

Strengthening the Emergency Medical Service System of Beijing, China

--- Case study

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1. Context

- **Emergency medical services (EMS)** are a type of emergency service dedicated to providing out-of-hospital acute medical care, transport to definitive care, and other medical transport to patients with illnesses and injuries which prevent the patient from transporting themselves (http://en.wikipedia.org/wiki/Emergency_medical_services).
- EMS is supplied by the Emergency Medical Service System (EMSS).

2. Main problems

- EMSS of Beijing has poor efficiency compared to some other cities
- Accessibility to EMS is not fair
- EMS has poor quality
 - Call-response time too long
 - Complaint rate high

Comparison of EMSS input-output between Beijing and Bavaria, Germany (2004)

		Bavaria	Beijing
Population		12, 37million	17, 00million
Size		350, 000 sq. km.	16, 800 sq. km.
dispatch centre		26	12
Station		500	130
staff	dispatcher	400	1500 physician, nurse, Dispatcher
	paramedic	3000	
	physician	270	
ambulance		500-600	254
number of call		3, 200, 000	300, 000

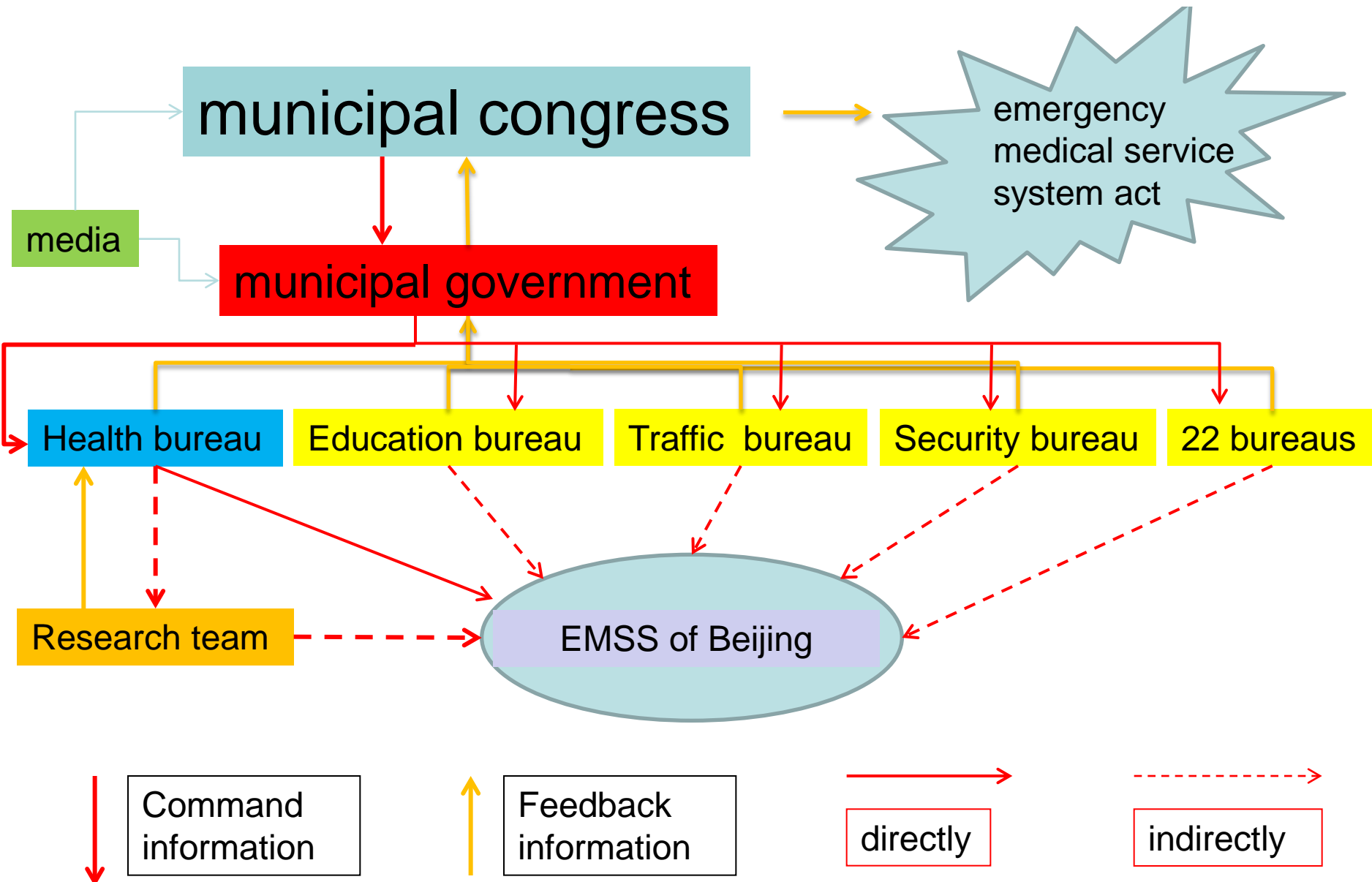
3. Aim of the research

- Find main problems existing in EMS and EMSS of Beijing
- Find the causes of the main problems
- Supply policy recommendations
- Push forward the research results to policy
- ◆ To save lives

