中山大學
SUN YAT-SEN UNIVERSITY

RWE to Support Economic Evaluation and Medical/Policy Decision Making in China

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Agenda

1 **Supporting Economic Evaluation**

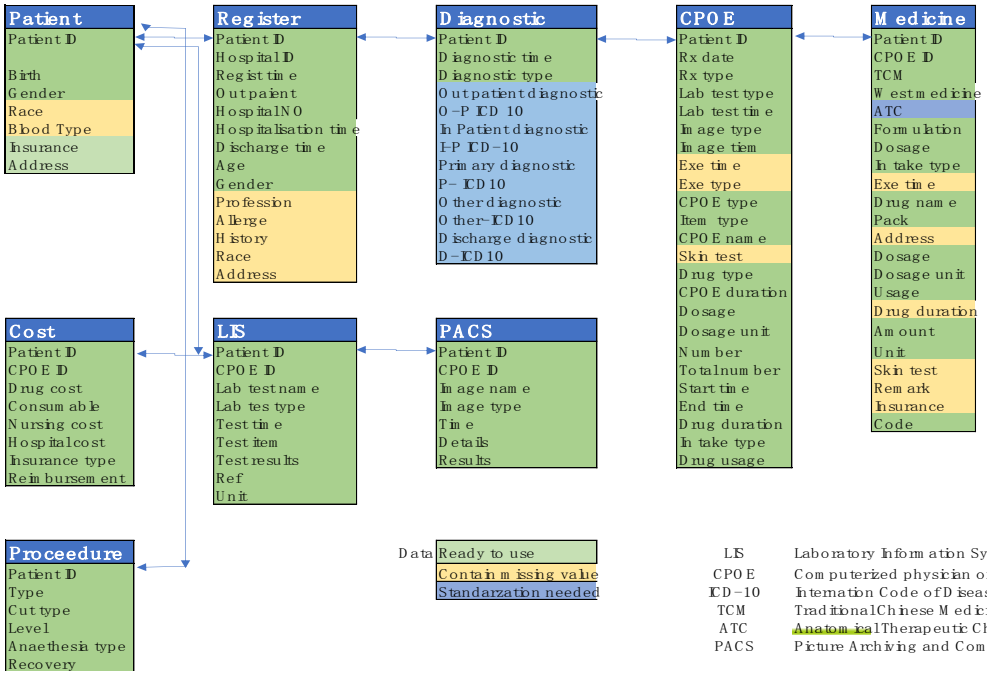
2 Supporting Medical and Policy Decision Making

Brief Introduction of SuValue database

SuValue RWD database contains *complete HIS/EMR data* from independent hospitals in various provinces/cities of China.

Currently contains more than 120 grade III and II hospitals' data and more than 70 million patient information.

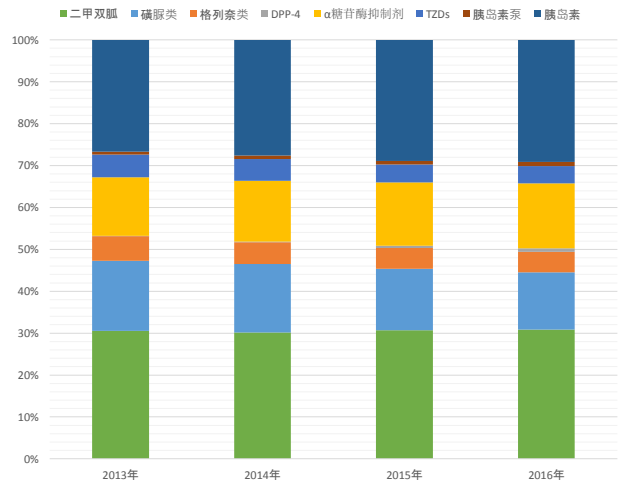
Geographic distribution: Guangdong, Chongqing, Gansu, Henan, Hunan, Jiangx, Guizhou, Shanxi, Shandong, Ningxia Provinces etc.



