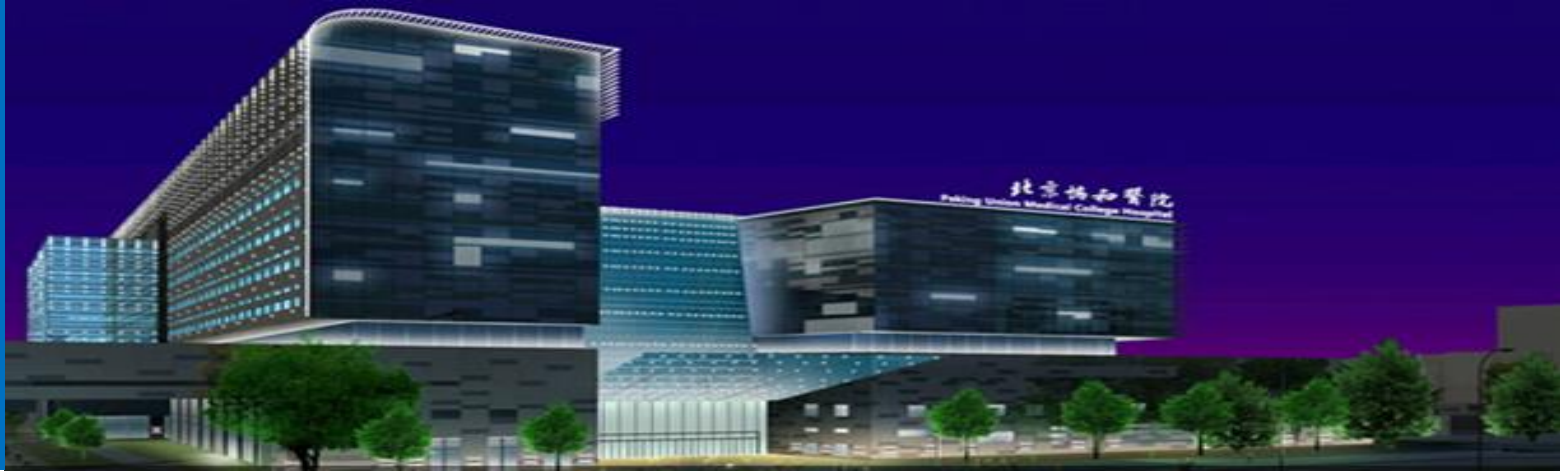




北京协和医院  
PEKING UNION MEDICAL COLLEGE HOSPITAL

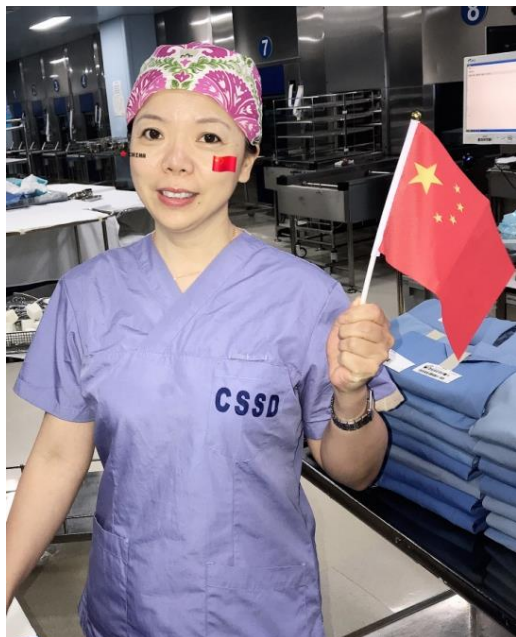


# Current Developing Status of CSSD in China

Zhang Qing  
zhangqing9191@163.com

President of CNA-CSSD  
CSSD Director of Peking Union Medical College Hospital

# » Resume

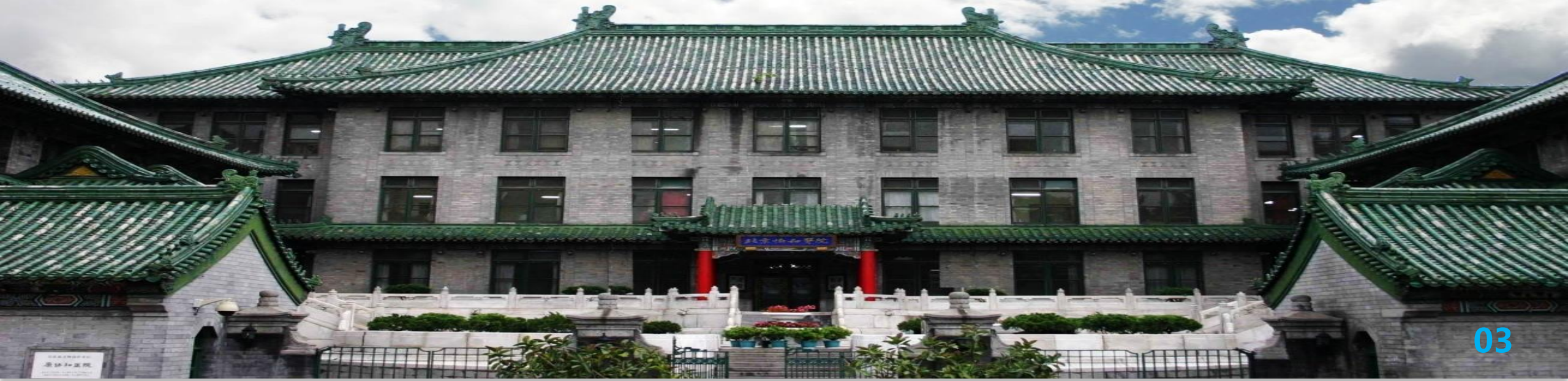


- President of Chinese Nursing Association CSSD Committee
- Standing Member of Hospital Infection Management Committee
- Member of Hospital Infection control standard committee of NHHS Committee
- Member of Sterilization Standard Committee of NHHS Committee
- Member of National Sterilization and Equipment Standard Committee
- One of initiators of three criteria of standardization of CSSD
- One of initiators in the formulation of 7 national health industrial standards"

# » Hospital Introduction



**National Guidance Center for Diagnosis and Treatment of Difficult and Severe diseases  
Ranking the top of China's best hospitals for nine consecutive years**



# » Department Introduction



- ◆ Construction Area: >22,000 Square feet
- ◆ Equipment: 9 steam sterilizer  
4 low temperature sterilizer  
11 automated washers,  
5 automated washers for flexible endoscopes
- ◆ Reprocessing Qty: > 5000sets/day
- ◆ National CSSD training and operating practice base; Beijing CSSD specialized nurses clinical education base





**1.Review of  
CSSD History**



**2.Development  
Background**



**3.Current  
Developing  
Status**



**4.Challenge &  
Vision**

# » 1. REVIEW OF CSSD HISTORY



**1. Review of  
CSSD History**



**2. Development  
Background**



**3. Current  
Developing  
Status**



**4. Challenge &  
Vision**

# » Development of CSSD in China—in 1970's



primitive devices, unscientific layout  
No guidance and ordinance from the government



# » Development of CSSD in China—in 1980's



- the treatment of syringes , infusion devices
- simple diagnostic, therapeutic instruments and items
- the 1988' s government CSSD simple standard

