China Health Review 6:1 (2015) Page 12-22 Submitted April 3, 2015; Published September 8, 2015

REVIEW

Resolving and Preventing Medical Disputes in China

Zhi Geng ZHI.GENG@EMORY.EDU
Department of Health Policy and Management
Rollins School of Public Health
Emory University
1518 Clifton Rd. NE
Atlanta, GA 30322, United States
Tel: +1-404-401-6980

Editor: *Z Chen*

Abstract

Medical disputes have been a major issue for the Chinese government. Though Chinese government implemented regulations on handling medical accidents in 2002, annual incidents of medical disputes have dramatically increased from 6,324 cases in 2003 to 115,000 cases in 2014. Several factors led to the medical disputes from the perspectives of patient satisfaction, physician performance and the healthcare system. This paper explores the reasons underlying the complex issue and tangible solutions to address the medical disputes in the future.

Keywords: Medical Disputes, Medical Malpractice, Patient Satisfaction, Physician Performance, China Healthcare Reform

摘要

医疗纠纷已成为困扰中国的一件大事。尽管中国政府于 2002 年推行了《医疗事故处理条例(草案)》， 医疗纠纷事件从 2003 年的 6324 起急剧上升到 2014 年的 11,5000 起。从病人满意度，医生行为和医疗体系等方面看，医疗纠纷并非单一因素造成的。此文剖析了医疗纠纷的成因，并提供了未来解决医疗纠纷的可行方法。

关键词：医疗纠纷，医疗事故，病人满意度，医生行为，中国医疗改革

1 Background

China's healthcare system is in transition. More than three decades ago, the majority of Chinese patients enjoyed healthcare services that are fully compensated or heavily subsidized by the government (Li et al, 2014). By 2001 the public's out-of-pocket share of spending on health had increased to 60%, up from 20% in 1978 (Yanlin Zhang, 2014; Jianfeng Bai, 2015). As the government gradually eased funding public healthcare providers in the 1980s, some have indicated that hospitals found themselves pressured to prescribe more medicines and tests in order to make ends meet (CPC Cent. Comm. & State Council, 2009) High quality care became more difficult to maintain China as patients were assigned to inappropriate screenings, procedures, and medications (Huifeng Wang, 2009). Although most urban residents were covered by healthcare plan through their employer, migrant workers and rural residents were not (Wangchuan Lin et al., 2009). Reforms implemented in 2009 have endeavored to enroll the uninsured rural residents in the healthcare insurance,

who cannot afford the cost of medical care, in particular for major health issues. Previous study indicated that China's health reforms had covered more than 89% of the Chinese population (Winnie Chi-Man Yip et al., 2012). Nevertheless, the financial burden continue to be prohibitive even for those enrolled in new healthcare plans due to low insurance coverage rates, especially for catastrophic injury or illness.

1.1 Increasing incidents of medical disputes in China

Statistics from medical institutions indicate that the medical disputes in China have continuously increased since 2003, even though no nationwide official statistics were available (Zhao Min and Tao Peng, 2013). From 2003 to 2014, the medical dispute cases in various parts of China were occurring at an increasing rate (Nili Zhang et al., 2014) (Table 1). The data from 2003 to 2005 was provided by the Division of Complains and Appeals of the Ministry of Public Health, which conducted the investigation of medical disputes in 2005 among 16 provinces and cities, including Beijing, Shanghai, Gansu, Guangdong, Hebei, Henan, Hunan, Jiangxi, Jilin, Liaoning, Nei Mongol, Shaanxi, Shandong ,Sichuan, Yunnan, and Zhejiang (Nili Zhang et al., 2014). The rest of the data from 2006 to 2014 was released from National Health and Family Planning Commission of the People's Republic of China, representing the whole population across the country (Liebman, B. L., 2013; China's Health Service Development, 2006; China's Health Service Development, 2008).

