



Australian Government
National Health and
Medical Research Council

N H M R C

BRIDGING THE EVIDENCE PRACTICE GAP

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www.nhmrc.gov.au



Barack Obama



“We have the best medical schools, the most sophisticated labs, and the most advanced training of any nation on the globe. Yet we are not doing a very good job harnessing our collective knowledge and experience on behalf of better medicine. Less than one percent of our health care spending goes to examining what treatments are most effective. And even when that information finds its way into journals, it can take up to 17 years to find its way to an exam room or operating table. “

Speech to the AMA, June 2009

www.nhmrc.gov.au

Knowledge Transfer



US study on research diffusion
(9 clinical procedures)

Calculated that on average it would
take **15.6 years** to reach a rate of
use of 50% from a rate of use of 0
at time of landmark publication

Balas & Boren 2000

Knowledge Transfer



Minimum of 6.3 years for evidence to reach reviews, papers & textbooks

Estimated 9.3 years transition period to implement evidence from reviews, papers & textbooks

Balas & Boren 2000

Enthusiastic Adoption



Chelation therapy for atherosclerosis

Routine episiotomy for birth

Hyperbaric oxygen for sports injuries

Grommets for inner ear fluid

Arthroscopy for osteoarthritis

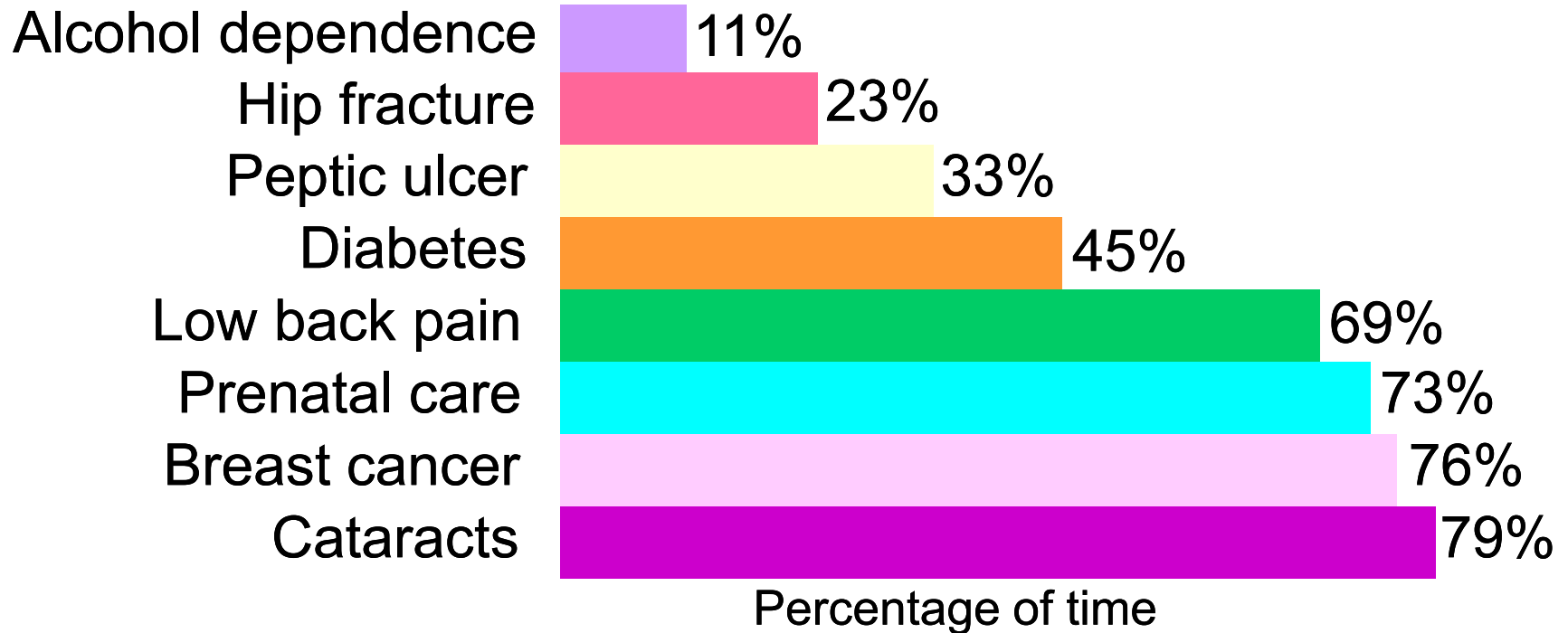
Antibiotics for sore throat

Proton pump inhibitors for dyspepsia

Vertebroplasty for osteoporotic fracture

RAND Study

Appropriate health care is only provided about **half** the time



McGlynn et al 2003

Does Australia do better?