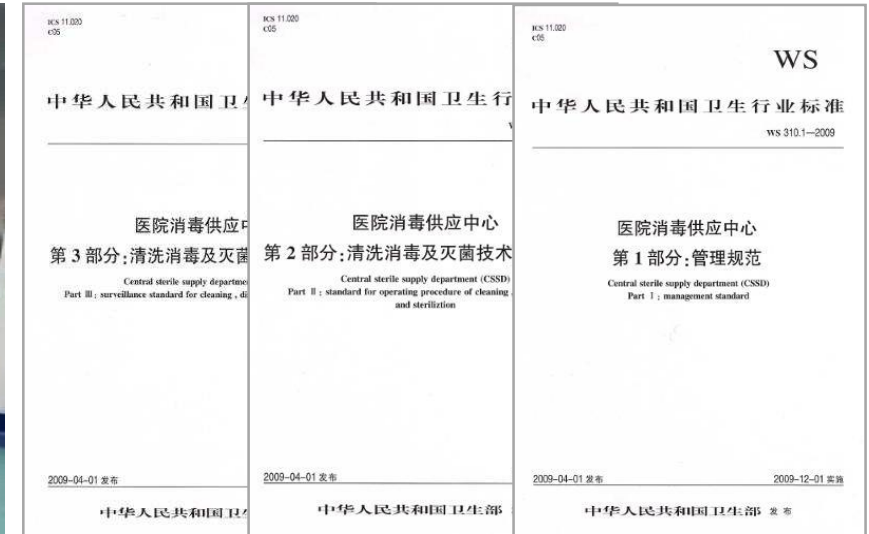
# » Development of CSSD in China—in 1990's



- ultrasonic washer
- semi-automated washer
- The working area divided



# » Development of CSSD in China—in 2000's



Modern management and function.

- 2004, CNA-CSSD established.
- 2009, WS 310, first systematic disinfection and supply industrial standard, released.



- **Backward equipment  
facilities**
- **Unreasonable  
staff structure**
- **No job training**



### ➤ **Lack of uniform processing standard for technical operation in CSSD**

- Washings: manual job
- short of medical detergent
- Package: cotton cloth.

- **No reliable periodic inspection and evaluation system and method for cleaning and sterilizing equipment**
  - No test for the sterilization, disinfection and cleaning effect
  - Lack of quality control and evaluation for the sterilizing, disinfection and cleaning apparatus
  - No quality test for water.
  - Information technology didn't be applied in the management of CSSD and there was no quality tracking of sterile goods



## » 2.DEVELOPMENT BACKGROUND



1.Review of  
CSSD History



**2.Development  
Background**

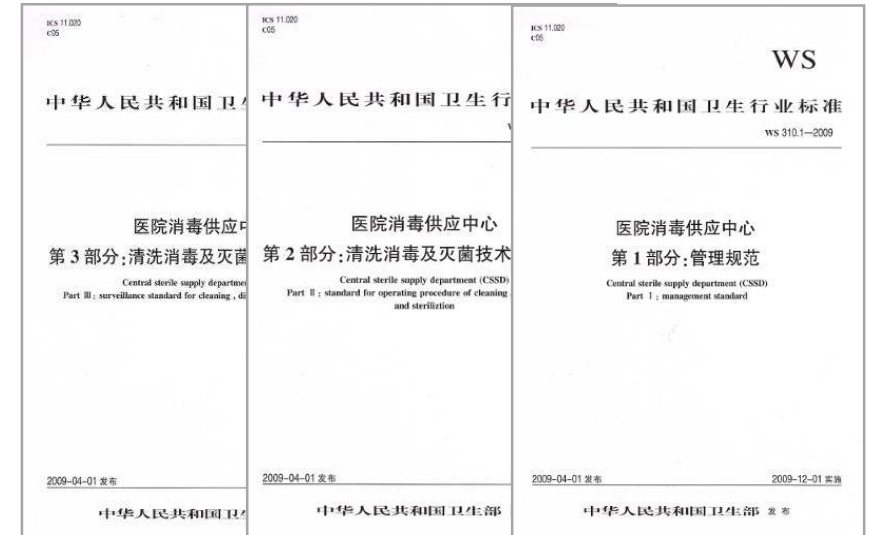


3.Current  
Developing  
Status



4.Challenge &  
Vision

## ➤ Management mode

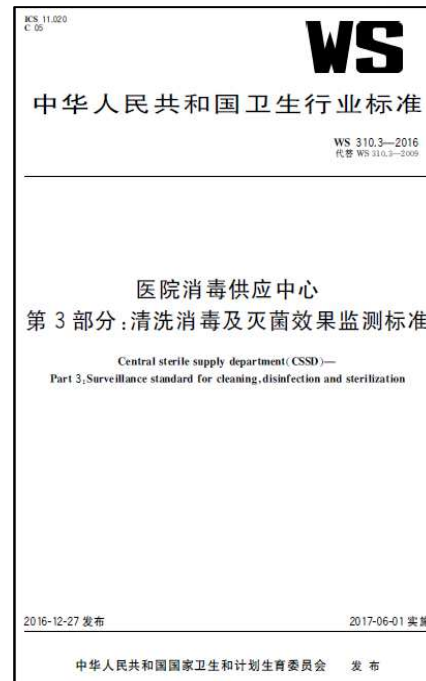
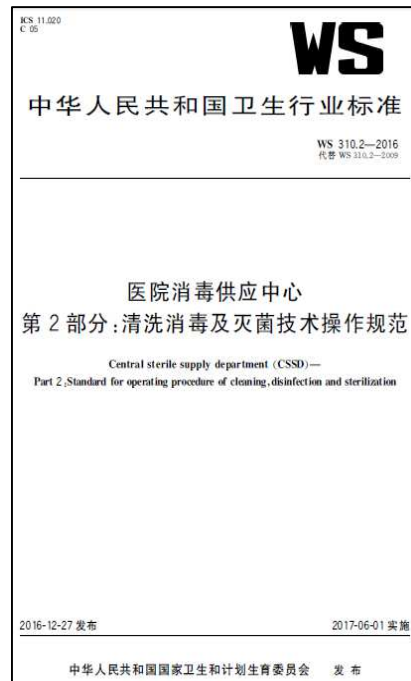
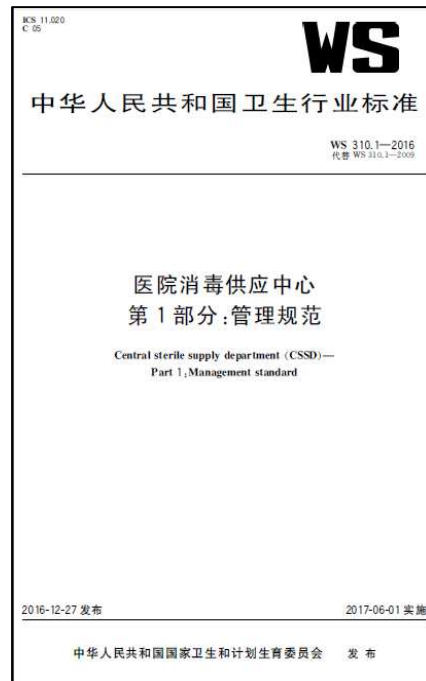


15

# WS310 Industrial Standards of CSSD in Hospital



- WS310.1-2016 Part 1: Management Standards for CSSD
- WS310.2-2016 Part 2: Standards for operating procedure of cleaning, disinfection and sterilization of CSSD
- WS310.3-2016 Part 3: Monitoring Standards for cleaning, disinfection and sterilization of CSSD



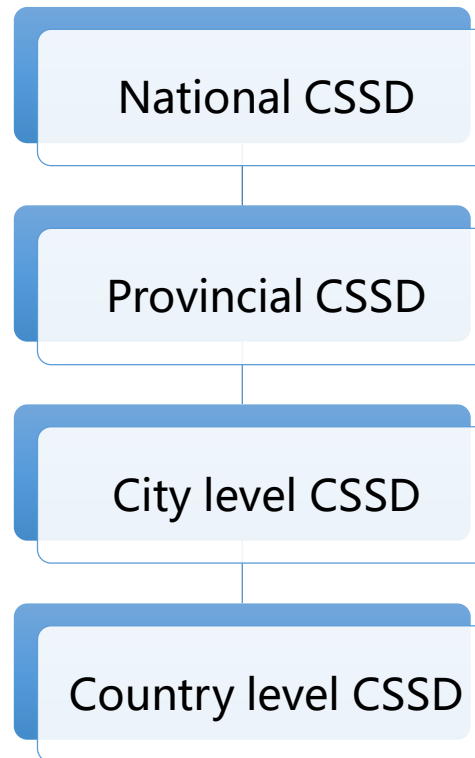
The three standards constitute the standard requirements of **management, technical operation and monitoring** of CSSD in hospital.