Item		Annual cases of medical disputes	Annual number of patients examined (millions)	Incidence of medical disputes per 10,000 examined patients
2003		6,324	67.38	0.94
2004		7,716	74.96	1.03
2005		8,474	93.96	0.91
2006		9,831	2,446	0.04
2008		19,662	3,532	0.06
2013		70,000	7,300	0.1
2014		115,000	7,800	0.15
%Increase	**2003-04**	22.01	11.3	9.5
%Increase	**2004-05**	9.82	25.4	-11.65
%Increase	**2006-08**	50	44	38.5
%Increase	**2013-14**	64	6.85	53.8

Note. From: Yanlin Zhang. 7.3 Billion Outpatient Visits and 70 Thousand Cases of Medical Disputes across China in 2013. (2014-03-06); Jianfeng Bai. 115 thousand cases of medical disputes in 2014. (2015-01-22); Current Status and Legal Treatments of Medical Disputes in China, Legal and Forensic Medicine, 2013, pp 1445-1457; Liebman, B. L. (2013). Malpractice mobs: medical dispute resolution in China. Columbia Law Review, 181-264; Statistic Bulletin on China's Health Service Development in 2006; Statistic Bulletin on China's Health Service Development in 2008.

Table 1: Number of incidents of medical disputes in China from 2003 to 2014

1.2 Purpose of the analysis

This paper is aimed to summarize the medical disputes in China by detecting and discussing different types of factors that contribute to the medical disputes, while it further presents the tangible solutions to reverse the trend of the medical disputes in the near future.

2 Method

Given that the medical disputes are in relation to medicine, public health and sociology, this paper is based on comprehensive strategy of exploring multiple databases in both Chinese and English. Inclusion criteria were journal articles, newsletter, and government reports: (1) related to China's medical disputes; (2) evaluating physician-patient relationship; (3) defining violence against doctors in China; (4) providing evaluation on legal settlement of medical disputes; (5) providing statistics or public policy assessment on medical disputes in China; and (6) news reports, statistical reports, review papers or theoretical discussion. The search terms used by the author are medical disputes in China, medical malpractice in China, China healthcare reform, patient-physician relationship, violence against doctors in China, and clinical performance improvement in China.

The following exclusion criteria were also defined: (1) articles where evaluation of medical disputes was based on case report only; (2) studies evaluating practitioners' views, or subjective opinions. 169 articles were retrieved, of which 22 were included for analysis and referenced for this paper. Since the medical disputes after 1998 were documented thoroughly and available for analysis (Li et al., 2014), the author limited the search to years of publication from 1998 to 2014 in order to investigate the potential factors continuously driving the medical disputes and the possible resolution to prevent those issues. The author retrieved published papers from Pubmed, Google, Advanced Google, Google Scholar, conference proceedings (e.g. "Ministry of Health hold the working conference about the hospital management"), Chinese government publications (e.g. "Prescription control regulations" by Ministry of Health) and relevant literatures outside of health research.

3 Results

Several factors were associated with medical malpractices that led to medical disputes. From 1998 to 2011(Li et al., 2014), four major medical malpractices contributing to the medical disputes were the medical technology related error (79 percent), the medical ethics related error (7 percent), medical product related error (7 percent), and the medical management error (7 percent) (Table 2).

Type of Medical Malpractice	Frequency	Percentage (%)
Medical technology related	472	79
Surgery	**142**	**24**
Medications usage	**82**	**14**
Diagnosis	**70**	**12**
Treatment	66	11
Pregnancy and delivery	61	10
Infection	17	3
Nursing	15	2
Monitor	12	2
Anesthesia	7	1
Medical ethics related	**40**	**7**
Informant	38	6
Privacy	2	<1

Type of Medical Malpractice	Frequency	Percentage (%)
Medical technology related	472	79
Surgery	**142**	**24**
Medications usage	**82**	**14**
Diagnosis	**70**	**12**
Medical product error	**43**	**7**
Blood and blood products	20	3
Medical equipment	22	4
Drugs	1	<1
Medical management error	**42**	**7**
Administrative management	23	4
Medical record management	14	2
Risk management	5	<1
Total	**597**	**100**

Note. From Li et al. Claims, liabilities, injures and compensation payments of medical malpractice litigation cases in China from 1998 to 2011. BMC Health Services Research 2014, 14:390

Table 2: Top drivers associated with medical malpractice that caused disputes in China from 1998 to 2011

3.1 Departments where medical disputes occurred

Most medical malpractice disputes in China occur in departments of general surgery, internal medicine, obstetrics and gynecology, and orthopedic (Nili Zhang et al., 2014). (Table 3)

Departments in hospitals	Cases of medical disputes	Percentage (%)
General Surgery	2606	32.16
Internal medicine	1538	18.98
Obstetrics and gynecology	1232	15.20
Orthopedic	722	8.91
Pediatrics	580	7.16
Outpatient and emergency departments	402	4.96
Clinics	318	3.92
Others	310	3.83
Ophthalmology and otolaryngology	277	3.42
Clinical laboratory	119	1.47
Total	**8104**	**100**

