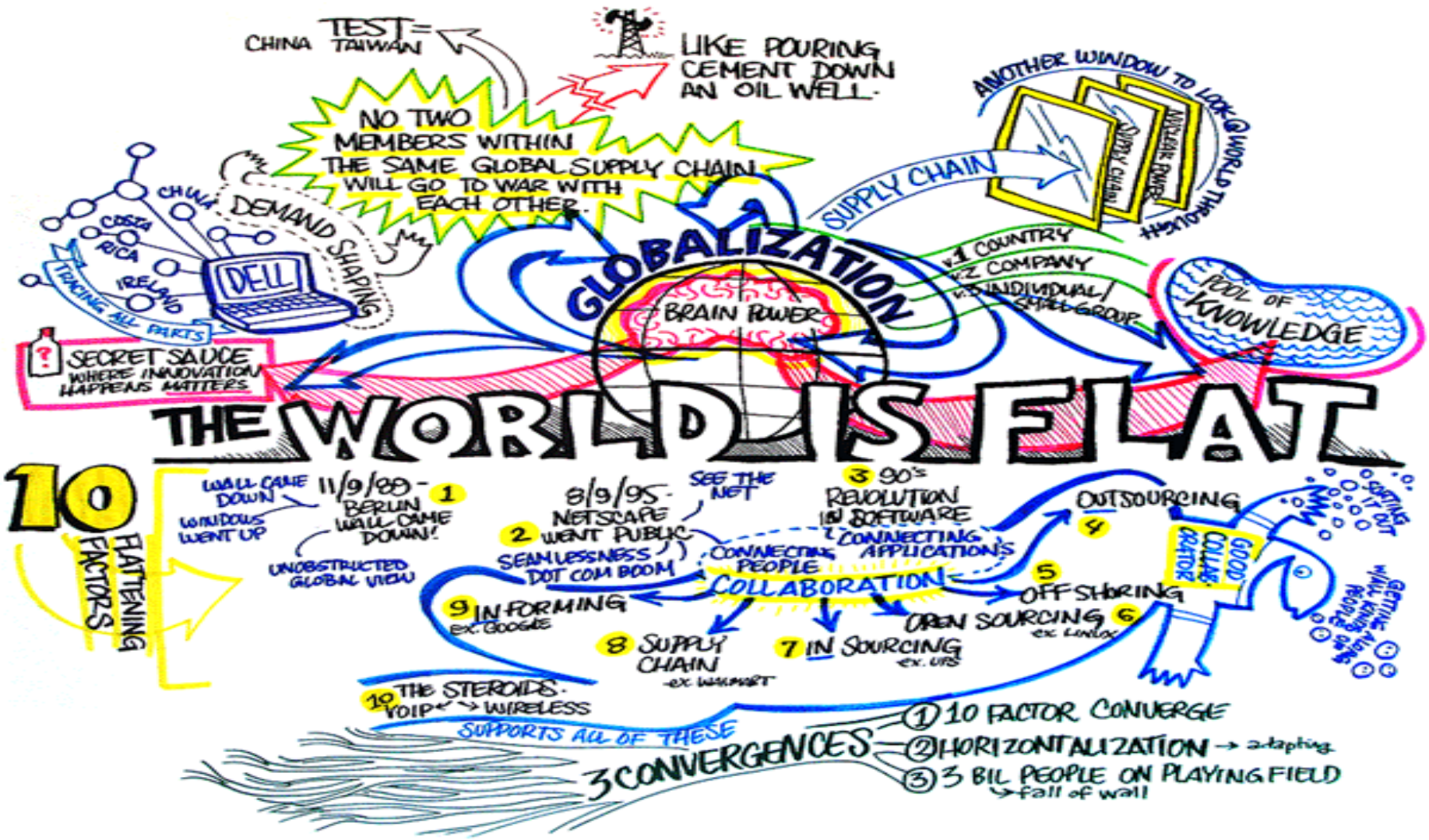
Medical Tourism and the Medical Industry in the Asia Pacific

Prof Anupam Sibal

Group Medical Director

Apollo Hospitals Group



Thomas L. Friedman on The Charlie Rose Show discussing his book, "The World is Flat" • 04.05.05
graphic facilitation by Brandy Agerbeck • Loosetooth.com

Healthcare globalization – developed nations

US

Out-of-pocket expenses: 18% of 250 million insured Americans not qualified for certain procedures

