

# **13<sup>th</sup> Beijing/Hong Kong Medical Exchange Treatment, Prevention and Eradication of Blindness**

**題目：**

**總結中國流動眼科手術車項目之成效  
(十五年回顧)**

**主講：陳梁悅明太平紳士  
亞洲防盲基金會董事及行政總裁**

**Topic:**

**An Evaluation of the Effectiveness of  
China Mobile Eye Treatment Centre Project:  
A 15-Year Review**

**Presenter: Mrs. Grace Chan, RSW JP,  
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# 簡介Introduction

## 中國流動眼科手術車項目 ChinaMobile Eye Treatment Centre Project

- 于1996開始，至今已經十五年  
has commenced operation in 1996  
(15 years).
- 手術車設備完善、流動性強，  
能深入遙遠、難到達的地方為貧困白內障患者進行手術  
The Centre is designed to be a self-sufficient facility that can travel to far and remote areas in China to provide eye diseases treatment and cataract surgery to patients living in poverty.
- 善款來自不同渠道：包括個人名義的捐款人、慈善基金或私人企業  
Each Centre is funded by different funding sources: private donations, charitable foundations or private companies.





## 簡介 Introduction

- 亞洲防盲基金會爲主辦機構，負責籌款、設計及提供技術建議

The Asian Foundation for the Prevention of Blindness (AFPB) is the main organizer of the project, responsible for fund raising, design and technical advice.

- 獲贈手術車之省份負責手術車之運作及營運開支。

The receiving provinces are responsible for the day-to-day operation and recurrent expenses.





# 簡介Introduction

流動眼科手術車經過三個階段的設計：

**Design of the METC has undergone three major revisions:**

- 第一代是旅游巴的設計

The first one was a coach.

- 第二代是貨車的設計

The second design for Sight Care

Nos. 2 to 4 was built on lorry chassis.





# 簡介Introduction

- 第三代是貨櫃車的設計

The second four and the later METCs were built on detachable trailers.

- 每架手術車的費用為美金300,000元，包括所有眼科手術儀器之費用

As at 2011, the total cost of the trailer type METC is US\$300,000, including cost of construction and ophthalmic surgical equipment.





## 簡介Introduction

流動眼科手術車的工作目標：

Objective of the METCs:

- 提供白內障手術的手術車  
Cataract Surgery
- 培訓縣級眼科醫生的培訓車  
Training of County Hospital Ophthalmologists
- 宣傳防盲、治盲工作的宣傳車  
Publicizing information on prevention of blindness





## 簡介Introduction

- 于2011年底，將有30部手術車于24個省份內投入服務，包括：陝西、廣東、江蘇、山東、黑龍江、山西、雲南、四川、湖北、湖南、貴州、河北、甘肅、海南、福建、河南、江西、廣西、寧夏、新疆、青海、新疆南疆、安徽省及內蒙古自治區。

At the end of 2011, 30 METCs will be operating in 24 provinces of China. The provinces includes: Shaanxi, Guangdong, Jiangsu, Shandong, Heilongjiang, Shanxi, Yunan, Sichuan, Hubei, Hunan, Guizhou, Hebei, Gansu, Hainan, Fujian, Henan, Jiangsi, Guangxi, Ningxia, Xinjiang, Qinghai, Southern Xinjiang, Anwei, and Inner Mongolia.





# 項目成效

## Effectiveness of the Project

從以下範疇可以總結項目之成效

The following factors will be assessed in the evaluation of the effectiveness of the project:

- 1)手術量 Number of surgeries performed
- 2)白內障患者的數據 Number of patients reached per annum and
- 3)手術費用 Cost of operation



從(表一)所見，共有20個省份的數據可供使用(至2011年)。  
Statistics from 20 provinces in 2011 will be used.



