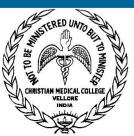


Making informed decisions about health policies and systems in Low and Middle Income Countries



Prathap Tharyan
South Asian Cochrane
Network
Christian Medical
College, Vellore, INDIA





# Dealing with heterogeneity







## South Asia







#### South Asia

- 1.6 billion people
- 1/4 world's population
- Population density of 305 persons per sq. km. is more than seven times the world average.
- Hindu, Muslim,
   Buddhist, Jain, Sikhs
   Christian, Animist,
   Ahamadi,



#### Incredible India: the balance sheet

#### **Asian Tiger**

- 2003-04 GDP Growth: 7.8%
- Fastest Growing Industries:
  - BusinessProcessOutsourcing
  - SoftwareServices
  - Insurance
  - Healthcare

#### **Asian pariah**

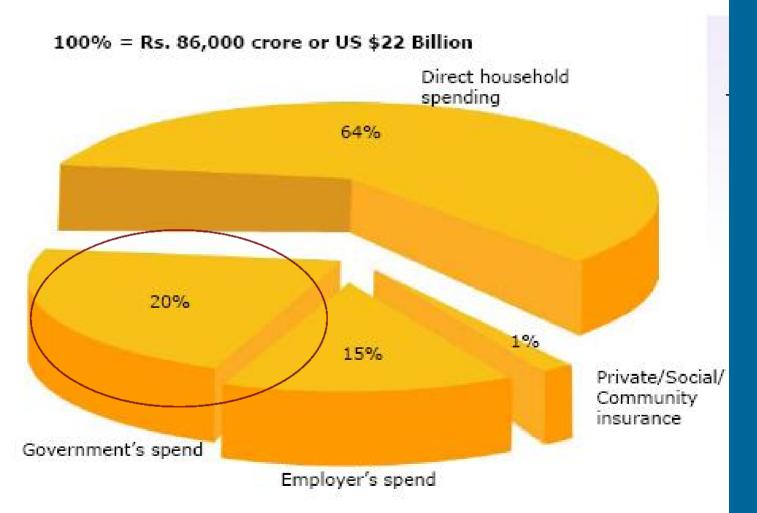
- India lags behind on key health indicators
- Individuals have limited bargaining power
- Indian healthcare system underperforming
- Limited reach
- Unregulated delivery
- Sub-standard facilities
- Malpractices