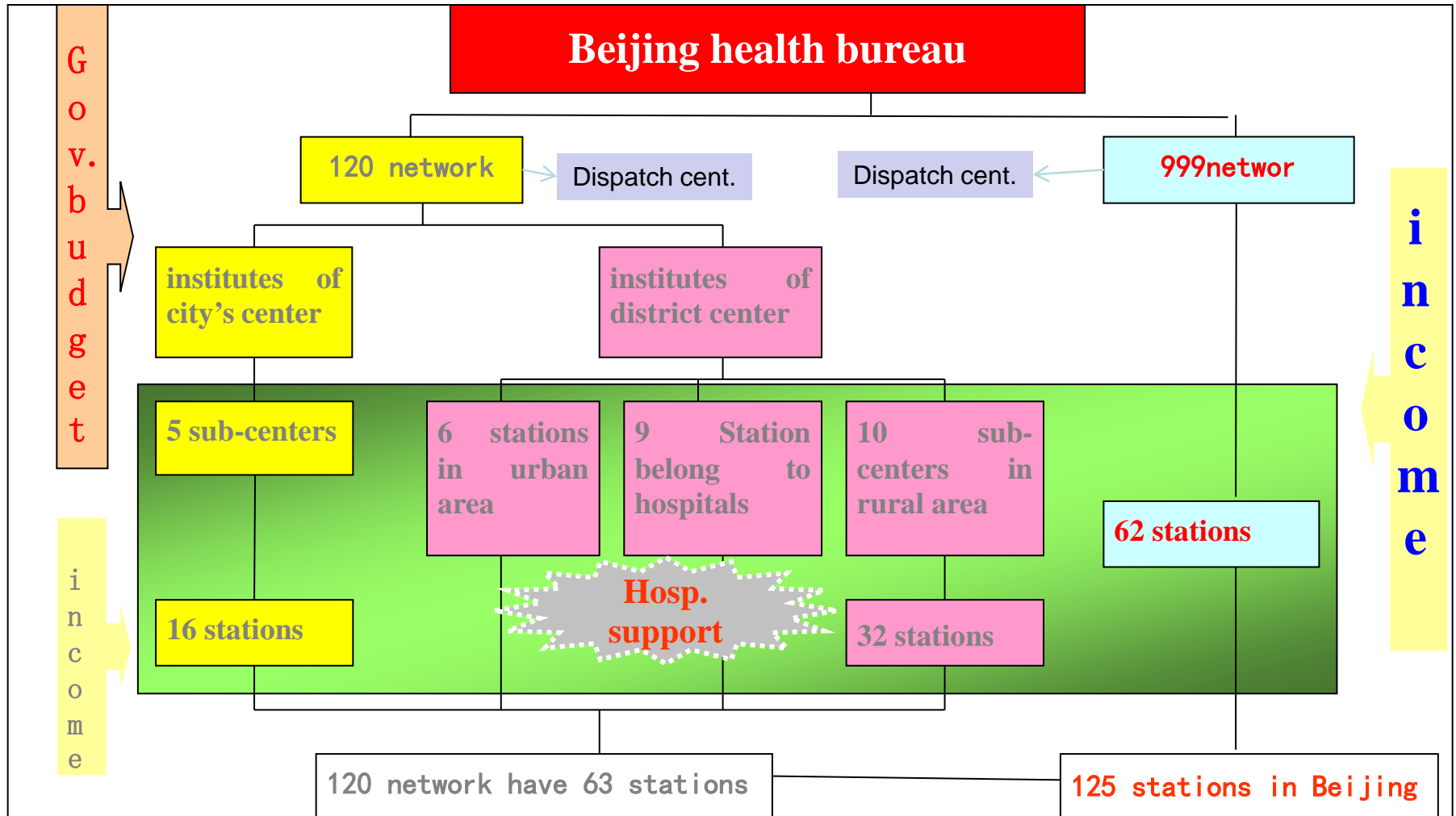
4. Who was intended to benefit

- Governments
- Emergency Medical Service System
- People in Beijing

5. The structure of the policy system



The organization of emergency medical service system



6. The policy model

- Rational comprehensive model
 - Collecting and analyzing sufficient information;
 - Canvassing, assessing and comparing options.
- Stages model
 - Followed the policy cycle;
 - Pay more attention to policy analysis and policy instruments.
- Punctuated equilibrium model
 - 2008 Olympic games will be held in Beijing

7. Scoping (same as main problems)

- EMSS of Beijing has poor efficiency compared to some other cities
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8. Boundary setting

(1) Capacity of EMSS

1) Station distribution

2) Dispatch criteria

3) Station criteria

4) Staff criteria

(2) Coordination between EMSS and hospitals

(3) Duties of relevant departments.

(4) Promoting first-aid in communities, schools, etc.



