

Towards Transformation of Procurement and Supply Service in the Midst of Healthcare Reform in PRC



香港大学深圳医院
THE UNIVERSITY OF HONG KONG-SHENZHEN HOSPITAL

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20 August, 2014

Overview

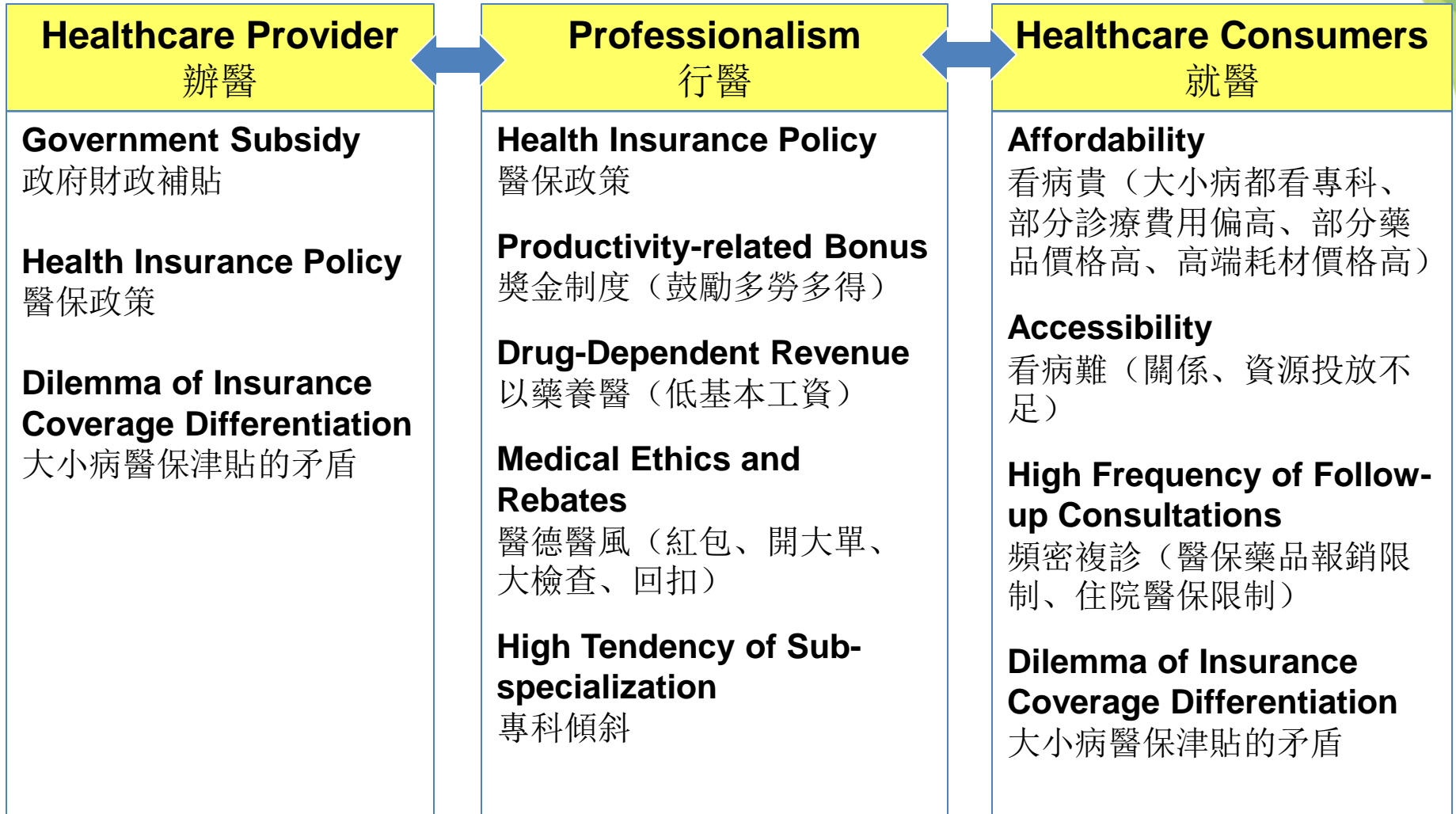
- ◆ **Healthcare Reform in PRC**
- ◆ **The University of Hong Kong – Shenzhen Hospital**
- ◆ **Current PSCM Situation in Public Hospitals in PRC**
- ◆ **Changes and Challenges**



◆ Healthcare Reform in PRC



Dynamics of Healthcare in PRC



Common Problems in Hospitals



Medical Disturbance
醫鬧



Medical Violence
醫暴



Hospital Scalper
醫托

Source: <http://image.baidu.com/i?tn=baiduimage&ps=1&ct=201326592&lm=-1&cl=2&nc=1&word=%E5%8C%BB%E9%97%B9&ie=utf-8&ie=utf-8>