Uninsured: 47 million uninsured Americans in 2006

Cost-cutting: Health plans and Companies are seeking ways to reduce costs

Healthcare globalization – developed nations

Canada

7 – 9 months waiting time for an MRI

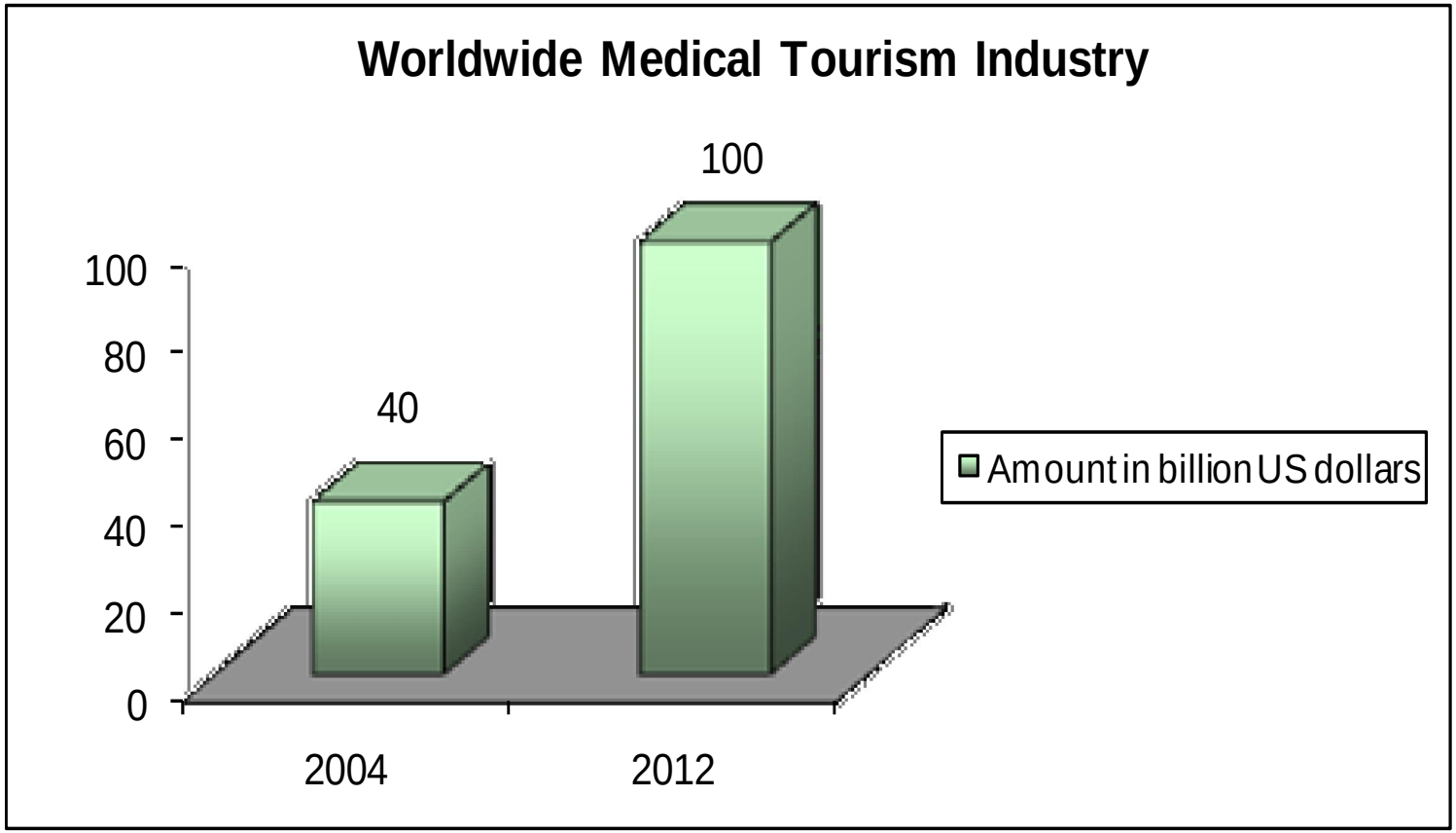
13,679 patients waiting for cataract surgery in British Columbia as on 31st March 2011

UK

NHS has a significant waiting list

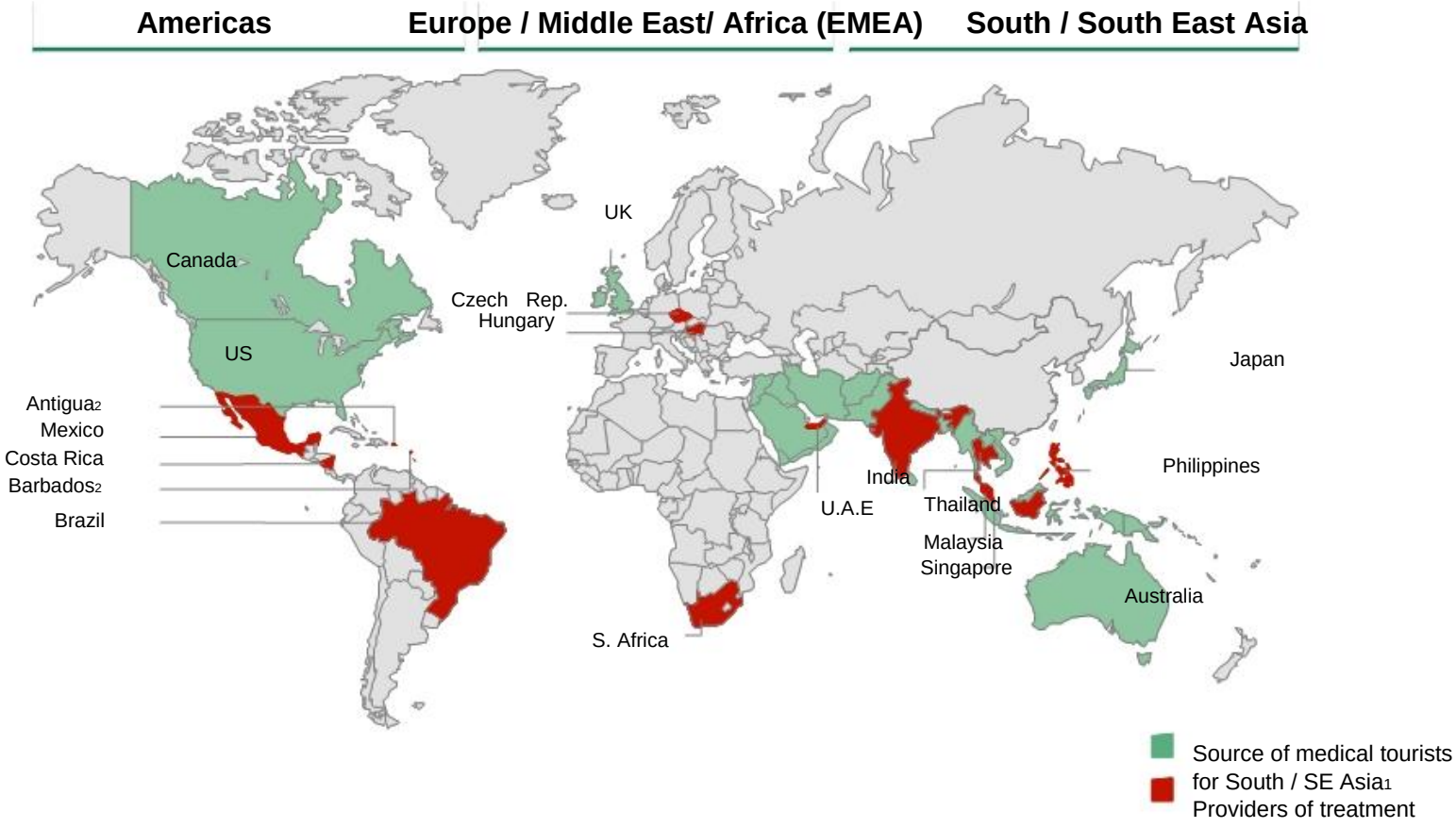
Healthcare globalization – developing nations

- Lack of expertise and tertiary care facilities in underdeveloped and developing nations of Africa, Middle East, South Asia and CIS
- Aging population increasing