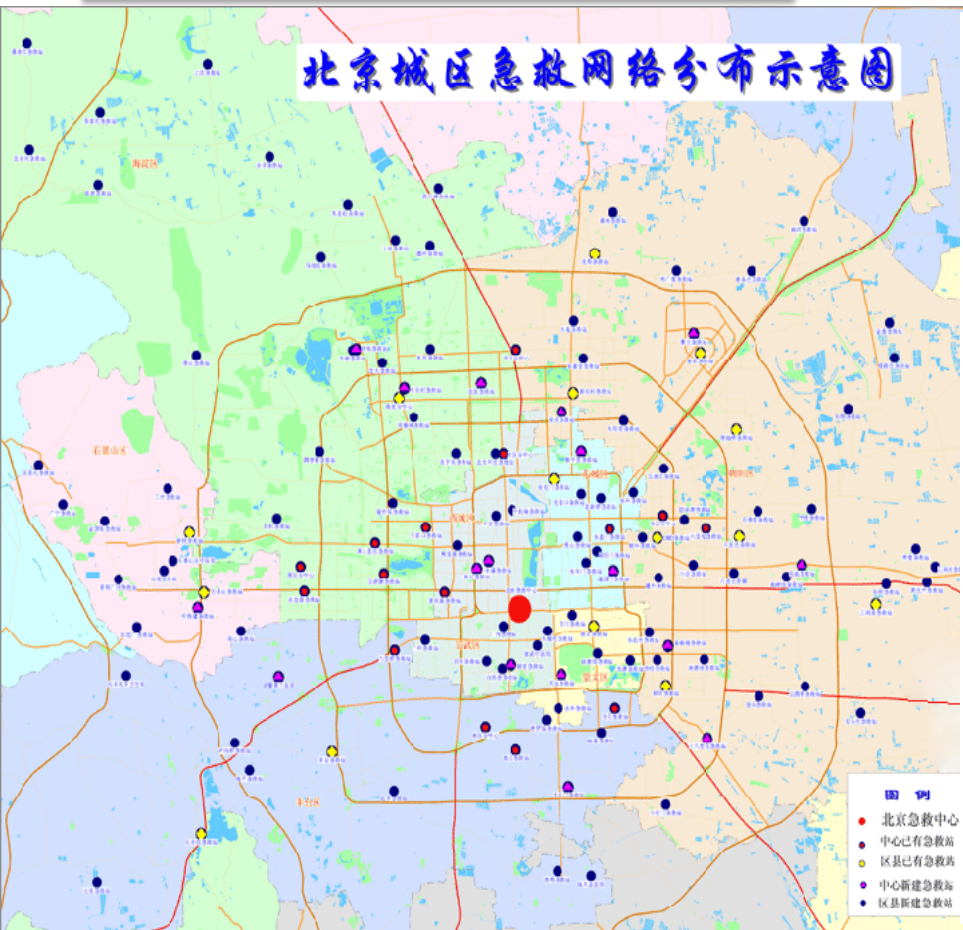
9. Framing

- EMS Staff
- EMS Station
- EMS Dispatch
- First aid in communities, schools, other places.

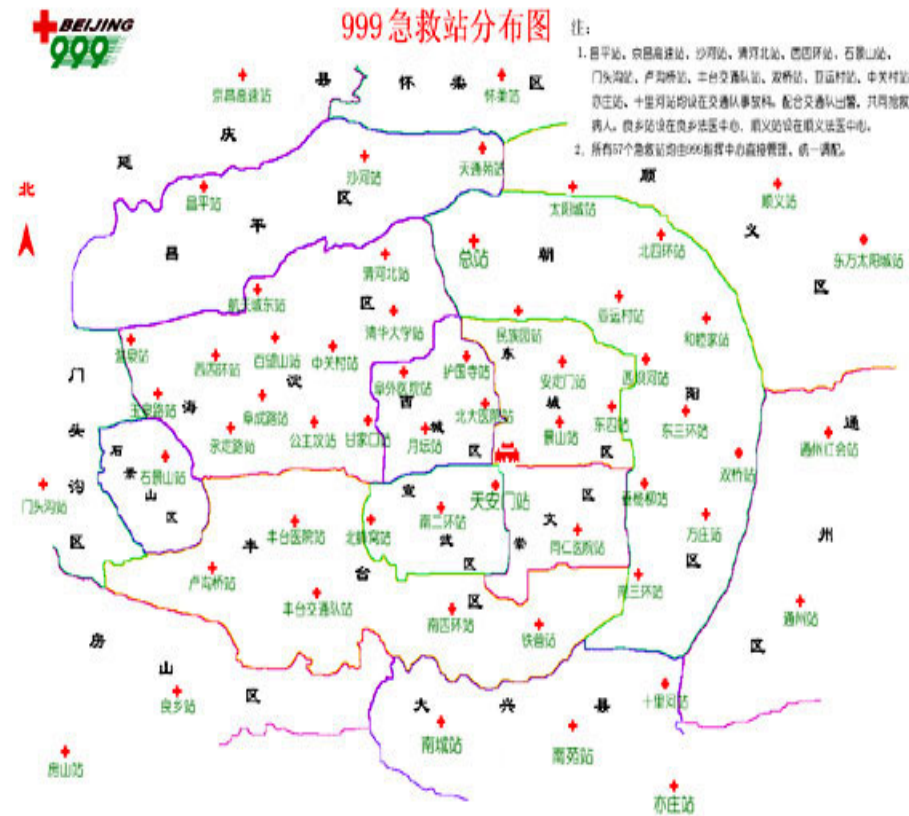


EMS stations distribution in Beijing

120 network



999 network



10. Taking **values** into account

- Human life is the most important
 - Call-response duration should be shorter;
 - Medical service on the field should be more effective;
- Life is first for everyone
- System should have high efficiency.

11. Harnessing “good” differences and managing “bad” differences

- **Good difference:** our research team includes the researchers who have different majors, such as policy, law, epidemiology, economics and statistics.
- **Bad difference:** there are 2 EMSS in this city which makes it difficult to unify the station distribution, criteria, and phone number.

