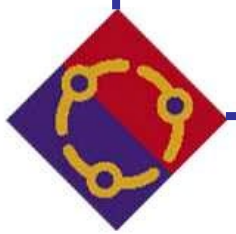
Quality use of medicines in Australia

Professor Libby Roughead



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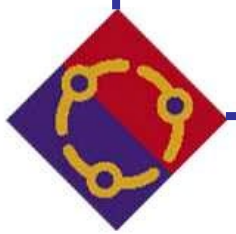
Today's talk

- Some history:
  - How did quality use of medicines start and what does it mean?
- Building
  - What have we built and achieved?
- Where are we now?
  - What are the next set of challenges?



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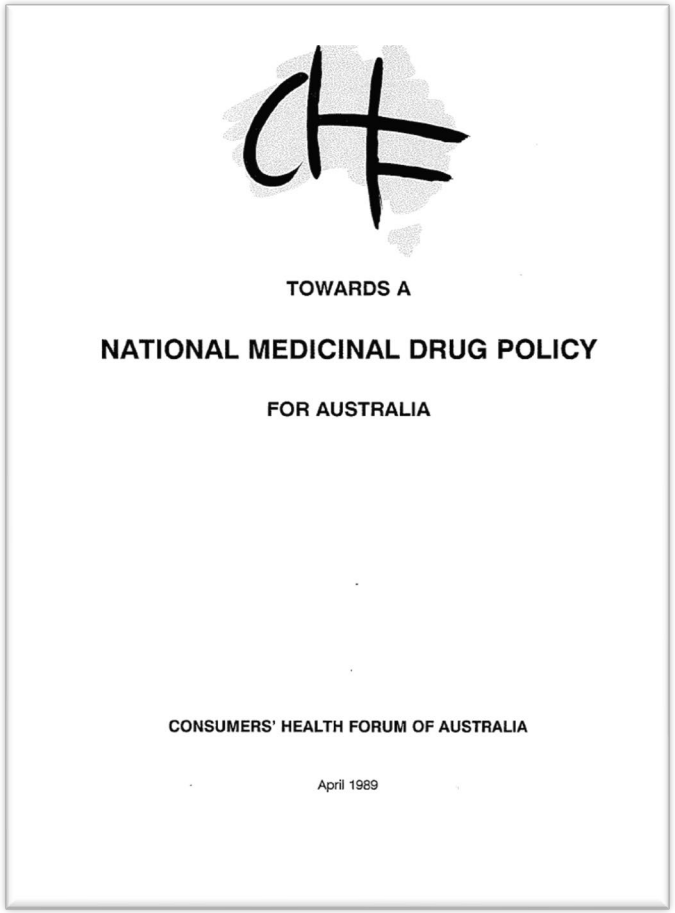
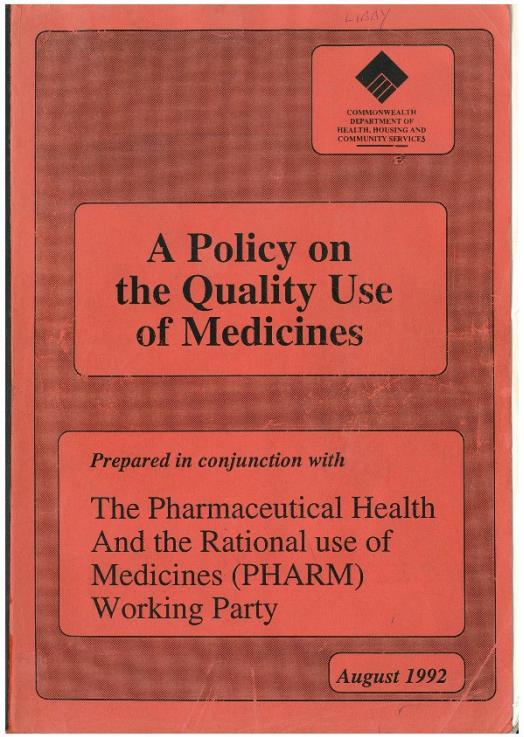
The beginning: QUM was driven by consumers

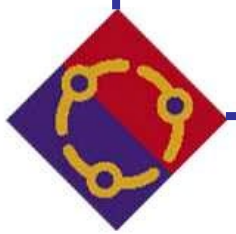
- In the late 1980s the Consumer Movement published three seminal documents.
  - “Too much of a good thing”
  - “Developing a rational medicinal drug policy for Australia - What does it mean?”
  - “Towards a National Medicinal Drug Policy”
- In 1991 the Australian Health Minister responded, establishing
  - an expert advisory committee to develop the national strategy for achieving quality use of medicines and
  - a national representative committee to advise on the national medicines policy



The result: the national strategy for quality use of medicines

- Four key developments laid the groundwork for what would be a cultural shift in the way Australia thought about medicine use.
  - A definition of quality use of medicines that extended beyond the medicine
  - Principles of working that included; the primacy of the consumer, partnership, multi-disciplinary, consultative, collaborative activity, and systems based approaches
  - A vision grounded in behavioural theory to achieve the outcome
  - Indicators to evaluate progress





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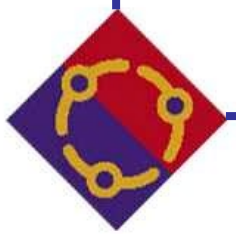
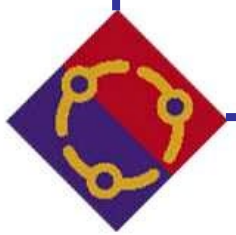
The importance of the definition

- This definition shifted the way we thought about medicine use
- For the first time we had a definition of quality use of medicines that went beyond the medicine
  - Judicious selection of management options
  - Where a medicine was necessary, appropriate selection of medicines
  - Safe and effective use of medicines



The importance of the behavioural under-pinning



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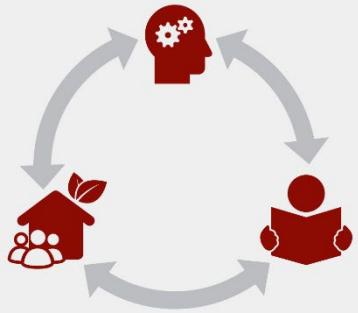
How do individuals learn?

Social Cognitive Theory

Cognitive, behavioural and environmental factors interact to influence an individual's health behaviour

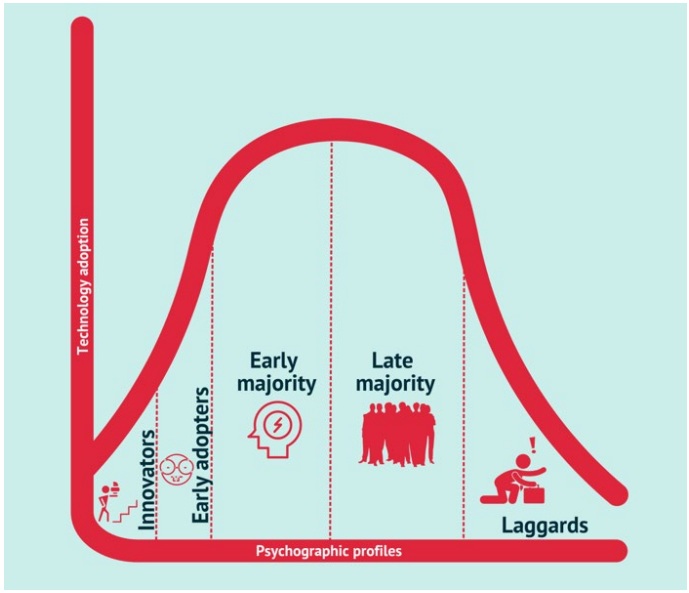


How do individuals learn over time?

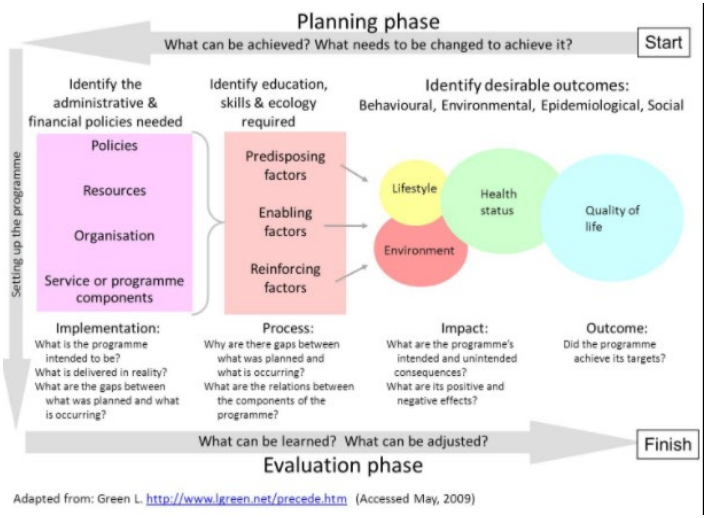
Transtheoretical Model

Behaviour change occurs in five progressive stages (pre-contemplation, contemplation, preparation, action, maintenance). The stage determine an individual's readiness for change

How do communities learn or change over time?