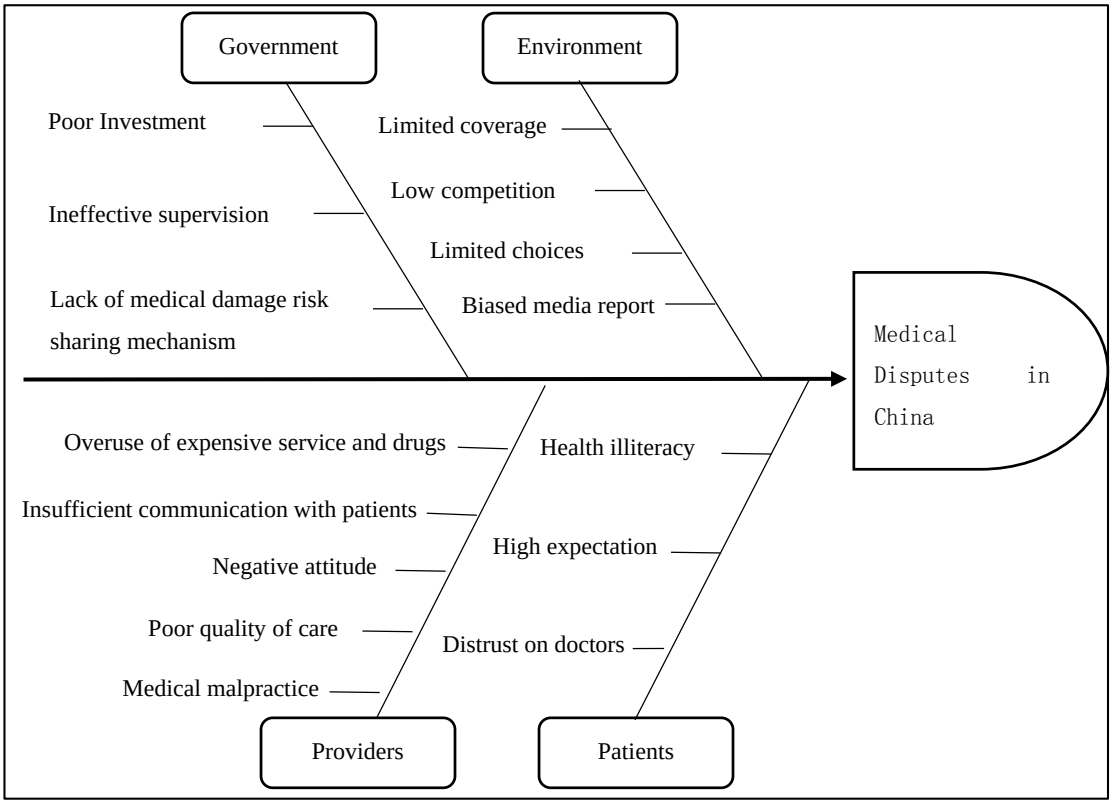
Note. From Nili Zhang et al. Statistical Analysis of Medical Dispute Cases Based on Related Literature from 2009 to 2013, Medicine and Society Vol.27 No.6 Jun. 2014.

Table 3: Departments in hospitals where medical disputes occurred from 2009 to 2013

3.2 Reasons, preventions, and resolutions of medical disputes from various perspectives

Broadly speaking, several factors contribute to the medical disputes plaguing the Chinese hospitals nationwide. (Figure 1) First, since patients and their families are paying large amount of out-of-pocket expense for the medication and the procedure, they have higher expectation of the outcomes (Liu Yi & Tian Feng, 2008). On one hand, most patients who do

not have sufficient health literacy delay the treatment until the last minute, which causes undesirable outcomes. On the other hand, poor patient-provider communication on the uncertain outcome of the procedure results in patients' great expectations. (Figure 2) Second, the delivery of the quality care in urban and rural providers fails to meet the demand of the poor population for its unreliability and inconsistency (Zhao Zhongwei, 2006). In China, patients' appointments with physicians are as short as 3 to 5 minutes because of the volume of patients, shortage of primary care, and profit-driven culture in most large public hospitals (Report on Nationwide Health Services, 2011). Worse, the healthcare system does not win the trust from the patients due to corruptions and questionable practices. More than half of physician's income consists of side payments from patients, kickbacks from drug companies, medical device manufactures and moonlighting (Shixin Liu, 2012; Yu H et al, 2015). Recently government began to address some of the issues in the healthcare system, such as demand for increased state funding and for restructuring the financial incentives facing healthcare providers. (Table 4) Though significant healthcare reforms are underway, costly overhaul of the system will take years to implement (Xuebin Wen et al., 2015; Hannah Beech, 2013).