#### Two thirds of health care spending is out of

Share of different payors DOCKET

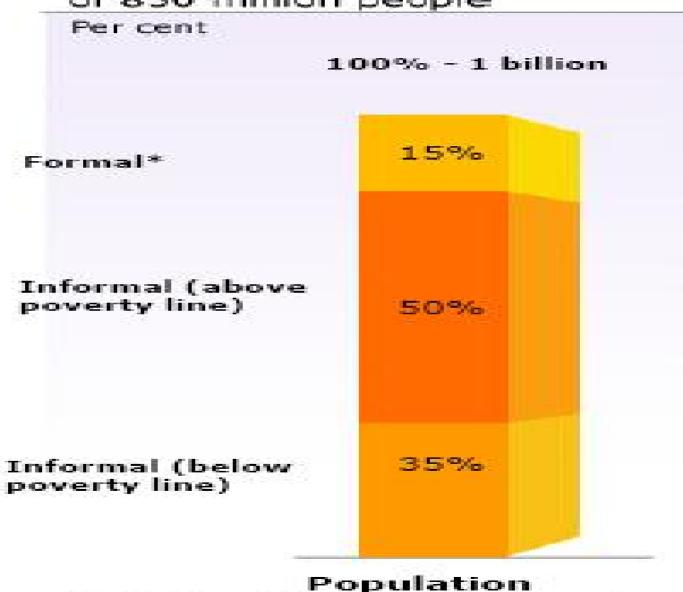
Per cent of total spending, 2000-2001





Source: CII - McKinsey Report, 2002

## India has an informal sector of 850 million people

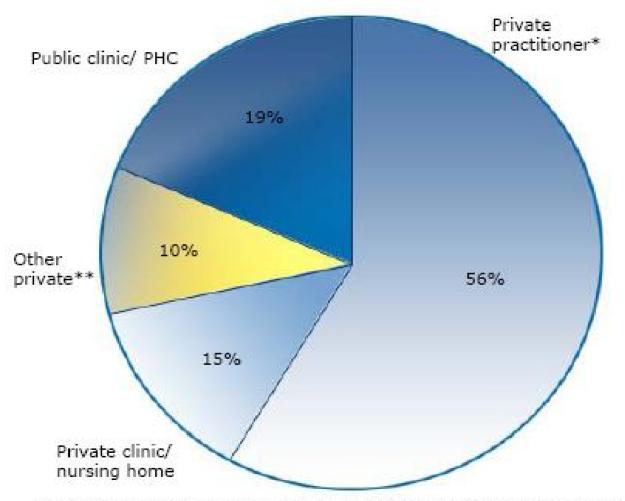


# More than 70% of people live in semi-urban and rural areas

#### Rural India prefers private providers



Per cent, 1998



<sup>\*</sup>Private practitioner includes both qualified & unqualified practitioners (60-80% of private practitioners)
\*\* Includes charitable institutions & local practitioners of Indian system of medicine

<sup>•</sup> Public primary care is underutilised; unqualified providers



#### The Social Burden

The World Bank in 2002 reported that:

"irrespective of income class, a single episode of illness is enough to eat away the life savings of most individuals in India... Even more disconcerting is the fact that 40% of those hospitalized had to borrow money or sell off assets"





## Global Health Infrastructure

	Countries	Beds per 1000 population	Physicians per 1000 population	Nurses per 1000 population
	India	1.5	1.2	0.9
	Low Income (Sub-Saharan Africa)	1.5	1.0	1.6
	Middle Income ( China, Brazil)	4.3	1.8	1.9
	High Income (US, Western Europe)	7.4	1.8	7.5
NEW STANK	World Average	3.3	1.5	3.3



## Regulatory environment

- Ministry of Health (Central Government)
  - Regulation of healthcare industry
  - Management of Public Health Initiatives
  - Management of Public Health Facilities
- Ministry of Health (State Governments)
  - Management of Public Health Initiatives
  - Management of Public Health Facilities
- Indian Medical Council
  - Licensing and Regulation of all Medical Professionals
- Indian Council of Medical Research
- Drug Controller General of India



## The chronology of an infection

Bitten by the Cochrane bug (Clive Adams) in 1995, in Oxford, UK

Protocol for systematic review published in Issue 1, 1996

Review published in Issue 1, 1997

Updated twice, in 2002 and 2005



# An April Fool's Day joke?

Kenneth Warren Prize 2002

Cochrane Colloquium in Stavanger





# Statutory Warning!

Attending Cochrane Colloquia may be fatal

to your free time in years to come

#### **Cochrane Centres** 200 B Canadian Nordic German UK San Francisco **Dutch** Chinese **Iberoamerican** SACN New **Thai Cochrane England Network** South **African NZ Branch**



# Exploratory meeting: Goa December 2004







## South Asian Cochrane Network





Exploratory meeting at Goa; December 2004



#### The South Asian Cochrane Network



# Prof BV Moses Centre for Clinical Trials & EBM













#### Goals of the SACN

- Goal 1: To raise awareness about the Cochrane Collaboration and evidence based practice in South Asia
- Goal 2: To train and support contributors to the Cochrane Collaboration in South Asia
- Goal 3: To promote access to The Cochrane Library for South Asia
- Goal 4: To ensure a sustainable structure for the South Asian Cochrane Network
- Goal 5: To represent and advocate for high quality research in South Asia