Source: McKinsey & Company and CII

The key providers of medical tourism



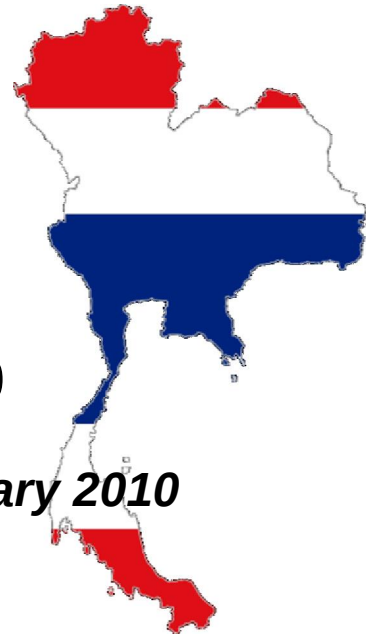
THE BOSTON CONSULTING GROUP

Medical tourism Asia Pacific

Growing at 20 to 30 percent

- **Thailand**
- **Singapore**
- **India**
- **South Korea**
- **Malaysia**
- **Phillipines**

Thailand



1.2 million foreigners visited hospitals in 2009

International Medical Travel Journal: News January 2010

60% patients at Bumrungrad Hospital and 40% at Samitivej Hospital are foreigners

Medical Tourism: The Asia Chapter

Deloitte 2008

Singapore

3,70,000 medical tourists in 2008

International Medical Travel Journal: News October 2010

Malaysia

Number of foreign patients in Malaysia tripled from 2001 to 2006 reaching nearly 3,00,000 and generating a revenue of US $ 59 million in 2006

Growth projected at 30%

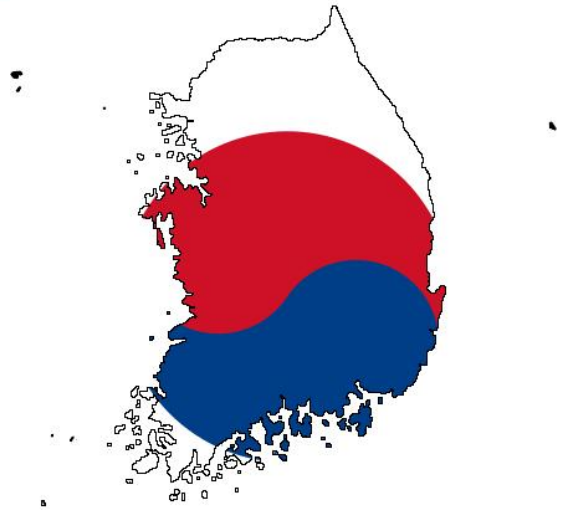
Medical Tourism: The Asia Chapter

Deloitte 2008

4,25,500 medical tourists in 2009

International Medical Travel Journal: News April 2011

South Korea



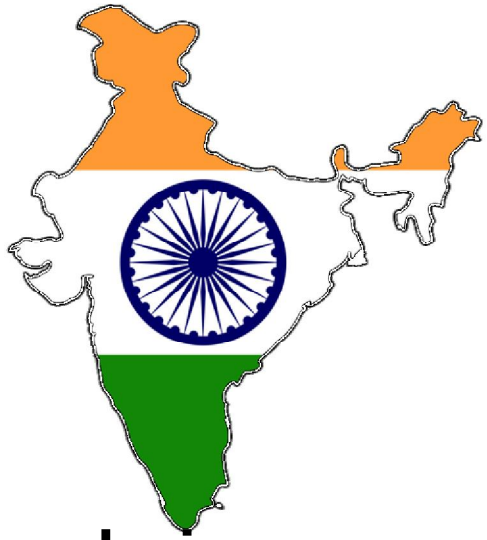
In 2008, the country received around 25,000 foreign medical tourists, an impressive increase of more than 56% from previous year (2007).

"Emerging Medical Tourism in South Korea" RNCOS

The medical tourism market in South Korea is projected to grow at a CAGR of around 30% during 2010-2012

"Asian Medical Tourism Analysis (2008-2012) RNCOS"

India



Medical tourism will generate US$2.4 billion during 2009–2012 for India by attracting 1.1 million health tourists, up from 150,000 in 2002

Confederation of Industries (CII)-McKinsey 2009

27% growth rate predicted for medical tourism in India

Deloitte

The value proposition of a medical traveler

Quality

Service

Cost

Quality

Modern infrastructure

World class processes

Contemporary technology

International accreditation

Well qualified, English speaking doctors

Published outcomes

|| अतिथि देवो भव ||
Quoted above is an ancient and perhaps, the most unique Sanskrit saying, meaning, quite simply - "A guest must be treated as God".

Cost advantage

Medical treatment at one tenth the cost in the U.S. with comparable care and clinical outcome after including travel cost

Medical value travel – the cost advantage

PROCEDURE (All costs in USD)	USA	India	Thailand	Singapore
Heart bypass	80K - 130K	6.7K - 9.3K	11K	16.5K
Heart valve replacement	160K	9K	10K	12.5K
Angioplasty	57K	5K - 7K	13K	11.2K
Hip replacement	43K	5.8K - 7.1K	12K	9.2K
Hysterectomy	20K	2.3K - 6K	4.5K	6K
Knee replacement	40K	6.2K - 8.5K	10K	11.1K
Liver Transplantation	300K	60K	80K	90K

