



National Prescribing Service Limited

Evaluation Report No. 4

NPS Programs for QUM in the Community

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1. Executive summary

The National Prescribing Service

The National Prescribing Service (NPS), which commenced operation in mid-1998, is an independent incorporated organisation providing leadership and coordination in the quality use of medicines (QUM). The objectives of the NPS program are to achieve improved health outcomes of the community through QUM; national coordination of QUM activities and messages; and savings to the Pharmaceutical Benefits Scheme (PBS).

The overarching goal of the program is to achieve improved QUM, where this is considered to be judicious management as well as appropriate, safe and efficacious use of medicines. The NPS systematically targets therapeutic areas where there are known problems with prescribing, likely to result in sub-optimal health outcomes and possibly increased costs, and where education and information may have a positive impact.

NPS evaluation reports

NPS evaluation reports are produced six-monthly. At the end of each financial year, a comprehensive overview of the reach and impact of NPS programs is produced. At the end of each calendar year, a report focusing on one or more 'theme(s)' is produced. In this 4th Evaluation Report the theme of NPS consumer services has been selected for particular attention.

Presentation of this report

This 4th Evaluation Report opens with an overview of progress and plans for the NPS' Evaluation Program. This includes detail on measuring: the process, scope and reach of NPS activities; changes in awareness, skills and behaviours towards QUM; changes in prescribing behaviour; changes in health outcomes; and changes to the PBS resulting from NPS programs.

This overview of NPS' Evaluation Program is followed by detail on services available for consumers within the NPS context. This includes general information on: how the NPS created an environment that supports QUM services for consumers; how QUM services for consumers were developed; and what QUM services for consumers are available through the NPS.

This is followed by information on the NPS' first nation-wide consumer antibiotic campaign including detail on the campaign's background and development, implementation, strategies, and evaluation.

The report then provides an overview of the services for consumers NPS divisional facilitators have implemented to date throughout Australia. Finally, NPS priorities for future services for consumers are discussed.

The importance of services for consumers

The NPS provides a multifaceted approach to improving the health of Australians through QUM services. QUM services are available for general practitioners (GPs), specialists, medical students, pharmacists, other health professionals and consumers. The NPS recognises that consumers are active participants in the quality of health care. The NPS works with existing consumer and community networks to provide QUM educational messages that are closely linked with those provided to health professionals.

Identifying the opportunities

The NPS provides patient education materials where: patient understanding and expectations are perceived to be a barrier to best practice prescribing; patient self care is an integral part of disease management; educational material or management tools will facilitate non-drug management; patient self-monitoring is an important part of drug monitoring; a tool is required to guide the patient in using a complex drug regimen; or to explain a new care process, in the case of medication review.

Patient materials, media and special campaigns

Patient information materials provided have included: symptomatic management of upper respiratory tract infections (URTIs); withdrawal from sedatives and sleeping tablets; patient self-management of heart failure; and a tool to help GPs review patient medication. In addition, media releases, radio and television interviews, newspaper articles and advertisements are prepared routinely. Similarly, one off special campaigns have been held. For example, in April to June 2000 a small-scale community campaign to raise awareness that antibiotics do not hasten recovery from coughs and colds and overuse may lead to resistance was run.

A new chapter: NPS' first nation-wide consumer campaign

NPS' first national consumer campaign, 'Common Colds Need Common Sense', was held during winter 2001 (June – August).

The central goals of the campaign were to: inform consumers how to manage coughs, colds and influenza without antibiotics; and support NPS' Program for Health Professionals aimed at reducing the inappropriate prescribing of antibiotics for URTIs.

Key messages of the campaign were: common colds need common sense, drink plenty of fluids, take it easy, treat the symptoms; you won't get better more quickly by taking antibiotics; the common cold is a virus and antibiotics don't help; and talk to/ask for advice from your GP or pharmacist. A fax/telephone survey of organisations who requested campaign materials was undertaken. The quality and usefulness of materials was rated highly. Reported usage of materials was also high.

To create local community awareness about the campaign and its objectives, \$600 grants were offered to assist organisations deliver community education programs, including: guest presentations at clubs; media activity; and information booths and displays at shopping centres and public events. Many existing consumer and community networks with an interest and experience in discussing medicine issues with their local communities participated in this community education program (for example, Council on the Ageing peer educators and the Medicines Information Persons).

A mailed survey of 62 grant recipients and 2,314 individuals who attended the community education activities was undertaken. A total of 99% participants surveyed indicated that they enjoyed the activity and 95% grant recipients indicated they would participate again.

Implementation of services for consumers at a local level

To date, over 85 activities targeting more than 3,000 consumers nationally have been undertaken by NPS facilitators in 19 different divisions of general practice.

Priorities for future consumer services

The array of services provided by the NPS to health professionals continue to expand and our reach continues to grow. To date, 96 divisions of general practice have a contract with the NPS, equating to just under 80% of divisions throughout Australia. The immediate priorities for NPS consumer services include the 2002 Consumer Antibiotics Campaign and a national medicines information service for consumers.

2. A brief update on the NPS evaluation

The principal responsibilities of the NPS evaluation are to measure: the process, scope and reach of NPS activities; changes in awareness, skills and behaviours towards QUM; changes in prescribing behaviour; changes in health outcomes; and changes to the Pharmaceutical Benefits Scheme (PBS) resulting from NPS programs.

Progress to date in these areas as well as directions and priorities for 2002 are detailed in Table 2.1.