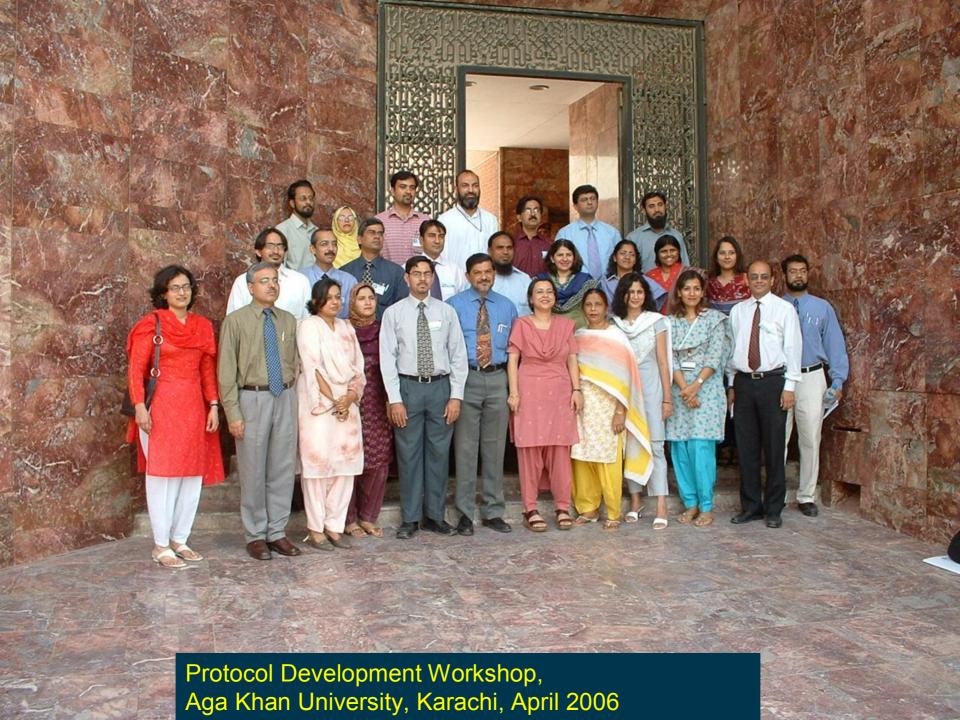




# To train and support contributors to the Cochrane Collaboration in South Asia



Protocol Development Workshop CMC Vellore, July 2004





# Sensitization workshops

18 in different parts of India, Sri Lanka since 2005



Post Graduate Institute; Colombo Dec 05

# SACN participation in systematic reviews (Issue 3, 2005)

Country	Reviews	Protocols	Titles	Total
India	11	19	33	63
Pakistan	1	3	9	13
Sri Lanka	2	1		3
Nepal	2			2
Combined	15	23	42	81

# SACN participation in systematic reviews (Issue 3, 2006)

Country	Reviews	Protocols	Titles	Total
India	15	23	39	77
Pakistan	3	6	9	18
Sri Lanka	2	2	3	7
Nepal	2			2
Combined	22	31	52	104

## Growth of contributors in India

744						
	2000	2002	2003	2004	2005	2006
Authors	11	15	20	31	42	80
Editors	2	1	2	5	5	5
Others	2	15	18	28	19	35
Total	19	31	40	64	76	120

# The Cochrane Collaboration's response to the tsunami, 2004





Nagapattinam District

- 73 affected villages
- 1,96,184 population
- 36,860 homes
- 6053 human lives lost
- 5023 livestock perished
- 40 relief camps
- 36,664 people in camps







# Psychological debriefing for preventing post traumatic stress disorder (PTSD) (Cochrane Review).

Rose S, Bisson J, Wessely S.

In: The Cochrane Library, Issue 4, 2003.

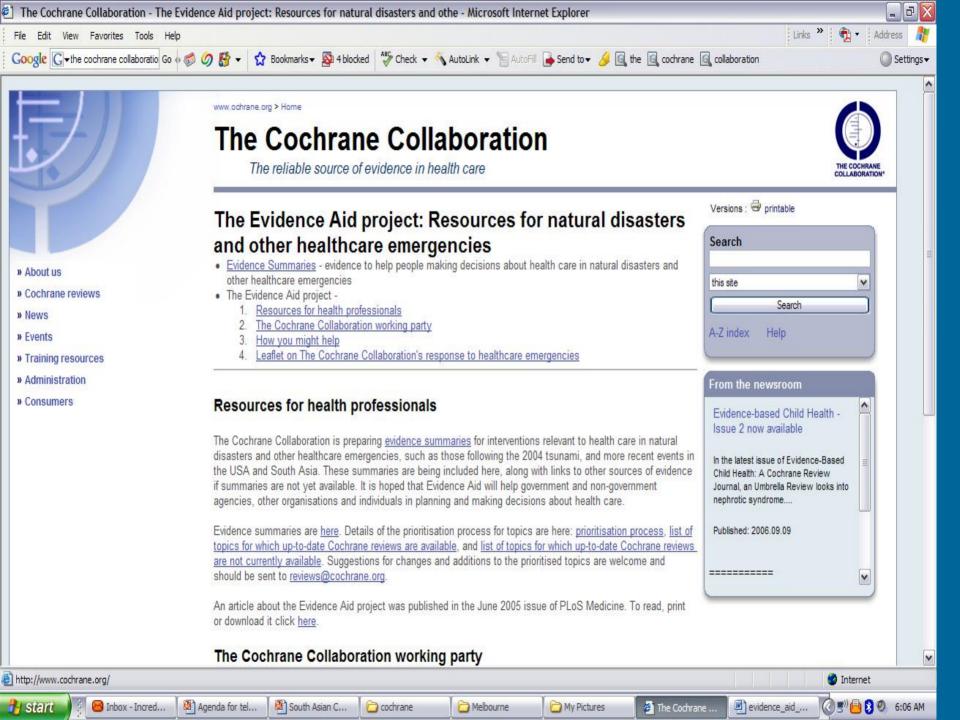
Review: Psychological debriefing for preventing post traumatic stress disorder (PTSD)

