



THE WORLD BANK



# Evaluating Impact: Turning Promises into Evidence

某市城镇职工医疗保险住院医疗费用支付方式由FFS转向按  
病种付费的效果评估

Impact Evaluation on the provider payment reform from FFS to case-based in  
City A's Urban Employee Medical Insurance Scheme ( UEMIS )

Beijing, China  
July 2009

# 结构 overview

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# 1. 背景 Background

- 某市该市共有三级综合西医医院**6**家，二级综合西医医院**18**家

**6 tertiary hospitals, 18 secondary hospitals are in City A.**

- 2000年启动了城镇职工医疗保险

**Urban Employees Medical Insurance Scheme was initiated in city A from 2000.**

- 住院医疗费用一直采用按项目付费方式结算

**Inpatient medical expense was paid by fee-for-service for years without any adjustments**

# 背景 Background

- 几年来，制度运行基本平稳，但是

**The insurance and payment runs well, except that**

- 费用上升迅速，如，三级医院次均住院费用上升迅速 1.1万(2008年)，近三年的年均增长率为10%，高于周边其他省会城市，平均为6%

**inpatient expense per admission increase rapidly—110 thousand RMB, tertiary hospital ,2008. Annual growth rate in recent three years is 10%, higher than other capital cities nearby, which is 6% on average**

- 平均住院日为17天

**average length of stay is 17 days**

- 个人支付部分占住院总费用比例为 28%

**out-of-pocket (OOP) payment as percentage of inpatient expenditure: 28%**

# 背景 background

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- 该市决定自2010起推行住院医疗费用按病种结算

**Decision was made to apply case-based payment in the beginning of 2010 in City A**

# 干预 the intervention

## 按项目付费到按病种付费 FFS to Case-based payment

- 在本市占住院费用前五十个病种中

Among the 50 diseases with the highest total inpatient expenditures

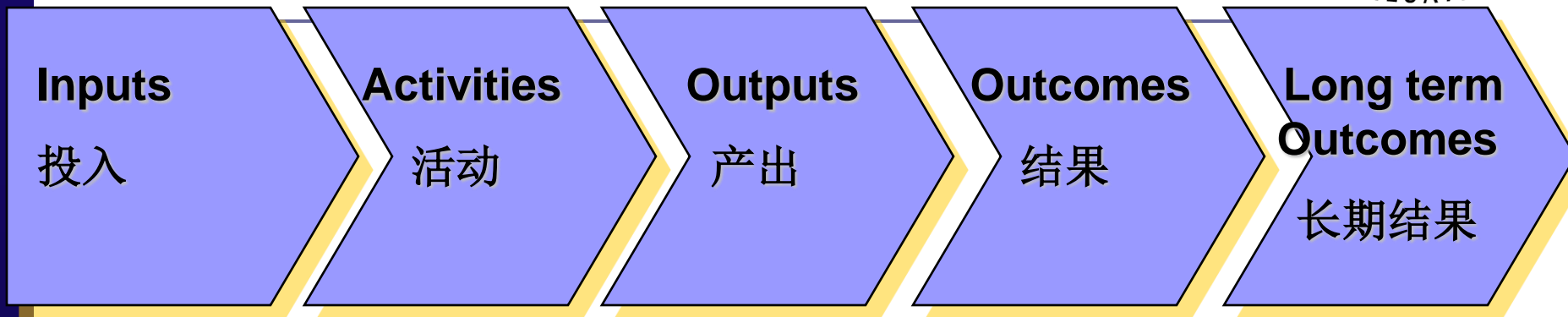
- 选取诊断明确、临床路径清晰、费用分布清晰的二十个

We selected 20 with clear diagnosis and clinic pathway

- 如，单纯性阑尾炎、甲状腺瘤、急性胆囊炎、白内障、风湿性心脏病（二尖瓣闭合不全）、斜疝、子宫肌瘤
- E. g. appendicitis, thyroid tumor, acute cholecystitis, cataract, rheumatoid carditis (mitral valve regurgitation), hernia, uterine myoma
- 回顾二级、三级医院的历史成本，根据临床路径、和专家咨询会意见  
Based on historical expenditure, clinical pathway and expert opinion
- 确定支付标准 Calculate payment level
- 确定年增长率 Set targeted annual growth rate
- 各医院完成诊治后超支自负、结余留用  
Hospital can keep the rest of the budget

# 2. 效果链

# Results Chain



- 资金（中央、地方财政
- 人才（临床、管理和培
- 硬软件设备（办公住房
- 软件）

•funds(from local governments)

•personnel (clinic, management, and

•hardware and software for the project( housing, computers, and H

- 成立组织机构
- 医务人员、管理人员培
- 病种成本核算
- 执行方法的制定
- 对参保人员的宣传
- 确定病种
- 评估相关数据的收集（

• specify diseases |

•determine cost of payments

•establish rules and performance paym

•training doctors a performance meas

•promotion and pu based and perform

•establish organiza consultation comm

•establish HMIS for monitoring

- 形成管理委员会（领导
- 优化诊疗规范、临床途
- 形成病种目录
- 形成病种结算标准
- 形成单病种支付方式相
- 奖惩办法）

•organize (steerin consultation comm

group)