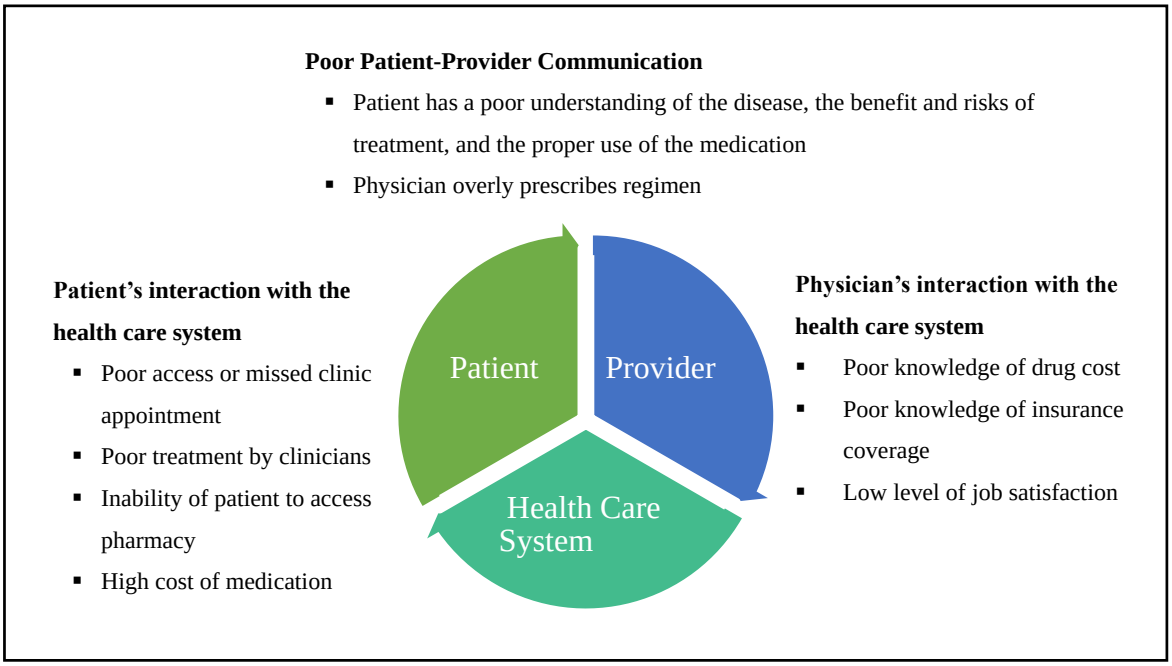


Note: From Yu H, Hu Z, Zhang X, Li B, Zhou S. How to overcome violence against healthcare professionals, reduce medical disputes and ensure patient safety. Pak J Med Sci 2015;31(1):4-8.; Huifeng Wang, A Dilemma of Chinese Healthcare Reform: How To Re-define Government Roles?, 20 China Econ. Rev. 598, 601–02 (2009); Liu Yi & Tian Feng, Brief Analysis of the Causes and Prevention of Medical Disputes, Chinese J. Current Hosp. Admin., no.1, 2003; Shanlian Hu. Measuring and Improving Quality of Care in China: Strengths & Challenges. Healthcare Reform in China and the U.S: Similarities, Differences and Challenges April 13, 2011 Atlanta; Li et al. Claims, liabilities, injures and compensation payments of medical malpractice litigation cases in China from 1998 to 2011. BMC Health Services Research 2014, 14:390

Figure 1: Cause-and-effect diagram of medical disputes in China

4 Discussion

Although most medical malpractices were attributable to the medical technology related errors, errors of staffs, ethics or management of diseases should not be ignored when hospitals consider preventing medical disputes. To address this problem, the Chinese hospitals could learn from the patient safety initiatives of Agency for Healthcare Research and Quality in the United States (AHRQ). It would take years of efforts to reduce errors by changing the organizational culture, involving senior leaders, educating providers, and establishing patient safety committees (AHRQ's Patient Safety Initiative Building Foundations, Reducing Risk., 2013).