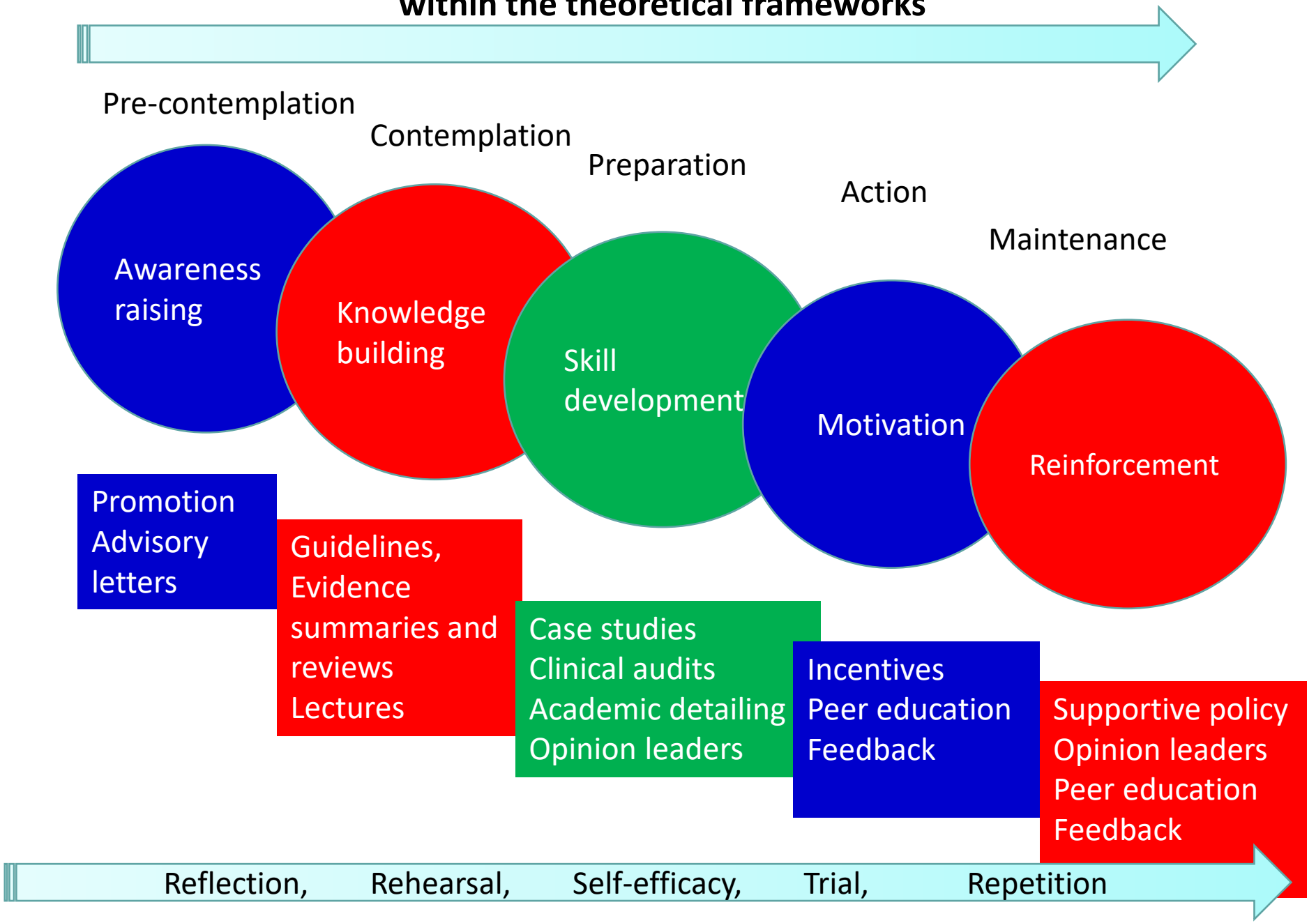
How do communities learn or change?



Adapted from: Green L. http://www.lgreen.net/precede.htm (Accessed May, 2009)

Communication and persuasion theory

Delivery of the intervention program within the theoretical frameworks



All partners

Adopting the **principles,**

Implementing the **building blocks,**

Across all stages of behaviour change,

Across all settings of the health system,

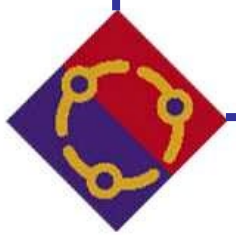
Enables quality use of medicines

QUM Principles	QUM building blocks
The primacy of consumers	Policy development
Partnership	Facilitation co-ordination
Consultative, collaborative, multidisciplinary activity	Objective information
Support for existing activity	Education and training
Systems-based approaches	Services and interventions
	Evaluation and data collection

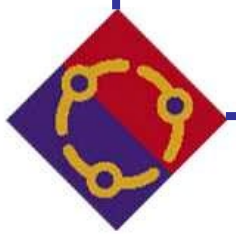
Quality use of medicines

This vision, which would now be described as co-design and theory informed was realized 15 years before the first academic papers citing this as the way forward

- At the time the quality use of medicines vision was created, Australia had limited resources to support quality use of medicines
  - Antibiotic guidelines,
  - Australian Prescriber,
  - The Adverse Drug Reaction Advisory Committee Bulletin, and
  - Approved Product Information



The 1990’s was the era of building



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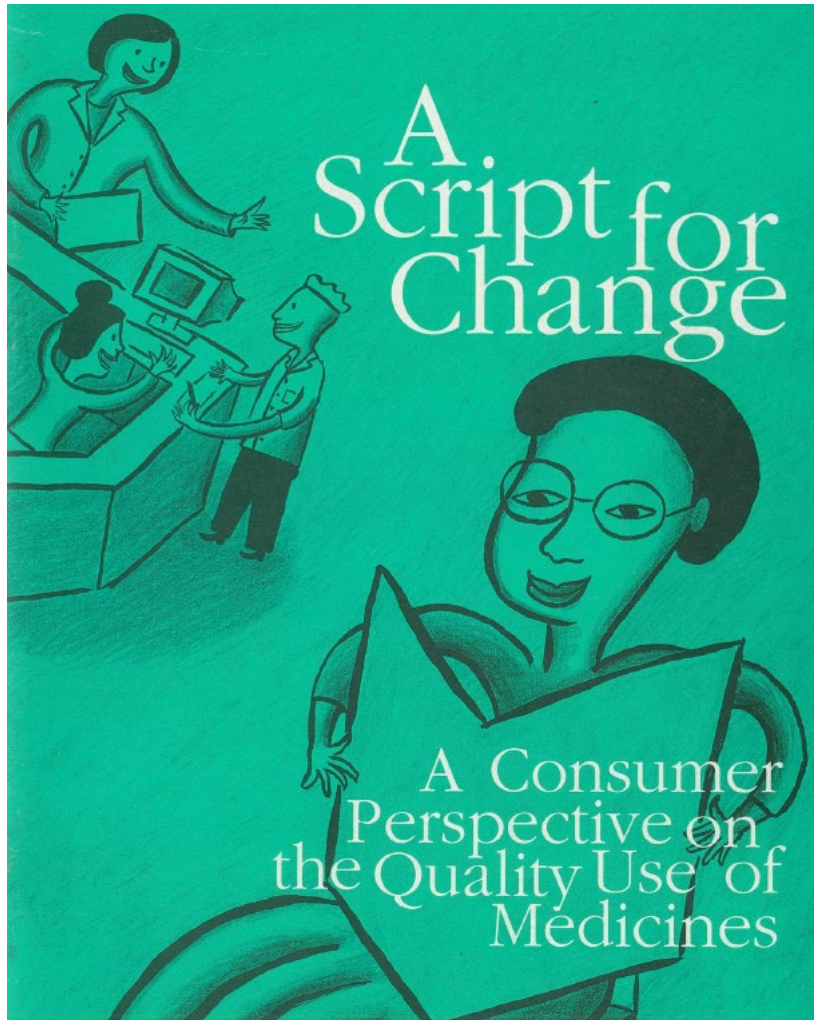
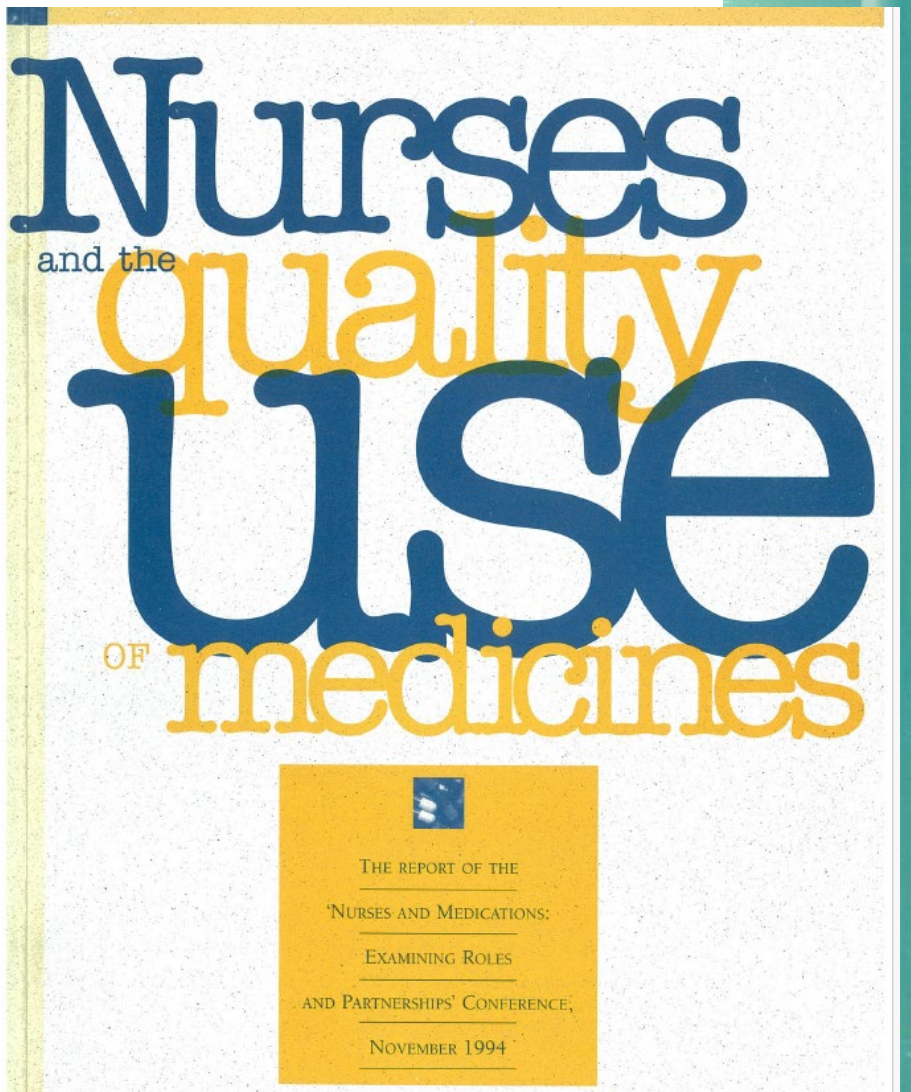
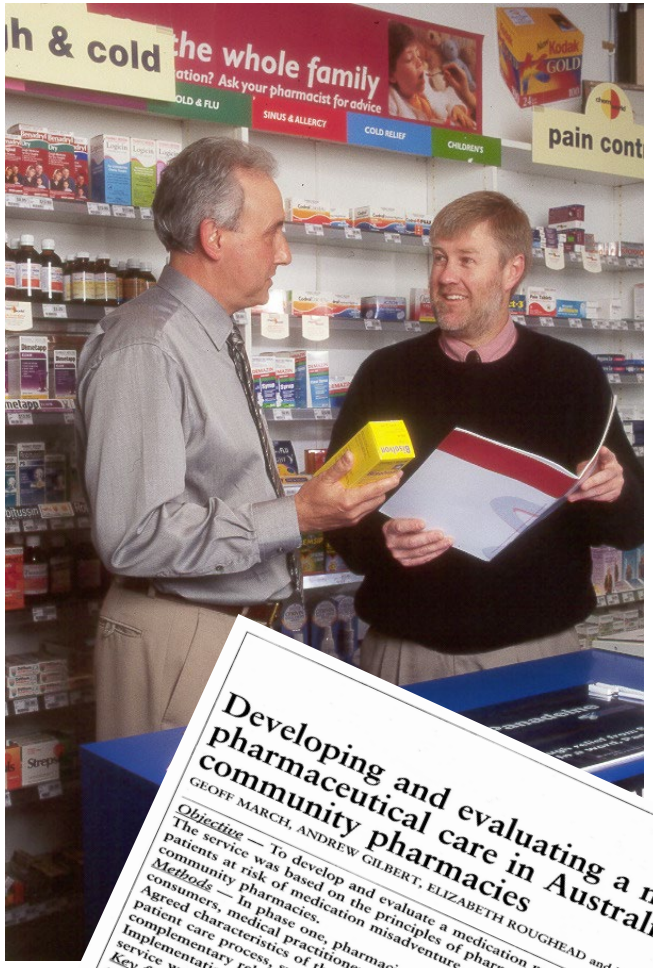
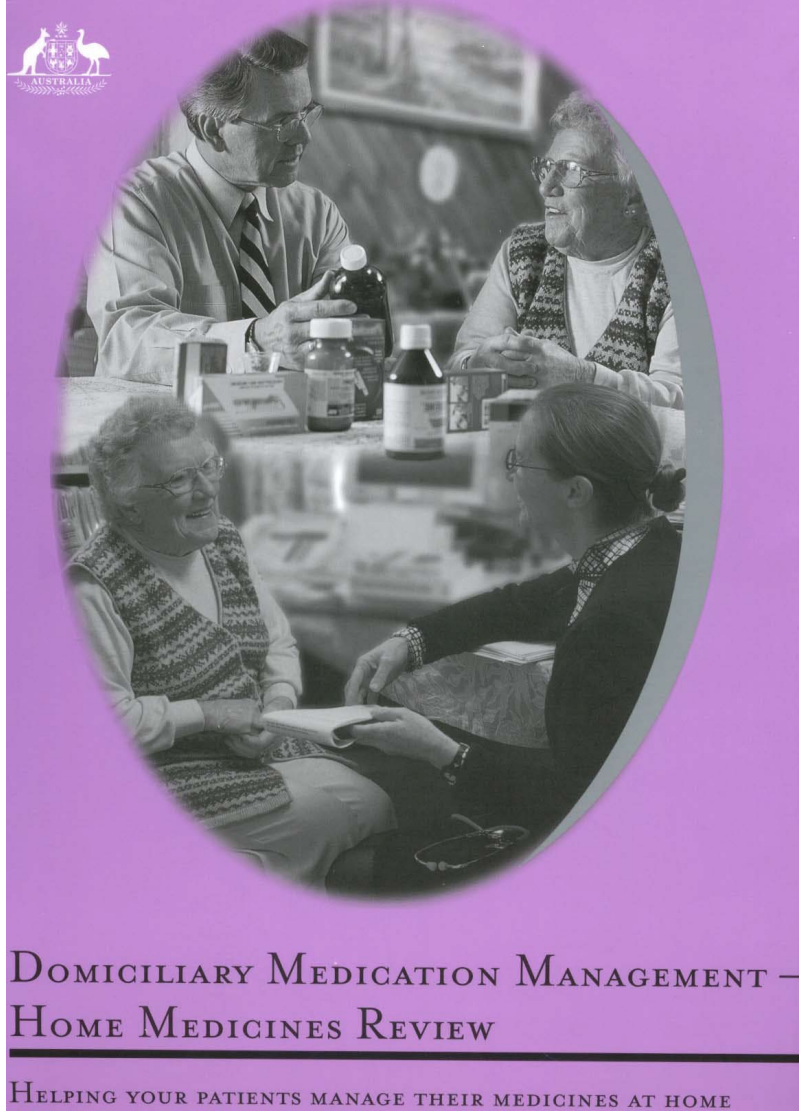
We were gaining understandings