Also, for those interested, a complete list of previous NPS publications and reports, together with brief detail on their content, is provided in Appendix 1. In some case, copies of these publications can be found on the NPS web site: www.nps.org.au or by contacting the NPS office:

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Table 2.1: Progress and directions for NPS evaluation

Process, scope and reach	
<p style="text-align: center;">Progress to date:</p> <ul style="list-style-type: none"> ▪ A stakeholder telephone survey (November 1999-March 2000) (n=87) was undertaken in order to determine the reach and perceived acceptability of NPS activities, and to obtain input for future directions. ▪ Telephone surveys of general practitioners (GPs) (January 2000). ▪ The development of a comprehensive evaluation plan, outlining a framework for process, impact and outcome assessment. The document was reviewed by national and local experts in QUM and evaluation (June 2000), and comments incorporated. ▪ Division operations analyses (October 2000), involving interviews with facilitators and other key staff members or affiliates, were undertaken in six divisions to explore how the NPS was working 'on the ground'. The aim of this process was to identify the different models being used to deliver the 'NPS program', their strengths and weaknesses, and factors that facilitate or act as barriers to implementation. ▪ The conduct of focus groups with key stakeholders (nationally) as the first step in developing and field testing quality prescribing indicators for general practice. The stakeholder groups involved included: GPs, community pharmacists, consumers and representatives of key national organisations. ▪ Ongoing collection and analysis of activity reports from NPS facilitators in order to monitor the extent and nature of local divisional-level activity. ▪ Production of NPS Evaluation Reports No. 1 (June 2000), No. 2 (November 2000), and No. 3 (July 2001). 	<p style="text-align: center;">Priorities and Directions for 2002:</p> <ul style="list-style-type: none"> ▪ A critical review of the existing evaluation plan. ▪ A set of core performance indicators to monitor the implementation and effect of NPS initiatives will be developed. Process indicators monitoring the: existence; distribution or uptake; and relevance, impact, acceptability and satisfaction of NPS programs will be identified. In addition, impact indicators that monitor changes in knowledge, skills and behaviour associated with medication use, along with outcome indicators measuring change in health status will be identified. ▪ A detailed examination of the system and environmental variables that may influence prescribing will be completed. ▪ Development of new evaluation questions and methodologies will be developed in response to the expansion of NPS activity to include a greater focus on the broader spectrum of key stakeholders in the prescribing process, in particular, pharmacists and specialists. ▪ To ensure the work of the NPS Evaluation Working Group contributes to QUM and enhances the profile of the NPS, a concerted effort will be made to have papers published in peer-reviewed journals and other appropriate publications. Methods and outcomes of the evaluation will also be presented at scientific conferences.

Changes in awareness, skills and behaviours

Progress to date:

- On behalf of the NPS, Campbell Research and Consulting have undertaken three nation-wide telephone surveys of consumers [August 1999 (n=1,614), August 2000 (n=1,603) and August 2001 (n=1,800)]. These surveys aimed to identify: the sources of information used by consumers about prescription medicine; and attitudes and use of antibiotics for coughs, cold, and flu-like symptoms.
- Collection of data from two nation-wide paper-based GP surveys conducted in collaboration with the Department of General Practice, University of Adelaide (March 2000, n=1,310 and December 2000, n=941).

These surveys have examined: GP knowledge and attitudes around NPS activities and evidence-based prescribing; GP reported prescribing practices; GP contact with pharmacists and other health professionals; options for keeping up-to-date with changes in medical practice; and attitudes and barriers towards the clinical use of computers.

Priorities and Directions for 2002:

- The third national GP survey, being implemented for the NPS by the Department of General Practice at the University of Adelaide, is planned for February 2002.
- Alternative methods for examining consumer views will be investigated. These methods will focus more directly on measuring the impact of the 'Common Colds Need Common Sense' consumer campaign
- As the various interactive web-based modules are implemented within Australian medical schools an evaluation of the education / prescribing curriculum arm of NPS activity will be undertaken.

Changes in prescribing behaviour	
<p style="text-align: center;">Progress to date:</p> <ul style="list-style-type: none"> ▪ Ongoing collaboration with the HIC in order to obtain data for analysis of prescribing trends and evaluation of NPS impact within target therapeutic areas/medicines. ▪ Ongoing collaboration with the Department of General Practice, University of Adelaide to explore the potential of computerised prescribing databases as a means of assessing NPS impact on prescribing. 	<p style="text-align: center;">Priorities and Directions for 2002:</p> <ul style="list-style-type: none"> ▪ We will obtain substantial data on MBS services and PBS prescribing from the HIC. MBS data will provide information on the number of consultations and patients (by age, sex and month) for the period 1 July 1999 to 30 June 2001 by scrambled provider number. These MBS data will serve as the denominator for calculation of prescribing rates. <p>PBS data will present the total number of (subsidised) scripts prescribed (both original and repeats) with a breakdown by general beneficiary (no safety net, safety net) and concessional beneficiary (no safety net, safety net) entitlement levels. Gross price and net benefit of scripts by item code will be included as will the number of individuals and households with safety net cards. These data will be used to evaluate changes in prescribing and for economic modelling of NPS programs.</p> <ul style="list-style-type: none"> ▪ In conjunction with the Department of General Practice, University of Adelaide, the potential of computerised prescribing datasets as a source of information for NPS evaluation will be explored.
Changes in health outcomes	
	<p style="text-align: center;">Priorities and Directions for 2002:</p> <ul style="list-style-type: none"> ▪ The NPS is providing assistance with the financial support of a PhD student at the Department of General Practice, Adelaide University for an examination of population health outcomes arising from educational interventions implemented in general practice.

