than 35 years accounted for 53.7%. The proportion increased to 60.2% in 2014.

1.3.3. Uneven allocation of medical resources

The concentration of resources in city hospitals is excessive, and shortages (accompanied by slow development) are common in primary health care centers at the community centers.

Only 600,000 nursing staff work at the grassroots medical institutions, accounting for less than 20% of the total. We lack professionals in fields such as geriatric nursing, chronic disease management, and hospice care.

1.3.4. Imperfect nursing management

A personnel salary scale system that matches the nature of the nursing profession has not been established.

Incentive systems and mechanisms of nursing career management, pay, and distribution have not been perfected yet.

International perspective is lacking.

2. Opportunities and threats

2.1. Opportunities

The Chinese government has placed people’s health in a strategic position in its priority development (Table 1). Healthy people means a powerful and comprehensive national strength and sustainable development capacity.

Goal: By 2020, the basic medical and health system for urban and rural residents will be basically established. Everyone will enjoy basic medical and health care. The average life expectancy will be raised by 1 year compared with that in 2015.

2.1.2. In national nursing development plan (2016–2020)

Goal: By 2020, the number of registered nurses in China is expected to reach 4.45 million, 1.21 million of which will be newly employed nurses. The number of registered nurses per 1000 population will reach 3.14, and the number of nurses working in primary medical institutions will increase from 646,000 in 2015 to 1 million in 2020.

With the implementation of the tiered system of medical care
and multi-site practice policies in China, nurses gradually become the main force in medical institutions. With the above policies, patients with severe and critical conditions in major general hospitals will increase the workload of nurses. Thus, nurses will play an increasingly important role in improving the quality of specialized nursing and ensuring the safety and quality of medical treatment.

2.2. Threats

Accelerating aging population: At the end of 2015, the Chinese population aged 60 years and above accounted for 16.1% of the total population. Moreover, nearly 150 million of the elderly population suffer from chronic diseases, and nearly 40 million suffer from some form of disability. Influences of changes in disease spectrum: Infectious diseases represent current threats. Chronic diseases such as cancer, diabetes, and COPD have become major threats and continue to cause considerable burdens. About 250 million people suffer from hypertension, and more than 97 million people have diabetes. The number of patients with malignant tumors is more than 3 million, and this number is rising at the speed of 4%.

3. Countermeasure and strategies of CNA

3.1. Ten-year development plan for nurses

In 2010, the CNA developed and completed the National Development Plan for Nursing Human Resource 2010–2020. This plan is based on a systematic analysis of the status and challenges of nursing development. It also predicts the levels, scale, and demands of nursing professional development in the next 10 years.

3.2. Development of training programs and standards

Standardized Training Program for Newly Recruited Nurses (Trial).
Guidelines of Clinical Nursing. Administrative Regulations for Specialized Nursing Training.

3.3. A voice for nurses

Xiuhua Li, the President of the CNA and a member of the China People's Political Consultation Conference National Committee for two terms, presents her proposals for nurses to the government every year.

3.4. Cultivating nursing professionals

Establishment of standardized training systems for specialist nurses.
Demand-based cultivation of nurses with expertise in the elderly, communities, chronic diseases, hospice care, and other professional fields.
Attracting and reserving male nurses and young talents.
Recommendation of talents to international organizations: ICN board member.

3.5. Setting up a scientific research fund

Promote the research on nursing theory systems with Chinese characteristics and extend the scope of nursing. Explore the research on nursing models and supporting policies, laws, and regulations of home-based care, rehabilitation nursing, nursing care for the elderly, and chronic disease management. Reduce the burden of aging society suffering from chronic diseases, and strive to meet new expectations related to the health of the masses.

3.6. Conducting a series of cooperative projects

ICN Leadership for Change.
TB/MDR-TB training.
Participating in the IND Resources Steering Committee and calling for actions from nurses at the global scale.

3.7. Future cooperation

Prevention and control of infectious diseases.
NCDS management.
Universal health coverage.
Allocation of nursing human resources.
Nursing laws.
Coping with climate change and disasters.
Traditional medicine nursing.

| Table 1                                      | 2015     | 2020     | 2030     |
|----------------------------------------------|----------|----------|----------|
| Health-related indicators                    |          |          |          |
| Average life expectancy                      | 76.3     | 77.3     | 79.0     |
| Infant mortality rate (%)                    | 8.1      | 7.5      | 5.0      |
| Under-five mortality rate (%)                | 10.7     | 9.5      | 6.0      |
| Maternal mortality ratio (1/100,000)         | 20.1     | 18.0     | 12.0     |
| Number of people engaging in regular physical exercise (100 million) | 3.6 | 4.4 | 5.3 |
| Number of doctors per 1000 population        | 22       | 25       | 30       |
| Proportion of personal health expenditure (%)| 29.3     | 28.0     | 25.0     |