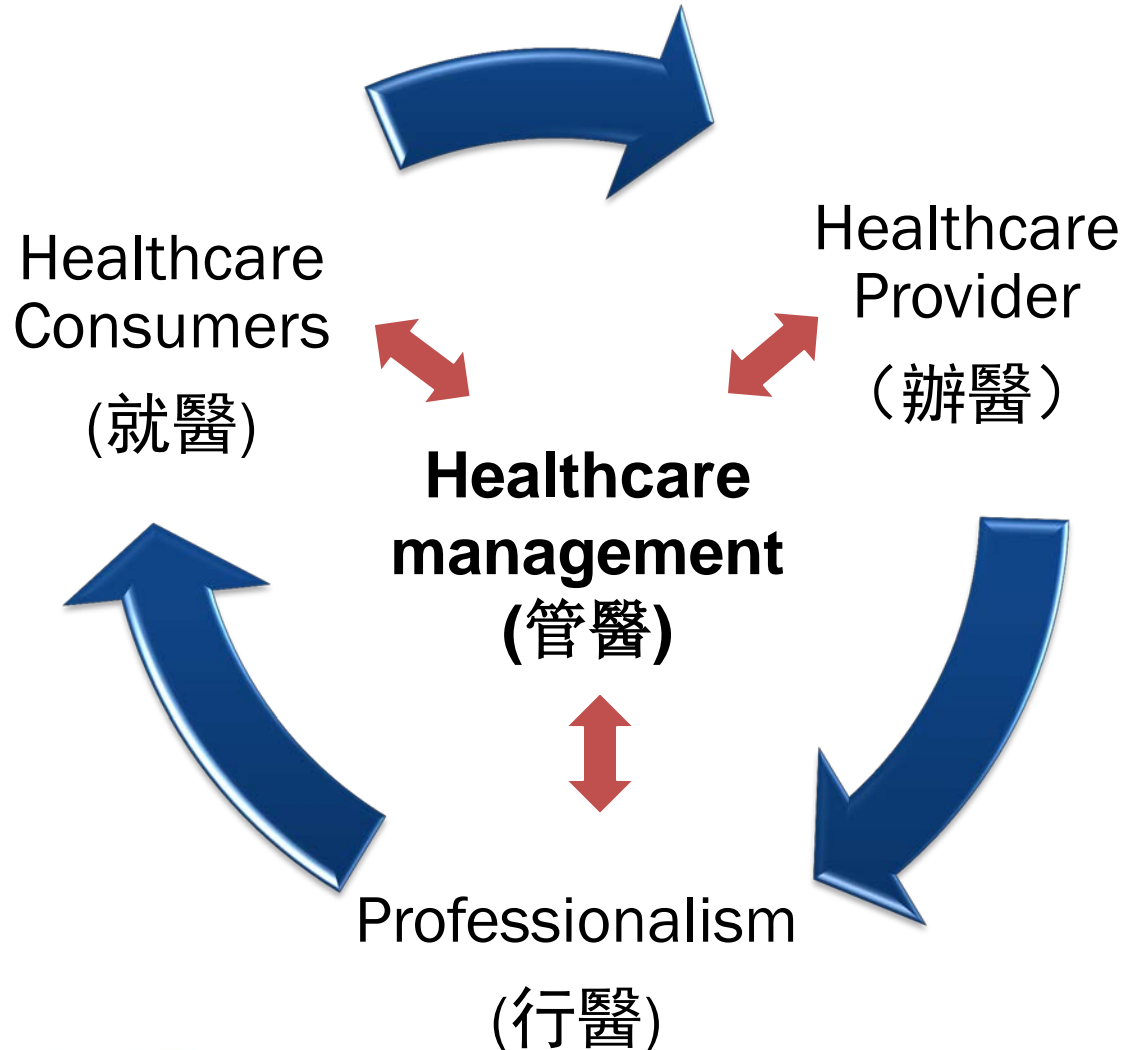


Deteriorating Doctor-Patient Relationship due to ...

- Inadequate subsidy by government leading to profit-driven practices comprising over-prescribing, over-charging and inappropriate treatment
- Ethical issues amongst healthcare professionals
(? patient- centered)
- Pitfalls within government subsidized medical insurances systems
(biased coverage of traumatic and expensive treatment towards residents in cities)



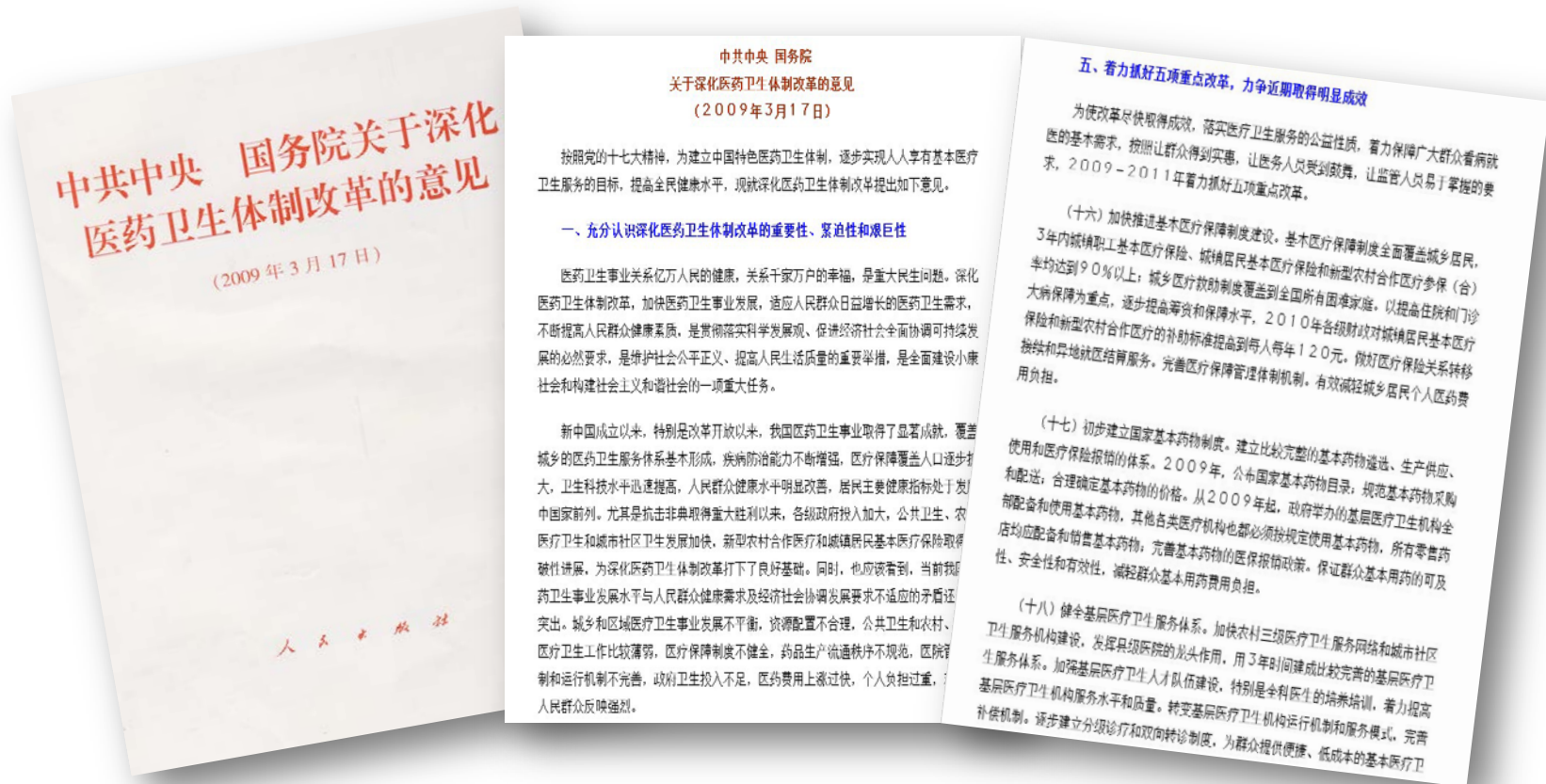
Healthcare Reform in PRC: Prevailing Focus and Dynamics



