

Comparative effectiveness informing resource re-allocation: International perspectives

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Comparative effectiveness, comparative value

“There is substantial overuse, under use, and misuse of medical care in the United States. Interventions that are of little value are commonly overused; care that is effective is commonly underused; and care that is of unproved value is frequently misused. Spending on medical interventions continues to increase without evidence that doing more results in better outcomes or better patient satisfaction”

Wennberg as quoted in Daniels S. *The leader's guide to hospital case management (2005)*, p.187

What should we call it?

Resource re-allocation

Disinvestment - lukewarm reception

"*dis-*" infers a negative or reversing force; to undo (an investment)

- Displacement + reallocation
- Reinvestment
- Comparative effectiveness/value
- Retrenchment
- Obsolescence

What should we call it?



Disinvestment (resource re-allocation):

- Withdrawal (partial or complete) of resources
- From practices/procedures/pharmaceuticals /technologies/ programs that deliver no or low health gain + are
- Not efficient use of health resources thereby
- Freeing resources for more effective, safe, cost effective and prioritised health services



1976: Blue Cross Blue Shield Medical Necessity Project
- 76 “outmoded and useless procedures”

1978: National Center for Health Care Technology
- \$4mill budget, 20 staff
- ‘multifaceted assessments’
- disbanded in 1982 - opposition from interest groups (eg AMA) + Republican administration



1990s: 'De-listing' activities at provincial level

- 46 procedures/tests removed
- selection varied in specificity with no criteria
- interest groups pressured for items to stay
- highly variable adoption across provinces

Brief history: UK - 2005



- *Disinvestment* coined by NHS as formal policy
- Fourth stream of system reform: *clinical waste*
 - underuse, overuse and misuse of services
- Disinvestment an explicit part of NICE's guideline remit to Primary Care Trusts
 - NICE 'Optimal Practice Reviews'
 - Investment is mandatory. Disinvestment is optional
 - High variability of uptake – postcode rationing
 - New debate around the need for regulation

Identifying services for ‘disinvestment’

- Evidence (safety, effectiveness, C-E)
- Variation (x3: Geographic, Provider, Temporal)
- Technology Development
- Interest or Controversy
- Consultation
- Nomination
- Assess New-Displace Old
- Leakage
- Legacy - Grandfathering
- Conflict

Elshaug A, et al. *Medical Journal of Australia*.

2009 Mar 2;190(5):269-73.

FOR DEBATE

Identifying existing health care services that do not provide value for money

Adam G Elshaug, John R Moss, Peter Littlejohns, Jonathan Karnon, Tracy L Merlin and Janet E Hiller

In Australia, one projection of total health expenditure (in 2002–03 dollars) envisages an increase from \$71.4 billion in 2002–03 to \$162.3 billion in 2032–33.¹ As a proportion of total gross domestic product (GDP), this represents an increase from 9.4% in 2002–03 to 10.8% in 2032–33¹ — an annual growth of 0.5% above the overall economic growth rate. Coupled with this projected increase in cost are concerns for the sustainability and quality of the Australian health care system.² Debate continues on issues such as hospital emergency and surgery waiting lists, models of funding and care, pharmaceutical benefit subsidies, workforce shortages, Indigenous health disadvantage and the role of primary prevention — to name but a few.

To address the problems, federal and state/territory jurisdictions have several options, including accepting the increase in the proportion of GDP allocated to health care expenditure, thereby constraining spending in other portfolios, such as education and defence. However, we propose that potential exists for a cost-saving or cost-neutral agenda of resource reallocation within the existing health budget, aimed at improving the quality of care and health outcomes. In Australia, there is scope to identify ineffective interventions (relative to the cost of their subsidy by the taxpayer) and to assess the potential for reducing their use or removing them from government and insurance funding schedules. This would allow reallocation of funding to interventions and programs that offer more in terms of overall health gain and (cost-) effectiveness. As the resources available for health care are finite, this would reduce the extent of unnecessary suffering and premature death arising from the use of health technologies and practices that deliver less than the best-available value for money.^{3,4}

Here, we propose a dedicated program in Australian health policy that explicitly supports this undertaking. Internationally, the process has been referred to as “disinvestment”,^{5,6} although it perhaps aligns better with notions of displacement and reallocation, or reinvestment. In the United Kingdom, disinvestment has been adopted by the National Health Service — utilising the services of the National Institute for Health and Clinical Excellence (NICE) — as a formal policy entitled “optimal practice reviews”.⁸ Spain, France and Canada are also considering, or have adopted, similar formal policy initiatives.

These countries recognise that the strategy offers promise in the face of ageing populations, increasing chronic disease, and the ensuing strain on health care sustainability. It also appears ethical to strive for appropriate, high-quality and effective care for the populations (and taxpayers), served at a cost they can afford. Finally, this strategy aligns with one of the “top ideas” developed from the long-term health strategy stream of the Australia 2020 Summit.

[to] ensure better data for evidence-based allocation of resources ... [and to use those] data to allocate resources across the system based on hard evidence. Public funding would be added and removed on the basis of clearly demonstrated effectiveness.⁹

ABSTRACT

- Health systems can be improved appreciably by making them more efficient and accountable, and enhancing the quality of care, without necessarily requiring additional resources.
- Australia, like other nations, cannot escape making difficult health care choices in the context of resource scarcity, and the challenge of delivering quality care, informed by best available evidence, to an ageing population with multiple comorbidities.
- An opportunity exists for a cost-saving or cost-neutral agenda of reallocation of resources within the existing health budget, through reducing the use of existing health care interventions that offer little or no benefit relative to the cost of their public subsidy. This would allow reallocation of funding towards interventions that are more cost-effective, maximising health gain.
- Criteria based on those developed for health technology assessment (HTA) might facilitate the systematic and transparent identification of existing, potentially ineffective practices on which to prioritise candidates for assessment as to their cost-effectiveness.
- The process could be jointly funded by all relevant stakeholders but centrally administered, with HTA groups resourced to undertake identification and assessment and to liaise with clinicians, consumers and funding stakeholders.

MJA 2009; 190: 269–273

Potentially ineffective health care practices

A policy of identifying and assessing ineffective or non-cost-effective practices, reducing their existing use (and redirecting those resources) undoubtedly represents an option for improving sustainability and quality in health care. However, Australia has a poor track record in achieving this, particularly outside the area of pharmaceutical assessment.^{2,7} A significant challenge is the need for, and requisite development of, a fair and systematic method to identify practices for which assessment is appropriate, based on an agreed framework.⁷ Failure to undertake this in a systematic and transparent manner has the potential to entrench stakeholder resistance. Mechanisms already exist to identify interventions that can be demonstrated to be harmful or ineffective before they are adopted in Australia. As well as enhancing and extending these mechanisms to consider interventions in current use, a further step would be to identify interventions that, although safe and effective, are not sufficiently cost-effective to warrant widespread use in routine practice.