The three standards cover **structural management, process management, management evaluation and management requirement** of quality system and continuous improvement.

# » Establishing the professional committee: CNA-CSSD

- ◆ CNA-CSSD, national, provincial and municipal professional committee,

A system push development of CSSD in China

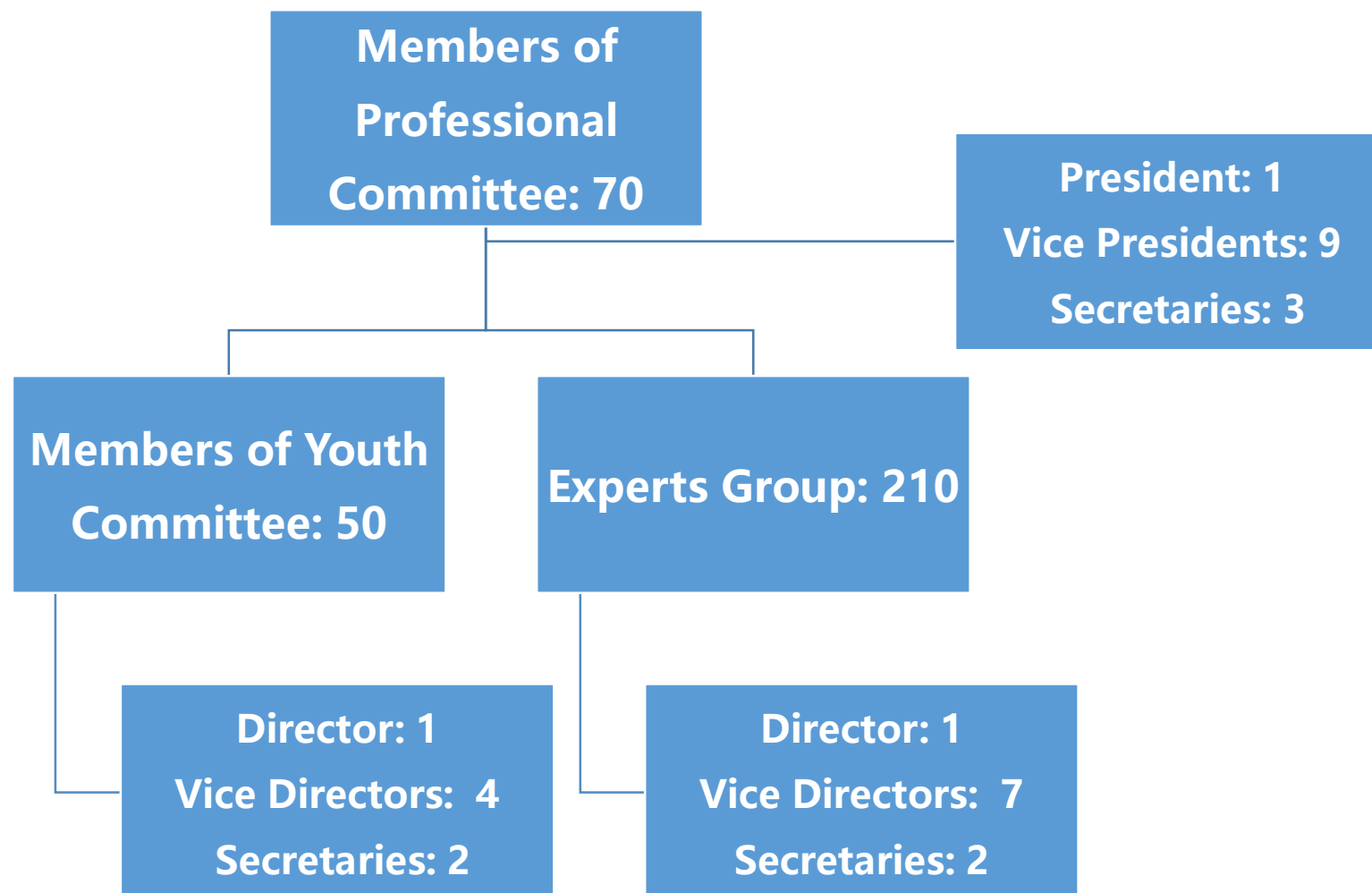


**Rely on CNA - National CSSD  
committee – Provincial level – City  
level – County level management  
network, established multi-channel  
three-dimensional network system.**

# » Structure of CNA-CSSD Committee



Work and Academic Group
Working Group
Standard & Guidance Group
Scientific & Research Group
Regional CSSD Group
Academic Exchange Group
Intelligence Informatization Group
Youth Member Group
Experts Group



# » Promoting Development & Implementing Standards

- ◆ A domestic academic exchange platform for academic exchanges and communication among different provinces, to balance and enhance the professional development of different regions.

- ◆ 9<sup>th</sup> CSSD Annual Conference
- ◆ 791 participants
- ◆ 891 submitted articles



August, 2013,  
Chengdu

- ◆ 11<sup>th</sup> CSSD Annual Conference
- ◆ 815 participants
- ◆ 810 submitted articles



June, 2015,  
Kunming

- ◆ 13<sup>th</sup> CSSD Annual Conference
- ◆ 1098 participants
- ◆ 1256 submitted articles



Sept., 2017,  
Wuhan

October, 2014,  
Hohhot



- ◆ 10<sup>th</sup> CSSD Annual Conference
- ◆ 708 participants
- ◆ 665 submitted articles

July, 2016,  
Hefei



- ◆ 12<sup>th</sup> CSSD Annual Conference
- ◆ 1341 participant
- ◆ 1226 submitted articles

# » Promoting Development & Implementing Standards

Twelve national standard and practice training bases have been established, CSSD specialist nurses training have been carried out in various provinces and municipalities.



# » Promoting Development & Implementing Standards

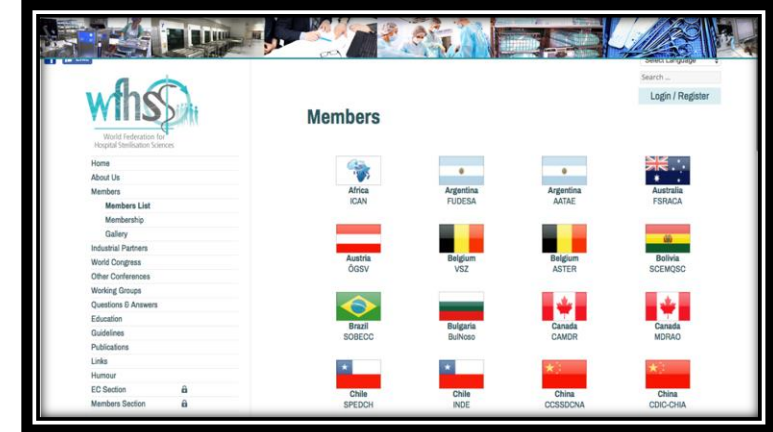
- ◆ The supervision of standardization has enforced by top-down inspection and quality improvement



# » Promoting Development & Implementing Standards

◆ strengthen international exchange and learn advanced experience of international counterparts

➤ Join WFHSS and expand the horizon of academic exchange



➤ we visited and got visited by our oversea counterparts to exchange each experience.