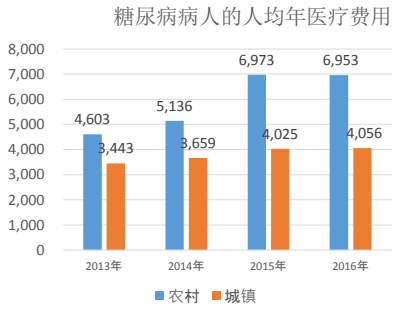
Diabetes

Age group	Total	<1 Year	>1 Year	>2 Year	>3 Year	>4 Year	>5 Year	>6 Year	>7 Year	>8 Year	>9 Year	>10 Year
0-10	**3,696**	3,601	95	47	21	8	5	2	-	-	-	-
10-20	**2,638**	2,431	207	94	41	16	7	4	2	-	-	-
20-30	**22,434**	21,119	1,315	539	242	109	49	28	14	7	2	1
30-40	**38,472**	34,264	4,208	1,988	1,066	496	261	125	57	9	2	2
40-50	**79,622**	65,489	14,133	7,652	4,492	2,382	1,392	716	337	77	6	4
50-60	**120,346**	98,016	22,330	12,835	8,058	4,653	2,967	1,699	925	226	29	15
60-70	**142,431**	114,852	27,579	16,928	11,253	6,859	4,665	2,802	1,625	434	67	37
70-80	**99,770**	79,779	19,991	12,460	8,416	5,358	3,695	2,310	1,413	365	65	34
80-90	**34,850**	27,704	7,146	4,260	2,861	1,734	1,190	766	421	120	24	10
Y>90	**7,056**	6,378	678	400	260	153	85	47	24	9	2	2
Subtotal	**551,315**	**453,633**	**97,682**	**57,203**	**36,710**	**21,768**	**14,316**	**8,499**	**4,818**	**1,247**	**197**	**105**

Drug Utilization Pattern



Economic Burden of Diabetes



医保类型	类别	2013年	2014年	2015年	2016年
农村	糖尿病患者	7,718	8,607	9,239	10,397
	医保糖尿病人人均费用	4,603	5,136	6,973	6,953
	门诊人次	31,031	34,653	37,323	32,277
	住院人次	2,027	2,241	2,850	3,242
	住院/门诊	0.07	0.06	0.08	0.10
	药占比	56%	54%	49%	45%
城镇	糖尿病患者	55,272	65,197	77,477	82,585
	医保糖尿病人人均费用	3,443	3,659	4,025	4,056
	门诊人次	560,609	598,202	631,851	646,804
	住院人次	4,654	6,295	7,747	8,198
	住院/门诊	0.01	0.01	0.01	0.01
	药占比	69%	65%	64%	63%

农村糖尿病患者的人均年医疗费用高可能与该部分人群住院率高有关，农村糖尿病患者的住院率在6-10%之间，而城镇糖尿病患者的住院率却只有1%。

Real World Complication Rates

糖尿病患者远期不良事件的发生率	有后续记录人数	就诊记录达1年人数（任何科室）	1年不良事件发生率	就诊记录达3年人数（任何科室）	3年不良事件发生率
总人数	206,486	192,284		103,886	
首诊后有心绞痛记录人数	991	448	0.23%	812	0.40%
首诊后有心肌梗死记录人数	368	180	0.09%	307	0.15%
首诊后有脑卒中记录人数	558	347	0.18%	473	0.23%
首诊后有眼底视网膜病变记录人数	3	2	0.00%	3	0.00%
首诊后有糖尿病肾病记录人数	6,134	3,937	2.05%	5,484	2.69%
首诊后有糖尿病足/坏疽记录人数	1,104	645	0.34%	921	0.45%
首诊后死亡记录人数	无	无	无	无	无