We were building new ways of practice





DOMICILIARY MEDICATION MANAGEMENT – HOME MEDICINES REVIEW

HELPING YOUR PATIENTS MANAGE THEIR MEDICINES AT HOME

RESEARCH

Outcomes of an educational-outreach service for community medical practitioners: non-steroidal anti-inflammatory drugs

Frank W May, Debra S Rowett, Andrew L Gilbert, Janet I McNeece and Eve Hurley

Abstract

Objective: Exploration of longer-term outcomes of an ongoing educational-outreach service for community doctors.

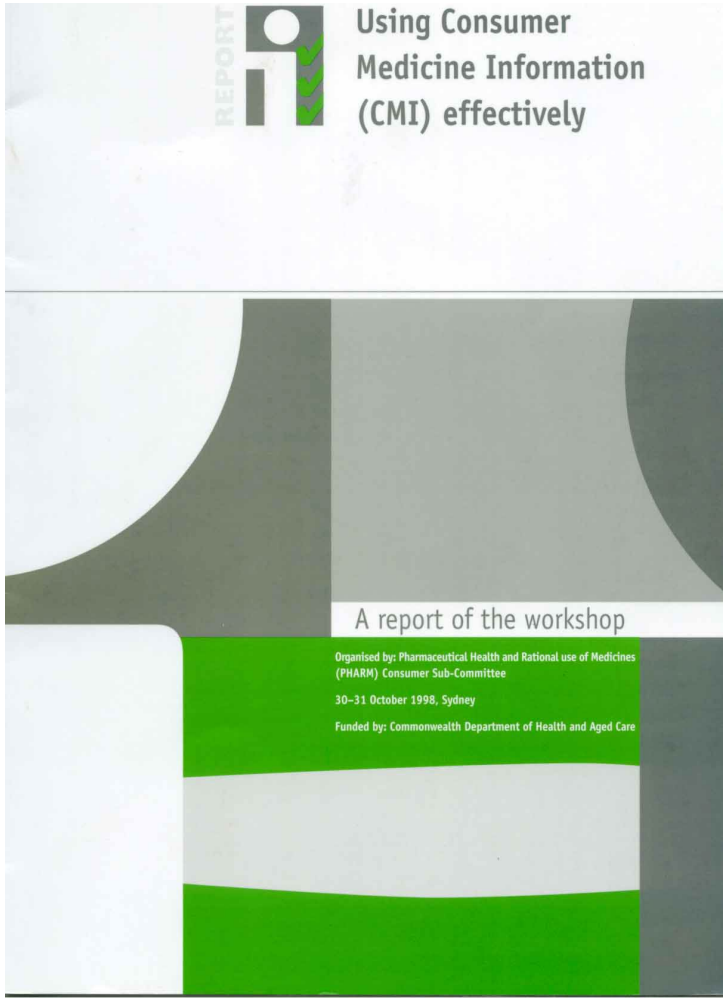
Design: Quasi-experimental, with parallel and historical comparisons.

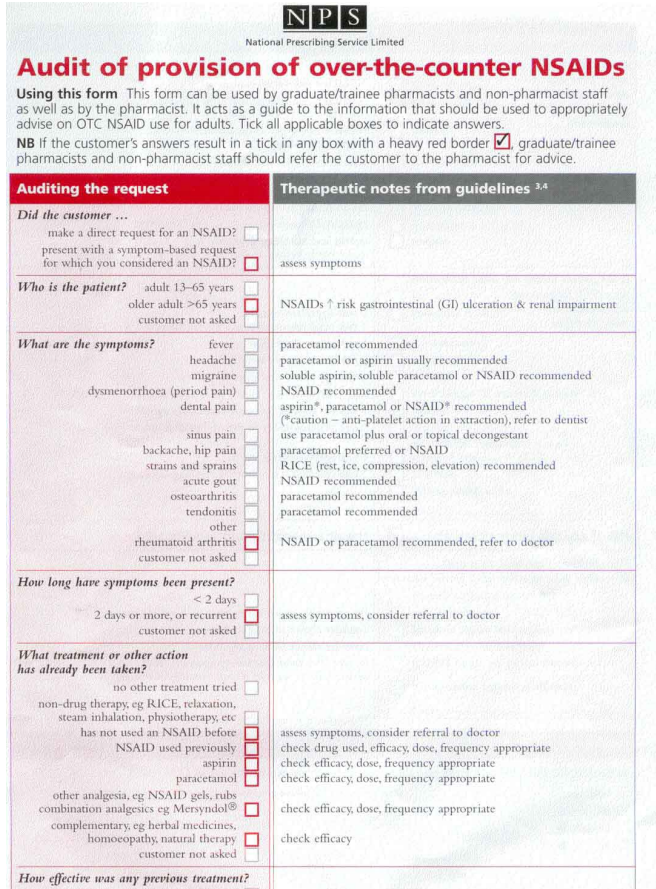
Face-to-face communication and academic detailing have been shown to have a positive influence on prescribing behaviour of medical practitioners.[1-7] Uncertainty remains

Developing and evaluating a model for pharmaceutical care in Australian community pharmacies