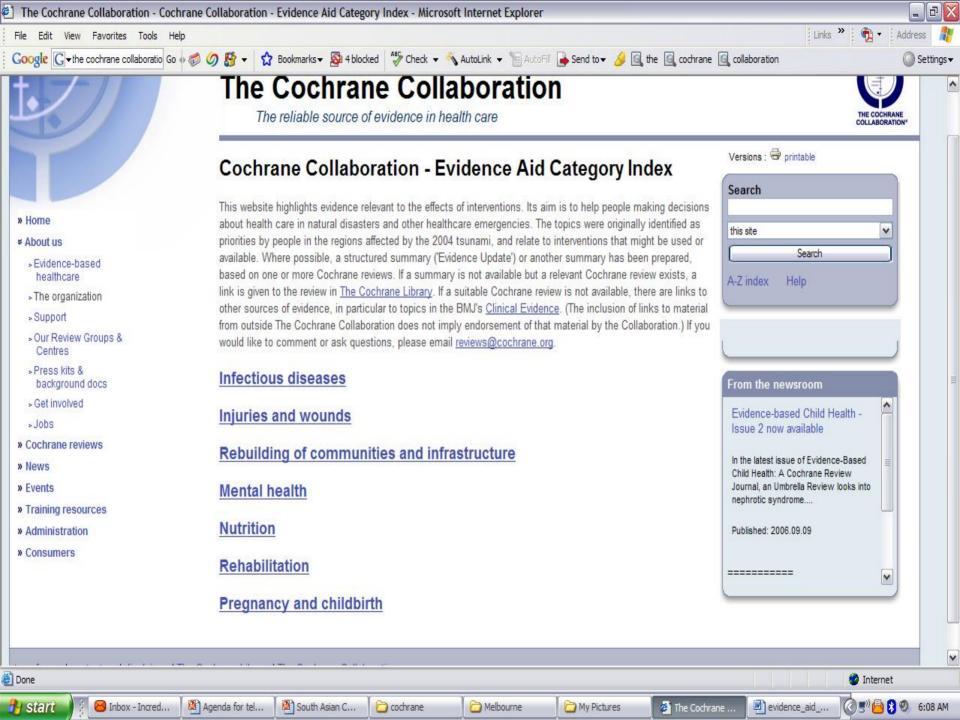
Comparison: 01 Debriefing versus control

Outcome: 03 PTSD (short term)

7/56 0/1 3/21	4-		32.5 0.0 5.7	1.28 [ 0.48, 3.42 ] Not estimable
3/21	4	25		
33333	4		57	150101010400000 and and a
			100	0.14 [ 0.01, 1.45 ]
071			0.0	Not estimable
5/52		-	24.9	1.84 [ 0.60, 5.63 ]
12/51			36.8	0.83 [0.33, 2.09]
27 / 182 2388			100.0	1.05 [0.60, 1.84]
		27 / 182	27 / 182	27 / 182 - 100.0







## Usage statistics of *The Cochrane Library* (Jan-June 2005)

Country	Jan	Apr	May	June
Thailand	632	821	1527	1914
Indonesia	49	363	532	366
India	385	581	603	624
Malaysia	145	231	236	293
Pakistan	24	52	46	66
Sri Lanka	11	33	42	43