表一：手術量一覽表  
Table I: Number of Surgeries Performed

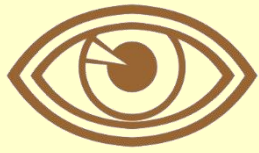
省份名稱 Name of Province	投入服務年份 Year of Commencement of Operation	09/2010至08/2011 完成之手術量 Surgeries Completed From 09/2010 - 08/2011	由投入服務至今之手 術量 Total no. of surgeries performed since operation up to 2011	投入服務至今 每年的平均手術量 Average Annual surgeries performed since in operation*
陝西Shaanxi	Jan 1996(1 <sup>st</sup> METC) , Aug 2006(2 <sup>nd</sup> METC)	4,598	30,014	2,001
廣東Guangdong	May 1998 (1 <sup>st</sup> METC), Dec 2008 (2 <sup>nd</sup> METC)	2,354	39,020	3,002
江蘇Jiangsu *	Oct 1998 (1 <sup>st</sup> METC), Aug 2010 (2 <sup>nd</sup> METC)	2,016	13,316	1,024
山東Shandong	Dec 1997 (1 <sup>st</sup> METC), Dec 2010 (2 <sup>nd</sup> METC)	3,178	25,976	1,855
黑龍江Heilongjiang	August 2002	3,900	18,900	2,100
山西Shanxi	Oct 2002	1,005	10,990	1,221
雲南Yunnan	Feb 2004	1,551	13,259	1,894
四川Sichuan #	Aug 2002 (1 <sup>st</sup> METC), July 2010 (2 <sup>nd</sup> METC)	1,319	8,561	1,070
湖北Hubei	July 2005	1,900	11,383	1,897
湖南Hunan	September 2005	1,385	9,596	1,599
貴州Guizhou	November 2005	2,186	14,561	2,427
河北Hebei	November 2005	2,685	9,328	1,555
甘肅Gansu	May 2007	4,100	13,229	3,307
海南Hainan	August 2007	2,000	6,924	1,731
福建Fujian	August 2008	5,163	10,159	3,386
河南Henan	March 2009	2,005	6,085	3,043
江西Jiangxi	October 2008	1,508	9,558	3,186
廣西Guangxi	October 2008	2,698	5,830	1,943
寧夏Ningxia	September 2008	1,672	3,271	1,090
新疆Xinjiang	December 2009	1,518	2,204	1,102
總數Total No. of Surgery Completed		48,741	262,164	40,433



## 表一:手術量一覽表

**Table I: Number of Surgeries Performed**

- **江蘇省手術車運作十年後，于2009年退役，故2009年沒有手術量  
Jiangsu suspended operation for one year as the METC was scrapped in 2009 after operation for 10 years.**
- **四川省手術車因不能領取車牌，于運作七年後終止服務，故2009年沒有手術量。新手術車于2010年再次投入服務。  
Sichuan suspended operation in 2009 as local partner was unable to obtain a license for METC. A new METC was constructed in 2010.2**

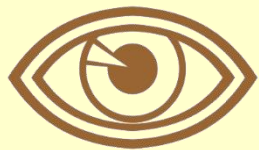


## 項目成效 Effectiveness of the Project

- 每架手術車均能達標，每年做不少于1000例手術  
Each METC have reached the designed target of performing a minimum of 1,000 surgeries per annum.
- 每架手術車于正式投入服務後首兩年手術量會較低、  
原因是各省份需時計劃適合該省的管理及運作模式。

In the first two years of operation, the number of surgeries is usually low due to the provinces concerned need to identify a management and operation system that best suits the province's situation.



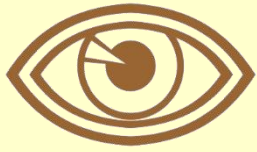


## 項目成效 Effectiveness of the Project

### 手術量 Number of Surgeries Performed

- 由1996年至2011年，複明一號至二十號共完成白內障手術260,164例。  
A total of 260,164 surgeries were performed from 1996 to 2011 METC Sight Care Nos. 1 to 20.
- 平均每年完成白內障手術40,100例  
Annual average surgeries performed were 40,100 patients per year.
- 于2010年至2011年，福建省的手術量為各省之冠，共5,163  
From 2010 to 2011, Fujian tops all provinces with 5,163 surgeries performed in 2011.
- 以手術車一年運作200天計算，即福建省每天共做手術26例，其他省份每天共完成手術5至23例。  
Considering average annual operational days of 200 days per year, this means that about 26 surgeries were performed on the METC daily when in operation.  
The number of annual operations of other provinces, an average daily surgical operation of 5 to 23.





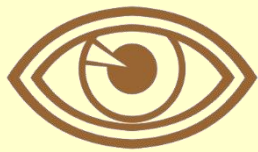
## 項目成效 Effectiveness of the Project

于2010/2011年福建、陝西及甘肅省為首三個手術量最高的省份  
Fujian, Shaanxi and Gansu top the number of surgeries performed.