•Established medic clinical pathway

•Diseases catalog

•Accounting standa payment approach

•Management files (incentives, punis

•Fully operational HMIS

- 病死率降低
- 住院费用的控制
- 住院日缩短
- 促进医院规范化管理
- 病人疾病负担下降
- 控制再次住院率（14

•Reducing mortali disease

•Control admission

•Reducing in-patie

•Promoting standa of hospitals

•Reducing disease

•Reducing the sec rate

- 人群健康水平的提高
- 医疗保险基金使用效率提高
- 人群住院满意度提高
- 人群疾病经济风险降低
- 服务质量提高

•Improving Health level of population

•Reducing economic risk of population in specific disease

•Increasing utilization efficiency of Health insurance fund

•Increasing satisfaction rate of in-patient population

•Improving medical quality

### 3. 基本研究问题 Primary Research Questions

- 在该市城镇职工医疗保险住院服务中以按病种付费取代按项目付费，能否

**If the transition from fee-for-service to case-based payment in the inpatient service of the UEMIS in City A could have an impact on**

- 保证医疗质量
- **Quality of medical service**
- 控制医疗费用
- **And, Cost containment**

# 4. 产出指标 Output indicators

## □ 过程类指标 process

- 总住院人次数量、平均住院日

Total number of admission, average length of stay

- 纳入按病种付费的人次数

Number of admission included in case-based payment

## □ 诊断类指标 diagnosis

- 出现变异的比例 proportion of changed diagnosis

- 出、入院诊断符合率 consistency between admission and discharge diagnoses

- 转诊率 flow rate

- 14日内再次住院率 readmission rate within 14 days

## □ 费用构成类指标 composition of inpatient expense

- 药占比、抗生素使用率

drug as proportion of total inpatient expenditure, percentage of antibiotics use

- 例均自付金额、病人自付比例

oop payment per admission, oop payment as percentage

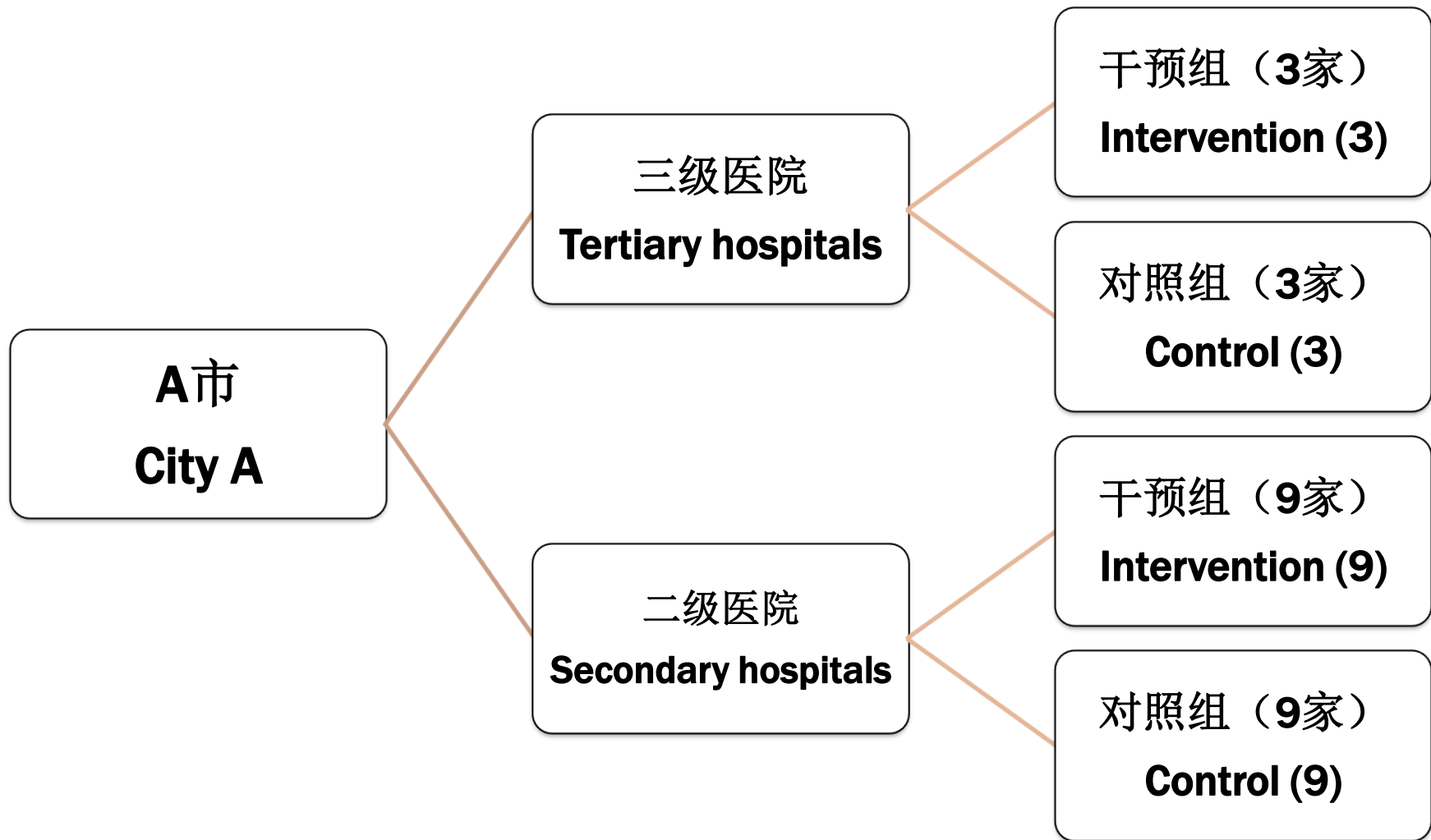
# 4. 结果指标 Outcome Indicators

- 对住院医疗质量的影响, **quality**
- 病死率 **mortality**
- 治愈率 **cured rate**
- 术后感染率 **post-surgery infection rate**
- 满意度 **satisfaction**
  - 供方（医）、需方（患）
  - **Supply/doctors and nurses, need/patients**
- 控制住院医疗费用, **cost containment**
- 次均住院费用 **inpatient expense per visit**
- 总住院费用 **total inpatient expense of the pilot hospitals**

## 5.方法和策略 Identification Strategy/Method

- 抽样方法（随机试验） Randomization
  - 该市共有三级综合西医医院**6**家，二级综合西医医院**18**家  