Box 1 lists examples from a 2008 report from the Institute of Medicine in the United States of widely adopted health interventions now deemed “ineffective or harmful”,¹⁰ although arguably the list focuses on those that are harmful. Additional items are shown in Box 2 where the concern is less about safety and more about clinical and

Method for today's case studies:

- Evidence (safety, effectiveness, C-E)
 - Variation (x3: Geographic, Provider, Temporal)
 - Technology Development
 - Interest or Controversy
 - Consultation
 - Nomination
 - Assess New-Displace Old
 - Leakage
 - Legacy - Grandfathering
 - **Conflict**
- Elshaug A, et al. *Medical Journal of Australia*.
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To address the problems, federal and state/territory jurisdictions have several options, including accepting the increase in the proportion of GDP allocated to health care expenditure, thereby constraining spending in other portfolios, such as education and defence. However, we propose that potential exists for a cost-saving or cost-neutral agenda of resource reallocation within the existing health budget, aimed at improving the quality of care and health outcomes. In Australia, there is scope to identify ineffective interventions (relative to the cost of their subsidy by the taxpayer) and to assess the potential for reducing their use or removing them from government and insurance funding schedules. This would allow reallocation of funding to interventions and programs that offer more in terms of overall health gain and (cost-) effectiveness. As the resources available for health care are finite, this would reduce the extent of unnecessary suffering and premature death arising from the use of health technologies and practices that deliver less than the best-available value for money.^{3,4}

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Case Study 1:

Upper airway surgical procedures for Obstructive Sleep Apnoea Syndrome (OSA)

Surgery for OSA: **EVIDENCE**

- Clinical effectiveness (Elshaug et al. Sleep 2007; BMJ 2008)
 - Phase I success rate: **13%**
 - Phase II success rate: **43%**

- Resource intensive – opportunity cost
 - Exacerbated when full cycle(s) of care factored in

- Theories of anatomical correction (disjoint to policy)
 - After 15-20 years of continual and open funding, poor predictive algorithms: who will benefit from which procedure(s)

- Patient satisfaction (~ impacting effectiveness)
 - Persistent adverse effects: 62% of 21,346 (SBU 2007)
 - Up to 22% regret rate (SBU 2007)
 - 5 years only 23% returned for further stages (Elshaug unpublished)

Surgery for OSA: VARIATION BY STATE

- Uvulopalatopharyngoplasty (UPPP) – scalpel/laser (41786)
- Medicare services in 2008: 1,296 (\$585,792.00)

Item 41786, services per 100,000 population by state (2008)

State								Total services per 100,000 population
NSW	VIC	QLD	SA	WA	TAS	ACT	NT	
4	6	5	9	11	7	13	6	6

Source: https://www.medicareaustralia.gov.au/statistics/mbs_item.shtml

Osteotomies of Mandible and/or Maxilla

MA: 1,035; MMA: 456 (\$1,635,613.00)

VARIATION BY STATE

Items 52342-52375, services per 100,000 population by state (2008)

	State								Total
	NSW	VIC	QLD	SA	WA	TAS	ACT	NT	
52342	1	0	0	0	0	0	4	0	1
52345	0	0	0	0	0	0	1	0	0
52348	1	1	0	0	0	0	1	0	1
52351	1	4	0	1	1	5	1	0	2
52354	0	2	0	0	2	0	0	0	1
52357	1	3	0	0	2	0	2	1	1
52360	0	0	0	0	0	0	0	0	0
52363	0	2	0	1	0	1	0	1	1
52366	0	0	0	0	0	0	0	0	0
52369	0	2	0	0	0	1	0	0	1
52372	0	0	0	0	0	0	0	0	0
52375	1	0	0	0	3	0	4	0	1

Source: https://www.medicareaustralia.gov.au/statistics/mbs_item.shtml

Surgery for OSA: **VARIATION** (procedural)

- Clinical Audit Within South Australia:
- 94 patients received 41 varying combinations of surgery
 - With a 13% success rate

Elshaug et al. *J Eval Clin Pract* 2007

Surgery for OSA: CONFLICT with EB Guidelines

- SIGN (2003)
 - Cochrane (2004 and 2005)
 - SBU (2007)
 - CIGNA (current coverage position)
 - Blue Cross Blue Shield (current coverage position)
 - Elshaug, Moss, Maddern & Hiller. *BMJ*. 2008
- Recommend the restricted use/funding of surgery for OSA
- However, surgery remains widespread

Enter treatment comparators

1. CPAP (Gold)
2. Mandibular advancement devices (Silver ?)
3. Weight loss* – behavioural (Bronze ?)
Weight loss* – surgical (Bronze ?)
*mitigates multiple morbidities
4. Upper airway surgical procedures (?)

Enter treatment comparators

CONFLICT: POLICY WITH EVIDENCE

1. CPAP (Gold)

2. Mandibular advancement

3. Weight loss* – behavioural (Bronze ?)

Weight loss* – surgical
*mitigates multiple morbidities

4. Upper airway surgical procedures (?)

***NOT FUNDED
BY MEDICARE***

***FUNDED BY
MEDICARE***

Comparative effectiveness informing resource re-allocation: An agenda for private health insurance

Professor Janet Hiller

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Outline

- Additional case studies
 - Therapeutic knee arthroscopy for osteoarthritis
 - Hip replacement
- Implications for AHIA

Arthroscopy of the knee for osteoarthritis: EVIDENCE (1)