Changes to the PBS

Progress to date:

- Commissioned the Australian Institute for Primary Care, La Trobe University to conduct an external evaluation of the NPS with the aim of assessing the impact and effectiveness of NPS activities in achieving savings to the PBS through the reduction of inappropriate prescribing (October 2000). This report endorsed the savings estimates provided by the NPS as conservative estimates of the actual savings generated.
- Commissioned Access Economics to undertake an external review of the methodologies used for: i) estimating PBS savings; and ii) projecting future savings (October 2000). This report concluded that the NPS estimates are appropriate.
- Contracted with KPMG Consulting to explore opportunities for the economic evaluation of the NPS (January 2001). This report focussed on a rigorous demonstration of PBS cost-savings, as well as the cost-benefits of NPS allocation of resources and intervention effort (for example, the costs and benefits associated with a significant focus on local divisional-level activity).

Priorities and Directions for 2002:

- Methods for examining the economic consequences of NPS activities, both at a national and local level will be extended.

3. Services for consumers: The NPS story

Creating an environment to support QUM services for consumers

Definition

The term 'consumers' is used by the NPS, as well as throughout this report, to encompass all buyers and users of medicines in the general community and those who care for individuals who may require medicines.

Early consultation

Prior to the establishment of the NPS, an extensive Australia-wide consultation process was undertaken with GPs, community and hospital pharmacists, other health and medical professionals, consumers, representatives from community organisations and Aboriginal Health Services, and members of divisions of general practice throughout Australia.

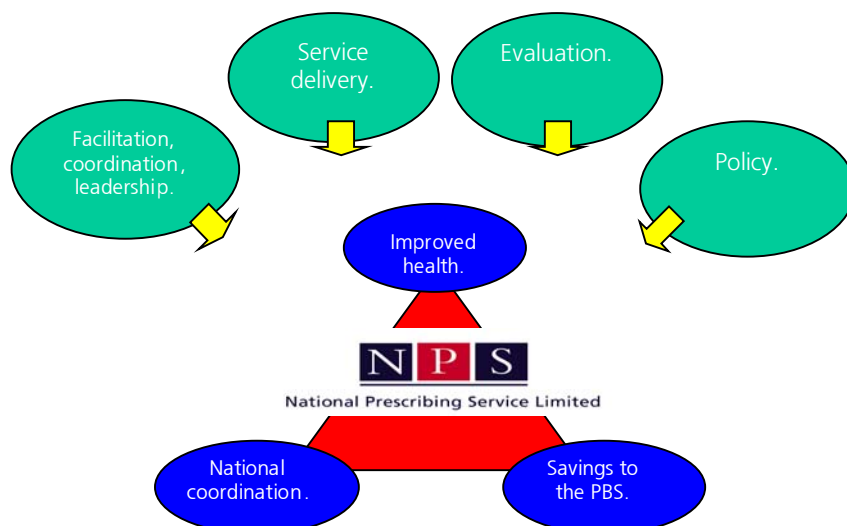
Managed by the Commonwealth Department of Health and Family Services, this comprehensive consultation process was designed to obtain comments from stakeholders that would help shape the design and operation of the NPS. The importance of consumers was highlighted in this consultation process.

Strategic objectives

The goals of the NPS are to achieve: improved health outcomes in the community through QUM; national coordination of QUM activities and messages; and savings to the PBS.

It is envisaged that these goals will be met via the organisations' strategic objectives. Highlighted in the Strategic Plan 2001, these objectives are: facilitation, coordination and leadership; service delivery; evaluation; and policy (Figure 3.1).