#### Dissemination of Evidence Aid

Ministry of Health

Indian Council of Medical Research

Director General of Health Services

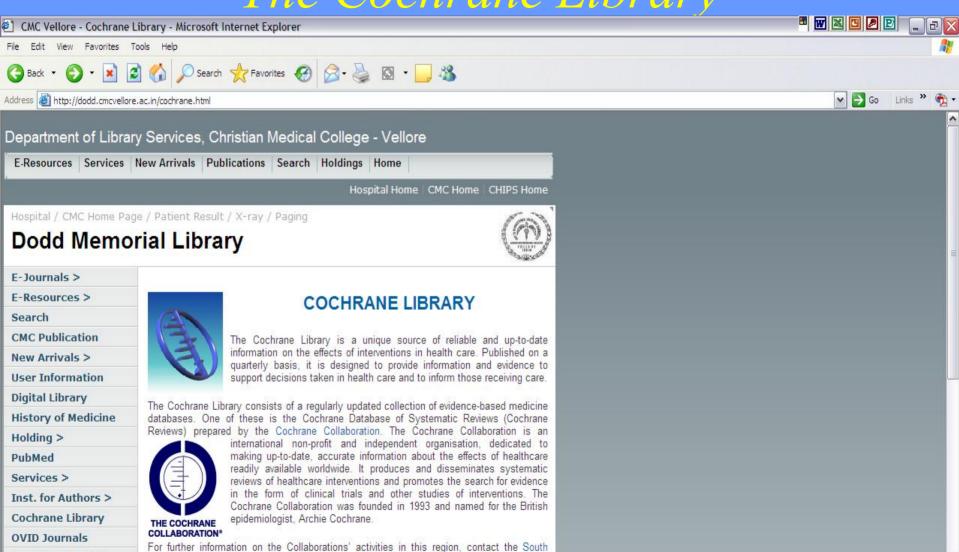
Non-governmental aid agencies

Following the Mumbai floods

Following the earthquake in Pakistan and Kashmir



### Promoting access to The Cochrane Library



Mumbai

CMC Vellore - Cochra...

Internet

(25 AM

Asian Cochrane Network office at the Prof Bhooshanam V Moses Centre for Clinical Trials

My Pictures

Alumni Academic

Microsoft PowerPoint ...

SACN

🔐 start



# Promoting access to the Cochrane Library

- Many countries have a national provision
- Many countries have free access via Bireme, HINARI, INASP/PERI
- India in low income group but not eligible
- Previous attempts to get ICMR/DBT to purchase a national subscription had failed
- ICMR/DST purchased national subscription to Cochrane Library- deal brokered by SACN with John Wiley & Sons





"Developing countries like India, with limited resources and many competing priorities, are even more in need than developed countries of the wherewithal to access the best scientific evidence in order to make informed decisions about health care policy and practice, and to improve the health of what amounts to one sixth of humanity. The ICMR has shown tremendous leadership and commitment in getting to this point...."

(Dr. **Tikki Pang**, Director, Research Policy and Cooperation, World Health Organization)





# Free access to the Cochrane Library to anyone in India

#### Get a computer and crosscheck your doctor's prescription

G.S. MUDUR



New Delhi, Feb. 3: Anyone with a computer in India may soon have free access to information on what works and what doesn't in medicine, allowing them to verify whether the treatment offered by their doctor is the appropriate one.

India has become the first low-income country to buy and offer to residents free access to information on treatment and prevention methods that have passed the toughest of scientific tests — whether it's about ushering a baby into the world, treating infections or combating obesity.

The Indian Council of Medical Research (ICMR) has signed a contract with the international publishing company, John Wiley and Sons, for nationwide access to the Cochrane Library. The library is a vast storehouse of what medical researchers view as reliable information about proven treatment and prevention strategies across myriad medical topics, from surgery to general health.



# Free access to the Cochrane Library to anyone in India





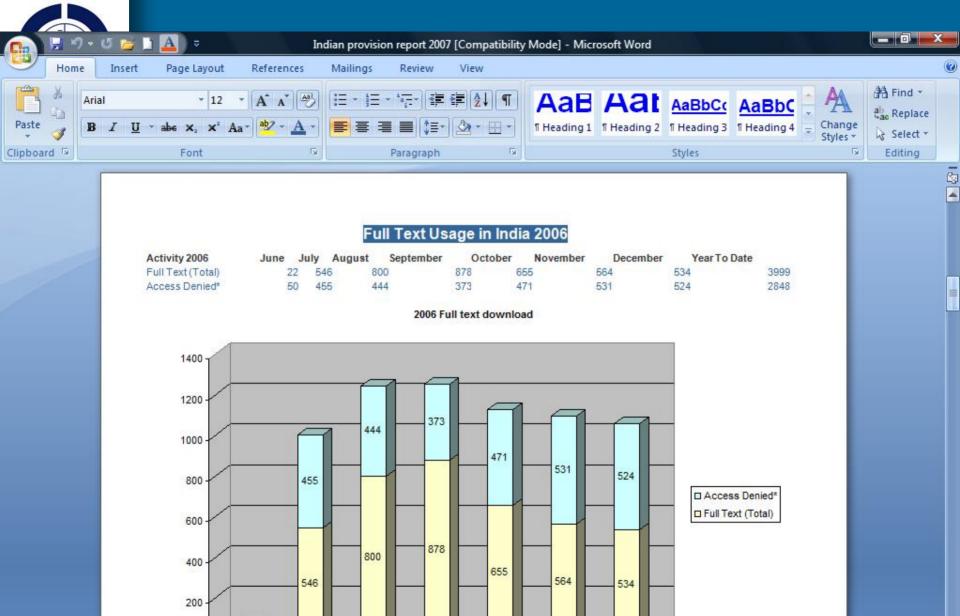
# Free access to the Cochrane Library to anyone in India

But some are sceptical about the impact that the Cochrane Library may have on India.