Central Government Directives (2009)

Document Entitled “Deepening of health and hospital system reforms: The views and advice of CPC Central Committee and the State Council”

《中共中央國務院關於深化醫藥衛生體制改革的意見》



Central Government Directives (2009)

- **Speed up the establishment and implementation of basic medical insurance or rural cooperative system to increase the coverage for rural and urban population**
加快推進基本醫療保障制度建設
- **Establish a preliminary National Drug Formulary System to safeguard production and dispensing of drugs under government control and supervision**
初步建立國家基本藥物制度
- **Establish a comprehensive basic health and hospital system to improve healthcare delivery to villages, towns, rural areas and less developed cities.**
健全基層醫療衛生服務體系
- **Progressively promote the provision of equitable basic public health services in both rural and urban areas**
促進基本公共衛生服務逐步均等化
- **Launch a pilot program to reform the administration, operation and supervision of public hospitals to improve the quality of their services.**
推進公立醫院改革試點

Source: 《中共中央国务院关于深化医药卫生体制改革的意见》 http://www.gov.cn/test/2009-04/08/content_1280069.htm



Development of Healthcare Reform (2010)

16 pilot cities for public hospitals reform



★ Eastern China

Anshan 鞍山市
Shanghai 上海市
Zhenjiang 镇江市
Xiamen 厦门市
Weifang 潍坊市
Shenzhen 深圳市

★ Central China

Qitaihe 七台河市
Wuhu 芜湖市
Ma On Shan 马鞍山市
Luoyang 洛阳市
Ezhou 鄂州市
Zhuzhou 株洲市

★ Western China

Zunyi 遵义市
Kunming 昆明市
Baoji 宝鸡市
Xining 西宁市



Collaboration Agreement between Shenzhen Government and The University of Hong Kong (27 July 2011)

Principles of Co-operation

- Emphasis on mutual co-operation and complementary partnership to achieve win-win outcomes.
- Preservation of “public hospital” nature and its services to safeguard the best interests of the public.
- Implementation of innovation and modernization in hospital management.

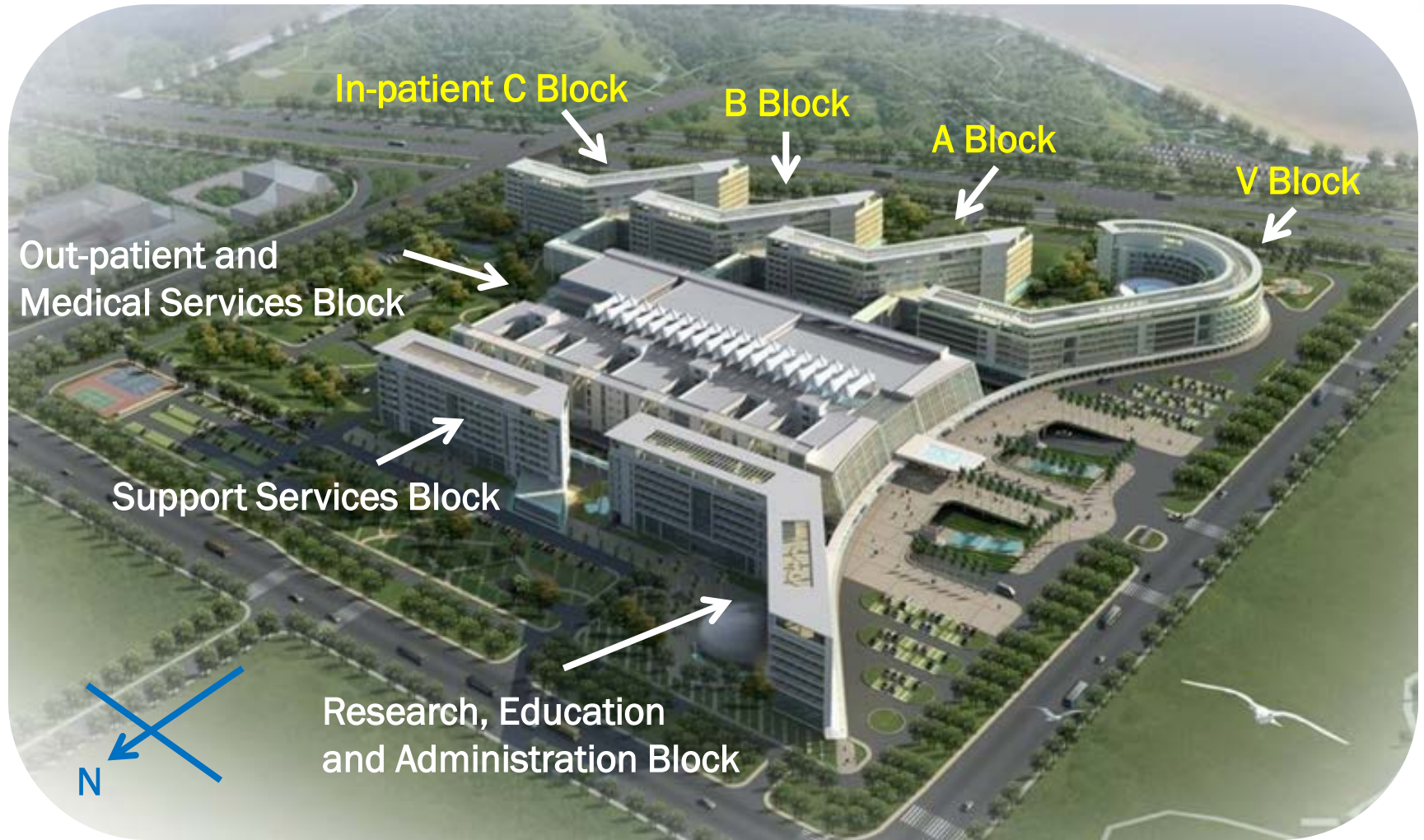




◆ **The University of Hong Kong – Shenzhen Hospital**



The University of Hong Kong-Shenzhen Hospital Layout



HKUSZH: Capacity & Available Facilities

- Gross Investment \approx RMB 4 billion
- Area : 360,000 sq. m. (Indoor)
190,000 sq. m. (Outdoor)
- 2,130 Parking spaces