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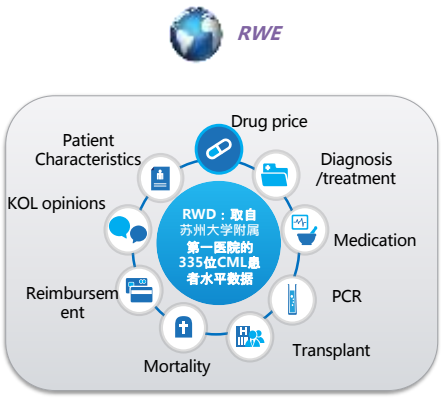
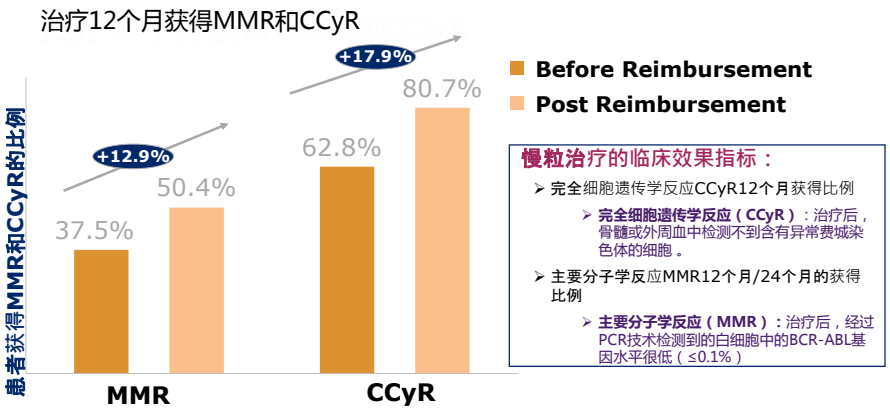
RWD Evaluation of Cost Effectiveness of Reimbursement Policy



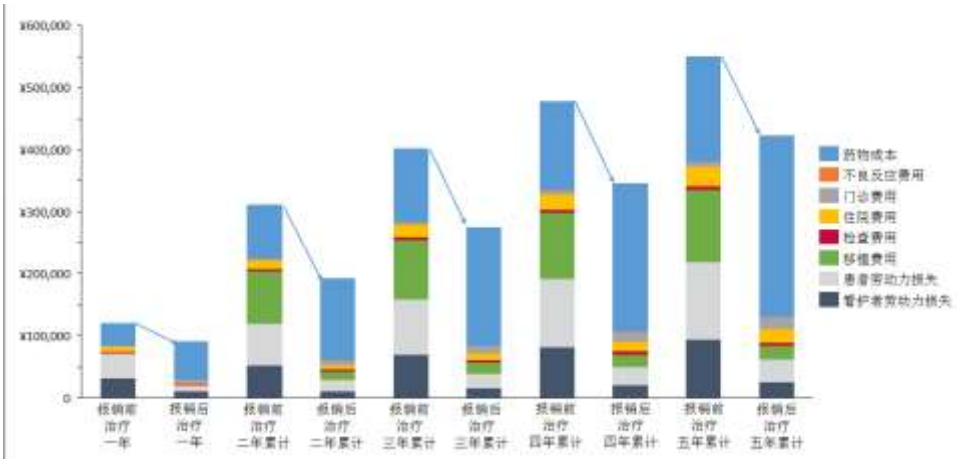
- JiangSu Province decided to include TKI for CML in the PRDL in 2012
- **Analysis of 2011-2014 RWD for** 335 patients to evaluate the clinical, social impact and cost effectiveness.

Significant Clinical Improvement of MMR和CCyR

- 基于335位患者的真实世界数据分析结果显示，TKI纳入报销后患者**治疗12个月获得MMR和CCyR显著高于**纳入报销前的患者(P<0.05)