"We have a medical system that does not in any way encourage doctors to keep themselves abreast of the latest research," said a senior health official. "The big question is, will our doctors make use of the database?"

As for the consumers, while the library offers them a way of checking up on the treatment, they should not be tempted to try self-medication.





\*Access Denied counts attempts to download the full text of an article where no subscription exists

September

October

November

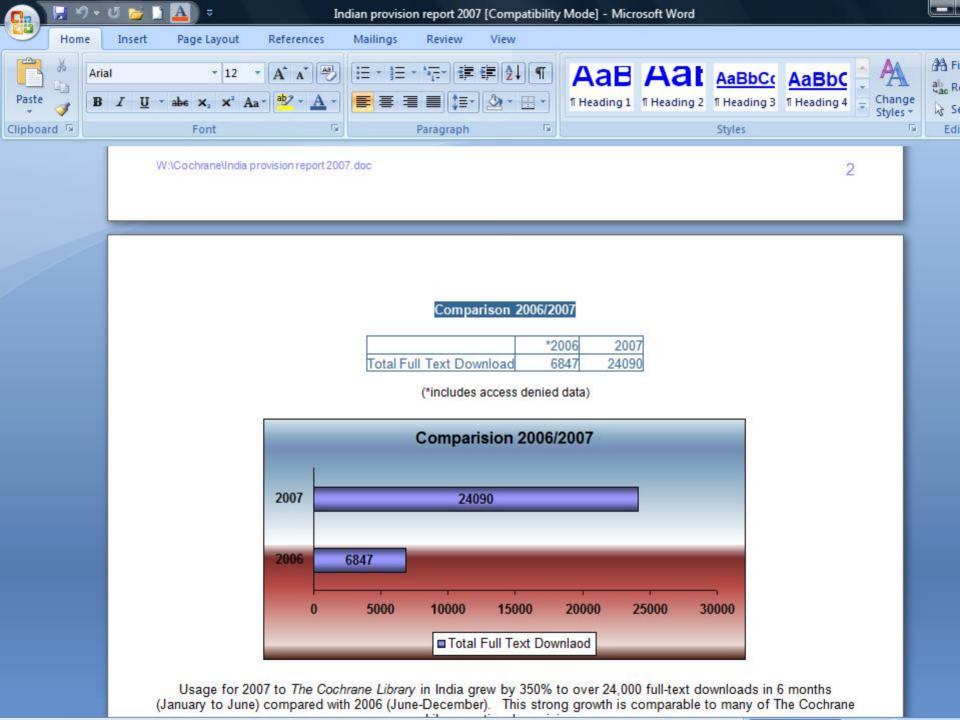
December

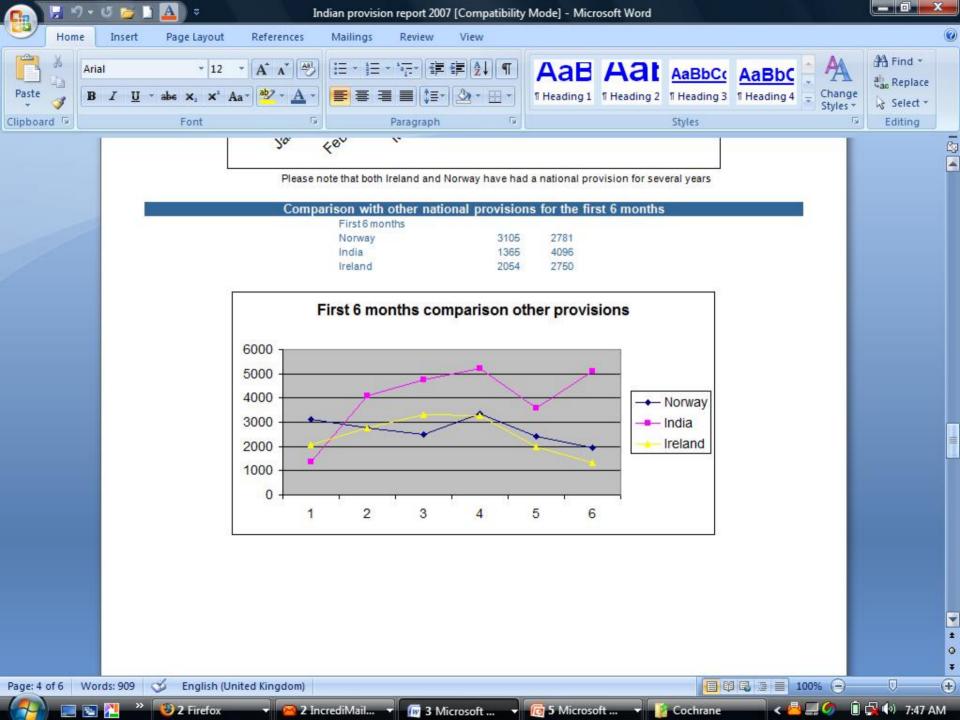
100%

June

July

August





## EVIDENCE POLICY GAP



## Primaquine for preventing relapses in people with Plasmodium vivax malaria

Galappaththy GN L, Omari AAA, Tharyan P. Cochrane Database for Systematic Reviews Issue 1, 2007