Flu vaccination

- Doctors 29%
- Nurses 35%

Bull et al. 2007

Diabetes care (Veterans)

- Ophthalmology visits 87%
- Podiatry 65%
- Annual diabetes care plan 20%

Roughhead et al. 2007

Cardiovascular disease



General practice:

Low lifestyle risk factor modification

Undertreatment of hypertension & dyslipidaemia

Underutilisation of practice systems

Huang et al 2009

Acute care:

Wide variations

Medical therapy underused

Substantial gaps in use of treatment paths

Walters et al 2008

Does Australia do any better?



‘in chronic disease management, only about half of patients receive optimal quality of care and outcomes in Australian general practice.’

Harris & Zwar 2007.

Dissemination

‘Conscious efforts to spread new knowledge, ideas, policies and practices to specific target audiences or to a public at large’

Implementation

‘Translation & application of innovations, recommended practices or policies. A process of interaction between the setting of goals & actions geared to achieving them.’

Green et al 2009

Improving care



Approaches – individual:

Educational courses, CPD

Evidence based medicine, CPGs

Data, audit & feedback, reminder systems

Peer example – opinion leaders

Financial rewards

Public reporting

Recertification

Improving care



Patient centred approaches:

Patient involvement, patient centred care,
empowering patients, improving health literacy

Patient oriented interventions to change health
care providers' behaviour

Improving care



Organisational & system approaches:

Total Quality Management, Continuous Quality Improvement

Financial incentives & sanctions

Accreditation

Public reporting

Regulation

Improving care



‘Lack a robust, generalisable evidence base’