Medical Tourism: The Asia Chapter Deloitte

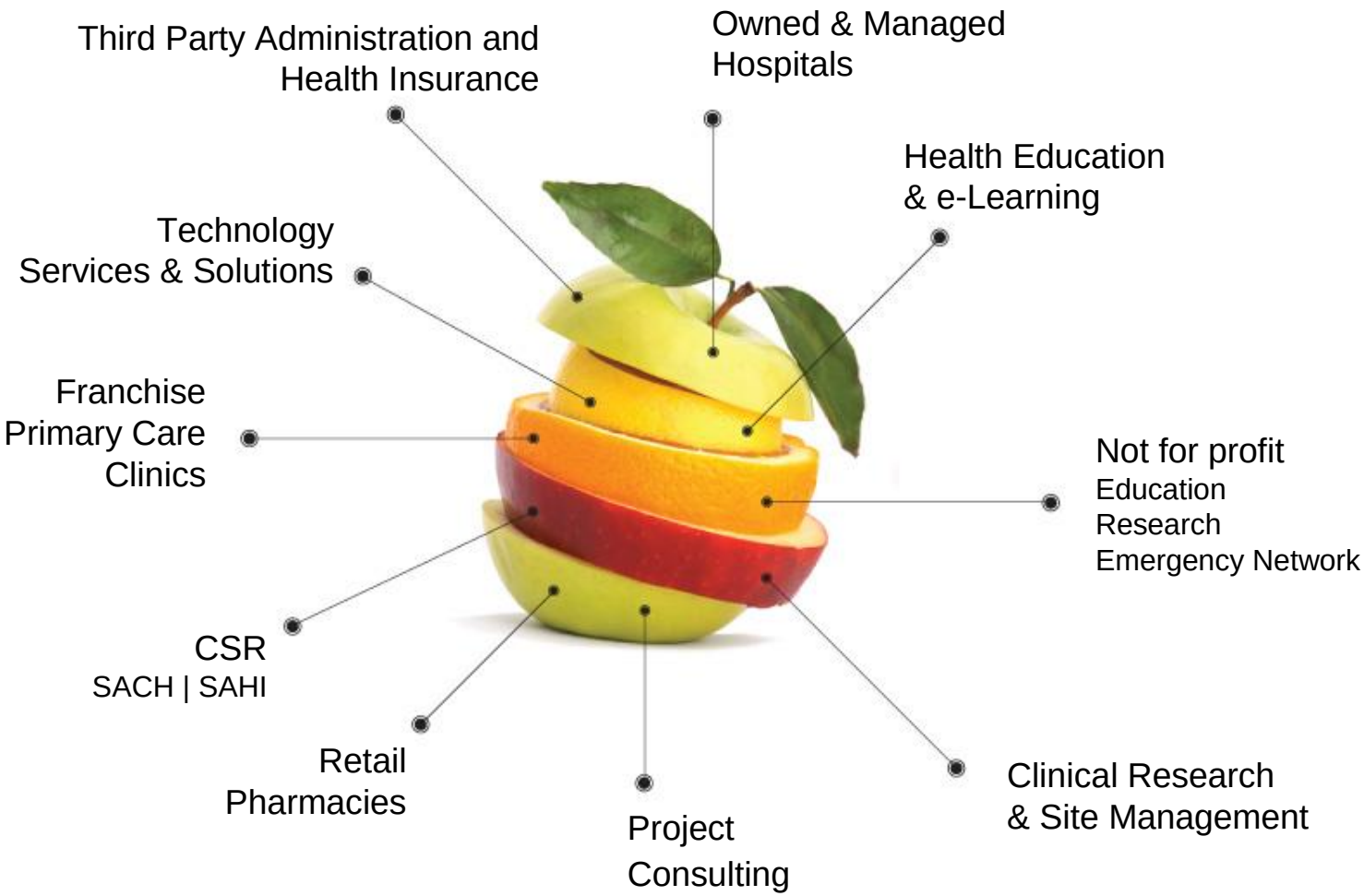
Holistic medical destination

Asia Pacific offers not just treatment but spiritual and mental healing as well

Alternative therapies

- **Ayurveda**
- **Naturopathy**
- **Homeopathy**
- **Yoga**

Apollo - integrated seamless healthcare delivery system



Clinical excellence

State of art healthcare infrastructure

Latest technology

3 Tesla MRI

PET-CT

Cyberknife

Novalis

320 Slice CT

Organization Accredited
by Joint Commission International

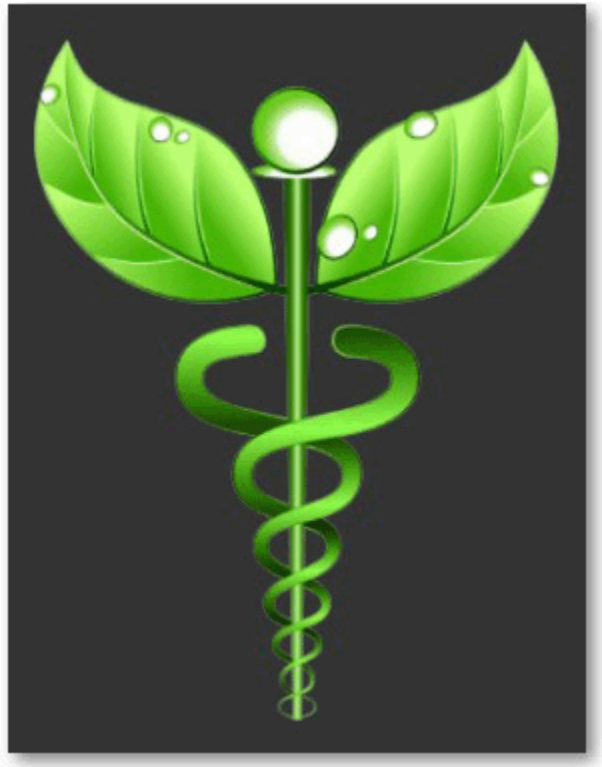
Continuous quest for excellence

7 JCI accredited Apollo hospitals

Delhi (first JCI accredited hospital in India)
Chennai
Hyderabad (first JCI accredited stroke program in the world)
Ludhiana
Dhaka
Bangalore
Kolkata

Clinical excellence

- Best clinicians
- Consultant report cards
- Clinical practice guidelines
- Clinical pathways
- Clinical performance indicators for individual consultants
- Quality indicators for clinical services
- Best practices
- Departmental reviews
- Performanometer
- Accreditation
- Apollo Medicine Journal
- Grand rounds
- Apollo clinical excellence forum
- Research promotion
- Apollo Gold Medals
- Clinical excellence dashboard – ACE @ 25
- Apollo Quality Program