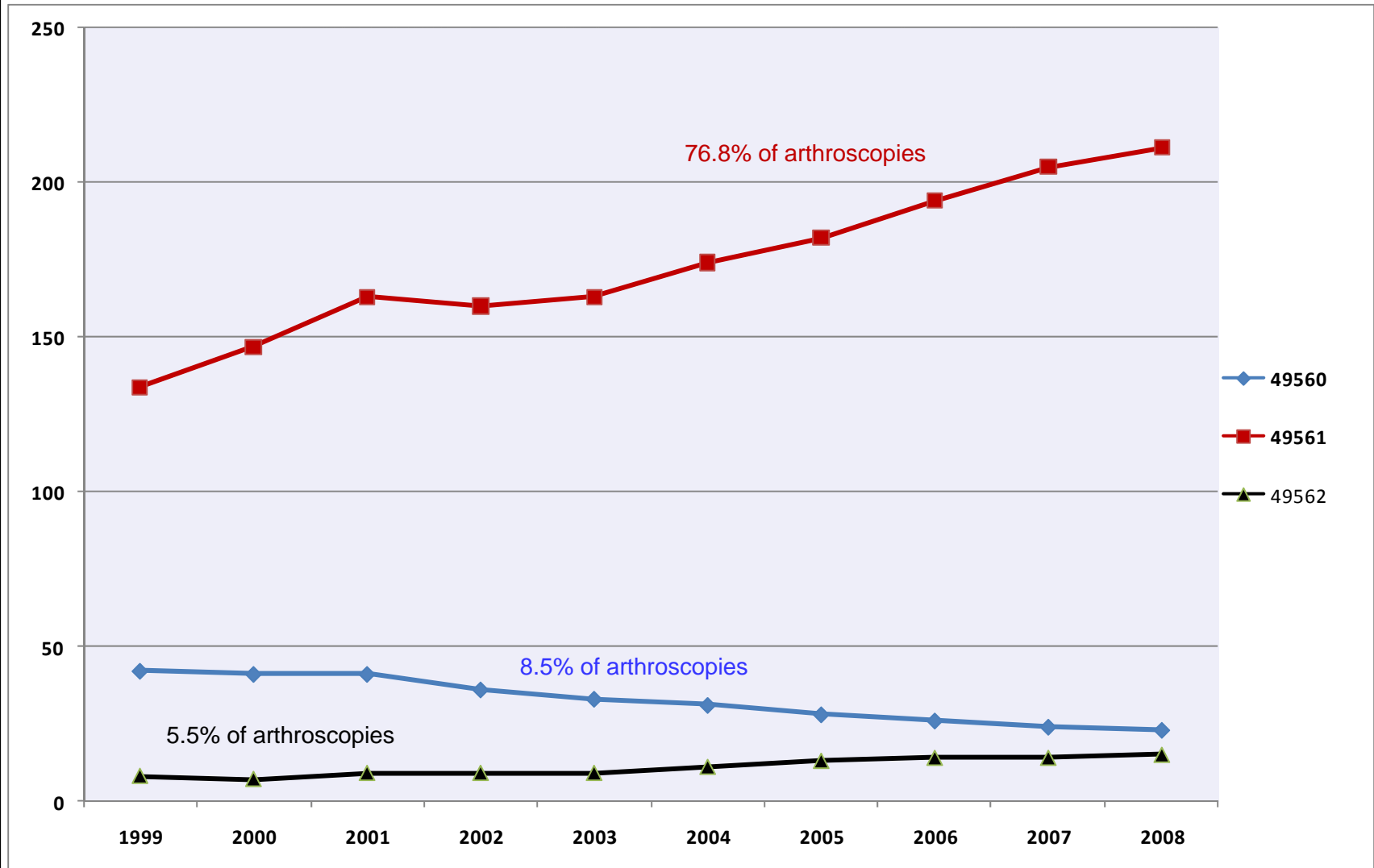
Year	Organization	Main conclusions
2004	AHTA	Therapeutic knee arthroscopy generally offered no significant advantage compared to blinded placebo treatment in terms of pain, mobility and quality of life
2007	Blue Cross Blue Shield	“the best available evidence does not clearly demonstrate clinical benefit” Uncertainty regarding clinical benefit can be resolved only by rigorous, multicenter RCTs

Arthroscopy of the knee for osteoarthritis: EVIDENCE (2)

Year	Organization	Main conclusions
2008	Cochrane Collaboration	No evidence .. to support the beneficial effect of arthroscopic debridement for osteoarthritis of the knee.
2008	UK – NICE National Institute Clinical Excellence	“Referral for arthroscopic lavage and debridement should not be offered as part of treatment for osteoarthritis, unless the person has knee osteoarthritis with a clear history of mechanical locking.”

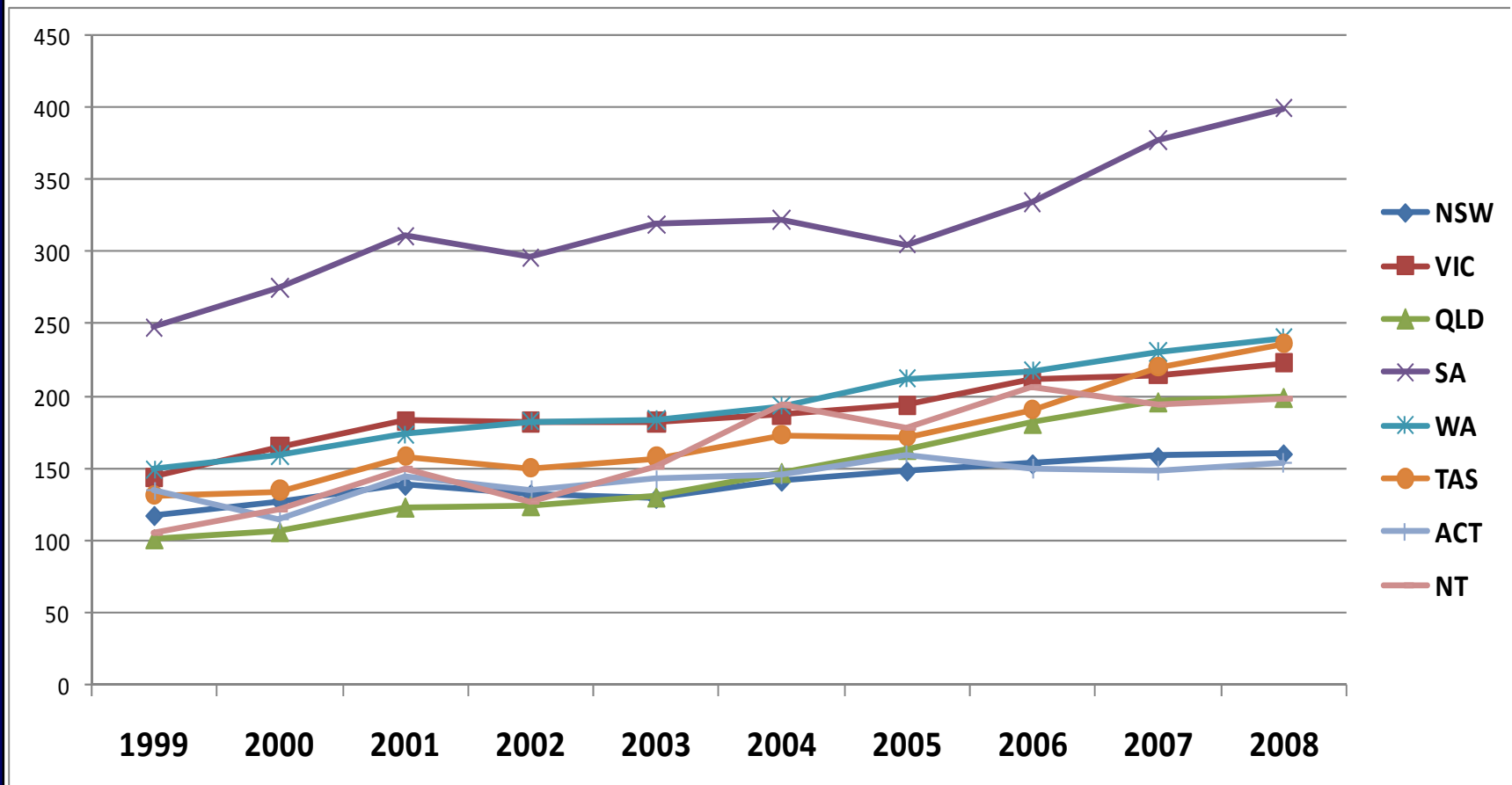
Three most common arthroscopies (Australia): services per 100,000 pop (1999 – 2008)