Grimshaw et al 2004

Evidence based health care resources



Evidence searching & critical appraisal

Databases *e.g. TRIP Database, Netting the Evidence*

Secondary publication journals & newsletters

Systematic reviews *e.g. Cochrane Library*

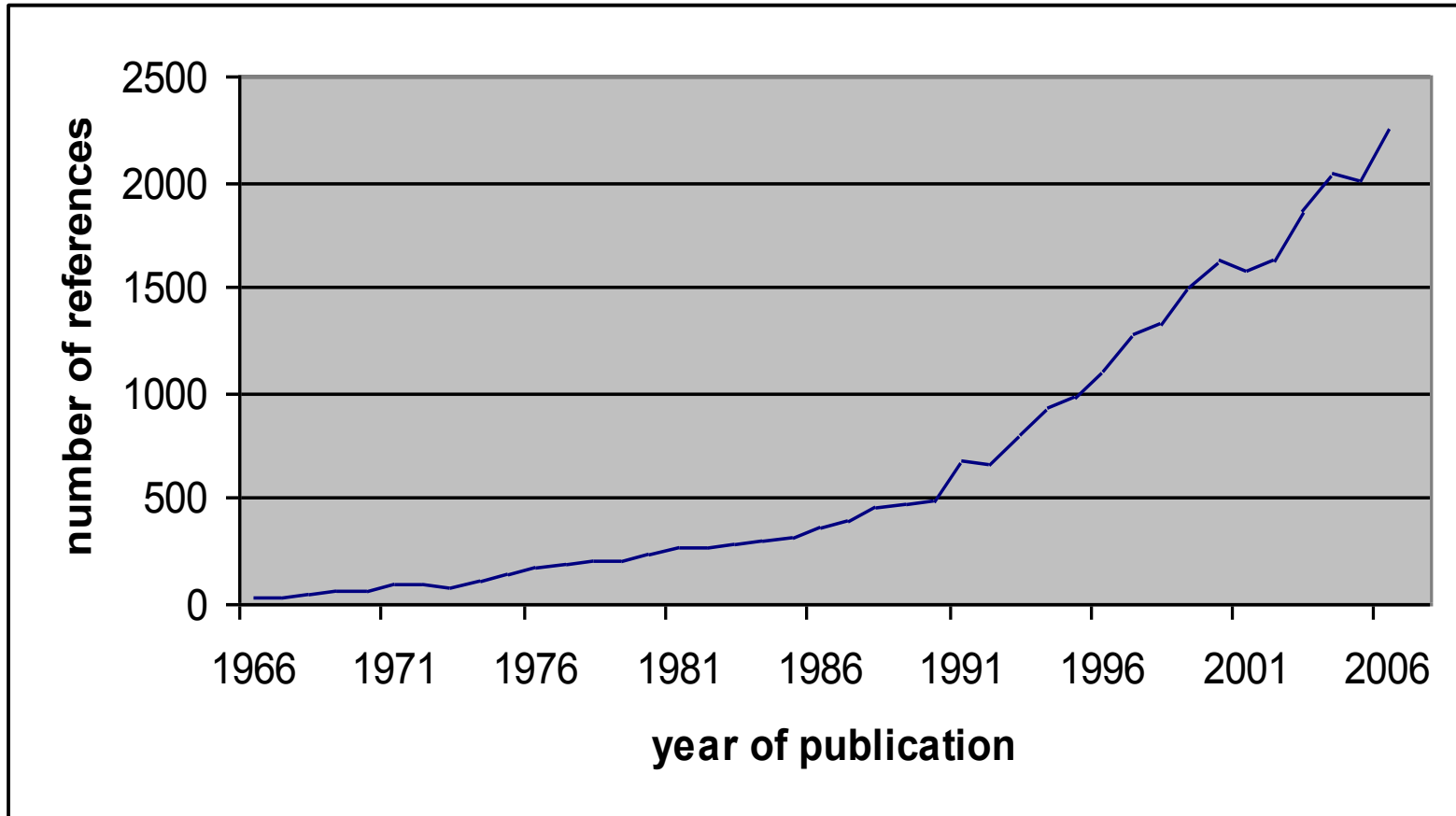
Condition/question oriented evidence

resources *e.g. Best BETS, UpToDate, BMJ Clinical Evidence*

Guidelines

www.nhmrc.gov.au

Number of Guidelines in Pubmed



Search term [guideline*] limited to title and year



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Clinical Evidence is one of the world's most authoritative medical resources for informing treatment decisions and improving patient care.

Latest updated reviews

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 - [Retinal detachment](#) (updated)
 - [Opioid dependence](#) (updated)
 - [Headache \(chronic tension-type\)](#) (updated)
 - [Athlete's foot](#) (updated)
 - [Delirium at the end of life](#) (updated)
 - [Primary prevention of CVD: physical activity](#) (updated)
 - [Osteoarthritis of the hip](#) (updated)
-  [Summary of all updates](#)

31 August 2009

News Feeds & Email Alerts

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Downtime warning

Clinical Evidence will be down Saturday 29 and Sunday 30 August. We apologise for any inconvenience this may cause. This downtime is essential to fully test our disaster recovery procedures. For further details, please contact support@bmjgroup.com.

Clinical Evidence Userguide



The *Clinical Evidence Userguide*, available in over a dozen languages (now including Finnish), features

Editorial

There is currently no curative treatment for dementia, and new therapies are urgently needed to ease the demands on people and resources arising from long-term management of this condition. Considering