Figure 3.1: Strategic objectives of the NPS



A comprehensive approach to QUM

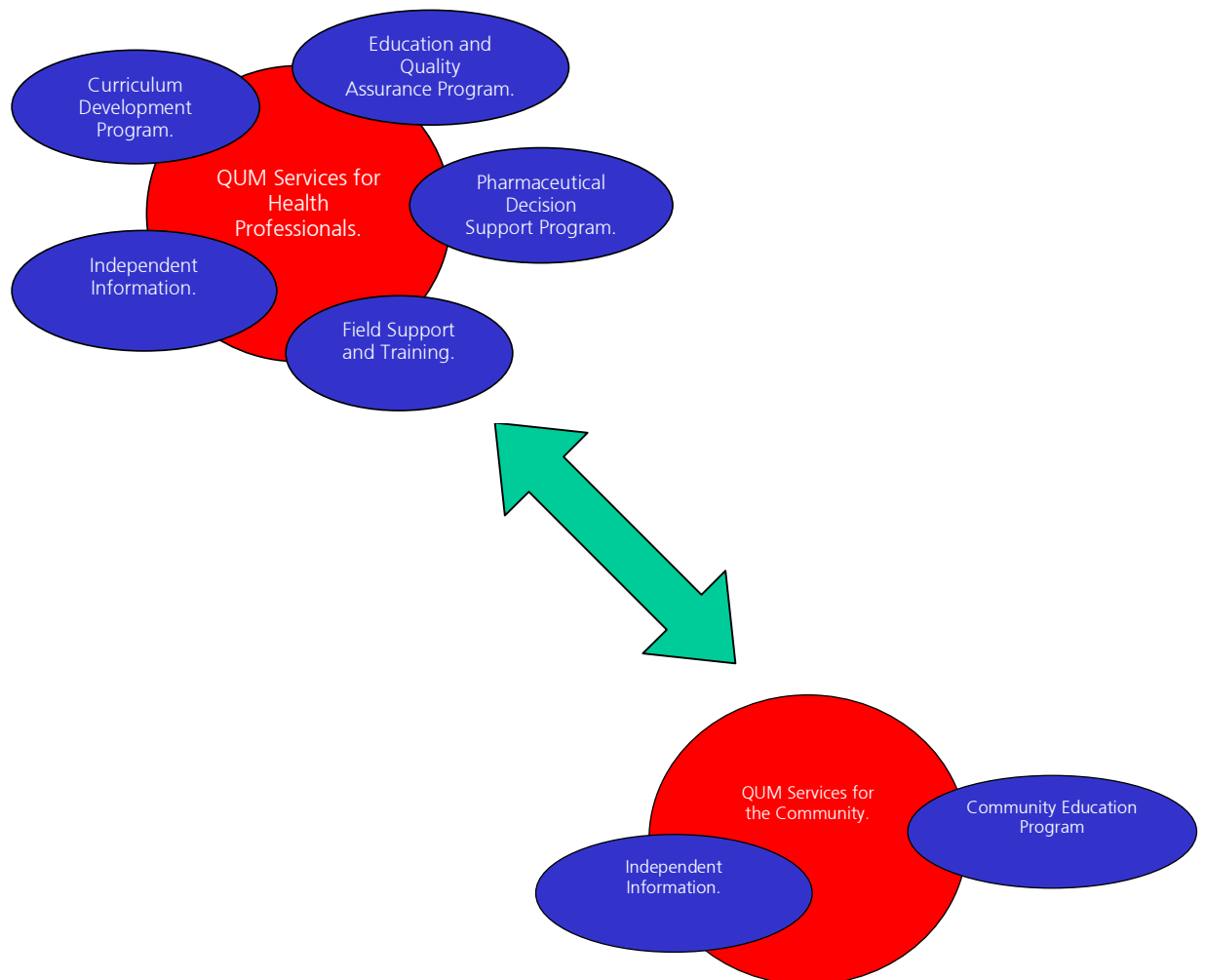
The NPS provides a coordinated and evidence-based approach to appropriate medicine use involving health professionals, Government and industry. Importantly, consumers recognised to be active participants in delivering quality of health care are also provided directed educational messages.

These messages form part of a comprehensive consumer education program in which service delivery is guided by consumer consultation and feedback. The consumer focus of the NPS aims to actively identify, develop and implement strategies that empower consumers with the awareness, knowledge and skills to make informed choices about their health.

Linking services

The NPS was launched as and remains a service organisation. Services are available to GPs, specialists, medical students, pharmacists, other health professionals and consumers. Importantly, the services for all target groups, the programs and key messages are all closely linked (Figure 3.2).

Figure 3.2: Linking NPS Services



Developing QUM services for consumers

The evidence

Identifying the need for NPS consumer services was a comprehensive, evidence-based process relying on data from surveys with consumers and GPs as well as national prescribing and drug utilisation information from the Health Insurance Commission (HIC).

In addition, information was sought from other consumer health programs and key consumer organisations to help guide and inform how best to design consumer intervention strategies. This process of developing NPS services for consumers was also overseen by an expert advisory group

A growing awareness of consumer needs

As a reflection of the NPS' commitment to consumers a Community Communications Working Group was formed in 2000 to assist with implementing effective and targeted messages to consumers.

In addition to NPS staff, members of this Working Group include:

- Denise Fry (Chair), PHARM Committee representative
- Jenny Bowman, School of Behavioural Sciences, University of Newcastle
- Deirdre Degeling, National Heart Foundation of Australia
- Jan Donovan, NPS Director (Consumer representative)
- Andrea Mant, Chair NPS Education and Quality Assurance Program for Health Professionals, GP and Associate Professor Department of Community Medicine University of NSW
- John Wiggers, University of Newcastle
- Marilyn Wise, Director Australian Centre for Health Promotion (to join group in March 2002).

The terms of reference for the Community Communications Working Group are:

- to actively identify and plan opportunities for raising awareness about QUM and communicating specific messages to the general public
- to identify and develop messages and strategies that will promote QUM in the community
- to oversee the implementation of these strategies and liaise with the Evaluation Working Group on evaluation of the program
- to liaise with the NPS Board, working groups and other relevant health organisations to ensure the integration of this program with others.

Appropriately targeting consumers

The NPS operates under the premise that patient education materials are provided where patient understanding and expectations are perceived to be a barrier to best practice prescribing (e.g. expectations for antibiotics in upper respiratory tract infections (URTIs)); patient self care is an integral part of the disease management (e.g. weight monitoring in heart failure); where educational material or management tools will facilitate non-drug management (e.g. symptomatic management pads for URTI, prescription pads for dietary management of dyslipidaemia); where patient self-monitoring is an important part of drug monitoring; where a tool is required to guide the patient in using a complex drug regimen (e.g. dose reduction schedule for benzodiazepines); or to explain a new care process to alleviate patient concerns, in the case of medication review.

Availability of diverse services for consumers

Consumer services available through the NPS

The consumer-related aims of the NPS are being met through various methods. Firstly, patient information materials were developed on a range of topics to assist GPs, pharmacists and consumers discuss and decide the appropriate therapeutic course.