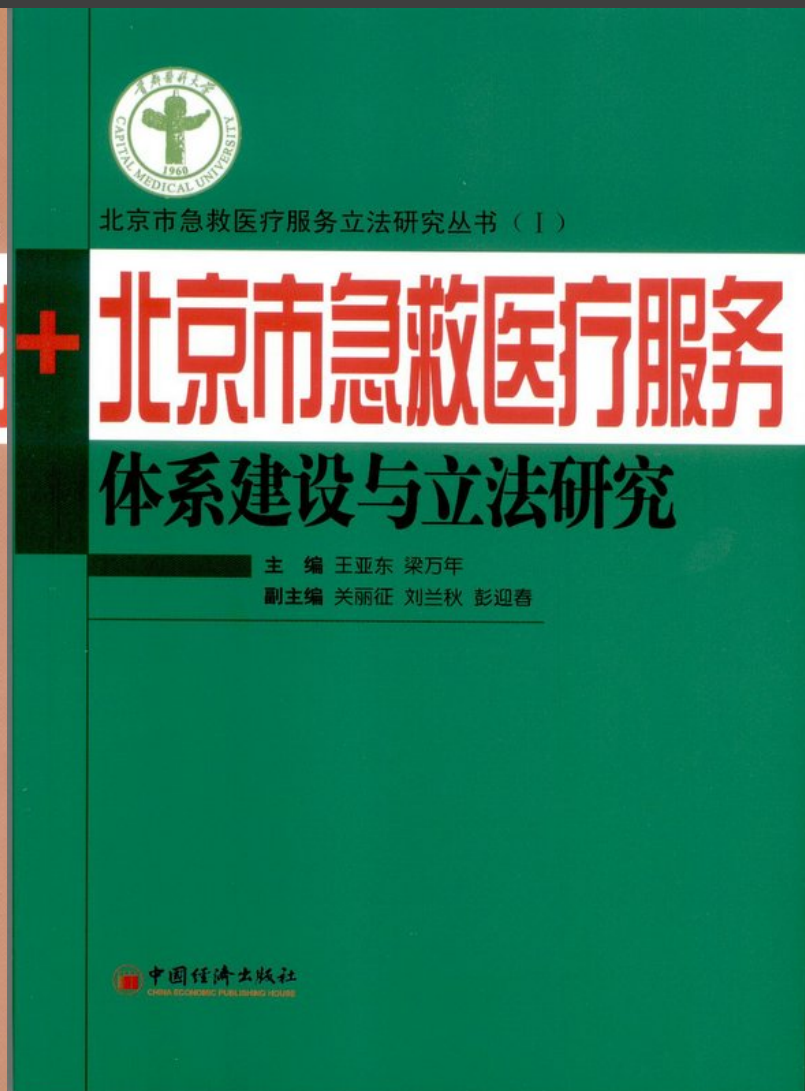
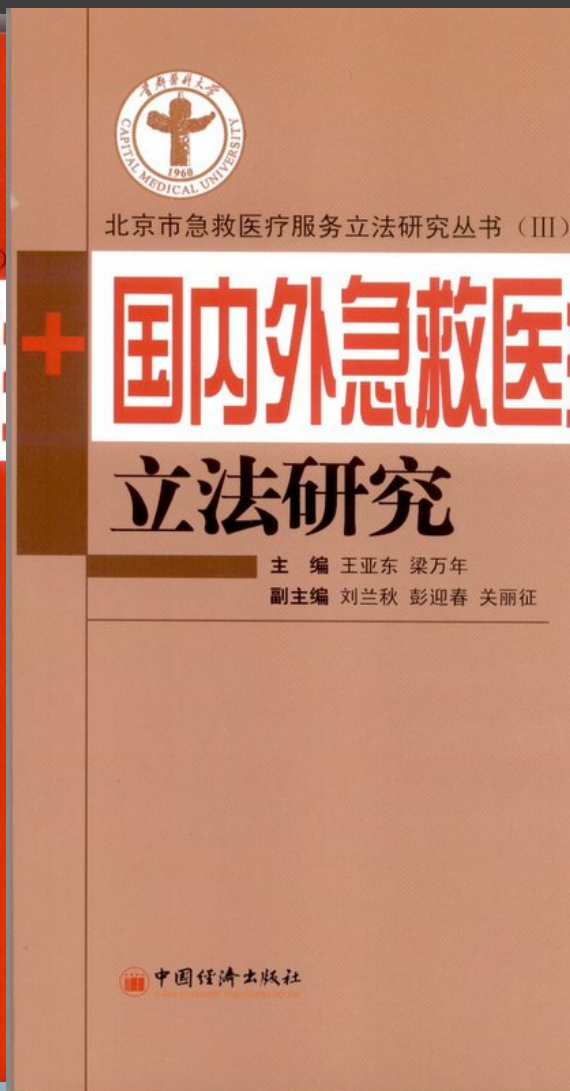