The best clinicians

Initiated reversal of brain drain

4000 consultants

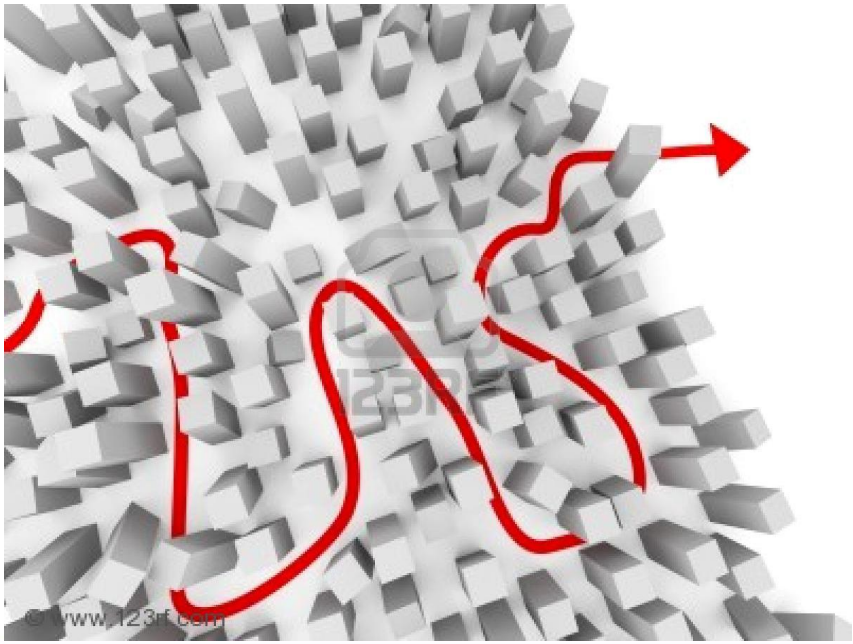
70% of our consultants have trained overseas

They needed a clinical as well an academic and research environment

Clinical practice guidelines

Specialty Stream	CPG
Anesthesia	Pain Management
Cardiology	Acute Myocardial Ischemia
Cardiac Surgery	Coronary Artery Bypass Graft
General Pediatrics	PUO and Antibiotic Management
Neuro Surgery	Glioma
Gastric Surgery	Variceal Bleed
Endocrinology	Type 2 Diabetes Mellitus
ENT	Tonsillectomy
Thoracic Surgery	Empyema
Transplant Surgery	Renal Transplant
Neurology	Seizure Management
Medical Oncology/Pediatric Oncology	Acute Lymphoblastic Leukemia
Pediatric Surgery	Exploratory Laparotomy for Acute Abdomen
Gastroenterology	Fulminant Hepatic Failure

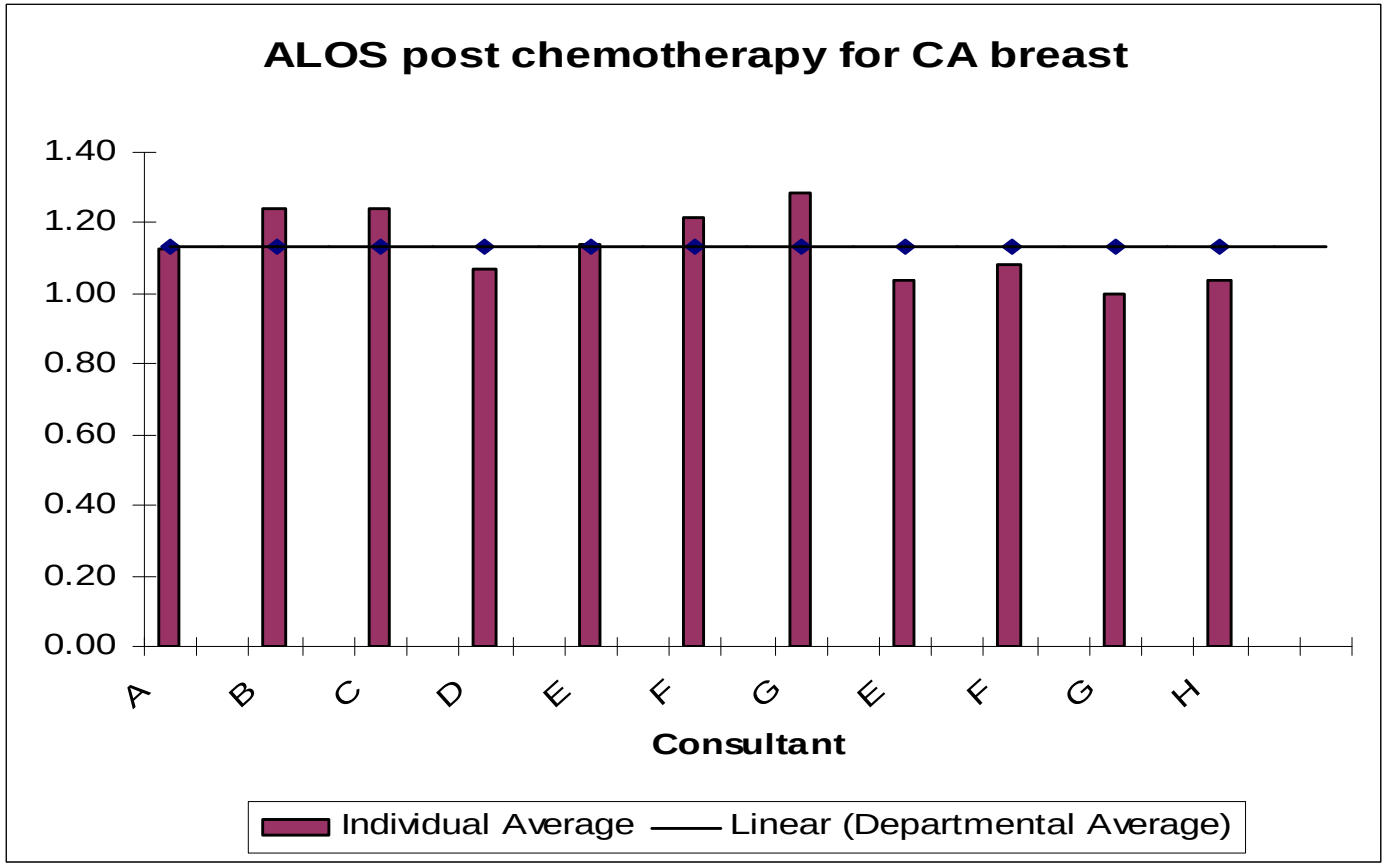
Clinical pathways



CABG
Laproscopic cholecystectomy
TURP
Total abdominal hysterectomy
Stroke
GI bleed
Total knee replacement

Performance indicators for consultants

Specialty	Performance Indicator
Cardiology	Aspirin at arrival Discharge instructions given to heart failure patients
Cardiac Surgery	OT Return rates within same day
General Surgery	Operating times in laparoscopic cholecystectomy
Gynecology	Post-operative length of stay for hysterectomies
Neonatology	Mortality rates
Neurology	Stroke readmission rate
Neurosurgery	Craniotomy re-exploration rates