These patient education materials are also available to consumers via Medical Director, a computer-based decision-support program designed to assist GPs in their prescribing decisions.

Patient education materials developed include: a symptomatic management pad for URTIs; withdrawal from sedatives and sleeping tablets; patient self-management of heart failure; and a tool to help GPs review patient medication.



URTI Symptomatic Management Pad

In addition to printed patient education materials, the NPS provides information on specific targeted topics to the community through the media and special campaigns. A small-scale community campaign, for example, was run in June 2000 to raise community awareness that antibiotics do not hasten recovery from coughs and colds and that overuse may lead to resistant organisms.

To support the messages promoted through this media campaign a 'symptomatic management pad' or 'non prescription pad' as it has become known, was provided to GPs. The pad contains tear-off information sheets doctors can hand to patients explaining the best treatment for URTIs without using antibiotics. A complementary poster was also issued for GPs' waiting rooms. More than 2,500 pads and posters were distributed to GPs between April and June 2000.

At the same time a community awareness campaign was conducted to promote the message that antibiotics are not usually necessary for coughs, colds and sore throats. Around 30 radio and television interviews and over 30 newspaper articles were generated by the media release 'Antibiotics not the answer to winter blues'.

From early achievements to a full-scale consumer campaign

Following the success of early small-scale media-based campaigns together with the increasing momentum with which the GP and pharmacist programs were developing, 2001 saw the implementation of NPS' first nation-wide consumer campaign.

This campaign, 'Common Colds Need Common Sense', was designed to dovetail with the education program being undertaken with health professionals. The campaign, targeted to people in the workforce and carers of young children, was built around the theme 'Antibiotics won't help you get better more quickly from the common cold or flu'. The major aim of the campaign was to inform consumers about how to manage coughs, colds and flu without using antibiotics.

Conducted over a three-month period (June – August 2001), the campaign involved posters on bus and tram shelters and on railway station billboards in most capital cities. In addition, advertisements were placed in a range of magazines and posters, brochures and stickers were distributed for display in GPs' waiting rooms, pharmacies and child care centers around the country. National radio, print and television coverage was also obtained. To support the messages promoted through this campaign, the 'symptomatic management pad' was translated for use in Arabic, Chinese, Greek, Italian and Vietnamese. More details on the development, implementation, and evaluation of this campaign are provided in Section 4 of this report.

NPS consumer meeting

The first consumer meeting hosted by the NPS in August 2001 brought together representatives from key consumer organisations as well as representative(s) from the NPS Board, staff and division facilitators. Participants were briefed on the activities of NPS and invited to provide constructive feedback on how the NPS could better engage with consumers and consumer organisations at both local and national levels.

In addition to helping build a critical alliance between the NPS and consumers, this meeting identified the areas of need in relation to consumers and QUM. More information on this meeting together with detail on the outcomes and recommendations can be found in the Summary of Proceedings from this event.

The National Medicines Symposium

The National Medicines Symposium, jointly hosted by the NPS and the Pharmaceutical Health and Rational Use of Medicines Committee (PHARM), is held biannually as a forum for debate and discussion of QUM issues. Consumers and consumer organisations are encouraged to take an active part in these proceedings.

4. A new chapter: NPS' first nation-wide consumer campaign

Campaign background and development

Identifying a need for the campaign

The need for a consumer campaign about antibiotics for coughs, colds and flu became apparent following:

- evidence that antibiotics are currently being over prescribed in Australia
- the finding that unnecessary use of antibiotics remains a major concern to medical practitioners and the public; currently one in five consumers believe that taking antibiotics for a cough, cold or flu will help them get better faster (NPS consumer survey, 2000)
- anecdotal feedback from GPs highlighting the need for consumer information on appropriate use of antibiotics to support GPs in their role as prescribers.

Directing the campaign and its messages

Background research was undertaken to help inform and direct the NPS antibiotic consumer campaign for 2001 and to identify the key messages and target groups.

This research included: focus groups with consumers; a detailed search of relevant literature; collation and review of papers and other promotional items from organisations who have undertaken similar campaigns such as PHARM; review of drug utilisation data; and market research into the primary target groups (e.g., age, sex, what they read, leisure activities, and socioeconomic data).

Lessons from the focus groups

Comment on the management of winter coughs, colds and flu were drawn from five focus groups:

- men employed in the workforce, aged over 35 year
- men employed in the workforce, aged 35 years or under
- women employed in the workforce, aged over 35 years
- women employed in the workforce, aged 35 years or under
- parents of children up to 15 years of age.

The choice to undertake focus groups with these groups followed market research that suggested the following:

- Inappropriate antibiotic use was not a major QUM issue for older people of retirement age. Polypharmacy rather than overuse of antibiotics was considered a more relevant focus for subsequent campaign development in this group.
- NPS consumer surveys undertaken in 1999 and 2000 identified young men as having less desirable attitudes and beliefs regarding the use of antibiotics. For example, they were more likely than other demographic groups to see advantages rather than disadvantages to the use of antibiotics. They are also a group that is typically difficult to reach by means of health promotion interventions through health care settings such as general practice, as they are not frequent attendees and are less likely than other demographic groups to have a 'regular GP'.