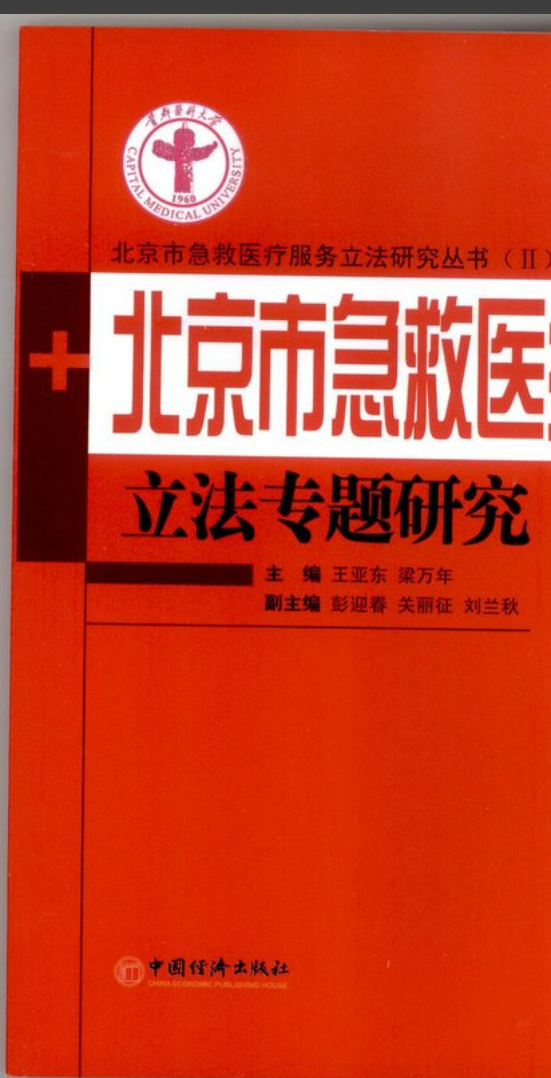
12. Research contribute to policy development