Planned Service Capacity

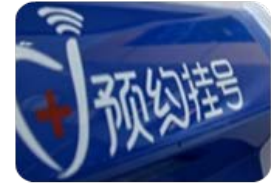
- 2000 beds
- 8000-10000 out-patients/day
- 212 consultation rooms
- 39(Main)+4(Day) operating theatres
- 5 Areas of Excellence
(IVF & Prenatal Diagnosis, Cardiology, Oncology,
Orthopedics & Traumatology, and, Organ Transplant)
- International Medical Center



Pilot Initiatives in HKUSZH

Reform in Hospital Management

- Accountability to Board of Directors
- Hospital Constitution
- Separation of governance, management and audit.(三權分立)
- Functional Committees



Reform in Clinical Service Models

- **Pioneer in**
- Human resources management
- Appointment Booking System
- Family medicine referral to Specialist Care (先全科后專科)
- Patient Relations Office
- Medical Indemnity Insurance
- Team approach and multi-disciplinary care
- Unique Patient ID
- A&E triage



Pilot Initiatives in HKUSZH

Quality Control

- Attaining international standard (ACHS)
- 3A Hospital Standards in PRC
- Prohibit inappropriate investigations & prescriptions
- Eliminate over-charging & enhance accessibility

Cultivate New Culture & Build Quality Team

- 221 specialists from Hong Kong and overseas countries
- 1199 staff recruited in PRC
- Intensive clinical training
- Modernize management training

Establish International Academic Platforms

- International congress
- National conferences
- Specialist training



Shenzhen Demographics 2012



- **GDP** : US \$ 208.9 billion
- **Per capita income**: 40,742 RMB
- **Population**: 2.88 + 7.67 million
- **Female : Male** = 1 : 1.1
- **Mean Age**: 30.8



- **Doctors**: 22,831
- **Nurses**: 25,931
- **Allied Health**: 12,088
- **Doctors/1000 population**: 2.27
- **Nurses/1000 population**: 2.46

Source: 《深圳统计年鉴2013》 《2012年深圳市卫生和人口计划生育委员会卫生统计年鉴》
《深圳市区域卫生规划（2011-2020）》



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Shenzhen 2012: Amongst 2632 Healthcare Institutes...



- **115 hospitals** (45 public; 70 private)
- **12 new hospitals** (being built)
- **612 community clinics**



- **26,124 Beds**
 - public: 21,548 (83.36%)
 - private: 4,576 (16.64%)
- **Beds/1000 population: 2.65**

Source: 《深圳统计年鉴2013》

《2012年深圳市卫生和人口计划生育委员会卫生统计年鉴》 《深圳市区域卫生规划（2011-2020）》



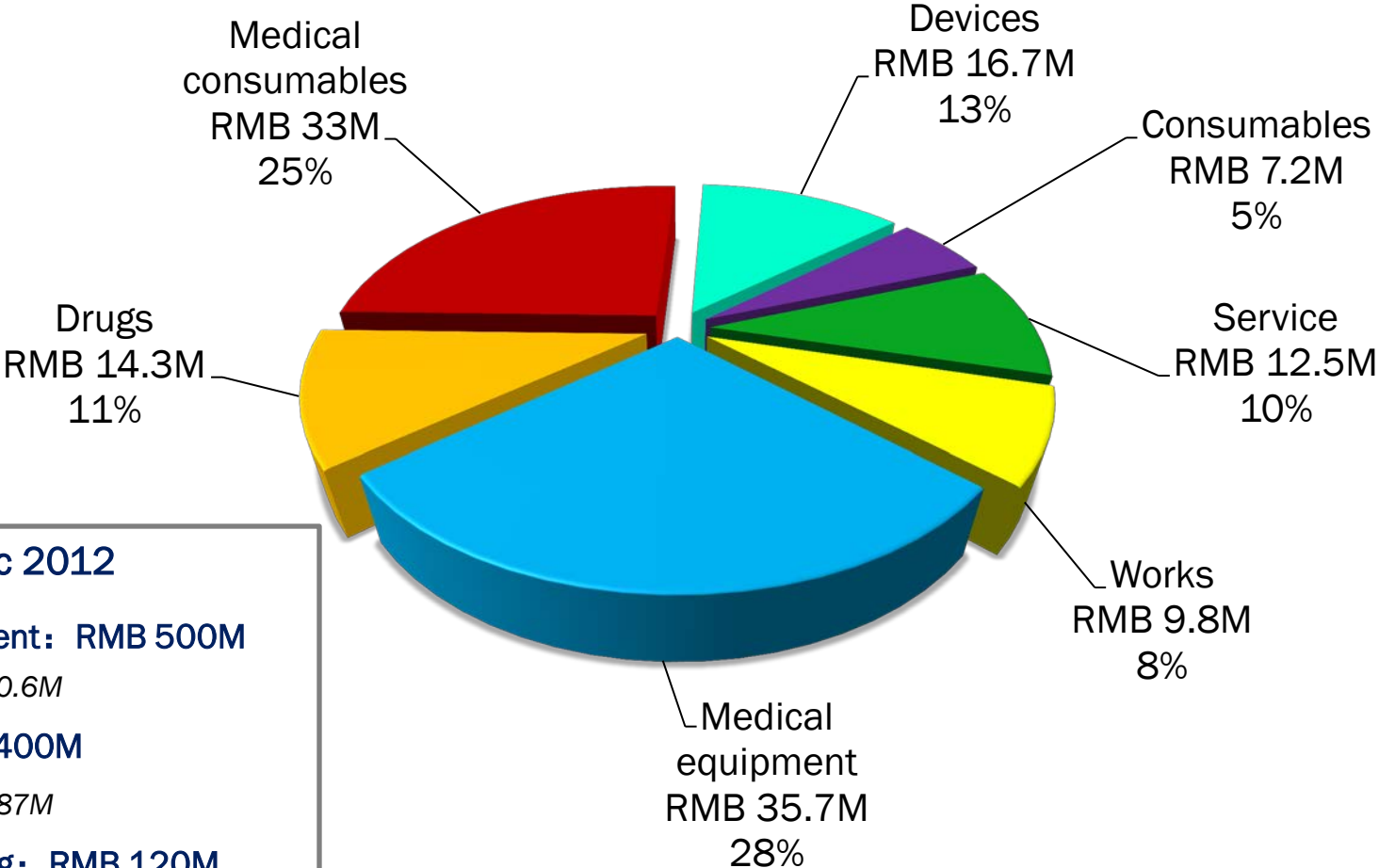
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◆ Current PSCM Situation in Public Hospitals in PRC