VARIATION BY TIME



Arthroscopy MBS item 49561 by State and year: services per 100,000 population

VARIATION BY STATE



**MBS 49561:
(76.8% of all
arthroscopies)**

Arthroscopic partial or total meniscectomy, removal of loose body or lateral release, together with debridement, osteoplasty or chondroplasty

International research, recommendations + Australian practice (1999 – 2008)

CONFLICT

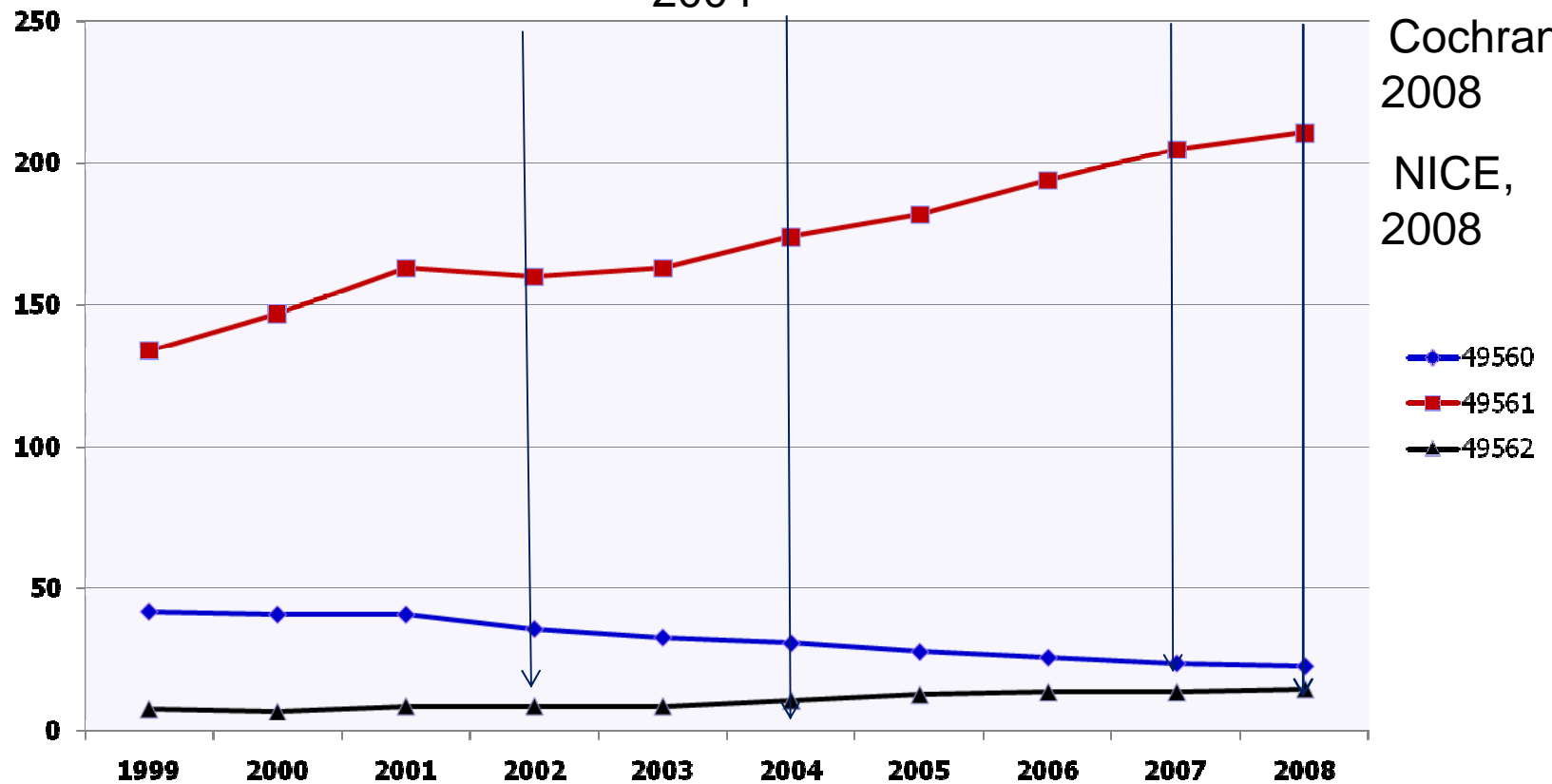
Moseley, BJ, 2002. N Engl
J Med,

AHTA Report,