GEOFF MARCH, ANDREW GILBERT, ELIZABETH ROUGHEAD and NEIL QUINTRELL

We were developing resources





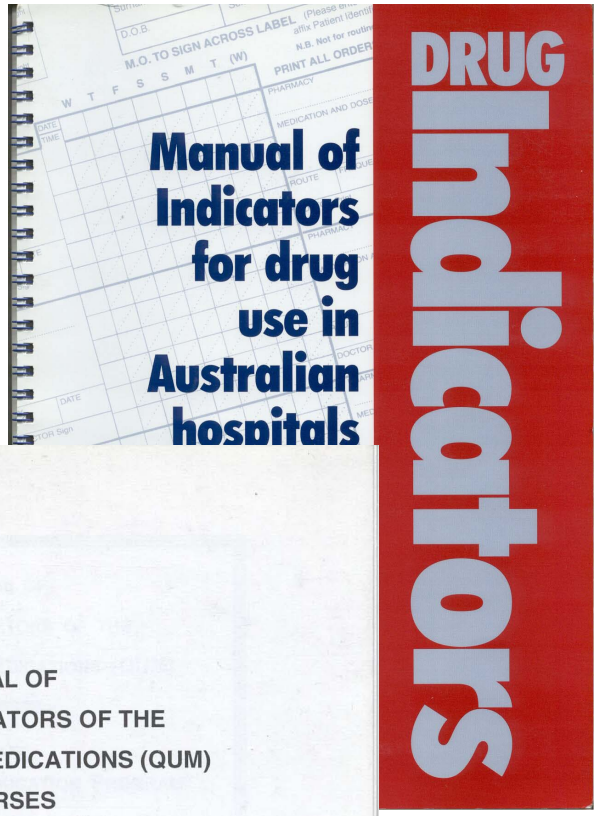
NPS
National Prescribing Service Limited

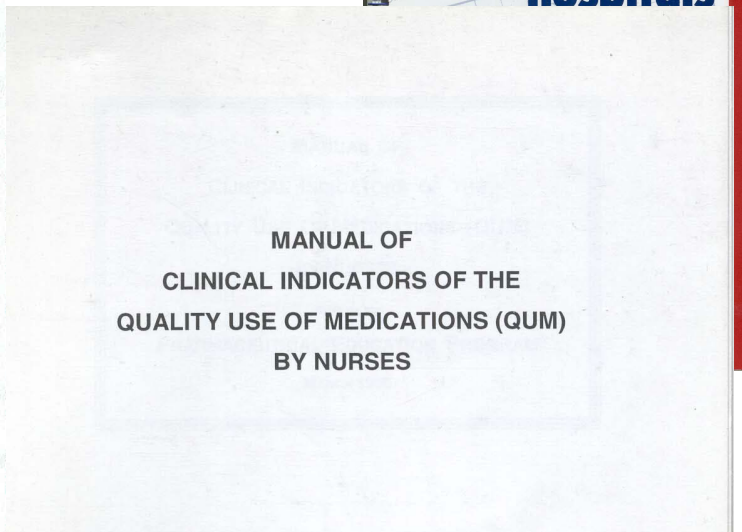
Audit of provision of over-the-counter NSAIDs

Using this form This form can be used by graduate/trainee pharmacists and non-pharmacist staff as well as by the pharmacist. It acts as a guide to the information that should be used to appropriately advise on OTC NSAID use for adults. Tick all applicable boxes to indicate answers.

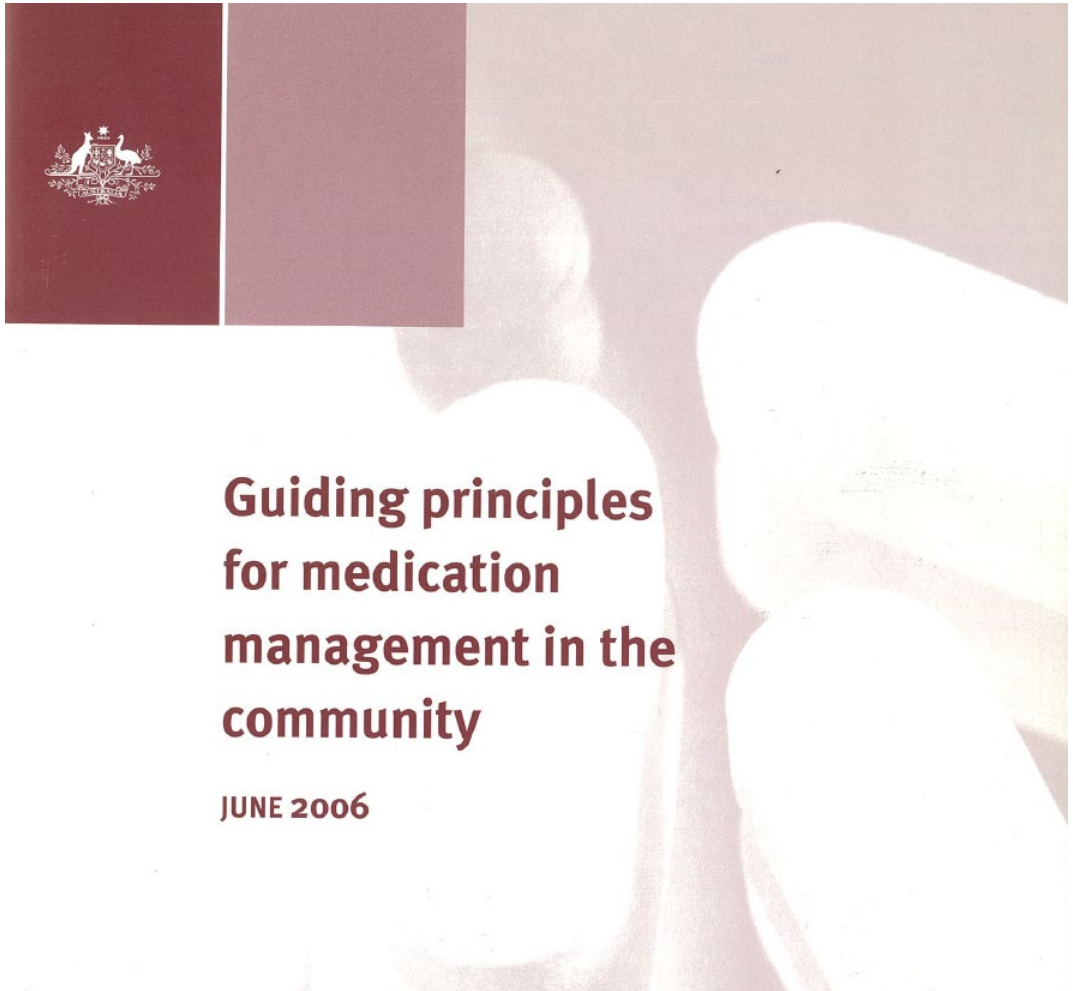
NB If the customer's answers result in a tick in any box with a heavy red border ☑, graduate/trainee pharmacists and non-pharmacist staff should refer the customer to the pharmacist for advice.

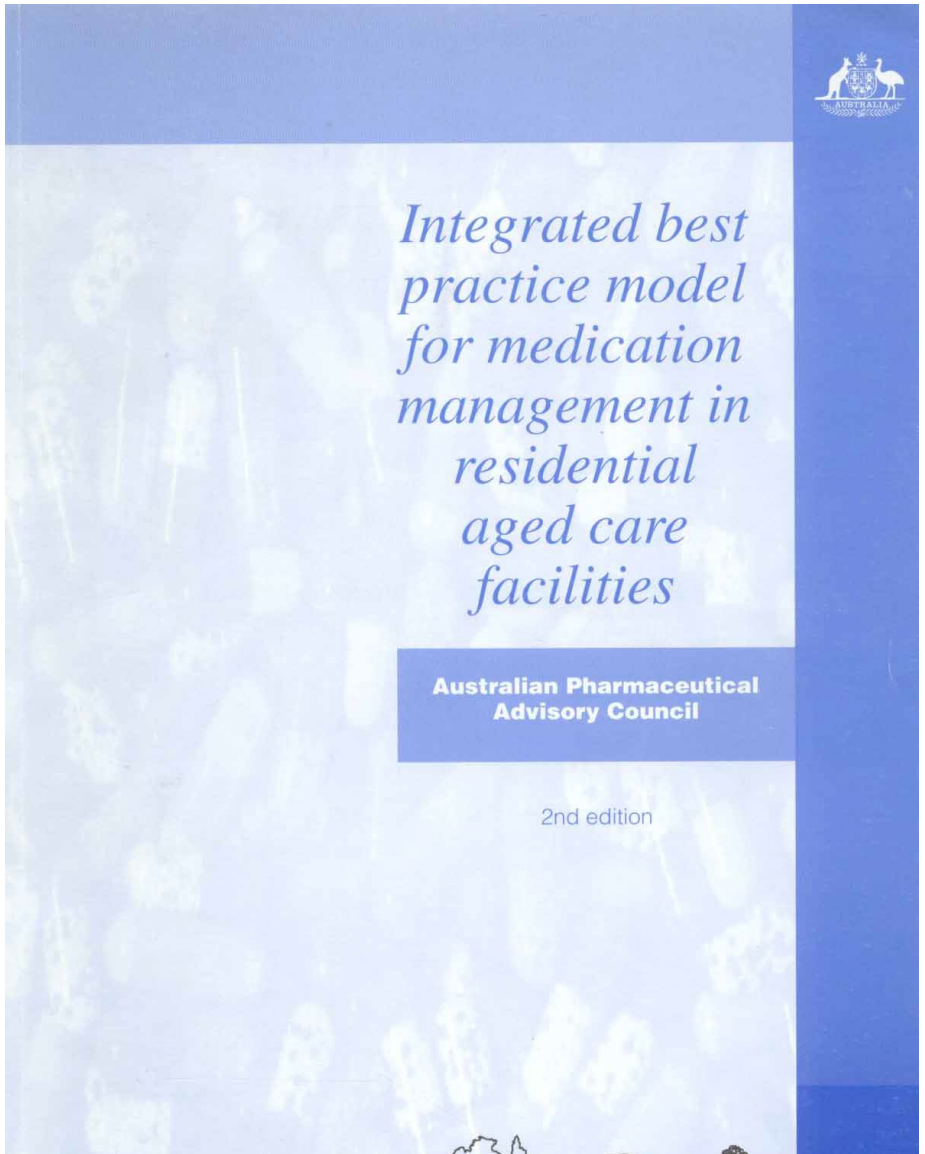
Auditing the request	Therapeutic notes from guidelines [3,4]
Did the customer …	
make a direct request for an NSAID? ☐	
present with a symptom-based request for which you considered an NSAID? ☐	assess symptoms
Who is the patient? adult 13–65 years ☐	
older adult >65 years ☐	NSAIDs ↑ risk gastrointestinal (GI) ulceration & renal impairment
customer not asked ☐	
What are the symptoms? fever ☐	paracetamol recommended
headache ☐	paracetamol or aspirin usually recommended
migraine ☐	soluble aspirin, soluble paracetamol or NSAID recommended
dysmenorrhoea (period pain) ☐	NSAID recommended
dental pain ☐	aspirin*, paracetamol or NSAID* recommended (*caution – anti-platelet action in extraction), refer to dentist
sinus pain ☐	use paracetamol plus oral or topical decongestant
backache, hip pain ☐	paracetamol preferred or NSAID
strains and sprains ☐	RICE (rest, ice, compression, elevation) recommended
acute gout ☐	NSAID recommended
osteoarthritis ☐	paracetamol recommended
tendonitis ☐	paracetamol recommended
other ☐	
rheumatoid arthritis ☐	NSAID or paracetamol recommended, refer to doctor
customer not asked ☐	
How long have symptoms been present?	
< 2 days ☐	
2 days or more, or recurrent ☐	assess symptoms, consider referral to doctor
customer not asked ☐	
What treatment or other action has already been taken?	
no other treatment tried ☐	
non-drug therapy, eg RICE, relaxation, steam inhalation, physiotherapy, etc ☐	
has not used an NSAID before ☐	assess symptoms, consider referral to doctor
NSAID used previously ☐	check drug used, efficacy, dose, frequency appropriate
aspirin ☐	check efficacy, dose, frequency appropriate
paracetamol ☐	check efficacy, dose, frequency appropriate
other analgesia, eg NSAID gels, rubs ☐	
combination analgesics eg Mersyndol® ☐	check efficacy, dose, frequency appropriate
complementary, eg herbal medicines, homoeopathy, natural therapy ☐	check efficacy
customer not asked ☐	
How effective was any previous treatment?	