以下是影響手術量的原因：  
Factors that affect the number  
of surgeries performed would include:

- 道路網絡是否健全，會影響手術車前往  
各手術點的時間  
Highway network that affects the time needed to  
travel from one surgical point to another
- 各省管理篩查病人的方法以及術前支援  
Management of the province in selection of cases and pre-surgery support
- 資源投放  
Resources devoted to the project





## 項目成效 Effectiveness of the Project

### 手術車之費用 Cost Per Patient for Vehicle Cost

- 每架手術車之壽命為期10年  
Life expectancy for the vehicle is 10 years
- 假設每架手術車平均每年可做2,000例手術，  
單于10年內可以做20,000例手術  
Assuming an annual average surgery of 2,000 patients per year,  
each METC would perform a minimum of 20,000  
surgeries during its life span
- 一架手術車的成本費用約為美金300,000元,  
Cost of the METC is US\$300,000.
- 以上述數據推算，每名在手術車上病人的  
成本費用為15美元  
Cost of vehicle per patient would be US\$15.
- 製造手術車之款項由慈善團體捐贈  
This cost is donated by charitable organizations or benevolent if  
otherwise will not be available without organization of the proj

每架





## 項目成效 Effectiveness of the Project

### 手術費用 Cost Per Surgery

捐贈協議書規定：(It is part of the donation agreement that: )

- 手術費包括手術材料費、住院支出及手術車維修。  
charges of surgeries performed on METC would cover material costs, expenses for hospital stay and a minimal amount of vehicle maintenance
- 每例手術不可超逾人民幣800元(美金約100元)  
Surgical costs should not be over RMB800.00 (US\$100) per patient.
- 各省份每年需為15%貧困白內障患者提供免費手術。  
The receiving provinces also have to agree to provide a minimum of 15% of free cataract surgeries to the most needy patients and fee reductions to patients according to their level of poverty.



表二：獲減免費用/免費的手術量Table II: Number of Subsidized Cases

省份 Province	基本收費 Standard charges (RMB)	投入服務至今之手術量 Total no. of surgeries performed	獲減免費用之手術量 No. of surgeries with fee reduction	免費之手術量 No. of free surgeries	獲費用減免及免費之手 術總量 Total No. of surgery with fee reduction	共減免之費用 Total amount of fee reduction
陝西Shaanxi	800	30,014	0 0%	30,014 100%	30,014 100%	24,011,200
廣東Guangdong	800	39,020	4,509 11.56%	20,711 53.08%	25,220 64.63%	18,372,400
江蘇Jiangsu	800	13,316	0 0%	13,316 100%	13,316 100%	10,652,800
山東Shandong	620	25,976	0 0%	13,710 52.78%	13,710 52.78%	8,500,200
黑龍江Heilongjiang	800	18,900	6,700 35.45%	4,900 25.93%	11,600 61.38%	6,600,000
山西Shanxi	500	10,990	3,691 33.59%	1,649 15.00%	5,340 45.59%	1,747,250
雲南Yunnan	800	13,259	0 0%	13,259 100%	13,259 100%	10,607,200
四川Sichuan	800	8,561	809 0%	6939 81.05%	7,748 90.50%	5,874,800
湖北Hubei	800	11,383	163 1.43%	11,102 97.53%	11,265 98.96%	8,946,800
湖南Hunan	800	9,596	0 0%	6,755 70.39%	6,755 70.39%	5,404,000
貴州Guizhou	640	14,561	560 3.85%	3,861 26.51%	4,421 30.36%	2,650,240
河北Hebei	500	9,328	780 8.36%	2,288 24.53%	3,068 32.89%	1,339,000
甘肅Gansu	800	13,229	0 0%	13,229 100%	13,229 100%	10,583,200
海南Hainan	800	6,924	0 0%	6,924 100%	6,924 100%	5,539,200
福建Fujian	800	10,159	232 2.28%	7,146 70.34%	7,378 72.63%	5,809,600
河南Henan	800	6,085	0 0%	6,085 100%	6,085 100%	4,868,000
江西Jiangxi	800	9,558	0 0%	9,558 100%	9,558 100%	7,646,400
廣西Guangxi	800	5,830	0 0%	5,830 100%	5,830 100%	4,664,000
寧夏Ningxia	800	3,271	150 4.59%	2,007 61.36%	2,157 65.94%	1,665,600
新疆Xinjiang	800	2,204	272 12.34%	1,326 60.16%	1,598 72.50%	1,169,600
Total:		260,164	17,866 6.81%	180,609 68.89%	198,475 75.71%	146,651,490



## 項目成效 Effectiveness of the Project

- 從表二可見，每個省份都達到提供最少15%免費白內障手術的目標  
All provinces are able to achieve the target to provide at least 15% of free cataract surgeries and 15% of fee reduction to patients in need.
- 有260,164名患者接受手術、其中17,866人獲手術費用減免，180,609人手術費用全免。  
Of the 260,164 patients served, 17,866 patients received fee reduction for their surgeries, 180,609 of them received free surgery.