ALOS post chemotherapy for CA breast
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
A
B
C
D
E
F
G
E
F
G
H
Consultant
Individual Average
Linear (Departmental Average)

Quality Indicators for clinical services

Initial patient assessment within 60 min

Lab reports delayed per 100 lab tests

Repeat samples per 100 lab tests

Unplanned returns to surgery

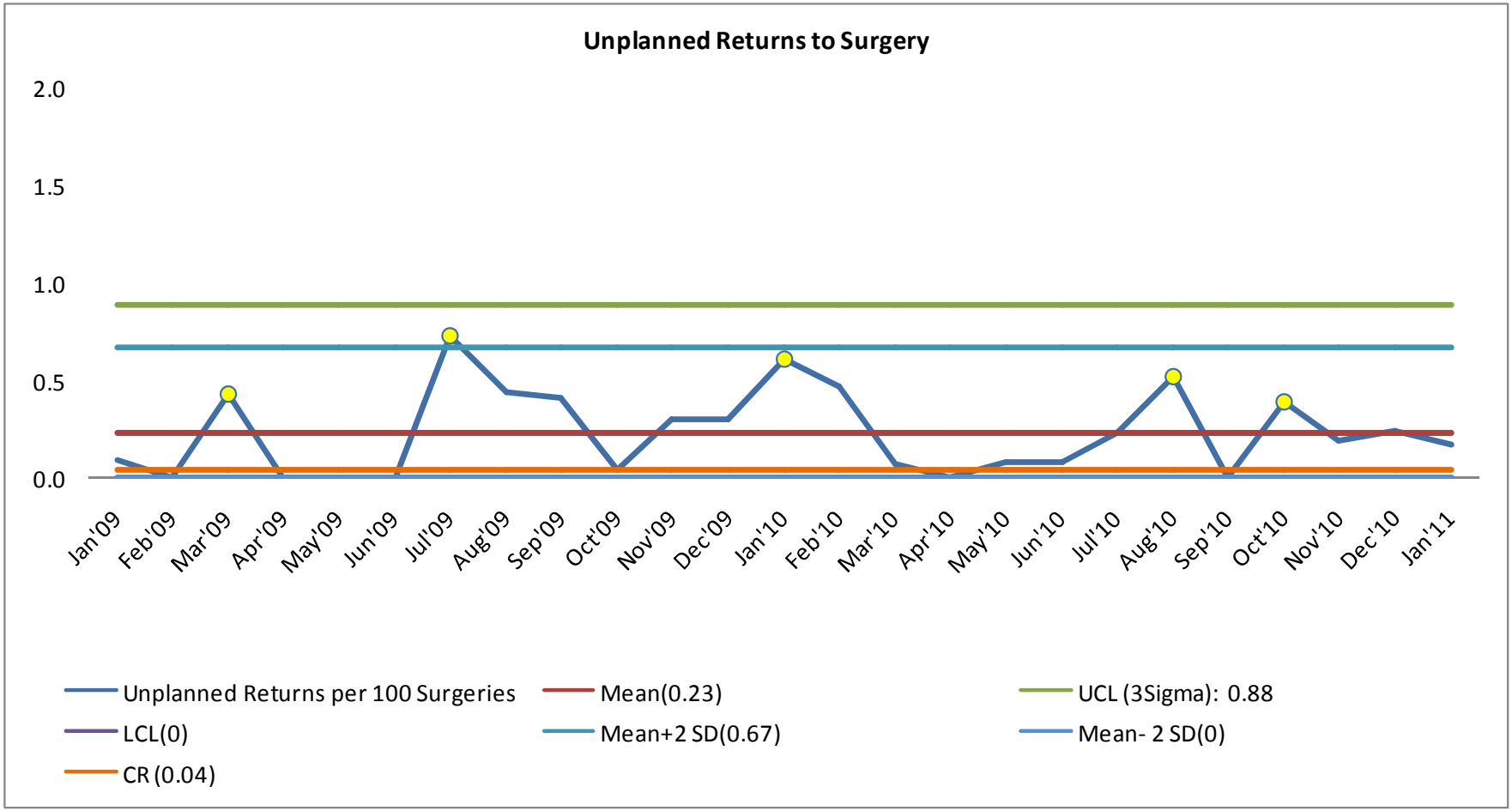
Recovery room delays > 2 hrs

Consumption of restricted antibiotics

Complications in aneasthesia

Transfusion reactions

Adverse reaction in patients undergoing clinical trials


Unplanned Returns to Surgery
2.0
1.5
1.0
0.5
0.0
Jan'09
Feb'09
Mar'09
Apr'09
May'09
Jun'09
Jul'09
Aug'09
Sep'09
Oct'09
Nov'09
Dec'09
Jan'10
Feb'10
Mar'10
Apr'10
May'10
Jun'10
Jul'10
Aug'10
Sep'10
Oct'10
Nov'10
Dec'10
Jan'11
Unplanned Returns per 100 Surgeries
Mean(0.23)
UCL (3Sigma): 0.88
LCL(0)
Mean+2 SD(0.67)
Mean- 2 SD(0)
CR (0.04)

ACE @ 25

25 parameters assessed against international bench marks

Apollo Light House

International benchmarks

Cleveland Clinic

Mayo Clinic

National Healthcare Safety Network

Massachusetts General Hospital

AHRQ US

Columbia University Medical Center

US Census Bureau

***National Kidney Foundation* Disease Outcomes Quality Initiative (*NKF* KDOQI)**

CABG mortality rate

Benchmark: 0.60%

Numerator :Number of in-hospital deaths after CABG

Denominator: Total number of CABG conducted

Indicator	Benchmark	Range	Score
CABG mortality rate	0.60%	≤0.80	4
		0.81-1.20	3
		1.21-1.60	2
		1.61-2.00	1
		>2.00	0