➤ Participate in the CSSD Open House Day to show present Chinese CSSD to the World



## » 3.CURRENT DEVELOPING STATUS



1.Review of  
CSSD History



2.Development  
Background



**3.Current  
Developing  
Status**



4.Challenge &  
Vision

## » 3.CURRENT DEVELOPING STATUS



- ⦿ Standards & guidelines
- ⦿ Centralized management
- ⦿ Equipment & facilities
- ⦿ Personnel & qualifications
- ⦿ Professional training
- ⦿ Survey
- ⦿ R&D and innovation

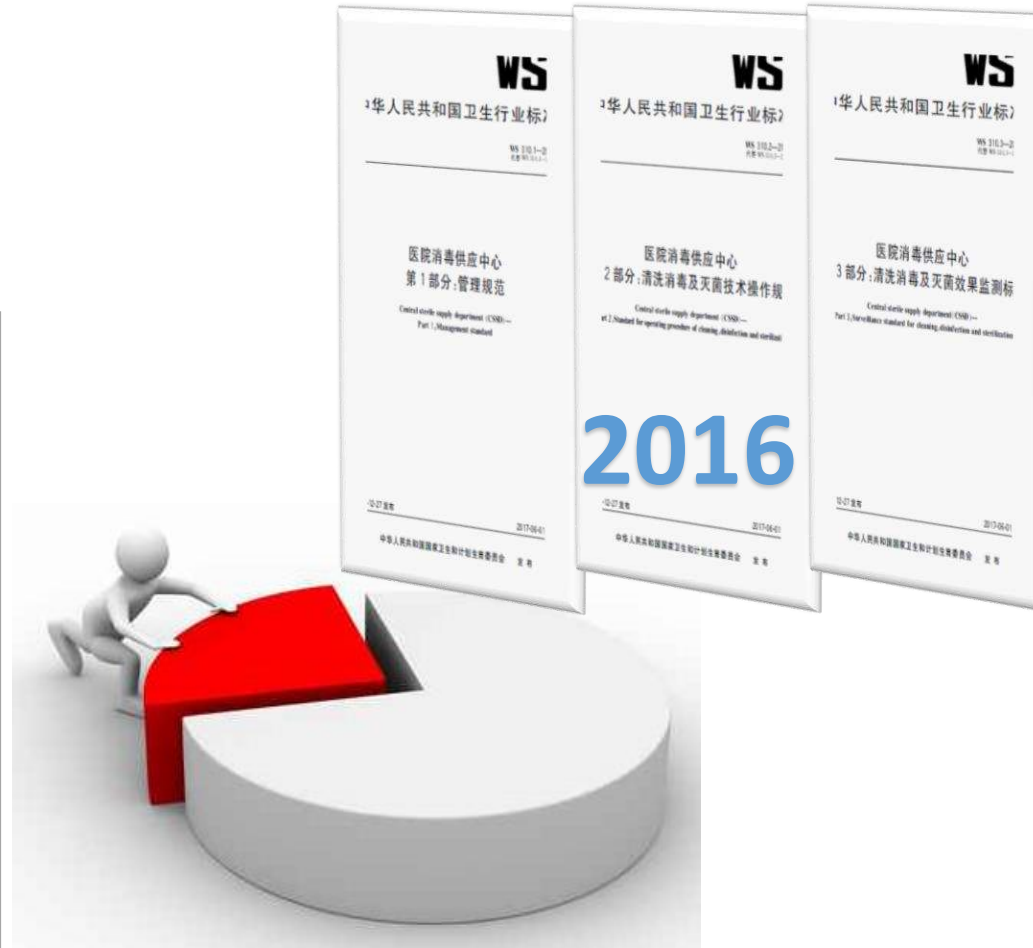


# » Current Developing Status—Standards & guidelines

## 2009-2019 Decade of CSSD Development in China

WS 310.1-2009	WS 310.2-2009	WS 310.3-2009
中华人民共和国卫生行业标准	中华人民共和国卫生行业标准	中华人民共和国卫生行业标准
WS 310.1-2009	WS 310.2-2009	WS 310.3-2009
医院消毒供应中心 第1部分:管理规范	医院消毒供应中心 第2部分:清洗消毒及灭菌技术操作规范	医院消毒供应中心 第3部分:清洗消毒及灭菌效果监测标准
Central sterile supply department (CSSD) — Part 1: management standard	Central sterile supply department (CSSD) — Part 2: standard for operating procedures of cleaning, disinfection and sterilization	Central sterile supply department (CSSD) — Part 3: surveillance standard for cleaning, disinfection and sterilization
2009-04-01 发布	2009-04-01 发布	2009-04-01 发布
中华人民共和国卫生部 发布	中华人民共和国卫生部 发布	中华人民共和国卫生部 发布

2009



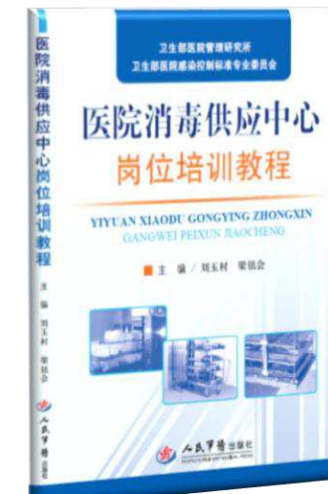
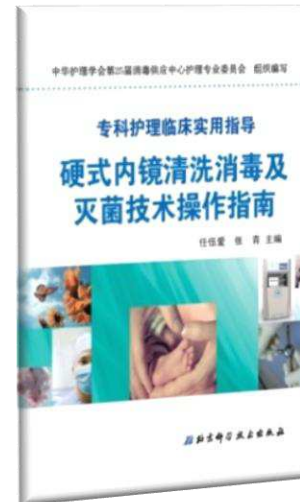
# » Current Developing Status—Standards & guidelines



CNA-CSSD Participate in formulating national standards, compiling technical guidelines



write



2009 / 2016

# » Current Developing Status—Centralized management

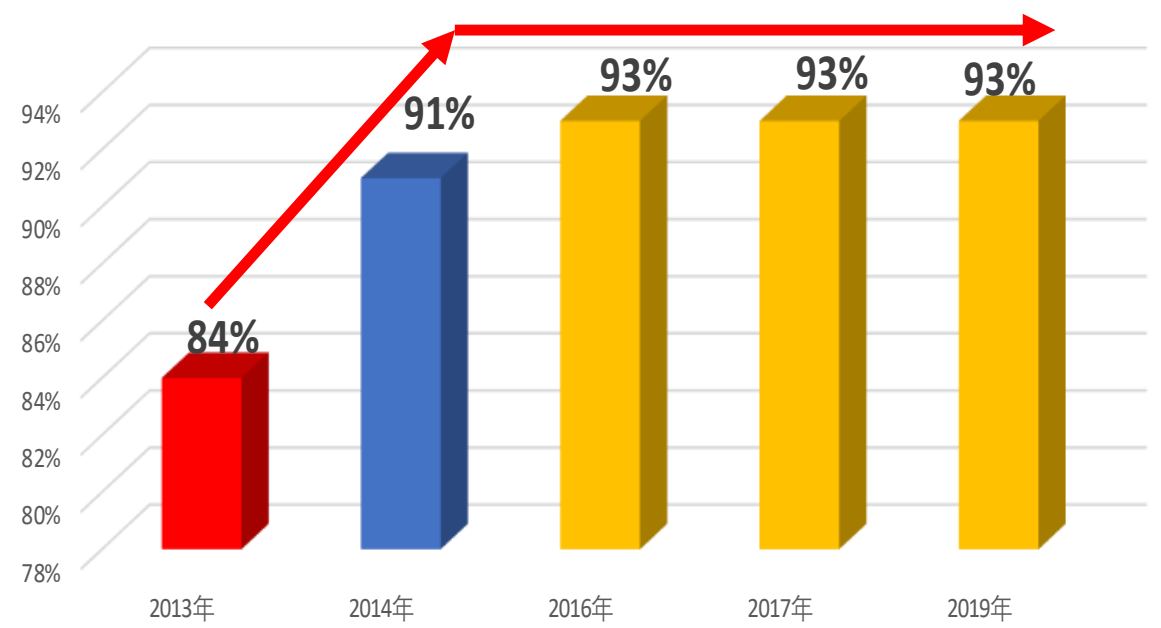
## 4.1 Hospital

4.1.1 Centralized management should be adopted. CSSD is responsible for the receiving, cleaning, disinfection, sterilization and supply of all reused diagnostic and therapeutic instruments, devices and articles that need to be disinfected or sterilized.