**6 tertiary hospitals; 18 secondary hospital**
  - 拟取**1**家三级医院、**2**家二级医院做按病种结算住院费用的试点，半年后随机选取另有**2**家三级医院、**7**家二级医院均纳入该结算方式，剩余的**3**家三级医院、**9**家二级医院作为对照  
**1 tertiary hospital and 2 secondary hospitals were selected to conduct pre-test. After 6 m/o, 2 tertiary hospitals and 7 secondary hospital will be randomly selected to implement the payment change. The rest of the hospitals will serve as controls**
  - 两年后所有医院都纳入单病种结算方式  
**All the rest of the hospitals will implement the payment change two years later**

# 抽样框架图 sampling



# 评价方法 evaluation method

- 先批随机选取的样本医院作为试点开展项目，其他的医院作为对照组，直接比较首批试点和二批试点项目实施后产生的变化情况

It's a randomized experiment, we will analyze the difference between treatment and control groups in

- 费用控制指标 expenditure
- 医疗质量改善指标 and , medical quality

- 分析方法 methods
  - 描述性分析 descriptive statistics
  - 回归分析 regression
  - 倍差法（处理-对照） difference in difference

# 6. 数据来源 data source

- 参保人员住院费用结算申报资料

## Claims data

- 社会保险、与卫生部门统计资料

## Statistics from Social securities and Health bureau

- 年度财务报表

## Annual financial report

- 医院病案统计资料（病历）、城镇职工医疗保险费用结算清单

## Chart review, billing of UEMIS

- 补充问卷调查（患者满意度）

## Supplementary patient survey (patient satisfaction)

# 7. 时间进度安排 Time Frame/Work Plan

<p><b>2009下半年</b></p>	<p>整理<b>2006-2008</b>年的基线资料，设计调查问卷 核算病种成本 <b>Collect baseline data, design questionnaire Cost Accounting</b></p>
<p><b>2010年1月- 2010年6月</b></p>	<p>启动试点（<b>1家</b>三级医院、<b>2家</b>二级医院） <b>Pre-test</b> 培训管理人员 <b>Training administrators</b></p>
<p><b>2010年7月- 2012年7月</b></p>	<p>另有<b>2家</b>三级医院、<b>7家</b>二级医院均纳入该结算方式 <b>First wave of payment reform</b> 剩余的<b>3家</b>三级医院、<b>9家</b>二级医院作为对照 <b>the rest 3 tertiary hospitals and 9 secondary hospitals are control</b></p>
<p><b>2012年7月-9月</b></p>	<p>评估两年的运行结果 <b>evaluate the past two years impact</b></p>
<p><b>2012年7月</b></p>	<p>所有医院都纳入单病种结算方式 <b>all hospitals are included, the second wave</b></p>
<p><b>2014年1月-7月</b></p>	<p>评估前期运行结果 <b>evaluate the impact</b></p>

## 8. 经费来源 Sources of Financing

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- 申请政府专项经费
  - **Government budget**
  
- 外部支持：世界银行项目经费
  - **World Bank**

# 我们的队伍 the team



# 我们的老师 the teachers