(1) Communication

- The research team published **more than 20 papers** in professional journals and **3 books** on EMSS of Beijing.
- Sent the books to health bureau, municipal government and municipal congress.
- Held seminars to introduce the research results.



Book published by research team



(2) Advocacy

- Talk with media about the necessity for the EMSS legislation.
- Representatives submit the bills at the municipal people's conference.

(3) Engagement

- Attend the EMSS seminars held by health bureau, municipal government and congress.

13. Who provided the support for policy development

(1) The research team leader (me)

- As the member of consulting committee of Beijing health bureau, I has opportunities to offer the policy brief.

(2) Other researchers

- Who introduce the research results in the conference.

(3) Media

- Beijing TV, Beijing Evening Paper reported EMSS legislation in a series.

14. When was the research used to influence policy development ?

(1) During the research

- The research team supplied the research results to the government a few times.

(2) At the end of this research.

- Supplied full research findings.

15. Overall context of the research

- Politics ask for more harmonious society (an EMS problem easily become a social problem);
- Economic development ask for better medical service;
- Aging of population ask for more emergency medical services.

◆ **Beijing need a more effective EMSS.**

16. Authorization

- This research was funded by the Beijing health bureau;
- Give the research team support and help
 - Open its database to research team
 - Help us collect data from health institutes
 - Be interviewed by research team
 - Held seminar about EMSS
 - observe and study the EMSS of other cities domestic and abroad

17. Organization facilitators and barriers

(1) University

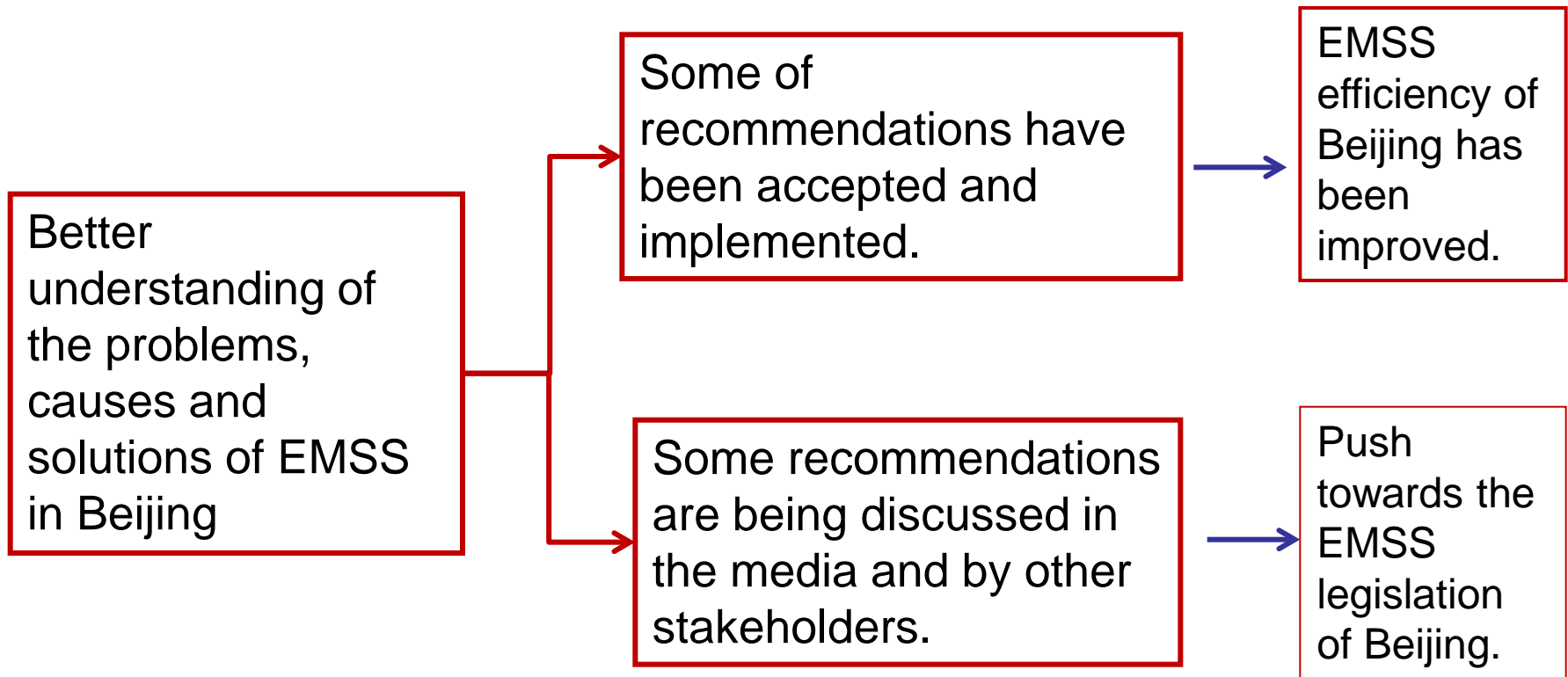
- Research team, Literature, Relevant experts
- ◆ To contribute to policy-making will be praised
- Free communication among researchers

(2) Beijing health bureau

- The research supply evidence for legislation
- Database is accessible for research team
- ◆ To invite the most famous experts to attend

(3) Barriers: Conflict with a few existing laws

18. Outcome





Thank you!