HKUSZH Procurement Portfolio 2013

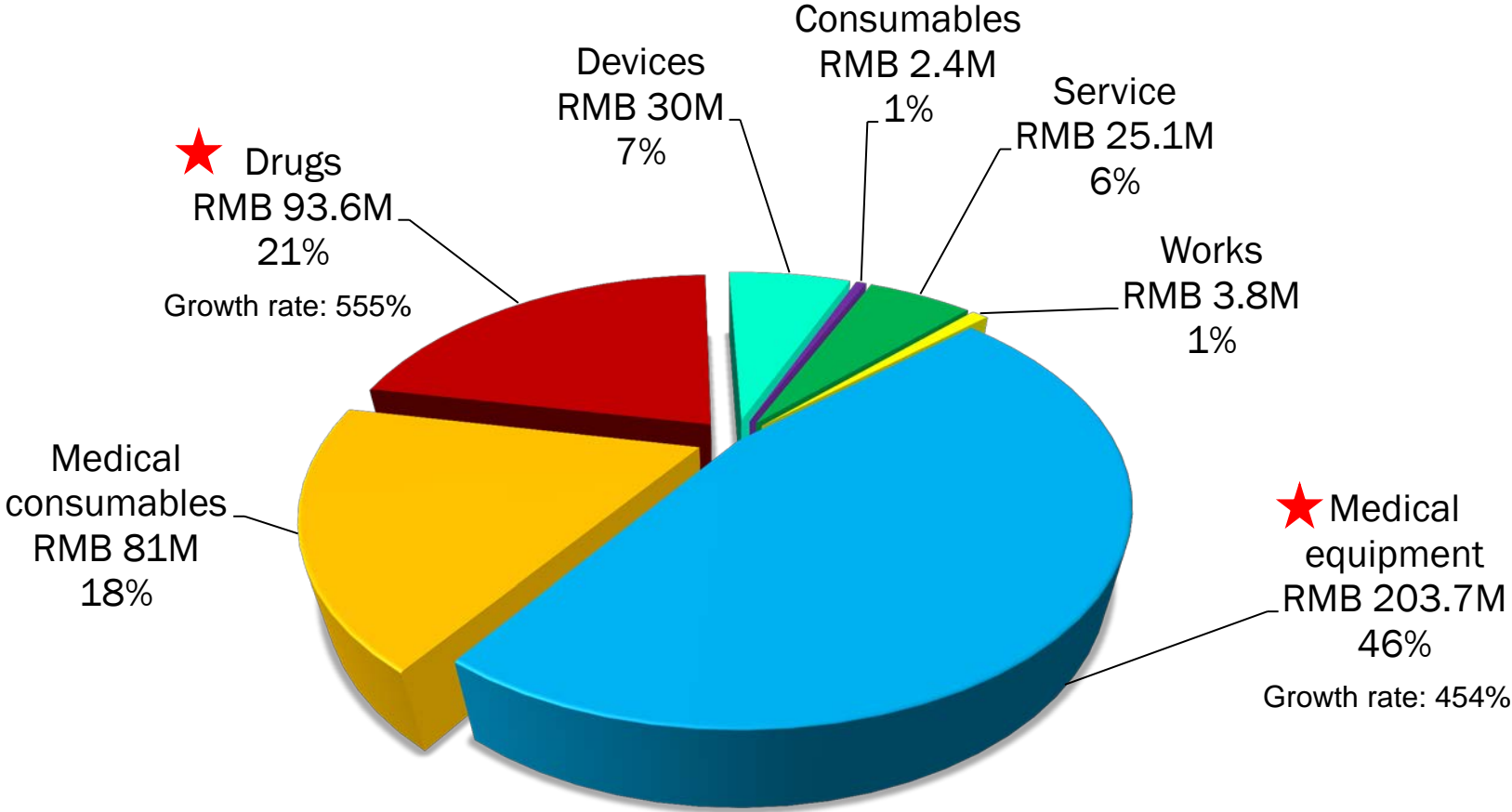


Total : RMB 129.2M
Equivalent to US\$ 20.9M

Situation in Dec 2012

- Medical Equipment: RMB 500M**
Equivalent to US\$ 80.6M
- Works: RMB 2400M**
Equivalent to US\$ 387M
- Start-up Funding: RMB 120M**
Equivalent to US\$ 19.4M