Note: From "Improving Glaucoma Patient Compliance" available at http://www.ophthalmologymanagement.com/articleviewer.aspx?articleID=103767

Figure 2: Poor Patient-Provider Communication.

	From perspectives of			
	Patients	**Providers**	**Insurers**	**Government**
Prevention and Resolution	Patient health education; sufficient communication	State-owned hospitals should become privatized; patient physician relationship should be established based on mutual trust and respect; continuous quality improvement	Some form of private insurance integrated with government insurance will achieve population health promotion; establish hospital liability insurance	Facilitate even the poorest citizens to access to healthcare; Third-party mediation becomes the most important channel for solving medical disputes besides litigation; Create medical damage risk sharing mechanism

Note. From Huifeng Wang, A Dilemma of Chinese Healthcare Reform: How To Re-define Government Roles?, 20 China Econ. Rev. 598, 601–02 (2009); Liu Yi & Tian Feng, Brief Analysis of the Causes and Prevention of Medical Disputes, Chinese J. Current Hosp. Admin., no.1, 2003; Shanlian Hu. Measuring and Improving Quality of Care in China: Strengths & Challenges. Healthcare Reform in China and the U.S: Similarities, Differences and Challenges April 13, 2011 Atlanta

Table 4: Summary of preventions, and resolutions of medical disputes from different perspectives in the future

4.1 More medical disputes occurred in high-risk medical specialties

General surgeries, internal medicine and Obstetrics and gynecology are three departments where most medical disputes happen. This phenomenon can be explained by the fact that these departments were medical-risk specialties. First, surgery patients suffering from severe diseases expect dramatic improvements after a major procedure and. Second, patients visit internal medicine department more often than the other departments, increasing the likelihood of medical disputes. Third, obstetrics and gynecology tends to draw more attention from patients and their families because it deals with newborns or the female reproductive system. Fourth, surgical procedures in orthopedic department are more dramatic and risky than other specialties. The possible solutions available for the Chinese providers and governments are also offered by AHRQ: (1) enhancing the communication not only between patients and doctors, but also within a healthcare team; (2) developing and following policies, guidelines, protocols, and processes; (3) improving orientation and training among medical staffs who provide care; (4) optimizing work flow by reducing the problems of inadequate staffing.

4.2 Government's role in prevention of the medical disputes involving physicians

First, investing public health and improving rural health services. More efforts are required to facilitate patients to access to primary care, enhance the medical education in institutions of higher education, and eliminate the inequality of health care services between urban and rural areas. Second, emphasis on controlling healthcare costs. Although a guideline was implemented in 2004 to control physicians' prescription activities to reduce unnecessary prescriptions of drugs, China's complicated healthcare system makes it difficult for providers to fully comply with the policy (China's Prescription Control Regulations, 2004). The government needs to carry out more effective initiatives with the purpose of reducing costs to provide more affordable healthcare service. Third, increasing quality of patient care within hospitals. Generally speaking, quality of patient care largely depends on improving financial management, controlling costs, establishing appropriate supervisory roles and upgrading the human resource system (Working Conference about the Hospital Management, 2005). Some study further indicates that the top ten healthcare quality issues in Chinese hospitals are multi-drug resistant, rational use of medicines and medical procedures, drug quality safety and ADR monitoring, hospital accreditation, clinical guidelines and pathway, and medical errors (Shanlian Hu., 2011).

Furthermore, government needs to design and implement "universal" health insurance system so that patients who are enrolled in the universal health coverage plan would receive the consistent treatment, regardless of their ability to pay (Developing Commercial Health Insurance in China, 2005). This is no easy task – the government has to consider a multitude of factors, such as how to: raise the funds for medical care; distribute this financial burden evenly; appropriately limit the scope of services; achieve high-quality, consistent results. Chinese government should explore and test a mixed public/private model, which will facilitate insurance choices, social stability and economic development, while limiting government expenses. Last but not the least, government needs to build the centralized

database, which serves as patient information sharing platform linking healthcare providers. Such reliable health network will become the cornerstone of the national health information infrastructure and facilitate communication among patients, providers, health professionals, government and payers. The purposes of the nationwide health network include but not limit to, public health services, tracking of chronic health problems, analysis of medical treatment, and better understanding of costs of medication and procedure. Therefore, how well healthcare providers are able to prevent medical disputes rests with how well government enforces measures to increase quality of patient care in the areas mentioned above.