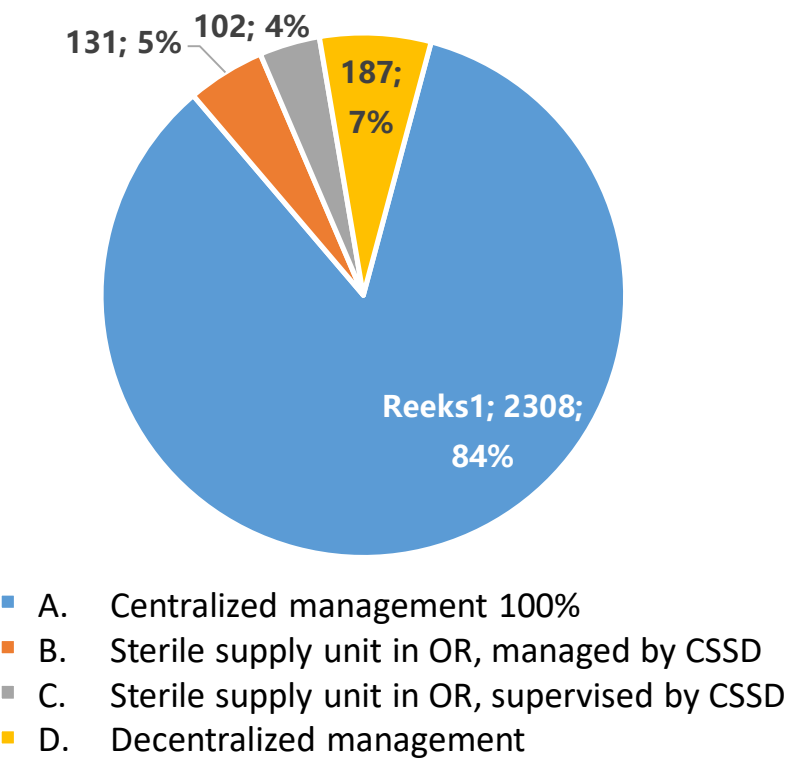
 <p>ICS 11.020 c05</p> <p>中华人民共和国卫生行</p> <p>医院消毒供应中心 第1部分:管理规范 Central sterile supply department (CSSD) Part 1: management standard</p> <p>2009-04-01 发布</p> <p>中华人民共和国卫生部</p>	 <p>ICS 11.020 C 05</p> <p><b>WS</b></p> <p>中华人民共和国卫生行业标准</p> <p>WS 310.1—2016 代替 WS 310.1—2009</p> <p>医院消毒供应中心 第1部分:管理规范 Central sterile supply department (CSSD)— Part 1: Management standard</p> <p>2016-12-27 发布</p> <p>中华人民共和国国家卫生和计划生育委员会 发布</p>	<h3>Centralized management of CSSD</h3> <p>Changing the Traditional Working Mode of CSSD in China</p> <p>Guiding the Reform and Development of CSSD in China</p>
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# » Current Developing Status—Centralized management

Centralized CSSD management was adopted by 93%of 900 hospitals in China



Scale Map of CSSD Management Mode in 2019

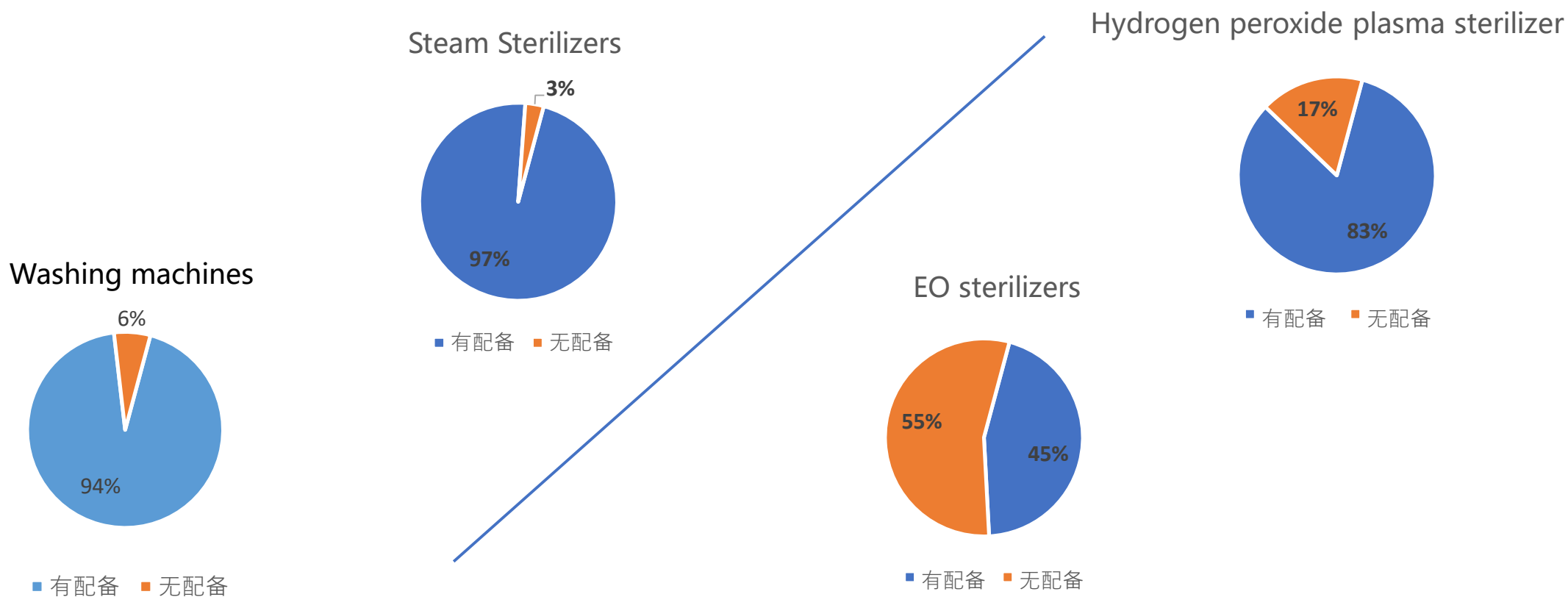


Management mode	2013	2014	2016	2017	2019
Centralized	549	696	1065	1728	2541
Decentralized	102	65	78	141	187
In total	651	761	1143	1869	2728

# » Current Developing Status—Equipment & facilities



Coverage rate of various equipment among Chinese hospitals:

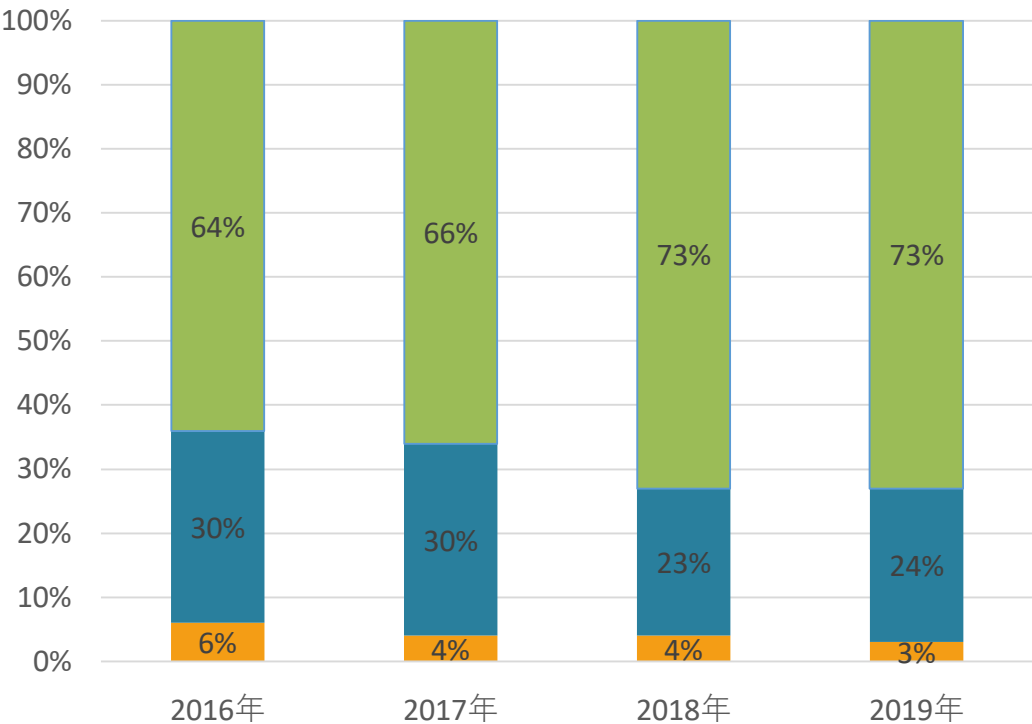


# »»Current Developing Status—Personnel & Qualification

The CSSD staff are basically composed by nurses, the management staff who got college or higher education reached up to 73%

Nursing staff proportion in CSSD from 2017 to 2019

	2019	2018	2017
A. < 20%	12%	2%	5%
B. 20-30%	6%	3%	6%
C. 30-50%	15%	16%	18%
D. 50-70%	23%	23%	27%
E. >70%	43%	56%	44%

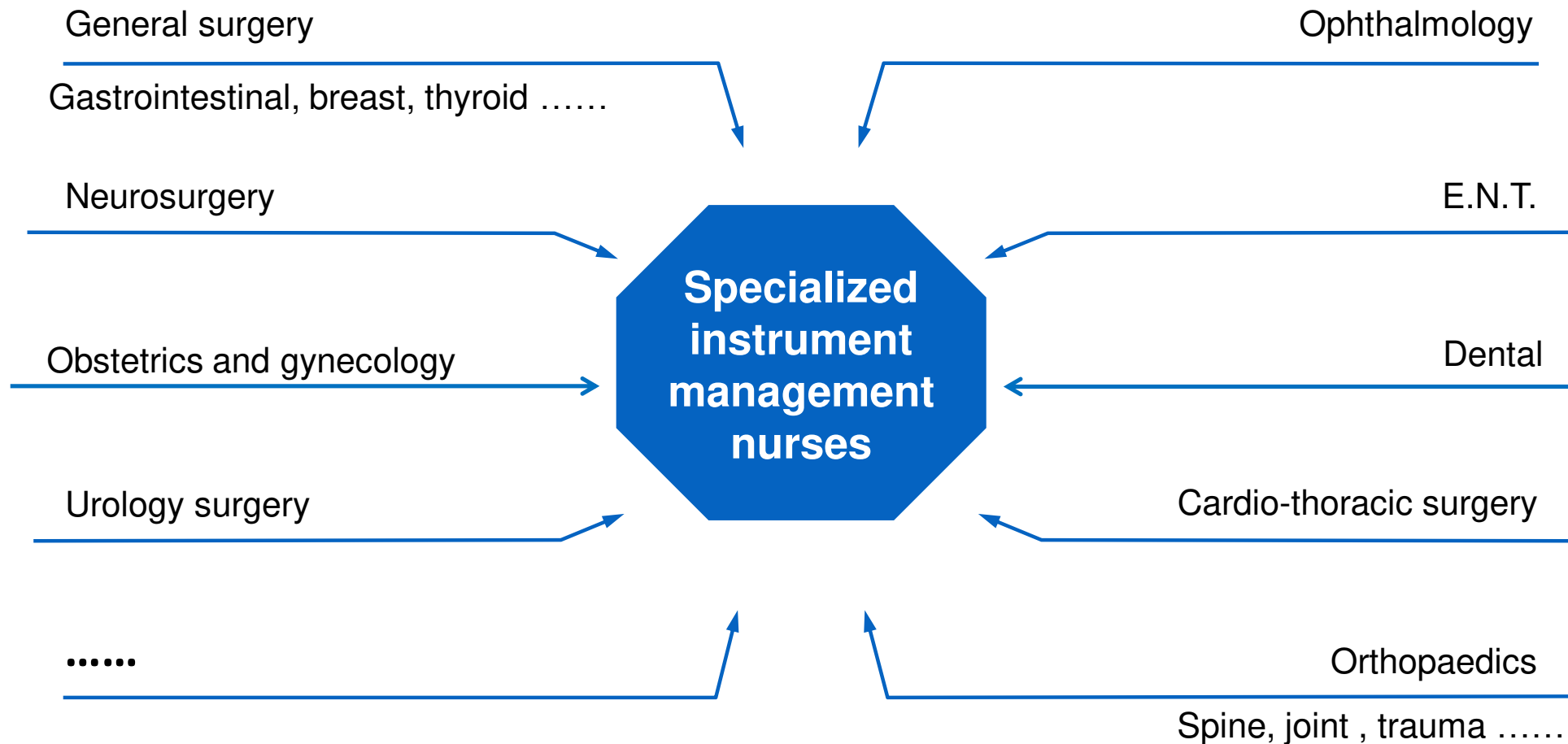


- ① Technical school graduate
- ② College degree
- ③ Bachelor degree

# » Current Developing Status—Professional training



**Promoting the development of sub-specialty, CSSD specialized nurses training is one of priorities .**



# » Current Developing Status—Professional training



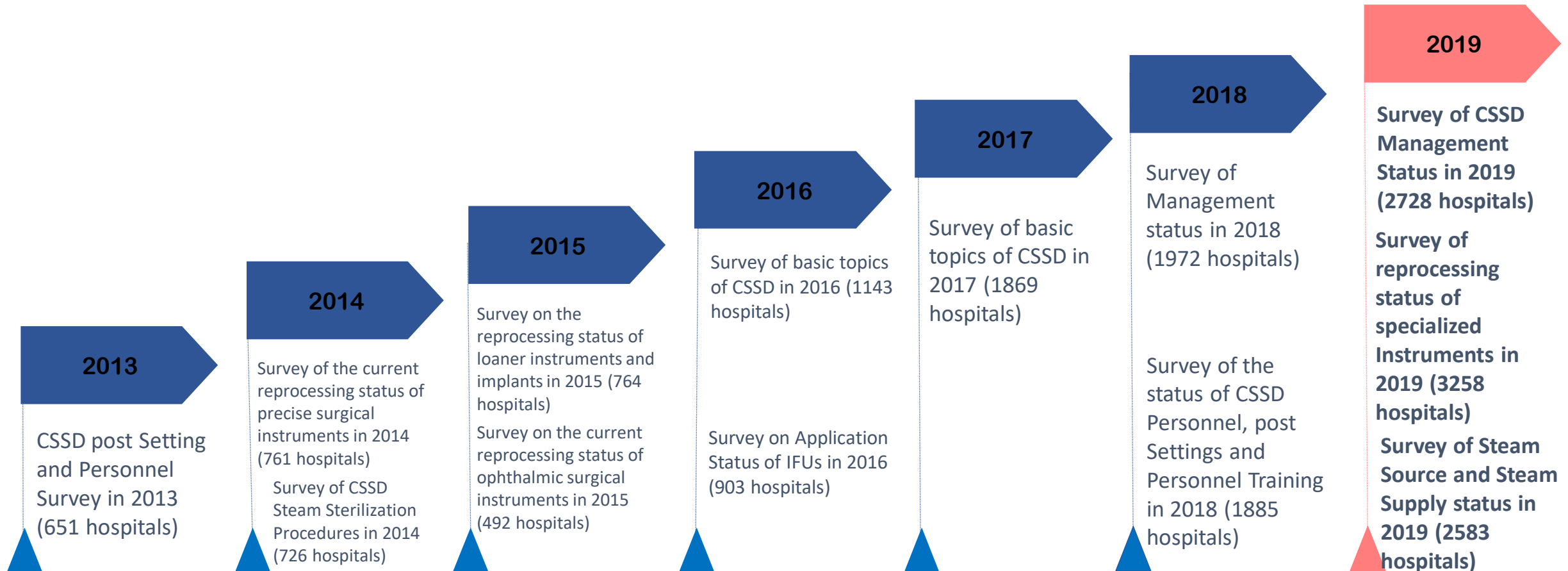
- National Operational Guidelines for Cleaning, Disinfection and Sterilization of Rigid Endoscopes and Instruments
- National Operational Guidelines for Cleaning, Disinfection and Sterilization of Ophthalmic Surgical Instruments
- National Operational Guidelines for Cleaning, Disinfection and Sterilization of Loaner Instrument"
- The first Best Practice Competition of Reprocessing Guide