***BMJ* Clinical Evidence**



Randomised Controlled Trial

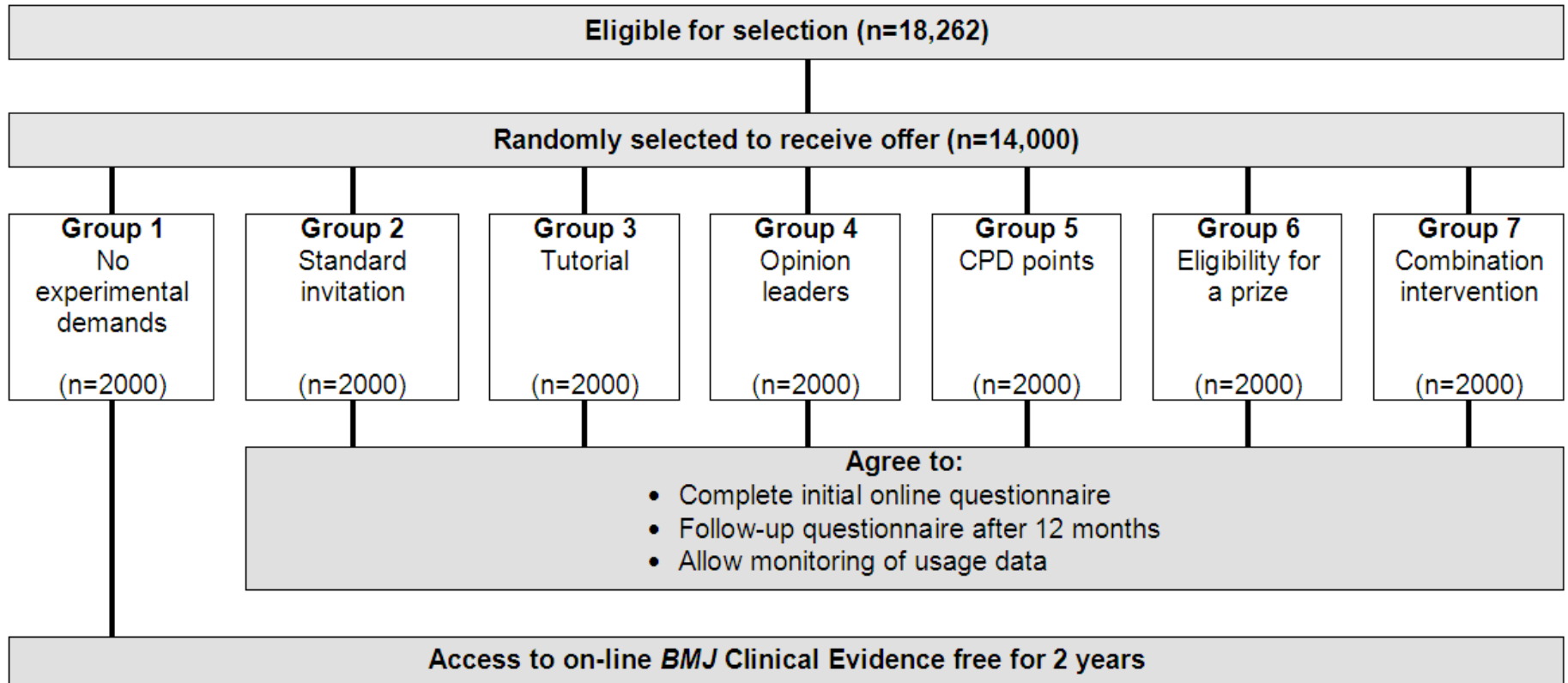
14,000 Australian general practitioners

Letter offering 2yrs free access to *BMJ* Clinical Evidence

7 strategies to encourage acceptance

Use monitored through electronic data capture

BMJ Clinical Evidence Study



Issues



National license – high cost per use
Health care provider participation in
intervention research

Cost of overcoming barriers –
feasible interventions for widescale
implementation outside a research
framework

Barriers to dissemination



Intervention characteristics

High cost

Intensive time demands

High level of staff expertise required

Highly specific to particular setting

Not modularized or customizable

Glasgow & Emmons 2007

Barriers to dissemination



Intervention characteristics

Difficult to learn or understand

Not packaged or “manualized”

Not developed considering user needs

Not designed to be self-sustaining

Glasgow & Emmons 2007

Quality improvement collaboratives



- 1999** RMH Emergency Dept
- 2000** ED Collaborative (18 hospitals)
- 2002** NICS ED Collaborative (47 hospitals)
- 2003** ACSQHC Medication Safety Collaborative (100 hospitals)
- 2004** Australian Primary Care Collaborative (600 practices)
- & more

Quality improvement collaboratives



Do they work?

Systematic review: Evidence for the impact of quality improvement collaboratives

Schouten et al, BMJ 2008.

Studies in English with data on effectiveness of care processes or outcomes

Quality improvement collaboratives



Do they work?

- 88% of uncontrolled reports were positive
- Most controlled studies showed mixed effects – moderate positive results, 2/9 (incl. 1 RCT no significant effects)
- ? Determinants of success, cost-effectiveness, sustainability