HKUSZH Procurement Portfolio 2014



Total : RMB 433.8M
Equivalent to US\$ 70M
Growth rate: 235%

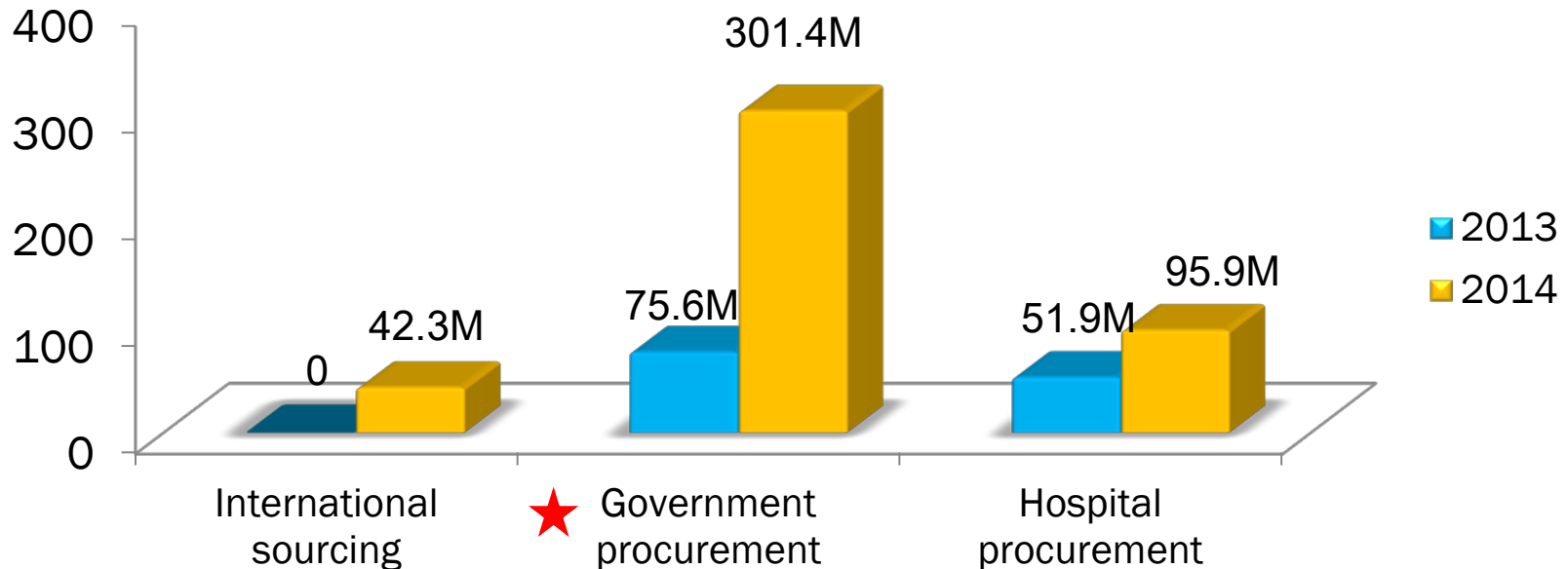
Sourcing & Procurement Channels

International sourcing	Regulating authority
<ul style="list-style-type: none"> • Imported medical equipment <i>(CT , X-Ray , LA , Ultrasonic Diagnostic Apparatus , SPECT , PET-CT , MRI , Gamma Knife)</i> • Others: Imported engineering & electronic products 	Ministry of Commerce 商务部

Domestic sourcing	Financial limit	Sourcing & procurement channels	Regulating authority
<ul style="list-style-type: none"> • Commodities <i>(e.g. Medical equipment, Furniture , PC , Drugs, etc.)</i> • Service 	≥ RMB 200K	Government procurement	Ministry of Finance 财政部
	< RMB 200K	Hospital Procurement	Hospital 医院
<ul style="list-style-type: none"> • Works 	≥ RMB 400K	Government procurement	Ministry of Finance 财政部
	< RMB 400K	Hospital Procurement	Hospital 医院



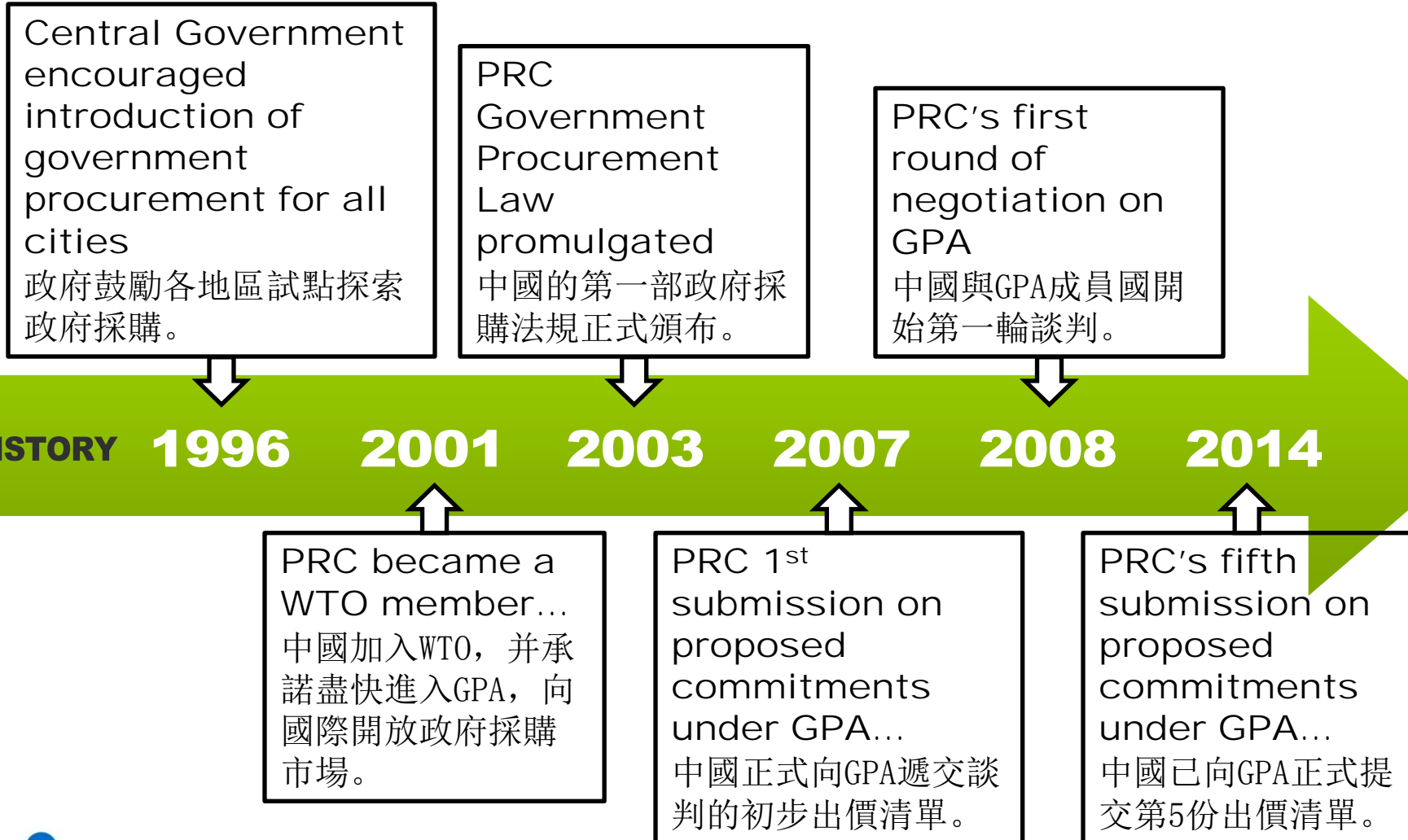
Sourcing & Procurement Channels 2013 & 2014