- Men and women of all ages employed in the workforce were thought likely to be subject to particular pressures to medicate the symptoms of cold and flu, possibly inappropriately, with antibiotics. The 'hypothesised' pressures included: the requirement to attend a medical practitioner to obtain a medical certificate for time off work; the need to relieve symptoms sufficiently so that it was possible to continue going to work; and the need to 'legitimise' the illness and/or demonstrate that the illness was being treated by using medicines (perhaps particularly antibiotics).
- Parents of young children are known to be a group among whom there is typically a high level of concern about their children's health, including symptoms of cold and flu, and uncertainty about appropriate treatment. High levels of inappropriate antibiotic use are often reported for instance for otitis media, and studies of general practitioners have indicated that perceived parent pressure is a significant factor in their prescribing of antibiotics.

It was hypothesised that there may be particular pressures for parents to medicate the symptoms of cold and flu in their children, possibly inappropriately with antibiotics. These included: concern about children having ongoing/persistent symptoms, and the need for children to be 'well' and for their symptoms to be relieved so that issues with child care attendance and perhaps parental work responsibilities could be alleviated. It was suggested that child care centres (policies and staff) could be a particular focus of intervention.

Questions asked during the focus groups were used to direct discussion concerning the use of medicines for winter coughs and colds and were designed to elicit:

- broad comment about the types of medications used, reasons for use and beliefs regarding efficacy
- comment regarding when a medical practitioner would be consulted, and expectations concerning the prescription of medicine
- the role of pharmacies and pharmacists as sources of advice and OTC medicines
- specific comment about the use of antibiotics, circumstances and reasons for use and beliefs regarding efficacy
- perceptions of concepts such as 'resistance' and 'immunity' as they relate to antibiotic use
- perceptions of 'flu' compared to coughs and colds, and in particular whether it was perceived differently with regards to causes, symptoms and appropriate treatment.

An outline of the outcomes from these focus group discussions is presented in Table 4.1. In brief, these focus groups identified that: the general public believe antibiotics can be effective in hastening recovery; antibiotic use added 'legitimacy' to being ill and to attempts to 'get better'; and not all consumers are aware that a flu is a viral illness.

**Table 4.1 Informing campaign development:
lessons from focus group discussions**

**Types of medications used for winter coughs and colds,
reasons for use and beliefs regarding efficacy**

- Antibiotics were never mentioned spontaneously.
- Symptom-relieving OTC products were those most often used, including: cold and flu tablets, Sudafed, Panadol, Nurofen, cough mixtures (Benadryl), Demazin (for children).
- 'Natural', 'mother's remedies' were also frequently mentioned, including: vitamin C, garlic, lemon, chicken soup, gargling with salt water.
- Echinacea was always mentioned as used by at least 2 or 3 members per group; with very limited mention of any other specific herbal/complementary type medicines.
- The medicines were used either because they helped in relieving symptoms, 'making you feel better' and 'allowing you to get work done' (particularly the OTC/pharmacy purchased preparations) or as a 'preventative' or 'early intervention' measure (particularly vitamin C, garlic and for some, Echinacea).
- No major issues were raised with regards to problems with the medicines most commonly used. Some discussion occurred among the group of 'older men' regarding concerns about not knowing the 'ingredients' of OTC products. 'Cost', while mentioned in the 'older men' and 'older women' groups, did not seem to be a major consideration in deciding what to use – although some 'group' pressure may have inhibited greater acknowledgement of cost as an issue.

**When a medical practitioner would be consulted,
and expectations concerning the prescription of medicine**

- The factors mentioned as prompting participants to seek medical attention included the following: when the condition lasted longer than usual, if it seemed more severe or serious (such as 'going to the chest' or, in children, 'to the ears'), and having nasal discharge or phlegm of a green colour. Parents were more likely to take their children to a doctor than themselves.
- There was rarely an expectation of any medicine being prescribed, or of an antibiotic specifically. Rather, it was stated that what was desired by attending a doctor was to be accurately diagnosed (and treated) and to be reassured.
- There were, however, particular occasions when participants would go to a doctor believing that a particular medicine/antibiotic was needed.

**The role of pharmacies and pharmacists
as sources of advice and OTC medicines**

- Pharmacies and pharmacists were very much the 'first port of call' for advice regarding treatment and for obtaining symptom-relieving products. They were generally perceived to be very useful, helpful and trusted sources of advice, although there was some dissenting comment among the group of 'younger men'. Participants would most often be guided by the recommendations of the pharmacist or pharmacy staff with regards to the best OTC products to use and hence in their purchases. Interestingly, most participants did not distinguish between the advice provided by the actual pharmacist, as distinct to that provided by other pharmacy staff: they were as happy to be guided by either.

- Several participants in each group usually commented positively on the availability of useful medicines information from pharmacies, whether verbal, or in the form of printed leaflets or computer-based information. One participant mentioned that a positive feature of the pharmacy they attended was the existence of a designated area, with seating, for 'consultation' with the pharmacist. There were some comments contrasting pharmacy/pharmacist medicines information to the poor level of information provided by doctors.
- Many participants seemed to have one or two pharmacies they regularly attended and preferred.