4.3 Steps to resolve medical disputes through hospital management reform

Step 1: Enhance of The Infrastructure of Healthcare Providers

To begin with, hospitals should address internal operational management issues and therefore improve efficiency (Chee Hew, 2006).

1) Enhance hospital management skill sets and implement a Board of Directors governance model.
2) Define and utilize clinical protocols and standards of care.
3) Improve business processes in hospital setting, such as government reimbursement, procurement processes to cut costs, and financial reporting for better control and management.
4) Enhance internal Information Technology environment to accomplish more efficient clinical and business processes.

Step 2: Strive For Expansion And Sustainable Growth

1) Build strategic partnership with other healthcare providers, such as patient referral and joint procurement, and effectively manage other collaboration projects.
2) Develop and establish information networks required to share information with external stakeholders such as other hospitals, payers and local/regional/national health networks.
3) Improve Information Technology infrastructure to continuously increase clinical productivity and to support patient compliance and advanced medicine.

Step 3: Achieve Value-Based Patient Care

In the last step, healthcare providers can move toward value-based patient care. It is important to remember that providing value-based patient care does not necessarily entail higher costs, or require the use of advanced technology.

The emphasis should be to:

1) Strengthening training and administration of clinical care
2) Focus on patient-centered care by optimizing the care environment and services to improve the physical and emotional well-being of patients and families.
3) Promote academic exchange within China and across the world in terms of clinical treatment, medical training, and research programs.
4) Implement technology to increase productivity and efficiency in patient care.

4.4 Strength and Limitations

When it comes to resolving medical disputes in China, previous literatures proposed the adoption of hospital liability insurance and the establishment of medical damage risk sharing

mechanism (Wen et al., 2015). However, they failed to treat the root causes of the medical disputes in China: poor quality care and poor risk communication. This article has strengths compared with other research papers. First, this article comprehensively analyzes the factors leading to medical disputes by integrating different sources of updated data from 1998 to 2013. Second, the advantage of this proposed strategy lies in the government health policy and hospital management reform, which are aimed to improve quality care and enhance communications among patients, providers and the healthcare system. As mentioned previously, most medical disputes were attributed to medical technology errors associated with quality care, and most medical disputes occurred in high-risk specialties. Therefore, medical disputes are totally preventable if initiatives are taken to ensure the patient safety and enhance the risk communication. Third, when formulating the possible solutions, this article not only draws on the investigation from China (Shanlian Hu, 2011), but also refers to the relevant sources from other countries, such as IBM's report on China's health reform and the guidelines of AHRQ on patient safety.

This article may contain the following limitations. First, since some samples were abstracted from legal cases, involved in medical disputes, they may not fully represent medical disputes in China. Second, this article does not document the types and levels of hospitals as well as the types and severity of the medical disputes. Third, some issues regarding medical disputes were not discussed in details but require future analysis, such as the exaggeration of media reports, the compensation issue, patients' health education, universal coverage, etc.

5 Conclusion

Despite many factors that triggered the medical disputes in China, the medical disputes involving physicians in China are largely attributable to poor quality care and poor risk communication. The images of physicians collapsed years ago and it needs to be rebuilt by fixing the healthcare system and improving the healthcare quality. The pragmatic and sustainable methodologies to prevent the medical disputes are to increase the access to healthcare, improve the quality of patient-centered care, and rebuild the trust on doctors. By doing so, health professionals at different departments, levels and hospitals can ensure the stable and capable process of a health care system that can lead to more desirable outcome. In the near future, through the combination of efforts by central government and health care providers, the medical disputes will be prevented.

References:

Li et al. Claims, liabilities, injures and compensation payments of medical malpractice litigation cases in China from 1998 to 2011. BMC Health Services Research 2014, 14:390

Yanlin Zhang. 7.3 Billion Outpatient Visits and 70 Thousand Cases of Medical Disputes across China in 2013. Last modified March 06, 2014. http://news.china.com.cn/2014lianghui/2014-03/06/content_31697219.htm.

Jianfeng Bai. 115 thousand cases of medical disputes in 2014. Last modified January 22,

2015. http://news.xinhuanet.com/legal/2015-01/22/c_127409428.htm.