#### Background

- Plasmodium vivax infections contribute to a significant proportion of the malaria infections in many countries. Primaquine is the most widely used drug for treating the dormant liver stage. Different primaquine dosing regimens are in use.
- WHO recommends 15 days of Primaquine following chloroquine;
   India recommends 5 days of primaquine following chloroquine

#### **Objectives**

To compare primaquine regimens for preventing relapses in people with P. vivax malaria.





#### Influencing health policy in India

Workshop for senior faculty of the Indian Council of Medical Research (ICMR) (October 10, 2006)

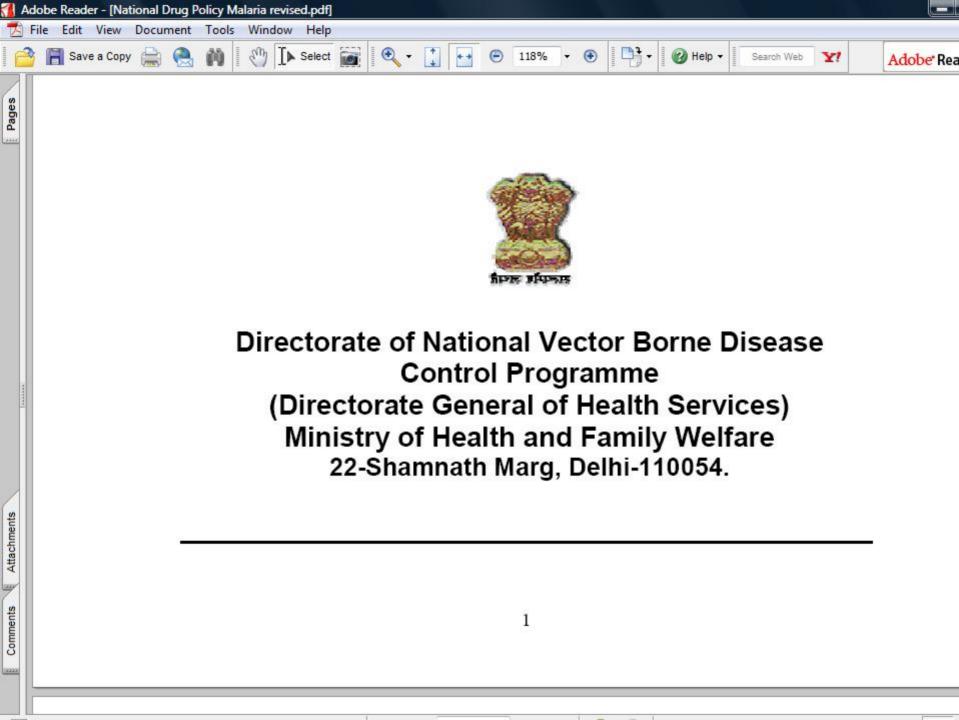
Using Cochrane reviews to inform health policy and care