The circumstances of and reasons for antibiotic use, and beliefs regarding efficacy

- The general sentiment expressed by participants was that they would use antibiotics only 'as a last resort' in treatment – except for the occasional exception where their own history (or their child's) with the particular condition/symptoms had led them to hold a belief that an antibiotic would be necessary. Almost invariably the participants would wait for a doctor to suggest an antibiotic rather than raising the possibility or requesting the prescription of an antibiotic themselves.
- When antibiotics were used, they were generally perceived to be effective in hastening recovery and clearing infection.
- There was little spontaneous response to the question concerning the existence of pressures *to use* antibiotics. There was usually however some spontaneous mention within each group of pressure/requirement to attend a doctor for a medical certificate in order to have time off work. There was general agreement, on prompting, that using an antibiotic added 'legitimacy' to being ill and to attempts to 'get better'. This related to both work and child care situations.
- In response to questions about the existence of any pressures *not to use* antibiotics and any 'problems' with their use, the issue of 'resistance' was raised spontaneously by at least one participant in each group. Similarly, effects on 'the immune system' were mentioned as problems.

Problems with regard to side effects were generally spontaneously raised. It was generally felt, with the exception of one participant in the group of 'younger women', that as much information as possible about side-effects would be desirable and that sufficient information was currently not readily available.

The one participant expressing a different view related an incident where a pharmacist had 'frightened' her with warnings of possible side effects to the extent that she had re-visited the doctor to have her fears allayed.

Difficulty 'adhering' to treatment with regard to taking the full course of an antibiotic was also mentioned, with most seeming to be aware that it was important to take a full course but also 'admitting' to often not doing so.

- It was generally acknowledged that doctors seemed to be prescribing antibiotics less now than previously, for instance, those with children commenting that their children seemed to use far fewer antibiotics than they had done themselves as a child. Rather than prescribe an antibiotic initially, doctors tended to say... 'Come back if you're not feeling better in x days...'

- There was considerable discussion around the differences between types of doctors and individual doctors regarding their propensity to prescribe medicines and in particular antibiotics. Generally, the quality of care received from 'large clinic' practices, where you may see any doctor as a matter of expediency/convenience, was perceived to be poorer and corresponded to a greater likelihood of brief consultations, inadequate examinations and history taking and the prescription of medicine including antibiotics. Generally, more appropriate treatment, including antibiotic prescription, was perceived to occur when consulting a 'regular GP' who was familiar with relevant medical history.

**Perceptions of 'flu' as compared to coughs and colds
- causes, symptoms and appropriate treatment**

- Among all participants, it seemed clear that the 'flu' was conceived of as being a very different illness to the other conditions that had been discussed (e.g., coughs and colds). Most participants (though not all) were aware that it was a viral illness. All described symptoms as different and more severe than those accompanying coughs and colds. With only one or two exceptions, there seemed to be agreement that neither consulting a doctor nor taking antibiotics would assist in resolving the condition any more quickly. Generally 'bed rest' was perceived to be the best treatment.

**Perceptions of concepts such as 'resistance' and 'immunity'
as they relate to antibiotic use**

- These issues generally arose spontaneously in response to questions about problems with the use of antibiotics and/or pressures *not to use* them. An understanding of 'resistance' usually seemed to take the form of 'personal' resistance, that is, particular antibiotics no longer being effective for the individual participant as a result of their own 'over-use' rather than the more 'global' concept of resistance to antibiotics. Participants in the younger groups tended to reflect a greater awareness of the issues of 'global resistance'.

The availability and adequacy of medicines information

- A persistent theme which arose throughout the groups, and which the facilitator pursued where time allowed, was that of the availability and adequacy of medicines information.
- The general feeling was that pharmacists/pharmacies were the most frequently accessed and useful source of medicines information, where information was often provided verbally and/or in the form of pamphlets, other written literature or computers. Doctors were not typically seen as good sources of medicines information per se, although a participant's own regular GP was certainly valued as providing quality care in the form of accurate diagnosis and appropriate treatment generally.
- CMI leaflets provided within medicine packaging were seen in quite variable lights. While almost all were aware of the information, it seemed that approximately equal numbers of participants found the information useful and usually read it, as reported ignoring it or simply disposing of it without reading it.
- Some participants mentioned magazines such as the Women's Weekly as sources of medicines information, and TV advertising of OTC cough/cold products as helpful with regards to what was available. On the whole, participants desired more information.

End of Table 4.1

Lessons from the literature review

In addition to focus group discussions, campaign development, including key messages and strategies, was informed following a broad based literature search. The key words used in these searches were medicines, antibiotics, use, beliefs and attitudes.

In addition to searching journal articles, detail from a literature review undertaken by the Consumer's Health Forum of Australia was also examined. The Consumer's Health Forum review drew on data from Australian publications since 1980 in refereed journals as well as publications by Australian consumer organisations since 1990. The purpose of this review was to provide information about consumer use and experience of prescription medicines.

Major conclusions/recommendations from the NPS' literature search together with the review conducted by the Consumer's Health Forum of Australia are summarised in Table 4.2.