Government procurement growth of 299% over 2013

- Drugs : 555%
- Medical equipment : 409%
- Service : 129%

Development of Government Procurement in PRC



Strict Control of Imported Products in Shenzhen

No.	Categories of Medical Equipment	Examples
1	Multi-parameter monitor	
2	Fetal monitor	
3	Ultrasonic Color Doppler Diagnostic system	Except 4D
4	Magnetic Resonance Imaging	< 1.0T
5	Digital Radiography	≤50KW
6	Electrocardiogram	
7	Hematology Analyzer	
8	Biochemical Analyzer	Manual , Automatic(≤800 r/min)
9	Anesthetic Equipment	General model
10	Infusion Pump/Injection Pump	
11	Surgical Bed	
12	Operating lamp	
13	Pendant	



Pitfalls in Government Procurement

Tendering Platform

- Mix of Electronic and Manual platforms
- Wide variations in non-regulated procurement practices

Performance Evaluation

- Emphasis solely on “economy”
- Inadequate “contract management”

Complaints Management

- Very few channels
- Time-limited (7 days)

Decentralized Publication of Results

- Different local websites
- Different content and format of information
- Non-disclosure of successful bidder’s supply information and tender prices

Standardization

- Non-standardized nomenclature
- Dubious functional specifications

Tender Evaluation

- The lowest tendering price
- Tender evaluation committee only composed of user expertise

Price Setting

- Subjective and non-competitive price setting

Government Approval

- Multi-department bureaucracy
- Multiple-layers of approval



Media and Public Opinions

政府采购 节的什么约

在一些国家,减少政府采购一般称为紧缩财政而非节约,可是我们却称为节约,这显然是在偷换概念,反映了有关部门对节约的不科学态度。真正的节约,应该不是和采购金额与采购预算来比较,真正的节约应该有科学的比较,得到大多数人认同,如实际采购数额通过招投标,比市场价格低,这才叫节约。这样的节约才能得到人们的认同。

财政部日前公布数据,政府采购法颁布10年来,我国政府采购规模由2002年的1009亿元增加到2011年1.13万亿元,10年间增长了10倍,累计节约财政资金6600多亿元。消息一出,引起了公众的普遍关注和质疑。

买iTouch4来当U盘用,这就是曾经引发公愤的天价U盘事件。可是,如果当初的政府采购预算是2500元,那么天价U盘事件,同样可以被称为“节约财政资金”。——齐鲁晚报

——大众日报

原来,政府采购所谓的“节约财政资金”,不是将采购价格与市场价格对比,而是与政府采购预算对比。打个比方,一个U盘市场价只需100元,抚顺市财政局却花了2300元

Source: 《深圳晚报》2012.07.11 A19

Adverse comments :

Queries about value-for-money procurement by the Government

唉,又一政府采购官员翻船落水了 具体案情仍在侦办中

为市政府采购中心一副部长宋某某,详细案情和具体受贿数额未透露

晶报记者 吴欣

昨日,市检察院在其腾讯官方微博@深圳市人民检察院发布通报:据报市纪委移送的线索,5月20日,我以涉嫌受贿罪对市政府采购中心某部副部长宋某某立案侦查。目前该案正在侦查中。

该案揭发立即引起社会关注,记者也对该案进行了初步了解。因案件尚在侦查阶段,详细案情和具体受贿数额暂方并未透露。

记者从市政府采购网站获悉:深圳市政府采购中心是2002年10月成立的直属市政府的专职集中采购机构,主要负责市本级的集中采购和招标组织工作。该中心编制60人,内设5个部,分别为综合部、采购一部、采购二部、采购三部和网络信息部。

记者了解到,涉案的宋某某主要负责工程采购方面的工作,系科级干部。记者还通过互联网搜索发现,部分深圳和国家级媒体在2004年8月11日《深圳

政府采购全程上网》一稿中,属有通讯员宋某某的名字,可见其在市政府采购中心至少工作了9年之久。

另外,网上两篇2012年4月发布的“关于对医院新大楼物资采购项目招标文件征求意见稿”和“道路交通安全设施维护工程招标公告”中,征求意见联系人一栏里有宋某某的名字,这可以证实宋某某确系负责政府采购方面的工作。

□防范之道 三年内有行贿记录禁止参与政府采购

近年来,全国各地政府采购中“天价空调”“天价U盘”“天价制服”的频频出现。

汪国栋案发后,盐田区检察院职务犯罪侦查科有关负责人分析认为,政府集中采购制度确实存在诸多不完善的地方:个人权力过分集中,缺乏必要的

监督等。

目前,政府采购中的行贿受贿案件,成为深圳检察机关关注的重点。2012年6月2日,市检察院、市财政委员会、市政府采购中心等多部门联合召开联席会议,签署了《关于推进政府采购领域行贿犯罪档案查询工作的意见》,对三