Parameters	Bench Mark	Reference	Max Score	Scoring
Complication rate post coronary intervention	**2%**	**A J of Therapeutics US**	**4**	**≤ 2 4** **2.67 - 3.33 2** **> 4 0**
ALOS post microdisectomy	**3 days**	**Singapore General Hospital**	**4**	**≤ 3 4** **3.51- 4.00 2** **> 4.5 0**
Complication rate TURP	**2%**	**Europian Urology Vol 50 Nov 2006**	**4**	**≤ 2 4** **2.21 – 2.85 2** **>3.33 0**
Catheter Related Blood Stream Infection (CR-BSI)	**2.79**	**National Healthcare Safety Network**	**5**	**≤ 2.79 5** **3.35 -4.01 3** **>5.78 0**
Catheter related UTI (CR-UTI)	**4.02**	**National Healthcare Safety Network**	**3**	**≤ 4.02 3** **4.03 – 4.82 2** **> 5.79 0**

ACE @ 25

Maximum score attainable 100

Over all hospital cumulative scores

> 75		Green
50 to 75		Orange
< 50		Red

Apollo clinical audit team

Standardization of methodology of data collection and validation of data reporting through ACE @ 25 audits

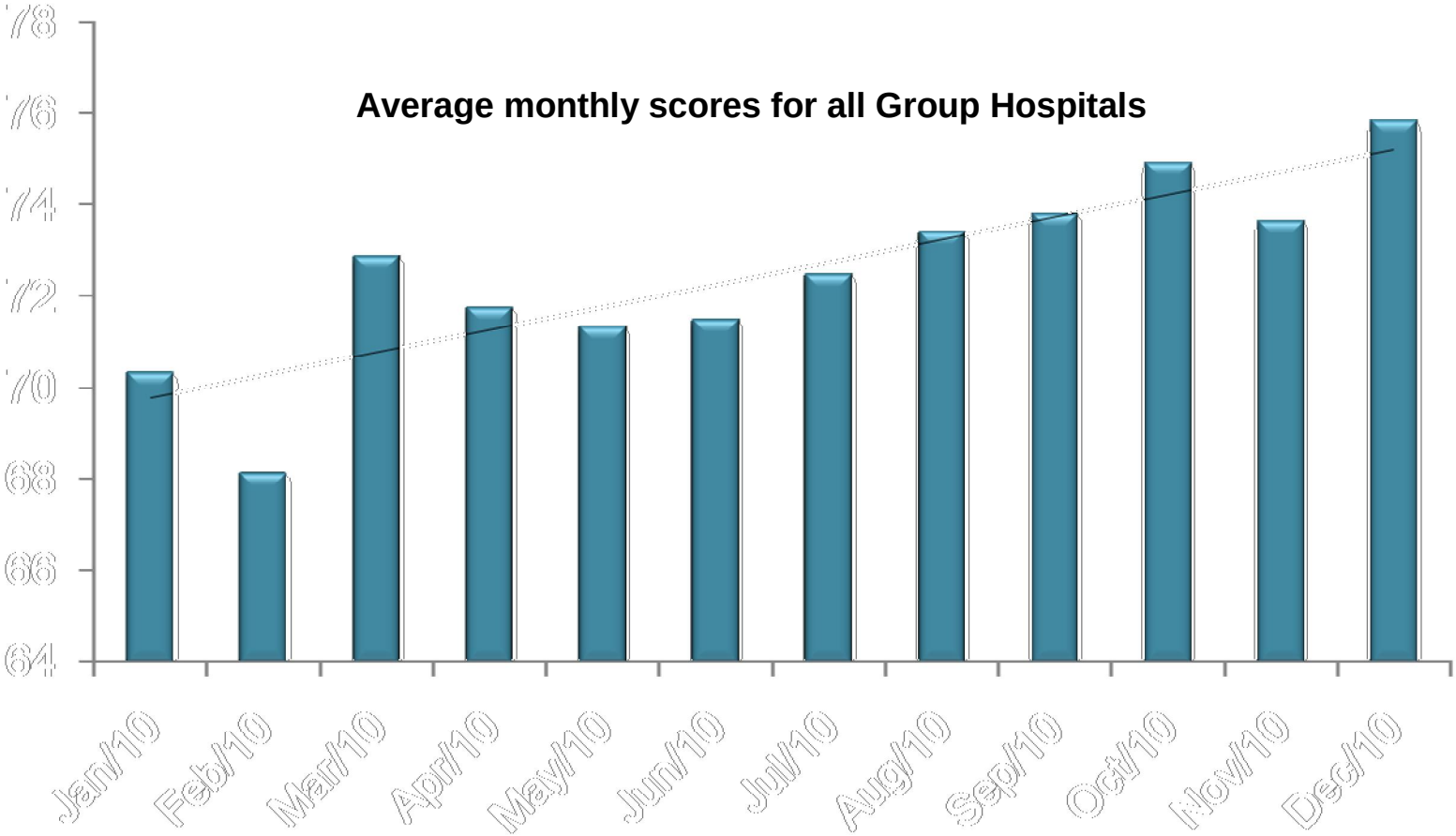
Twenty auditors nominated by Group Hospitals

Auditors travelled by air, train and bus covering 34676 km over 44 days to locations across the length and breadth of India and the region

ACAT scores

ACAT COMPLIANCE

	%age compliance
Group A	92.8
Group B	84.1
Group C	75.4
Overall Apollo Group	85.2


Average monthly scores for all Group Hospitals
78
76
74
72
70
68
66
64
Jan/10
Feb/10
Mar/10
Apr/10
May/10
Jun/10
Jul/10
Aug/10
Sep/10
Oct/10
Nov/10
Dec/10

Research

350 global multi – centre trials
Central IRB
Courses in clinical research
Stem cell bank at Ahmedabad
Cell and Molecular Biology Research Centre
Phase I Centre
Reference Interval study
Recognition by the Government of India as a research institution
Apollo Fellows
Research Grants
Recognition of published papers
Apollo Medicine Journal