# »» Current Developing Status— Survey



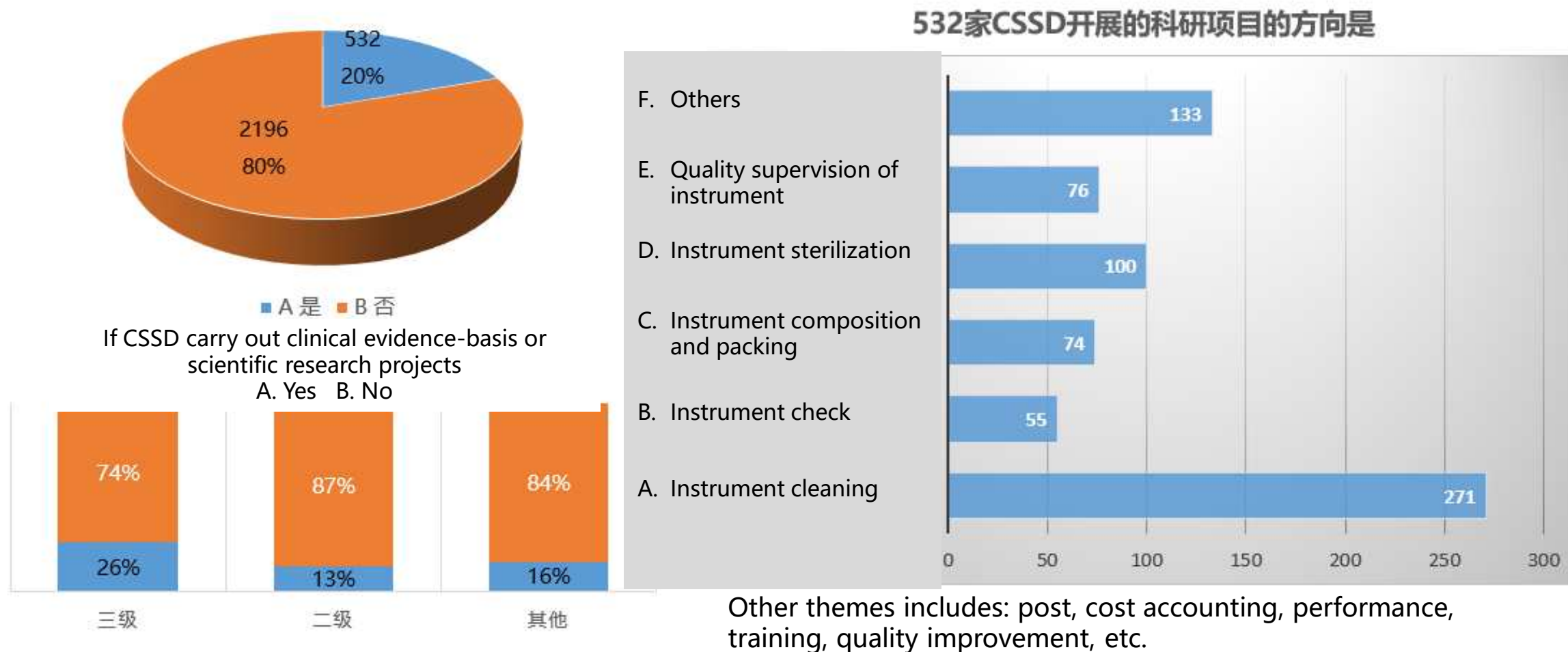
From 2013 to 2019, CNA-CSSD completed 13 national surveys. It covers the current status of precise surgical instruments, loaner instruments and implants, application of IFUs, post setting and centralized management, etc.

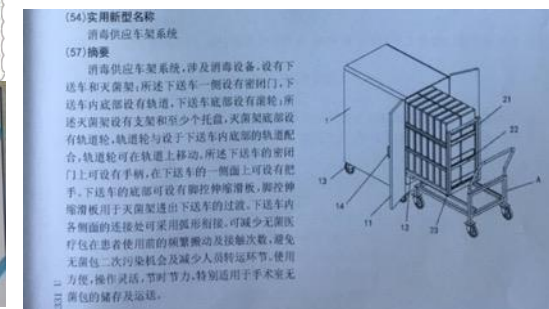
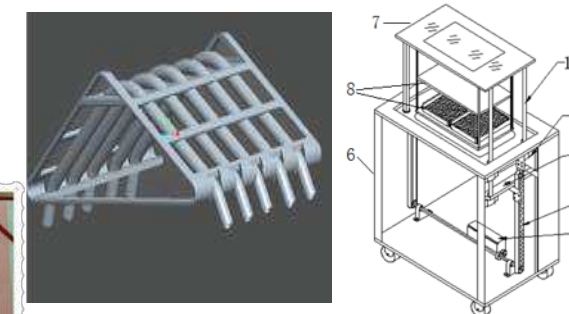
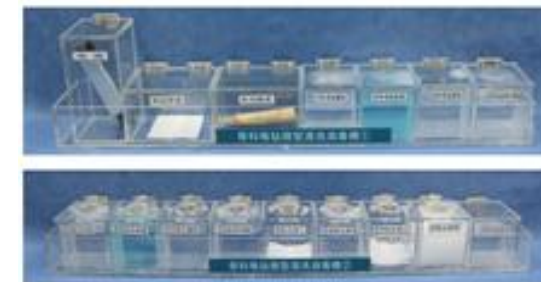
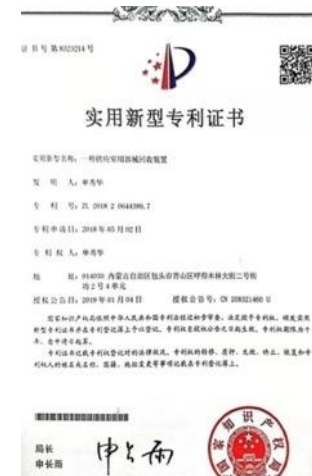
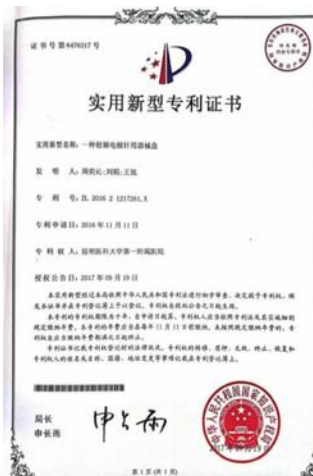


# » Current Developing Status—R&D and Innovation



20% of hospitals in China carried out clinical evidence-basis or scientific research projects.