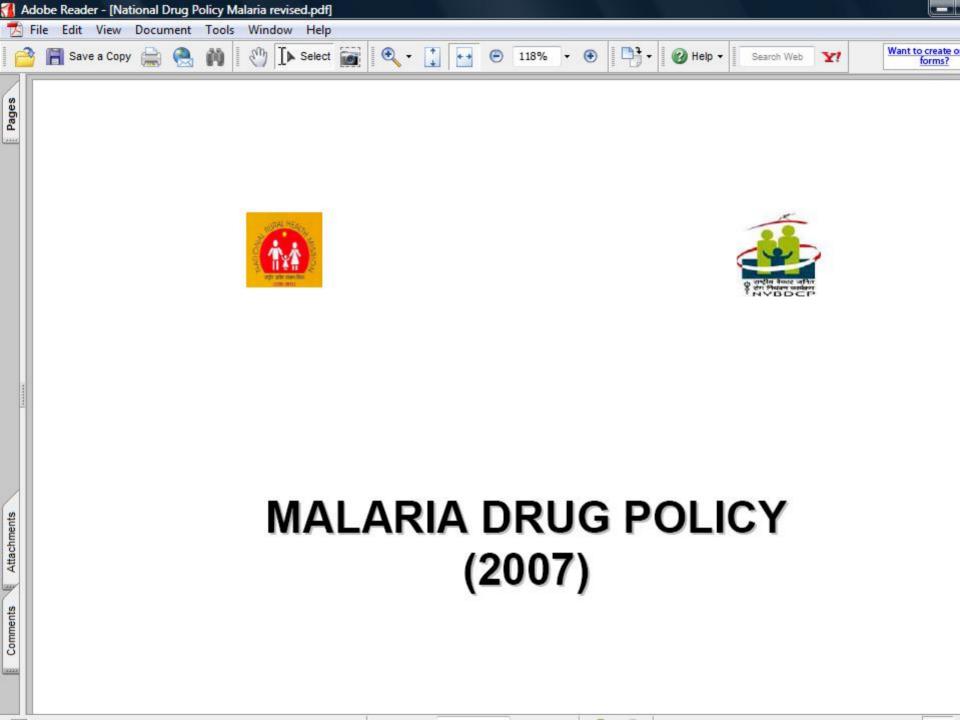
Review published Jan 2007

**Policy unchanged Feb 2007** 

Disseminated results of review









#### Lessons learned

 "Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."

[Margaret Mead]





## Relevance of the SACN to health care in South Asia

Ask questions about efficacy of interventions of relevance to health care in the region

Train people to do systematic reviews

Disseminate evidence from Systematic Reviews

- Access to the Cochrane Library
- Evidence Based Summaries

Identify all RCTs and controlled clinical trials from the region

- Prospective registration of trials
- National Register of Dissertations

Orient and train health professions and policy makers in EBM



Use results of Systematic Reviews to guide health care policy



## Management of violent or aggresive behaviour

Health services often manage agitated or violent people and for emergency psychiatric services such behaviour is particularly prevalent (10%).

The drugs used in this situation should ensure that the person swiftly and safely becomes calm

Guidelines, however, are usually statements of consensus and differ on which drugs to use (Experts 1999, RCPsych 1998).

Surveys of clinicians' preferred drug treatments also show variation (Cunnane 1994, Binder 1999)





## NMJI (in press)

- Registering Clinical Trials in India: a scientific and ethical imperative
- Prathap Tharyan<sup>1</sup>, Davina Ghersi<sup>2</sup>
- Short Title: Registering Clinical Trials in India





#### **BMJ**

Rapid tranquilization of violent or agitated people in psychiatric emergency settings: A pragmatic randomised controlled trial of intramuscular olanzepine versus intramuscular haloperidol plus promethazine.

#### Authors:

Nirmal S. Raveendran<sup>1</sup>, Prathap Tharyan<sup>1,2</sup>, Jacob Alexander<sup>1</sup>, Clive Elliot Adams<sup>3</sup> and the TREC-India II Collaborative Group<sup>4</sup>































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## IJME (in press)

- Ethics committees and Clinical Trials Registration in India: an essential alliance
- Prathap Tharyan<sup>1</sup>, Davina Ghersi<sup>2</sup>





## The power of collaboration





# CHALLENGES & OPPORTUNITIES



#### COCHRANE NETWORK EVIDENCE BASED MEDICINE

• "Evidence-based medicine is the integration of best research evidence with clinical expertise and patient values" (Sackett, et al 2001)

#### **Challenges:**

Generalization of Evidence

Incorporating patient's values

Particularizing the Evidence



#### The South Asian Cochrane Network

Web-site: <a href="http://www.cochrane-sacn.org">http://www.cochrane-sacn.org</a>

For details of activities, training programmes, publications

#### email list

Keep up to date with what's happening in the Network by subscribing to the Cochrane - India and South Asia mailing list.

http://sun21.imbi.uni-freiburg.de/mailman/listinfo/south-asian-subscribers

### The chronology of an infection

Bitten by the Cochrane bug (Clive Adams) in 1995, in Oxford, UK

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Review published in Issue 1, 1997

Updated twice, in 2002 and 2005





#### Context of care

Competing models of care



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