Academics

DNB

Royal Colleges

PGDCC

Medvarsity

Foreign Trainees

University of Queensland

University of Sydney

Service excellence

The Apollo Way

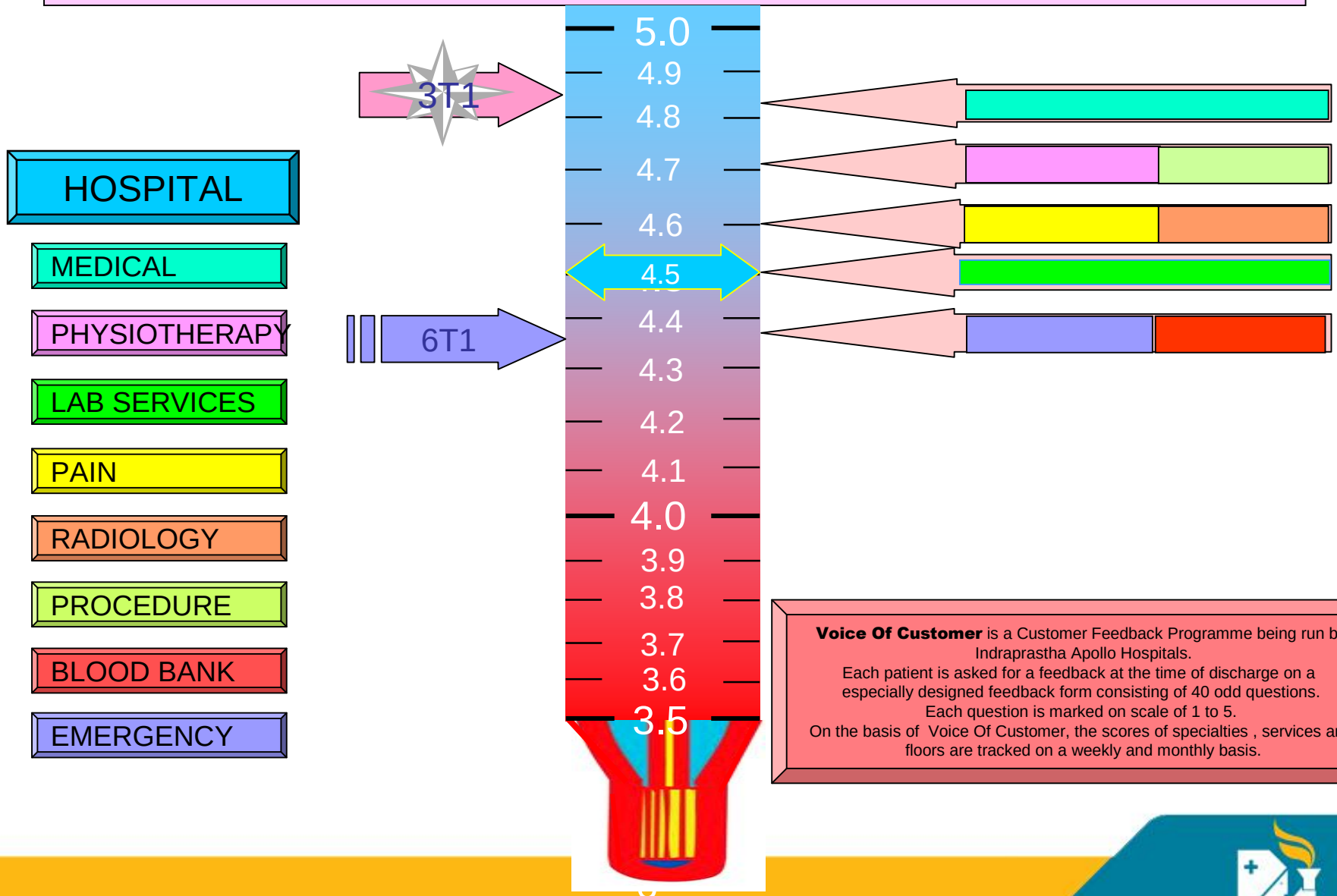
A new platform at Apollo to offer better patient experience through improved services

An operations improvement programme

Deliver and sustain “Apollo Way benchmark” performance around key operational metrics

Through process improvement and capability building

WEEKLY PERFORMANOMETER MEDICAL SERVICES TEAM



Voice Of Customer is a Customer Feedback Programme being run by Indraprastha Apollo Hospitals.
Each patient is asked for a feedback at the time of discharge on a especially designed feedback form consisting of 40 odd questions.
Each question is marked on scale of 1 to 5.
On the basis of Voice Of Customer, the scores of specialties , services and floors are tracked on a weekly and monthly basis.

THE TEN COMMITMENTS OF APOLLO TLC

- MY WAY OF TOUCHING A BILLION LIVES
- MY UNWAVERING DEDICATION TO PATIENT CARE
- MY RELENTLESS COMMITMENT TO PATIENT DELIGHT
- TO BE THE HALLMARK OF SERVICE STANDARDS
- TO BE MORE COMPASSIONATE AND MORE HUMANE
- TO BE THE TOUCH THAT HEALS
- TO ALWAYS DELIVER MORE THAN PROMISED
- TO SPREAD THE POSITIVE ENERGY OF LOVE & HOPE
- TO LEAVE AN INDELIBLE IMPRESSION IN THE PATIENT'S LIFE
- TO LEAD THE REVOLUTION OF CARE

Cost

Cost control

Centralized purchase of supplies

Six day week

Better utilization of resources

HR cost

Global recognition creating global hope

India's low-cost patient care earns plaudits in US study
- Duke University
Wed, Sep 10 2008

India's Healthcare Industry to See Mammoth Growth
- Mc Kinsey
Wed, Jun 27 2007

India's New Coup In Outsourcing: Inpatient Care
The Wall Street Journal, April 26, 2004

Mr. Kevin Stewart

Liver Transplant Patient

I wanted to take the time to write you and your ***International Marketing Dept.*** to tell you what a marvelous service you have offered us. My brother Kevin and I came to India for a **liver transplant**. My brother being the recipient and myself the donor. This is a huge operation and it was so important when you are coming to India from so far away for procedures that can be scary.

I didn't get to meet your whole team so the praise I would like to share is all for you. Rekha was one of the kindest people I have ever had the pleasure to meet. She went far and beyond any expectation we could have had. Escorting me to all of my tests prior to surgery, arranging transportation and food for myself first and then my husband when he arrived. You made an extremely hard and worrying experience so much easier. I consider you to be a sister and special friend for the rest of my life. I want you to pass this message on to your superiors because they need to know what special people they have working for them. I know that in the future you will be receiving many more North Americans and I can safely say they will be in the best of hands.

I wish other people to read and feel comfortable with their decisions of having procedures done in your country. I have included a picture of myself and you and also a picture of Mr Kevin as he looked yesterday for you to remember what a great thing you have helped accomplish.

Lots and lots of love,

Jo-Ann Hall
21st July 2007

Apollo
HOSPITALS
TOUCHING LIVES