年内有行贿犯罪记录的供应商,禁止其参与政府采购活动。

之前不久,市政府采购中心下发了通知,规定申请政府采购资格供应商的单位,必须提供行贿犯罪档案查询书。近三年内有行贿犯罪记录的供应商不予办理注册入库。

□相关案例

深圳首家政府采购领域受贿案 盐田政府物资供应中心主任 受贿89万坐监6年

在宋某某之前落网的政府采购人员中,最典型的是盐田区政府物资供应中心主任汪国栋受贿89万。此案2006年宣判,系深圳市首家政府采购领域受贿案。

1999年,不到38岁的汪国栋担任盐田区政府物资供应中心主任一职。供应中心是一个实权单位,汪国栋自然成了“糖衣炮弹”的袭击目标。据法院查明情况,2001年至2003年初,汪国栋利用职务便利,在其主持的招投标及竞争性谈判中,采取各种手段多次对深圳市容建新电脑有限公司予以“特别照顾”。该公司中标后,就将中标合同额的5%作为好处费给汪国栋。汪国栋先后13次收受容建新电脑有限公司贿赂89万元。

2006年1月,汪国栋因受贿罪被盐田区人民法院一审判判8年。同年3月,市中级人民法院终审改判其有期徒刑6年。

Source: 《晶报》2013.05.24 A20

Adverse comments :

Queries about corruptive procurement practices in the Government



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◆ Drugs Procurement



Current Framework of Drug Procurement in Guangdong Province

- 3A Hospital Formulary capped at a maximum of 1500 drugs (including a cap of 300 Chinese Medicines)
- 2 concurrent models of tendering being practiced largely through GD Medicine E- Trading Platforms
- 1st layer of central selection of suppliers by health department of provincial government through open tendering (compliance with prices set by the government following market surveys); or through competitive tendering by an outsourced third party agent
- 2nd layer of selection by hospitals in respect of manufacturers/suppliers or distributors



Concurrent Models of Drug Procurement in GD Province

Old model (**Phasing out soon**)

- Tendering by Government with set market price for each drug
- CFDA registered bidders meeting the set price or offering lower prices become qualified suppliers
- Internal market comprising qualified bidders, licensed distributors and hospitals
- 2nd layer selection of suppliers and distributors by hospitals (underpinned by many expert panels)
- Dubious commitment in contract duration and quantity



Concurrent Models of Drug Procurement in GD Province

New model initially covering basic formulary drugs

- Bulk tenders by Government's outsourced third party agent
- Aggregated quantity commitment of ~ 2000 hospitals in GD
- 2 channels of procurement
 - reverse bidding with indicative price (by 3rd party agent) for 80% of selected drugs
 - reverse bidding for 20% of selected drugs by individual hospital
- Wide variation in confirmed commitment in quantity and contract duration amongst hospitals



Prevailing Drug Procurement Initiatives and Pitfalls

Government New Initiatives

- Implement enhanced e-procurement system (e-bidding, e-price negotiation, e-contract) with audit trails
- Outsource tendering support to a third party agent to undertake tendering management including selection of suppliers under government supervision
- Prevent corruption

? Pitfalls

- Pseudo-electronic procurement underpinned by manual operation procedures (e.g. requisitioning planning and payment)
- Problems of unanticipated supply shortage or discontinuity (poor response from bidders and frequent change of contract price)
- Sudden surge of aggregated demand leading to supply shortage (1st come-1st served ?)
- Dubious guarantee in quantity commitment leading to short duration contracts and frequent change of suppliers
- Suppliers irrational behavior resulting in inflated pricing effects despite reverse bidding

Partial Analysis of New Procurement Model

Mode	Type	Pros	? Pitfalls
Bulk contracts	Reverse bidding by 3 rd party agent (accounts for 80% of bulk contracts)	<ul style="list-style-type: none"> • Assured commitment in quantity leading to “economy of scale” benefits • Increased transparency of consumption leading to reduction of inventory & logistics costs • Enable “Just in time” supply management 	<ul style="list-style-type: none"> • Problems of unanticipated supply shortage or discontinuity (poor response from bidders and frequent change of contract price) • Sudden surge of aggregated demand leading to supply shortage (1st come-1st served ?) • Dubious guarantee in quantity commitment leading to short duration contracts and frequent change of suppliers



Partial Analysis of New Procurement Model

Mode	Type	Pros	? Pitfalls
Bulk contracts	<p>Reverse bidding by individual hospital</p> <p>(accounts for 20% of bulk contracts)</p> <p>For suppliers of drugs of very low value and opportunity for unsuccessful bidders in the 1st layer of tendering</p>	<ul style="list-style-type: none"> • Decentralized procurement to hospitals • Preserve continuity and viability of supply for low value drugs and opportunities for small to medium enterprises 	<ul style="list-style-type: none"> • Little tendency towards price reduction (disincentive to achieve economy of scale) • Weaken bargaining power against volume commitment • Shift from buyers' market to suppliers' market • Increase risks of suppliers self selection, supply continuity and cartel ? • Suppliers irrational behavior resulting in inflated pricing effects despite reverse bidding and resulting in actual price inflation





◆ **Changes and Challenges**



Challenges for Improvement

- Adopt dual source contracts to mitigate supply chain and quality risks



- Explore contract manufacturing and vendor managed inventory partnerships



- Establish repository of pre-qualified bidders to guard against “no bidders” syndrome



- Implement Enterprise Resource Planning System (ERPS)
 - adopt integrated “procure to pay” process
 - introduce tracking and tracing (GS1 barcodes and/or RFID)
 - introduce business intelligence (BI) management and data analysis



- Collaborate with Shenzhen Hospital Authority to standardize PSCM and mission-critical supplies stockpile



Improvements of Hospital Supply Chain

Patient safety

- Tracking & Tracing
- Inventory Control System
(Link with HIS & UPID)
- Dual sources

Government support

- UPID (GS1 Standards)
- RFID technology adoption
- Stockpiling initiatives

2014 2015 2016 2017 2018 2019 2020

PSCM improvement

- Partnership
(VMI & consignment supply)
- Integrated Electronic Platform
- Evaluation of 3Es









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Metamorphosis



Thank You