Significant Reduction of Total Social Costs



TKI纳入报销改变了CML的治疗模式，更多患者稳定在慢性期，**降低了移植的经济负担，减少了患者及看护者的劳动力损失**，节省了治疗CML的总成本

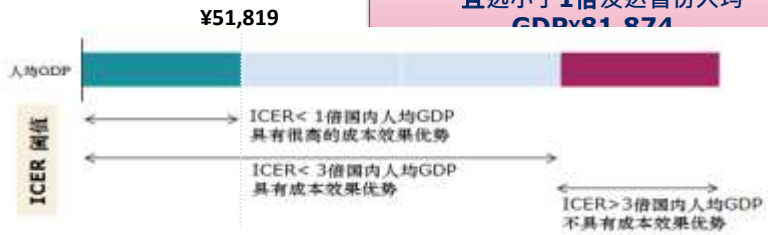
Overall Cost Effective

CEA 基础分析结果 ——患者整个生命周期

	Before	After	Difference
Life Year	10.0	15.4	5.4
QALY	8.0	13.5	5.5
ICER			¥50,641

WHO规定的ICER具有成本效果的阈值：

ICER值小于1倍中国人均GDP¥51,819，且远小于1倍发达省份人均GDP¥81,874



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GDP数据来源： 中国统计年鉴及江苏省统计年鉴

Claim Data Base Evaluation of Chronic Hep. B. Ambulatory Reimbursement Policy

To Encourage broad treatment coverage, reduce overall patient burden, Guangzhou City instituted Hep. B. ambulatory reimbursement policy which increased per patient payment from 150 to 600 RMB per visit.

SYS University Health Economic Research Institute

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Significant Increase in Patient Coverage

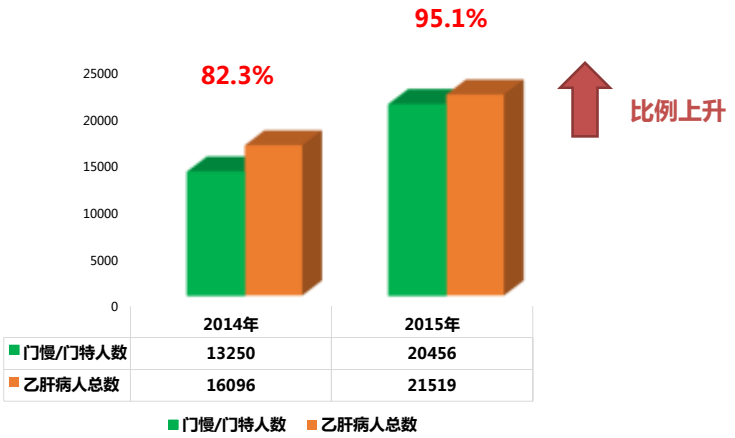


图1. 历年乙肝门慢门特人数和乙肝病人总数比较

Significant Reduction of Self Payment Amount

2014 Vs. 2015 Comparison

政策	医保类型	人数	人均费用	人均医保支付费用	Out of Pocket Amount	Out of Pocket Percentage
门慢	城镇职工	12889	5699.50	2441.08	**3258.42**	**52.83%**
门慢	城镇居民	361	3332.98	831.23	2501.74	68.26%
门特	城镇职工	18993	7993.72	5210.66	**2783.06**	**32.69%**
门特	城乡居民	1463	5364.44	2705.01	2659.43	46.91%

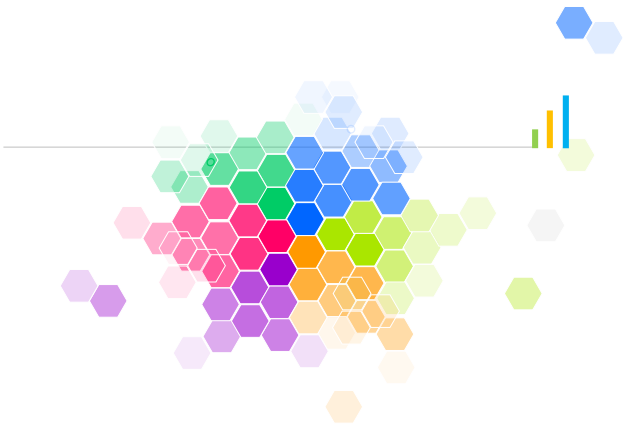
同门慢病人相比，尽管门特病人的人均总费用和人均医保支付费用都有所增加，但人均自付比例大幅下降了20%：特别对城镇职工医保门特病人而言，其人均自付费用较门慢政策减少了约500元，这体现了乙肝门特政策确实能够减轻患者的经济负担。

Significant Improvement in Compliance

MPR (Medication Possession Ratio)

- 病人抗病毒治疗期间实际取药量所使用的天数占首、末次取药间隔总天数的百分比。
  MPR = 实际用药天数/抗病毒治疗期间
- 将MPR≥0.8定义为良好依从性，MPR<0.8定义为不良依从性。

	2014	2015	P Value
恩替卡韦MPR	0.65	0.84	P< 0.0001



谢谢！
THANKS!

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