2004

Blue Cross Blue
Report, 2007

Cochrane,
2008

NICE,
2008

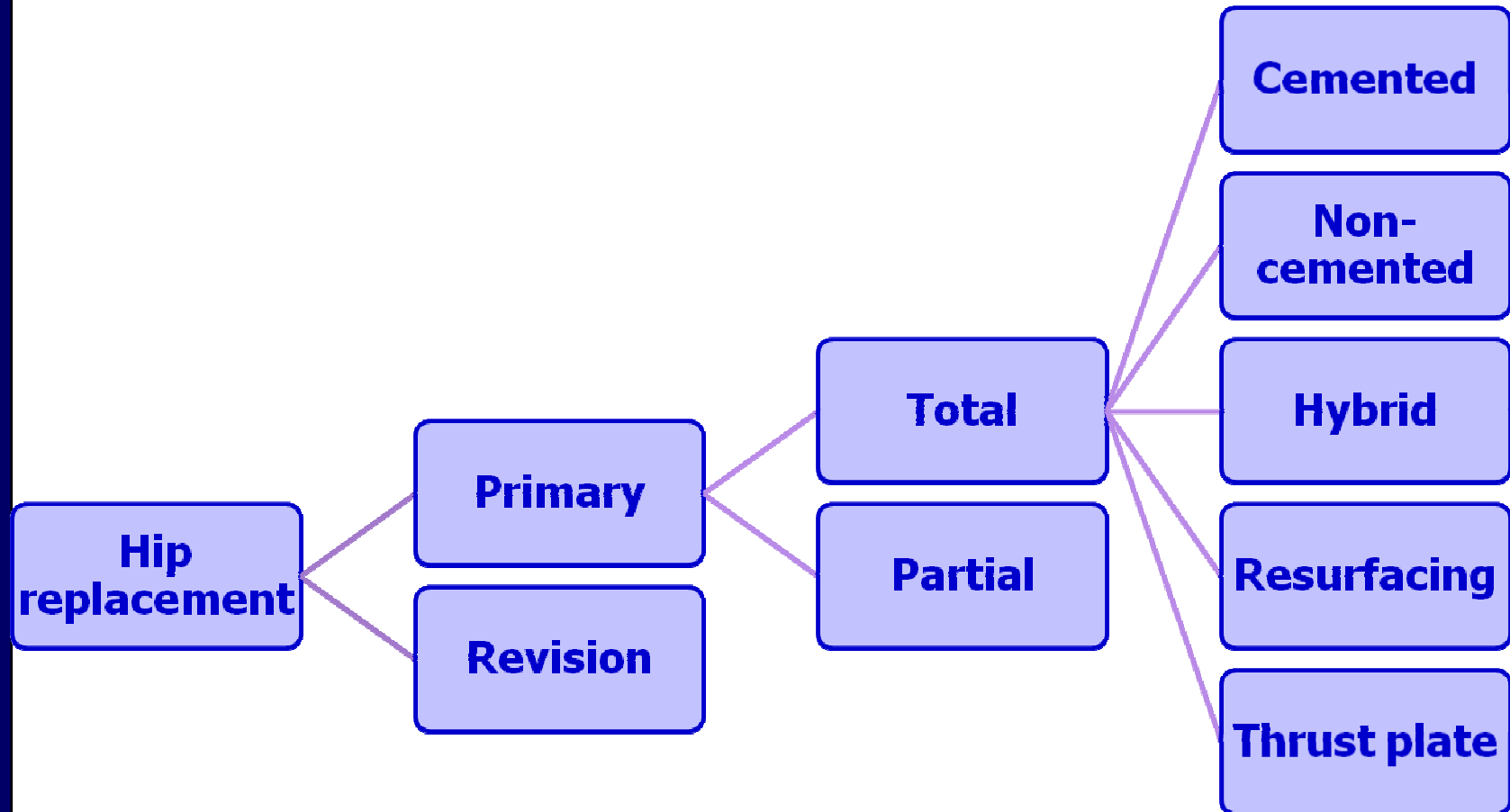


Change in service volume and cost of arthroscopy from 2004/5 to 2008/9

COST EFFECTIVENESS?

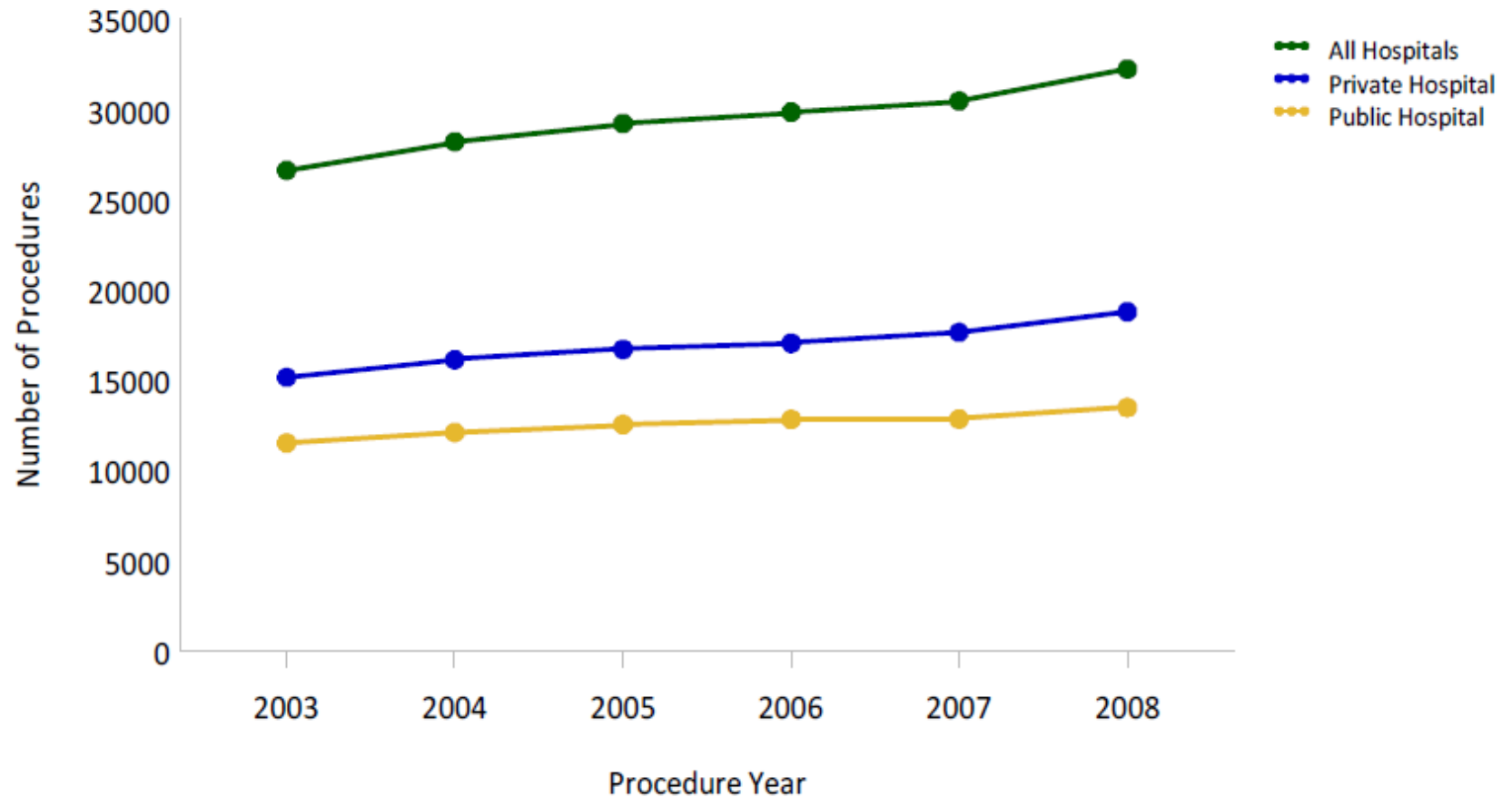
MBS item	%	Services per 100,000 2004/5	Services per 100,000 2008/9	5-year change %	Medicare \$AUS 2008/9
49561	76.8	174	211	+21.3%	20,529,678
49560	8.5	31	23	-25.8%	1,858,658
49562	5.5	11	15	+36.4%	1,582,228
Total	90.8				23,970,564