CPC Cent. Comm. & State Council，Opinion of the Central Committee of the Communist Party and the State Council on Deepening Reform of the Medical Health System, Xinhua Online, Apr. 6, 2009.

Huifeng Wang, A Dilemma of Chinese Healthcare Reform: How To Re-define Government Roles, 20 China Econ. Rev. 598, 601–02 (2009)

Wangchuan Lin et al., Urban Resident Basic Medical Insurance: A Landmark Reform Toward Universal Coverage in China, 18 Health Econ. S83, S83 (2009)

Winnie Chi-Man Yip et al., Early Appraisal of China's Huge and Complex Health-Care Reforms, 379 Lancet 833, 833 (2012).

Zhao Min and Tao Peng, Current Status and Legal Treatments of Medical Disputes in China, Legal and Forensic Medicine, 2013, pp 1445-1457

Nili Zhang et al. Statistical Analysis of Medical Dispute Cases Based on Related Literature from 2009 to 2013, Medicine and Society Vol.27 No.6 Jun. 2014.

Liebman, B. L. (2013). Malpractice mobs: medical dispute resolution in China. Columbia Law Review, 181-264

Statistic Bulletin on China's Health Service Development in 2006. Last modified January 1, 2007. http://www.nhfpc.gov.cn/mohwsbwstjxxzx/s7967/200805/34857.shtml

Statistic Bulletin on China's Health Service Development in 2008.Last Modified January, 2009. http://www.nhfpc.gov.cn/mohwsbwstjxxzx/s7967/200904/40250.shtml.

Liu Yi & Tian Feng, Brief Analysis of the Causes and Prevention of Medical Disputes, Chinese J. Current Hosp. Admin., no.1, 2003, Last modified September 3, 2008. http://journal.9med.net/html/qikan/yyglyyfyxwsx/zhxdyyglzz/2003911/ysfg/20080903014220702_15972.html.

Zhao Zhongwei, Income Inequality, Unequal Health Care Access, and Mortality in China, 32 Population & Dev. Rev. 461, 474 (2006)

National Health and Family Planning Commission. Report on Nationwide Health Services in April 2011. Last modified May 9, 2011, http://nhfpc.gov.cn/mohwsbwstjxxzx/s7967/201106/52031.shtml

Shixin Liu, 54% of Doctors Took Kickbacks, China Youth On Line, Nov. 3, 2012. Last modified, November 3, 2012. http://zqb.cyol.com/html/2012-11/03/nw.D110000zgqnb_20121103_5-01.htm

Yu H, Hu Z, Zhang X, Li B, Zhou S. How to overcome violence against healthcare professionals, reduce medical disputes and ensure patient safety. Pak J Med Sci 2015;31(1):4-8. doi: http://dx.doi.org/10.12669/pjms.311.6446

Xuebin Wen et al. Current situation and countermeasures of medical damage risks sharing system in China, *J Cent South Univ (Med Sci)* 2015, 40(1) ht p://www.csumed.org.

Hannah Beech. How Corruption Blights China's Health Care System. *TIME*, August 02, 2013

Mildred M.G. Olivier. Improving Glaucoma Patient Compliance. Last modified November 11, 2009, http://www.ophthalmologymanagement.com/articleviewer.aspx?articleID=103767

AHRQ. AHRQ's Patient Safety Initiative Building Foundations, Reducing Risk. Last

modified December 1 2013, http://archive.ahrq.gov/research/findings/final-reports/pscongrpt/psini2.html

"Prescription control regulations" announced on Sept 1st 2004. Last modified August 25, 2004. http://www.moh.gov.cn/mohbgt/pw10409/200804/18354.shtml

Ministry of Health hold the working conference about the hospital management, April 18, 2005. Last modified April 30, 2006. http://www.moh.gov.cn/mohyzs/s3586/200804/18460.shtml

Shanlian Hu. Measuring and Improving Quality of Care in China: Strengths & Challenges. Healthcare Reform in China and the U.S: Similarities, Differences and Challenges April 13, 2011 Atlanta

John Morrison and Karen Eggleston. Developing Commercial Health Insurance in China The CIRC-NAIC Joint Seminar on Health Insurance. China-U.S. Healthcare Forum. July 11-12, 2005.

Chee Hew. Healthcare in China Toward greater access, efficiency and quality. IBM Institute for Business Value.(2006)