We were developing standards





By 2003

- National Health Policy
- National Medicines Policy
- Federal, *State & Territory QUM Policies*
- *Integrated & consistent*

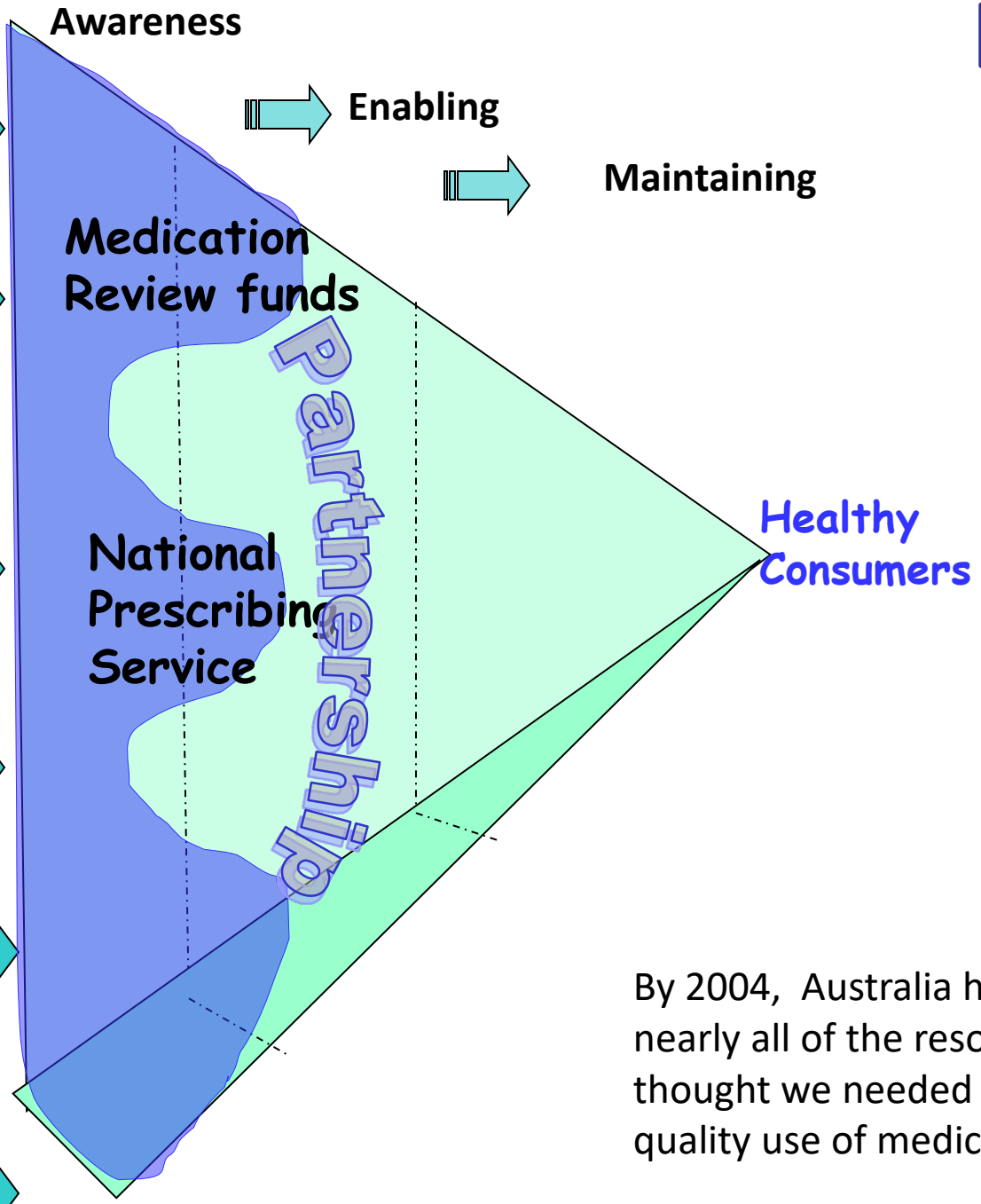
- Co-ordination, facilitation mechanism
- Funding & evaluation process
- Dialogue & collaboration
- All involved & endorsed

- Therapeutic Guidelines
- National Therapeutics Bulletin
- National Formulary
- CMI
- Codes of Conduct

- QUM Curricula *(all groups)*

- ADR reporting (HP's & *consumers*)
- Medication management aids *(funded)*
- Discharge planning standards
- Medication review services
- Medication disposal services
- Drug utilisation feed back
- Campaigns
- *National Media Liaison Strategy*
- Drug use audits

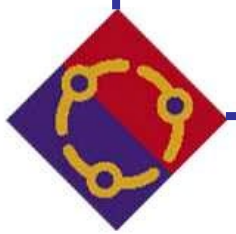
- *National Data set*



By 2004, Australia had established nearly all of the resources we thought we needed to facilitate quality use of medicines

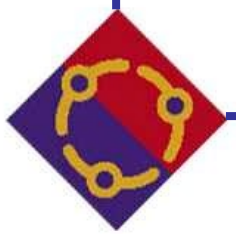
The 2000's – enabling and sustaining

- The next 15 years saw a focus on building a skilled workforce and increasing participation
- NPS Medicine Wise expanded and medicine review services expanded
- 2018 -19
  - 31,000 academic detailing visits
  - 3,500 doctors undertook case studies
  - 95% of all medical schools using the national prescribing curricula
  - 150,000 people receiving medicine reviews
  - 18 million visits to the NPS Medicine Wise, formerly National Prescribing Service, website
- Organisations representing primary care practitioners have all endorsed the QUM approach
  - AMA
  - RACGP
  - PSA
  - Guild
  - RCNA
  - Clinical Pharmacology
- Included in their training or professional standards



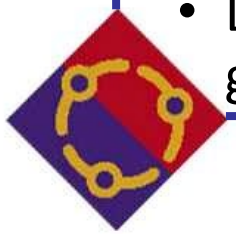
So where are we now?

- In 2022 a decision was made to restructure the way some quality use of medicines programs were funded and delivered
- It comes at a time when new challenges are emerging
- It is also 20 years since the last renewal of the national strategy
- So the change offers the opportunity for both reflection and renewal
  - To consider how we might be best placed to meet the new challenges to support quality use of medicines



The 21st century challenges for health and medicines

- Populations are ageing
- Multiple illnesses are more common
- Multiple health practitioners are involved in care
- New medicines are most commonly used in conjunction with existing treatments
- New understandings of genetic and metabolic systems are changing our understanding of medicine effects
- New understandings of neuroscience are changing our understanding of the role of non-pharmacological options
- Our clinical trial system and our health system have not yet fully adapted to these changes
- Digital technologies, social media and artificial intelligence are changing the way we interact, gather knowledge, communicate.