Total hip replacement categories + fixation



Hip replacements by sector + year

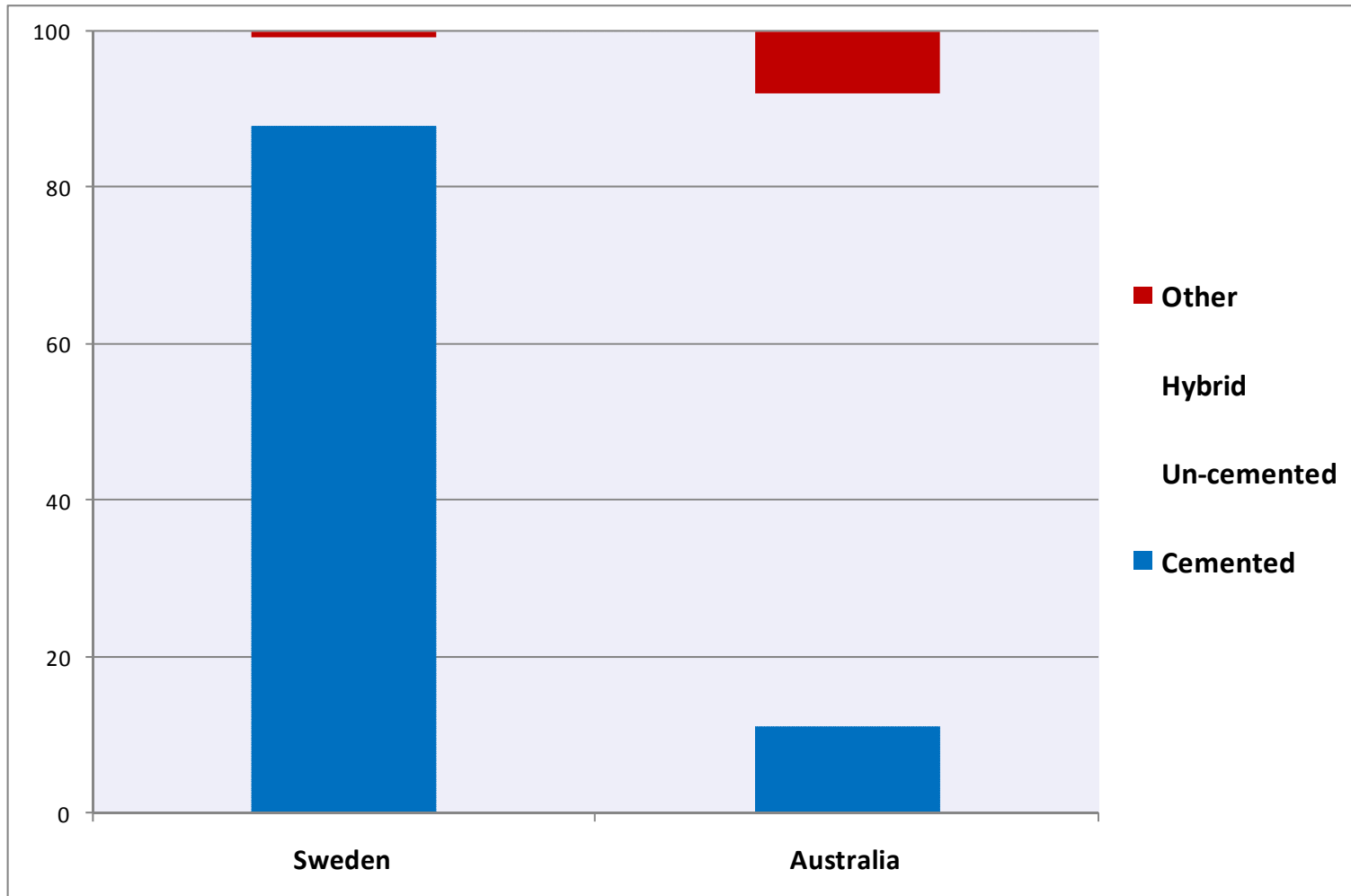
VARIATION BY TIME



Reference: AOA NJRR Annual Report 2009

Total hip replacement by fixation type

VARIATION BY PLACE



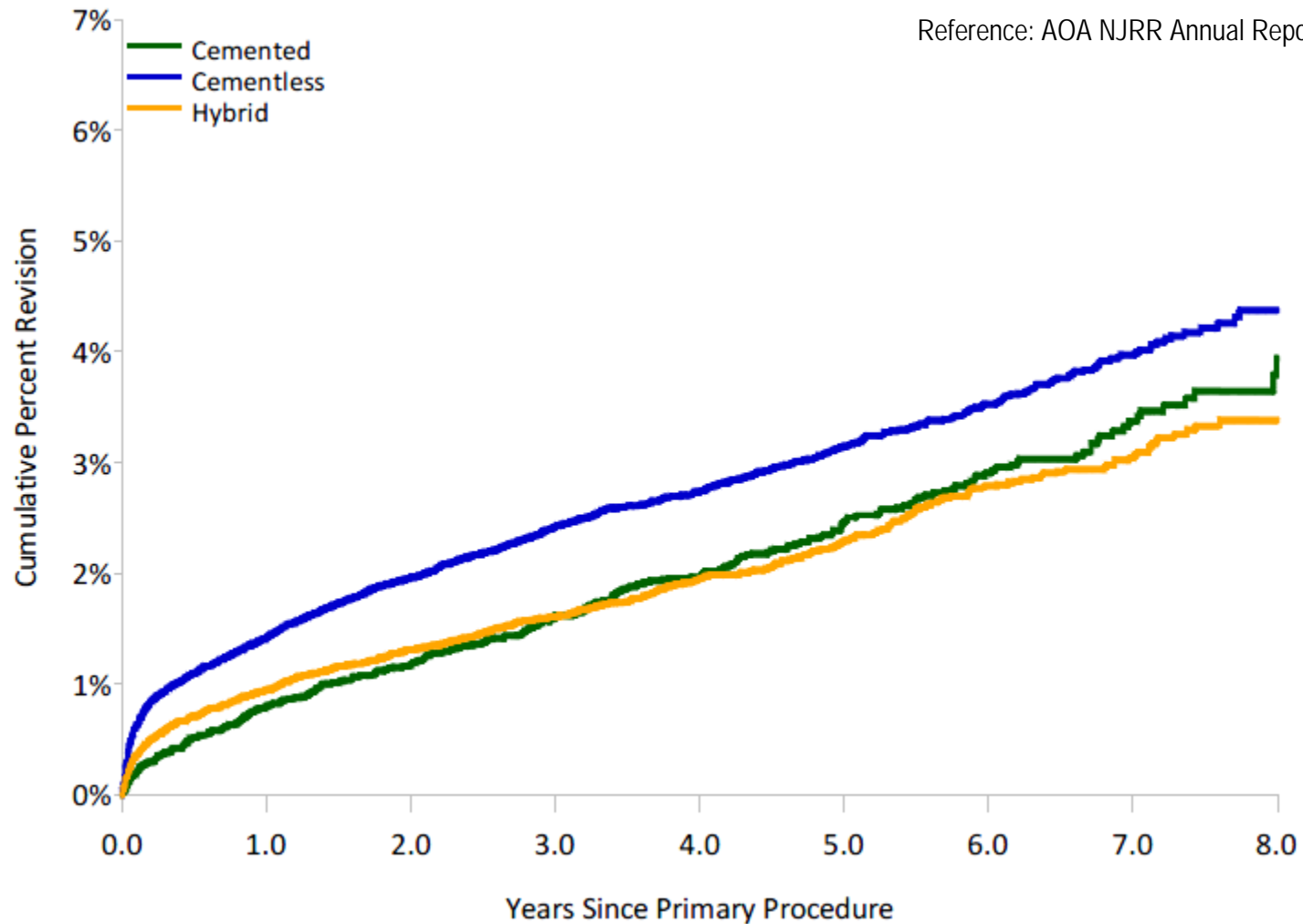
Swedish Hip Arthroplasty Register Annual Report 2007
 Australian Hip and Knee Arthroplasty Annual Report 2009

Do outcomes differ by fixation type?

- Is it important?
- Compared with primary operation, patients who undergo revision surgery are at a higher risk of:
 - Longer inpatient stays
 - Admission to intensive care units
 - Developing post-operative complications
 - Increased mortality

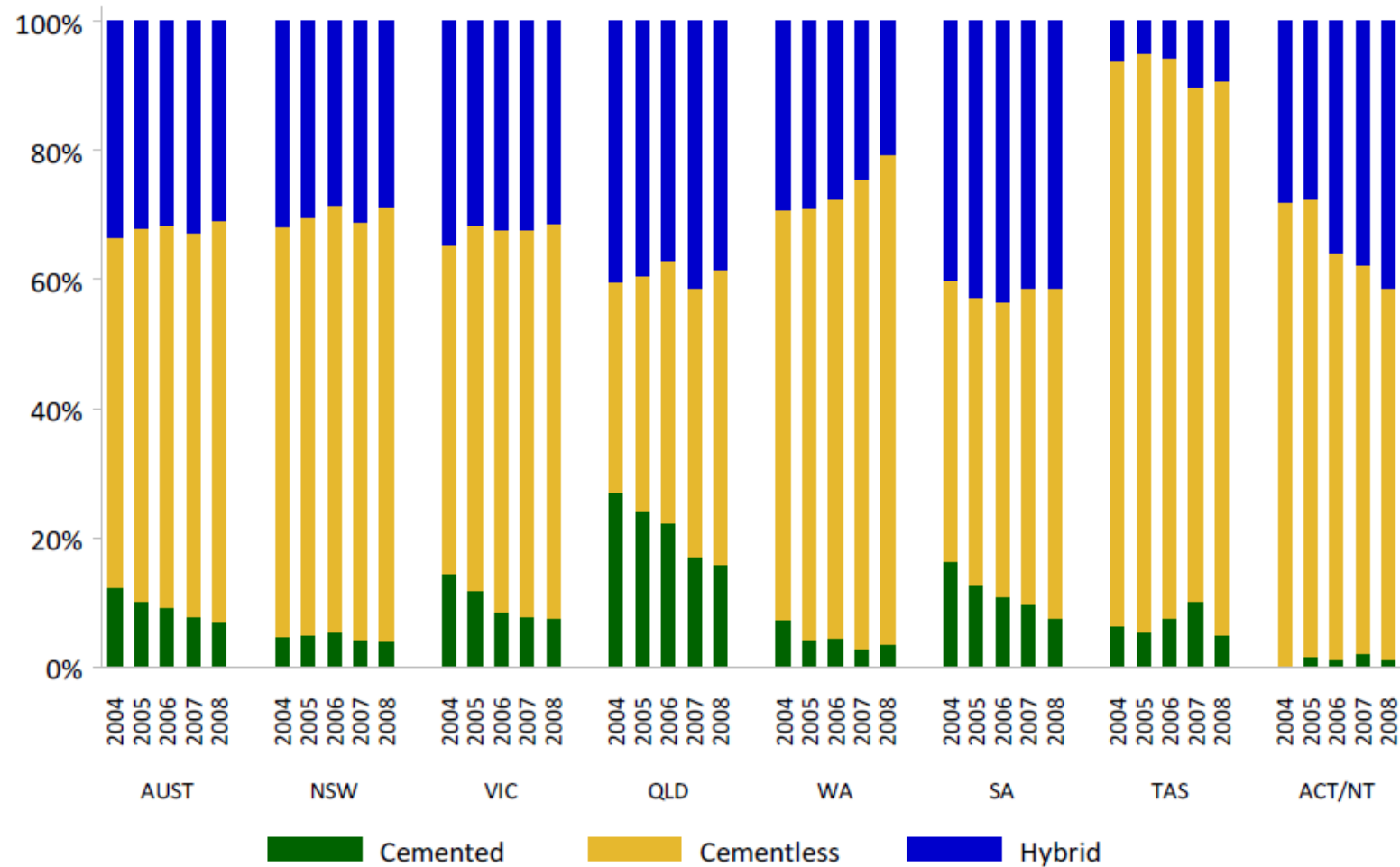
Cumulative % revision by fixation type (Australia) (primary diagnosis OA excluding infection)

EVIDENCE - SAFETY



Trends in total hip replacement by fixation type, state and year

EVIDENCE: EFFECTIVENESS/VARIATION





- **DoHA Health Technology Assessment Review**
 - Discussion paper 5 – Enhanced Post Market Surveillance

REVIEW OF HEALTH TECHNOLOGY ASSESSMENT IN AUSTRALIA

PROPOSAL 16 – A REVIEW PROCESS WITH CAPACITY TO RECOMMEND DISINVESTMENT

The discipline of HTA could play a larger role in making recommendations around the disinvestment of health technologies including the:

- identification of ineffective technologies;
- provision of advice recommending reducing or refining the use of technologies; and
- provision of advice recommending the removal of technologies from government and insurance funding schedules altogether¹².