[illegible]

## » 4.Challenge & Vision



1.Review of  
CSSD History



2.Development  
Background



3.Current  
Developing  
Status



**4.Challenge &  
Vision**

# » Challenge & Vision—Challenges



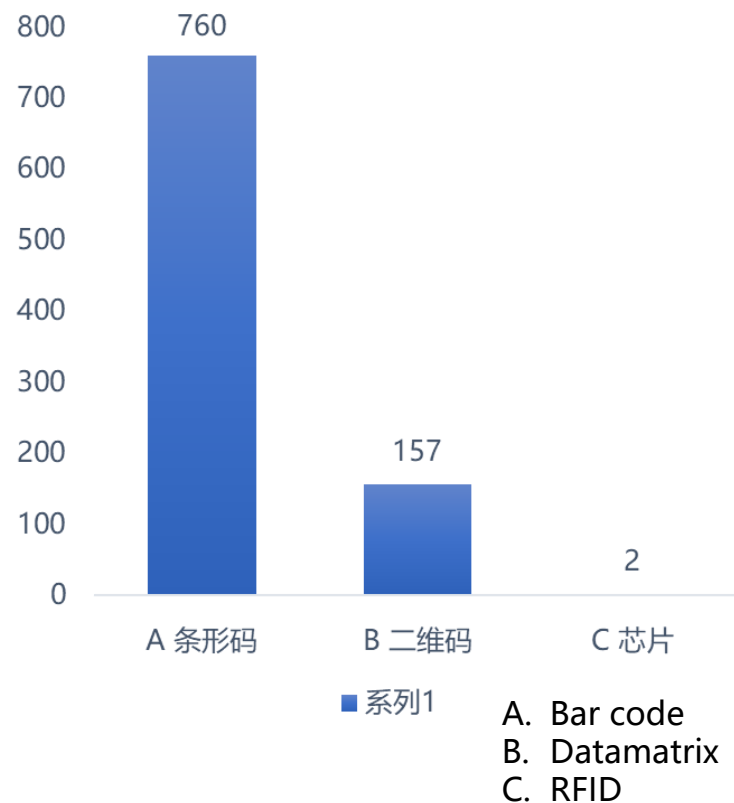
- ▶ Further promoting the Reprocessing of Difficult Specialized instruments in CSSD Centralized Management
  - 01 — Reprocessing of flexible endoscopy
  - 02 — Reprocessing of loaner instrument
- ▶ Pay Attention to Key Points and Processes to Improve the Reprocessing Quality of Instrument
  - 01 — Steam quality
  - 02 — Obtain and follow the manufacturer' s IFUs
- ▶ Exploring the Development of outsourced CSSD/Medical union CSSD

# » Challenge & Vision—Challenges

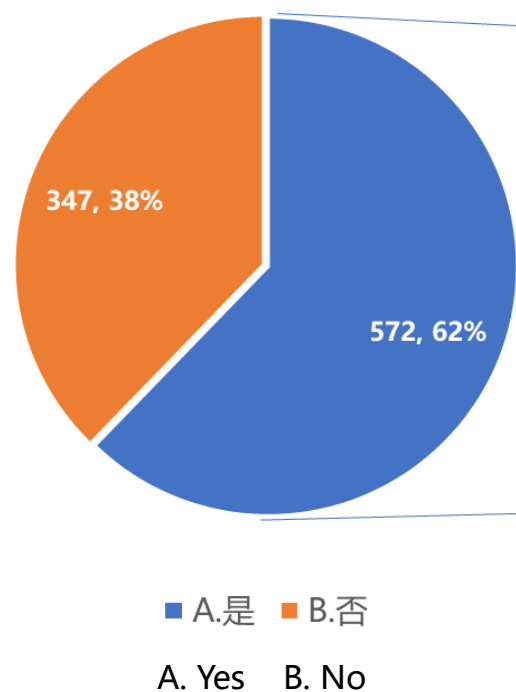


## Application Status of CSSD Information System

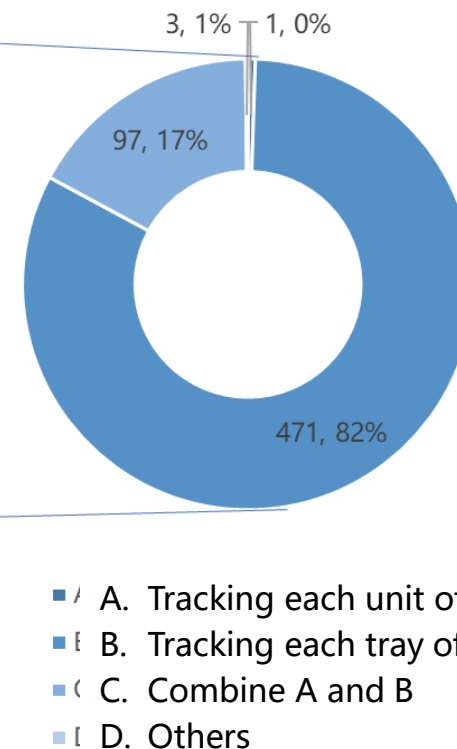
920 hospitals  
Tracking methods adopted by the CSSD which using  
informatization quality traceability management



920 hospitals  
If the CSSD which using informatization  
quality traceability management reach  
the total informatization management



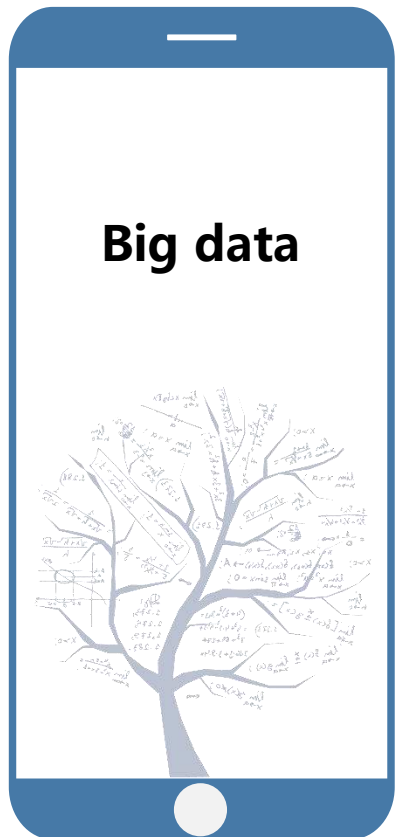
572 hospitals  
Tracking method adopted by the CSSD  
which reach the total informatization quality  
traceability management



# CSSD system



## Big Data Helps CSSD Enter the Age of Intelligence



### Platform construction

- ✓ Construction of Mobile CSSD Information Platform
- ✓ Big Data and CSSD Management Decision Support Platform
- ✓ Whole Process CSSD Service Platform



### Articles network

- ✓ Application of Information Technology and Innovation of articles network
- ✓ Innovation of article network and CSSD Management Application



### Informatization + Artificial Intelligence

- ✓ Research and Application of Artificial Intelligence, Articles Network, Big Data and Digital Technology in CSSD



### Intelligent hospital

- ✓ Application of Intelligent Hospital Management in Nursing Field
- ✓ Construction of Intelligent Ward, Intelligent Ward region and Intelligent CSSD



### Thinking more

- ✓ Development Trend of CSSD Technology and informalization Product
- ✓ More infinite possibilities...

# » Looking Forward



## The Way to Professional Development of CSSD

● Standardization  
Normalization



● Professional  
Precise  
Informatization



● Digitization  
Scientific  
Intelligent





# **THANK YOU FOR YOUR ATTENTION!**

**Zhang Qing**

**zhangqing9191@163.com**

**President of CNA-CSSD**

**CSSD Director of Peking Union Medical  
College Hospital**