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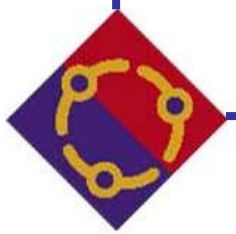
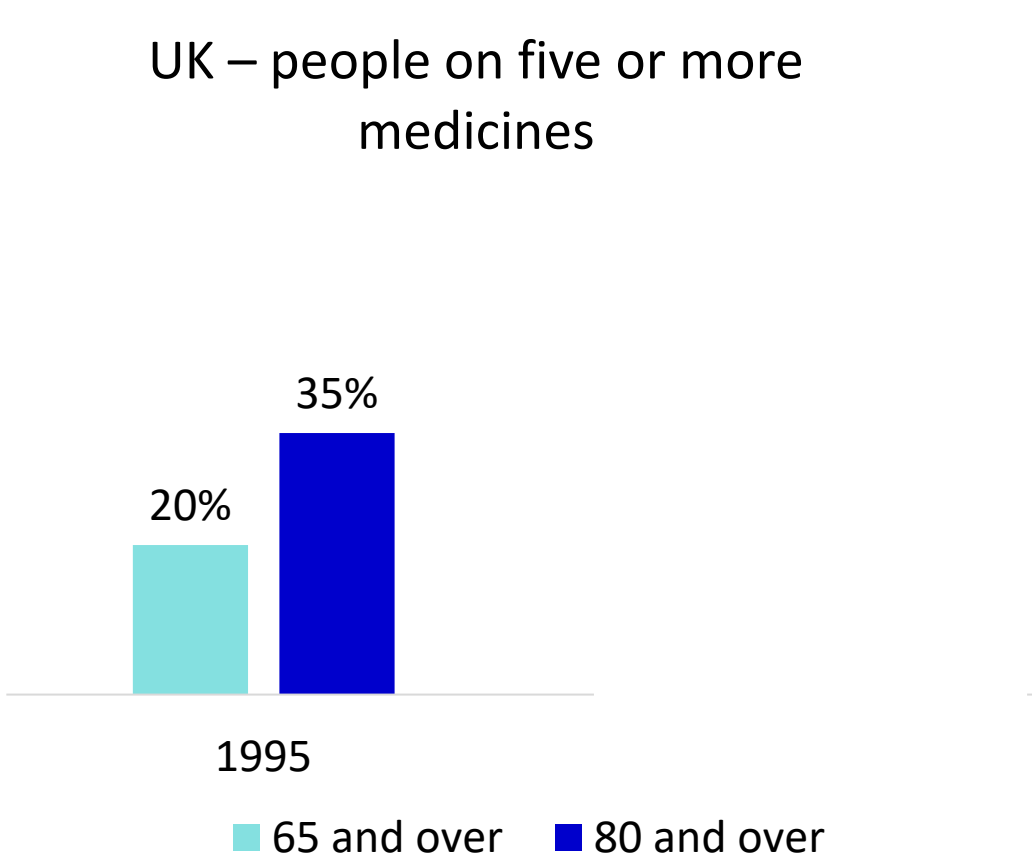
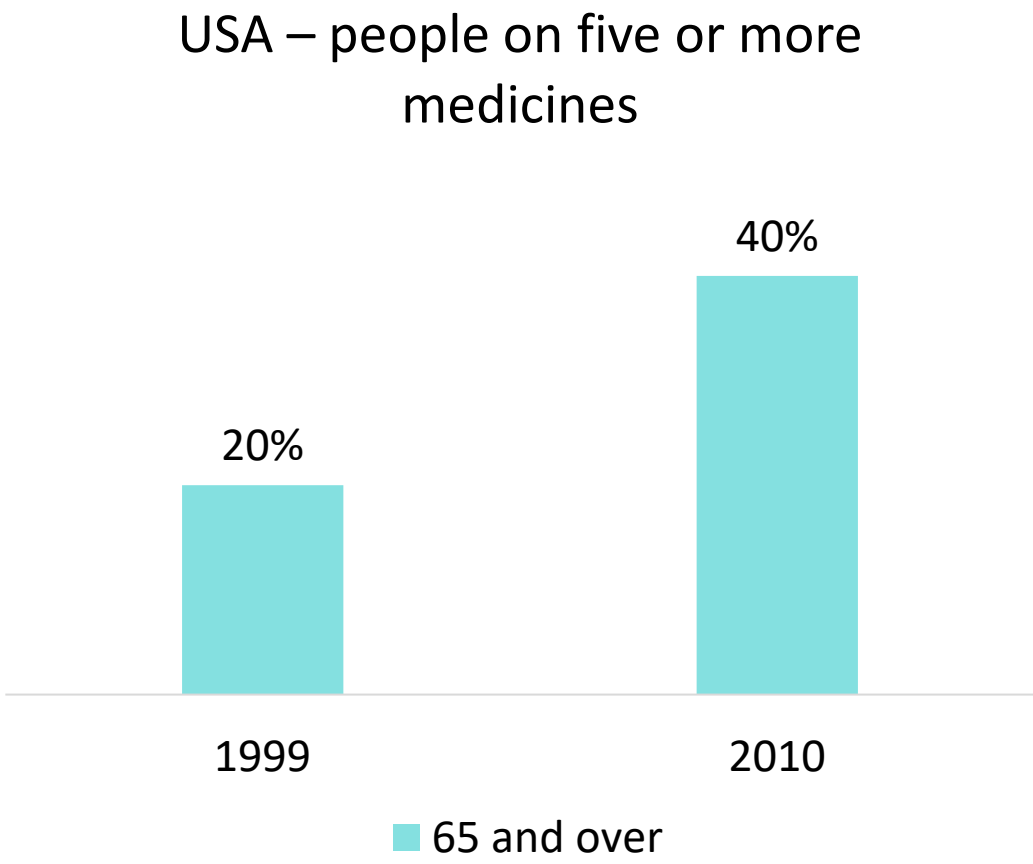
Challenge 1: Multi-morbidity and polypharmacy

- We've got older
- And along with that we live longer with more illnesses
  - The prevalence of multiple chronic illnesses in Australia rose four-fold between 1985 and 2005
- And we treat illnesses more intensively
  - Up until 1998 all guidelines recommended a single treatment for a disease; if a treatment didn't work, we switched
  - 1998 first recommendations globally for diabetes add on therapy
  - 2000 first recommendations globally for add on therapy in hypertension