This would allow reallocation (or reinvestment) of funding to interventions and programs that offer overall health gains more efficiently and could encourage more robust and efficient processes around all health care decision making, not just disinvestment.

12. Elshaug A, *et al. MJA* 2009;190(5):269-73.

Available at: http://www.health.gov.au/internet/main/publishing.nsf/Content/htareview_discussion_paper5

Accessed 29 October, 2009

AHTA has identified 35 potential candidates, and the list is growing...

- For example....
- Ear grommets for otitis media
- Arthroscopic for osteoarthritis of the knee
- Tension-free repair for asymptomatic inguinal hernia
- Exercise ECG for angina
- Blood tests for liver function
- Ultrasound-guided shoulder injections
- Thrombolytic therapy in acute stroke

Challenges of resource re-allocation

- Not a cost-free activity –disinvestment requires financial and organisational commitment
- Requires clear political support and strategies
- Success dependent on a willingness to lead
- Backlash + lobbying should be anticipated

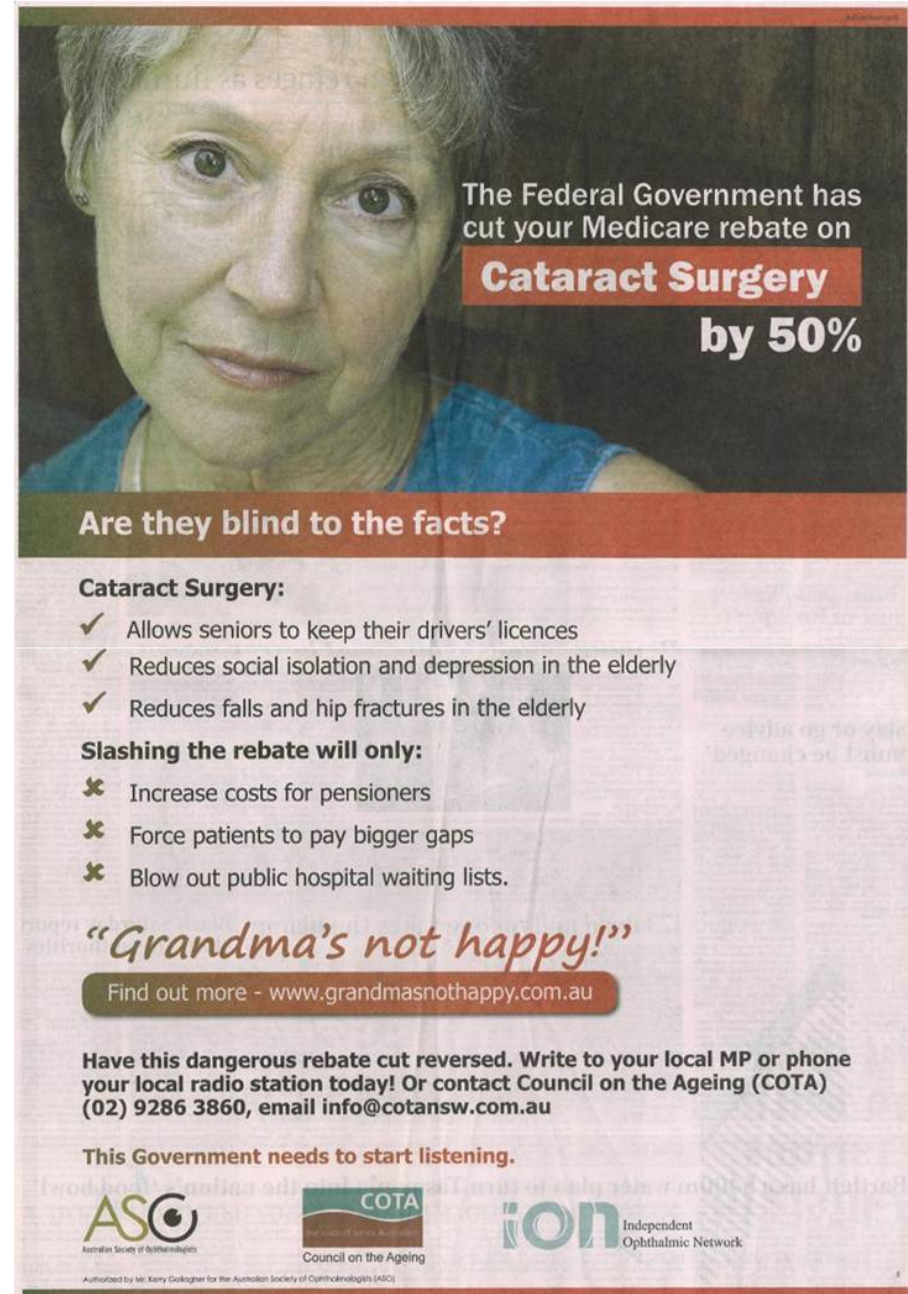
Recent Australian events...



Senator Nick Xenophon on 20 Aug 2009:

<http://www.thepunch.com.au/articles/ivf-for-the-rich-and-infertility-for-the-rest/desc>

“Science can deliver this opportunity to thousands of Australians every year who would otherwise be left infertile. Government must not stand in the way”



The Federal Government has cut your Medicare rebate on **Cataract Surgery** by **50%**

Are they blind to the facts?

Cataract Surgery:

- ✓ Allows seniors to keep their drivers' licences
- ✓ Reduces social isolation and depression in the elderly
- ✓ Reduces falls and hip fractures in the elderly

Slashing the rebate will only:


- ✗ Increase costs for pensioners
- ✗ Force patients to pay bigger gaps
- ✗ Blow out public hospital waiting lists.

“Grandma’s not happy!”


Find out more - www.grandmasnothappy.com.au

Have this dangerous rebate cut reversed. Write to your local MP or phone your local radio station today! Or contact Council on the Ageing (COTA) (02) 9286 3860, email info@cotansw.com.au

This Government needs to start listening.

 Australian Society of Ophthalmologists

 Council on the Ageing

 Independent Ophthalmic Network

Authorised by Mr Kerry Gallagher for the Australian Society of Ophthalmologists (ASCO)

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