The 2020s – the era of polypharmacy



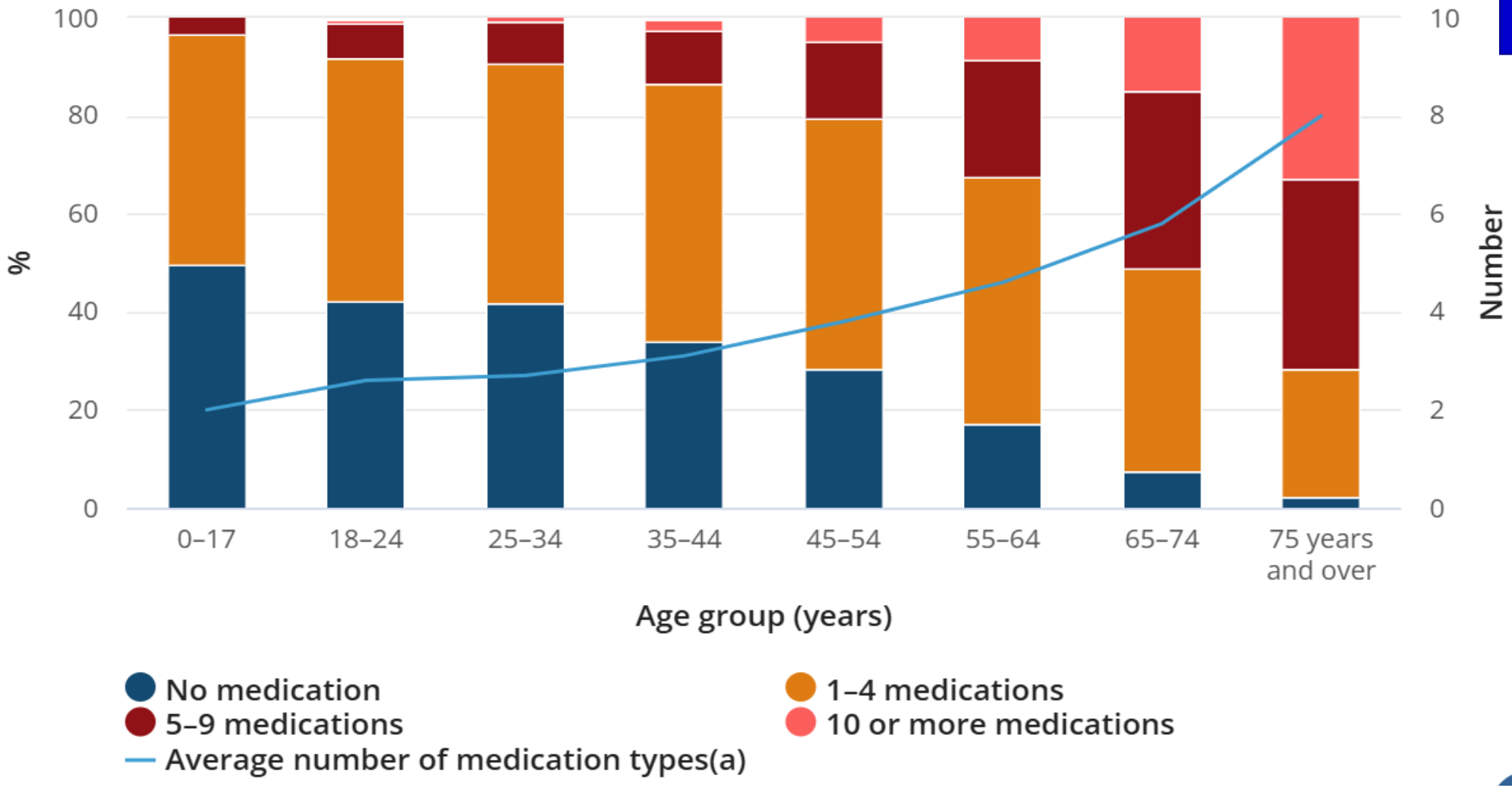


•10.1186/s12916-015-0322-7

DOI:10.1371/journal.pone.0118991

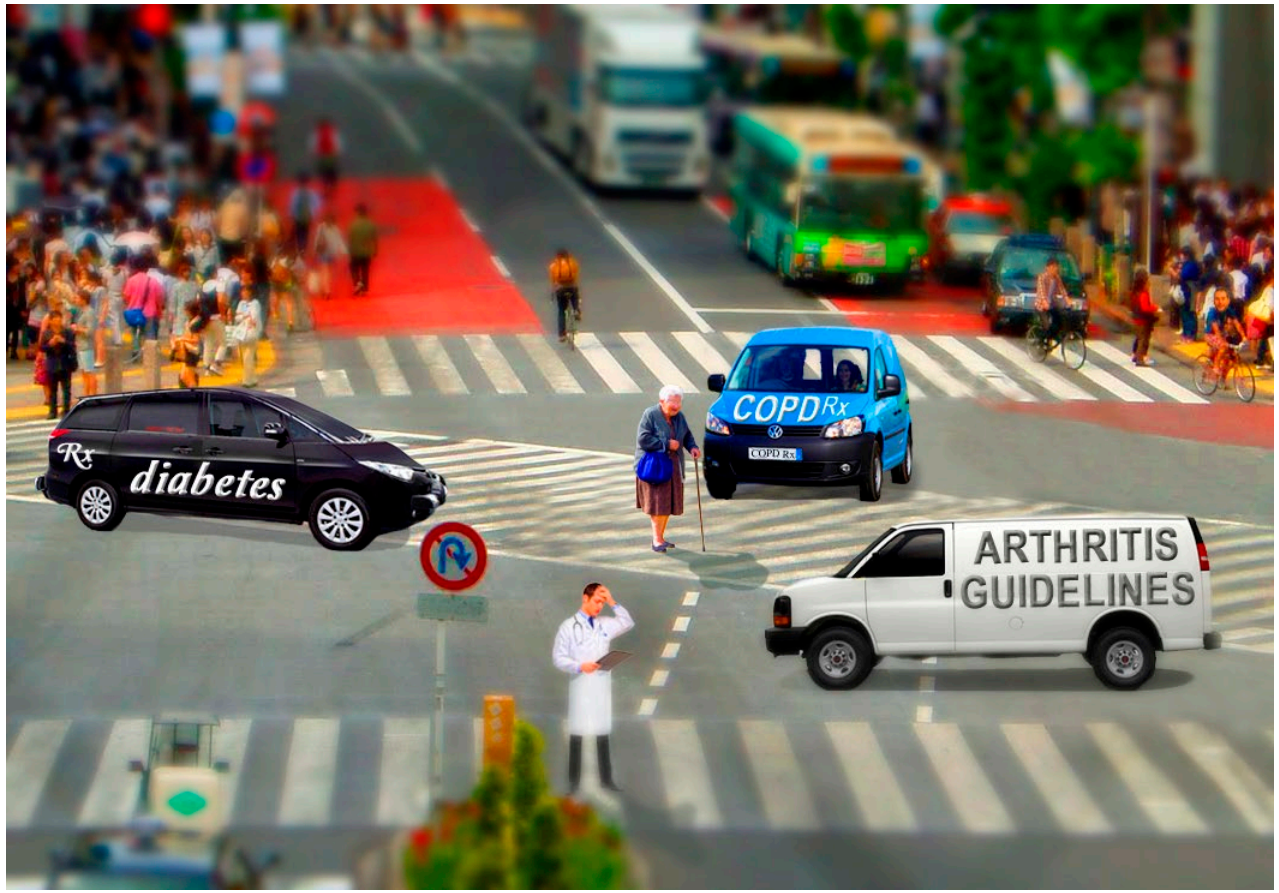
Polypharmacy regimens interact.

13.7 alerts per 10 medicines



ABS: National Health Survey 2022: medications

Guidelines don’t always assist in helping us when it comes to multi-morbidity



UK study

- 133 serious medicine – medicine interactions for medicines recommended in the type 2 diabetes guideline and guidelines for 11 other conditions

•DOI: 10.1136/bmj.h949

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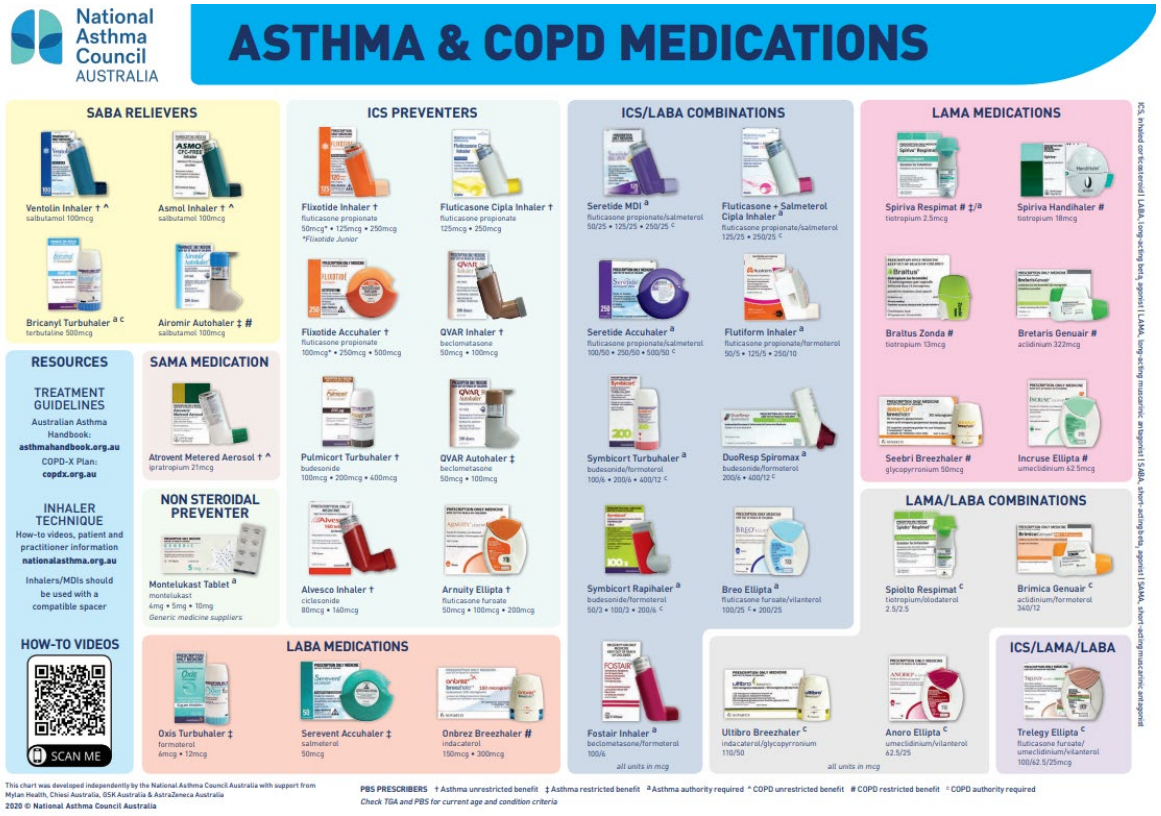
Challenge 2: using medicines is harder

- the types of medicines we use are more complex, more costly and frequently specialist prescribed



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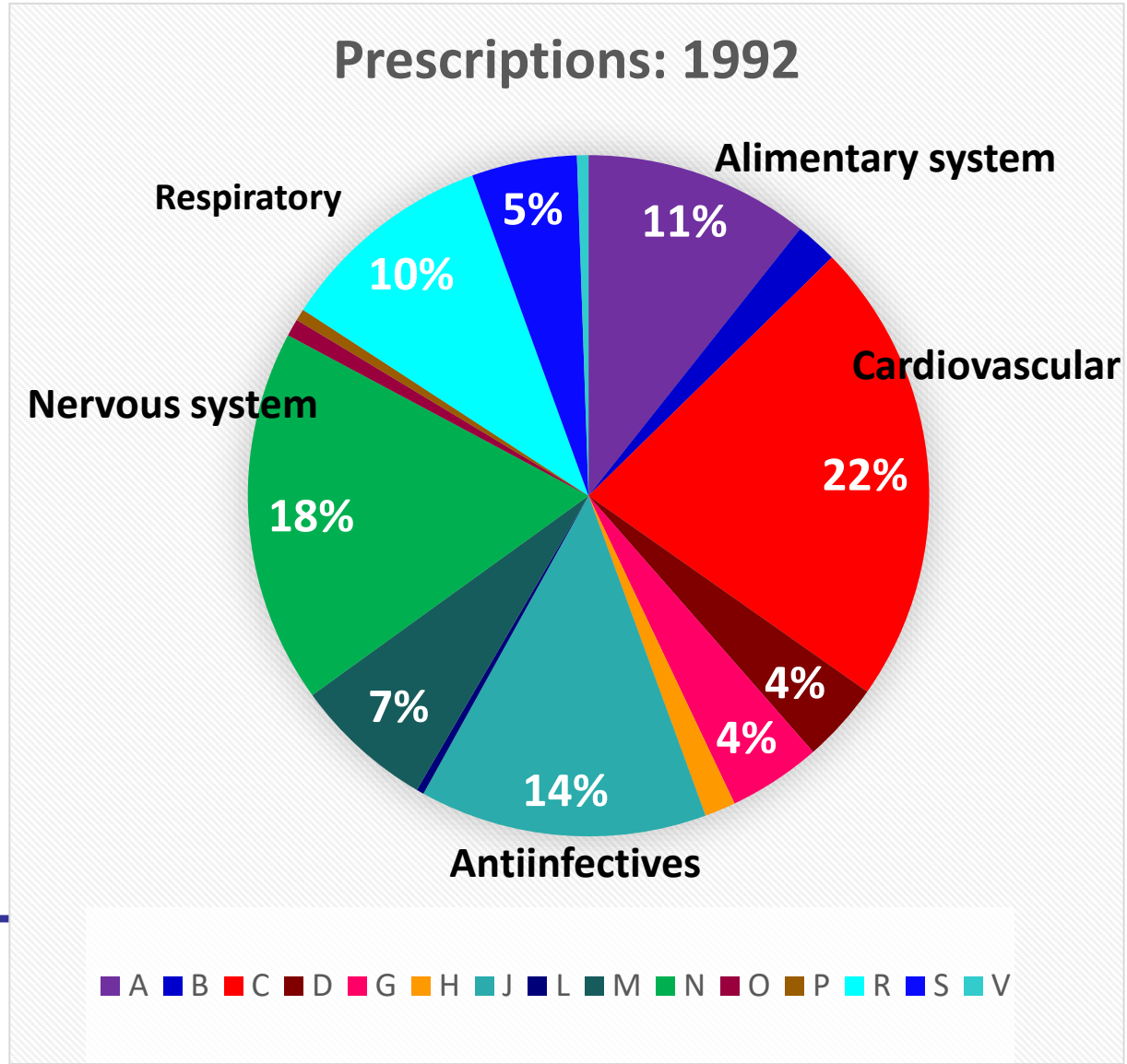
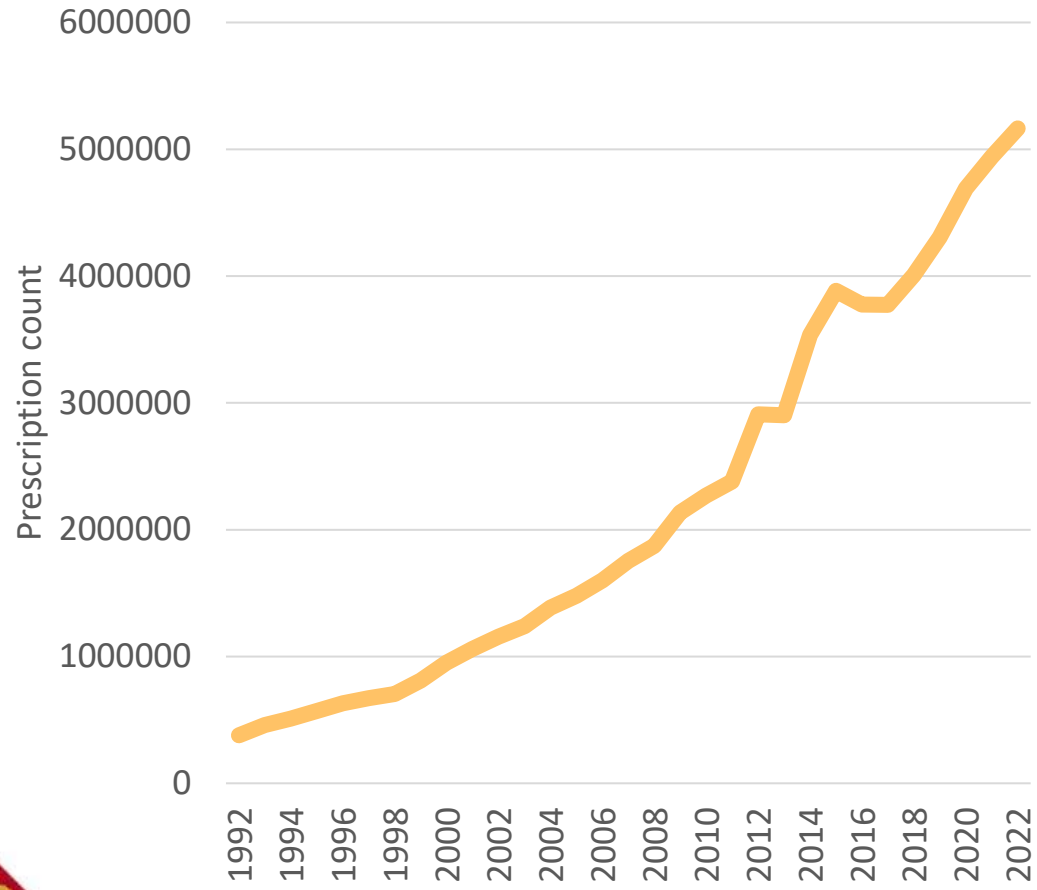
What did medicine use look like when we started

- Cardiovascular, alimentary, respiratory, central nervous system and anti-infectives accounted for the majority of use
  - Not surprisingly, the QUM focus was getting GPs involved in QUM



Source: PBS group reports 2024



- While the same medicine classes still account for the majority of use, antineoplastic & immunomodulatory medicine use has risen 13 fold
- And now accounts for 40% of all PBS costs
- And so we need to consider how we engage specialists in quality use of medicines

Source: PBS group reports 2024

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Challenge number 3: We're caring for more vulnerable people at home

- Major shift since the original strategy is the move to care in the home
  - Hospital in the home
  - Age care support
  - Disability and mental health support
- We don't have a lot of insight into how well supported these groups but we know there are lots of barriers

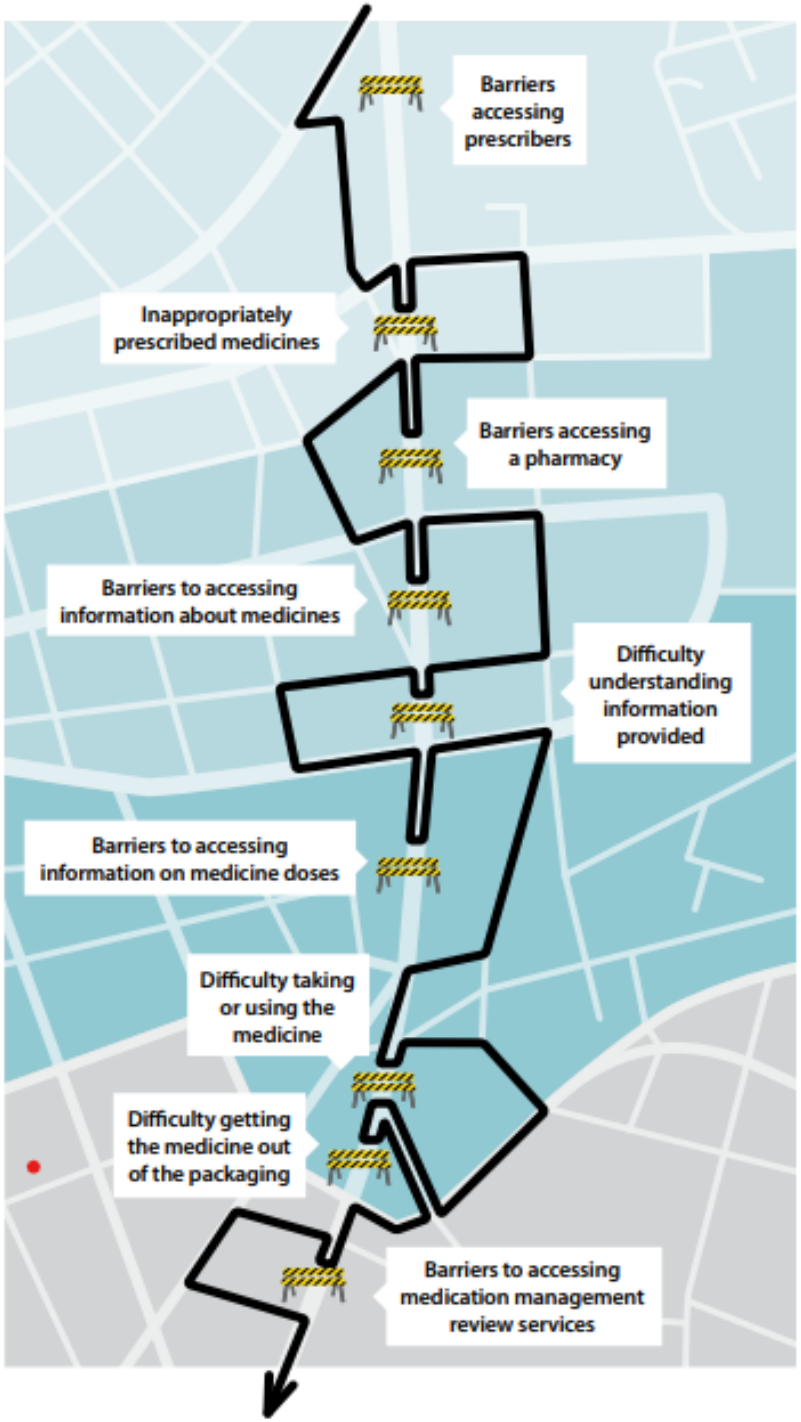
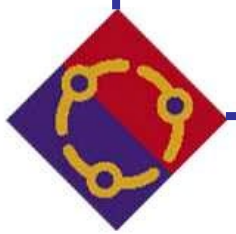


Image: PSA Medicine Safety: Disability report

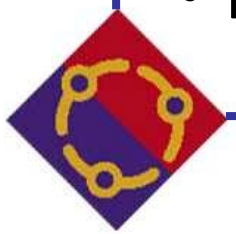
Challenge 4: grabbing the opportunities with changing service delivery

- Expanded prescribing
  - Pharmacist antibiotic prescribing in Urinary Tract Infections
  - Nurse Practitioner
- New models of practice
  - Pharmacists in general practice
  - Pharmacists in aged-care
  - Pharmacist vaccination
  - Virtual models of care
- State QUM programs
  - 24 hour pharmacy funding
  - State funded Medicine Reviews
- New opportunities in digital health
  - Automation
  - Digital biomarkers
  - Precision decision support
- New understandings from systems sciences
  - Rethink the therapeutic continuum from the biological to the social



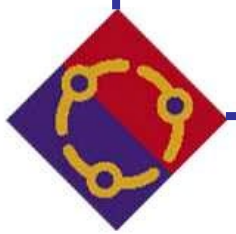
Renewal going forward

- Consumer led – consumer driven actions underpinned the original policy
  - Many consumer led activities, such as medicines information people, medicines talk, are no longer happening
  - Consideration of how to re-engage a consumer driven QUM movement is required, particularly in culturally and ethnically diverse communities.
- Dialogue, collaboration, facilitation and coordination
  - More groups than ever before now responsible for quality use of medicines; mechanisms to address emerging issues outside of the remit of organizations or institutions still required
- Need to engage medical specialists in QUM



Renewal going forward

- Need more effective structures, mechanisms and resources to support management of multi-morbidity
- De-prescribing has emerged as one focus in response to the rise of multi-morbidity and polypharmacy
  - Many tools and resources developed
  - Not yet integrated into routine practice
  - Not integrated into other sources of objective information
    - Eg Product information



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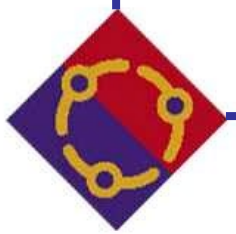
Renewal going forward

- Digital health initiatives have brought new stakeholder groups to the table and there is urgent work to engage and communicate across groups for mutual understanding of quality use of medicines, both definition and ways of working.
- We also need to consider how digital tools, artificial intelligence and social media might be harnessed in a positive manner, and how we monitor and avoid the negative impact that can contribute to over-diagnosis, unnecessary care or avoidance of needed care.



Conclusion

- The original policy vision, driven by consumers, emboldened us to achieve quality use of medicines. Its processes for working together still hold true
  - Consumer centred
    - Co-designed
    - Activities arising from lived experience
  - Theory informed
  - Multidisciplinary, consultative and collaborative
  - Systems based
- We need to consider how to recapture this vision to gain new understandings, develop new models of practice, resources and standards and respond to the challenges of the 21st century