Table 4.2 Informing campaign development: lessons from the literature review

- Consumers generally acknowledge their relative lack of knowledge about medical conditions and indicate their willingness to learn more about their health.¹
- Prescribing patterns for URTIs vary widely from doctor to doctor. No patient or doctor characteristic adequately explains this variation other than individual physician diagnostic style.²
- Improved education of medical students and residents and the establishment of more uniform standards for paediatric antimicrobial prescribing may help reduce the variation in physician practice and unnecessary antibiotic prescribing style.²
- Doctors play a key role in the dissemination of information.³
- Patients' knowledge of antibiotics is generally very restricted and there is a need to improve patient education.³
- Patients lack understanding of the normal presentation of URTIs and the effectiveness of antibiotics as a treatment.³
- As the prevalence of antibiotic-resistant bacteria increases and health care systems deal with finite resources, patient education on this problem becomes particularly important.⁴
- Consumers often go to their doctor because they are unsure whether their symptoms reflect an uncomplicated cold. They want reassurance that symptoms are not a sign of something more serious.⁵
- Efforts at parent education concerning common respiratory tract infections and antibiotic use should improve parent knowledge. Improved parental knowledge might result in more appropriate parental expectations for antibiotics, greater choice of management and reduced parental pressure on the doctor to prescribe antibiotics unnecessarily.⁶
- Individuals in the community frequently do not understand that antibiotics are effective against bacteria but not viruses. Communications about antibiotic appropriateness between health professionals, patients, and the public require greater attention.⁷

- Child care staff can contribute to inappropriate doctor referral, exclusion, and requests for antibiotic therapy for children with URTIs. Many children are referred by child care centre staff to doctors contrary to established guidelines. These practices are based on incomplete knowledge. Education to correct specific knowledge deficits should be initiated.⁸
- The lack of formal written information on complementary medicine products means that the health providers who dispense the products play a critical role in discussing appropriate use of the product with their clients' care.⁹
- The important considerations facing consumers accessing complementary therapies and OTC medicines include: knowing whether products work; any associated risks; how much the therapy or medicine costs; who provides the complementary therapies, and what qualifications or registration is required for practitioners; and whether complementary therapies are readily available.⁹
- The Commonwealth Government should facilitate the provision of independent and balanced information to consumers about complementary therapies currently on the market in Australia, so that consumers are in a position to make a critical assessment of the options open to them when managing their own health care.⁹
- There are substantial differences between types of consumers and their experiences with medicines.¹⁰
- A significant proportion of medicines use may arise from attributions of needs or expectations for medicines on the part of prescribers, or failure to coordinate effectively between different types of providers such as GPs and hospitals.¹⁰
- Medicines use is strongly associated with age and gender. Older people and women are much more likely to have medicines prescribed and prescribers attribute an expectation for medicine to these consumers.¹⁰
- Many consumers believe that medication is frequently prescribed without sufficient consideration of alternative strategies and in the absence of explanation about risks.¹⁰
- Prescribing for children and young people is a problem area.¹⁰
- Attitudes and expectations play an important role in the decision to prescribe medication: prescribers may assume a consumer expects to receive a prescription, while consumers report that this is not always the case. In the absence of good communication between doctor and patient prescribing may be a costly and ineffective exercise.¹⁰
- Strategies are required to educate and empower consumers to obtain the information they need about their health and their medicines. Specific strategies included: a reminder list of questions to ask when visiting the doctor; education programs; information sheets to explain what medicines were prescribed and why; and keeping a medication record.¹⁰
- The key issues facing consumers when accessing and using medicines include: communication with health professionals about medicines; clarity of instructions for taking medicines; information about generic substitution; information on and experience of side effects; other treatment options; community education; consumer expectations on prescribing behaviour of GPs; and the impact of costs.¹⁰
- The decision to prescribe an antibiotic may not reflect the guidelines for their use. Despite the presence of professional guidelines for antibiotic prescribing, additional educational strategies for prescribers, which centre on promoting the recommendations of such guidelines are reported to be necessary to ensure appropriate prescribing.¹⁰

- A key theme in the literature is the quality of communication between consumers and prescribers. The literature contains several studies that have found shortcomings in the communication by providers of basic information about medicines and how to take them, poor quality and timing of information that is provided, and considerable variations in the outcomes of prescribing decisions.¹⁰
- There is a clear preference for the consumers to receive information about medicines directly from the prescriber to achieve quality medicines use.¹⁰
- Consumers consider the type, quality and frequency of the medicine administered is largely up to the GP or specialist. There are, however, certain areas in which pharmacists play an important role in the consumer's use and experience of taking medication. These include the provision of CMI, discussion of cost issues and advice about side effects and possible adverse reactions at the point when medicines are dispensed.¹⁰

End of table 4.2

Campaign implementation

Goals and objectives

The central goals of the NPS antibiotics consumer campaign for 2001 were:

- to support the Prescribing Intervention and Feedback program aimed at reducing the inappropriate prescribing of antibiotics for upper respiratory tract infections (URTIs)
- to provide consumers with evidence-based best practice information on the management of coughs, colds and influenza.

In more measurable terms this can be considered as having the following objectives:

- to develop and make available consumer information on how to appropriately manage winter coughs, colds and influenza
- to develop and make available support material for use by general practitioners, pharmacists and other health professionals to give to their patients/clients on how to appropriately manage winter coughs, colds and influenza
- to increase the extent to which consumer attitudes and behaviours regarding the appropriate use of antibiotics for URTIs reflects evidence-based best practice
- to increase the extent to which prescription and selection of antibiotics for URTIs reflects evidence-based best practice
- to raise the profile of NPS with consumers, the medical profession and the general media.

Key messages

The key messages for the campaign were:

- common colds need common sense – drink plenty of fluids, take it easy, treat the symptoms
- you won't get better more quickly by taking antibiotics for a common cold
- the common cold is a virus and antibiotics don't help – so instead of prescribing antibiotics for a common cold, prescribe common sense
- talk to/ask for advice from your gp or pharmacist.

Targeted community groups

The primary target groups were people in the workforce (subgroups: young workers aged 18 – 34 years, and employers); and parents/carers of young children (subgroups: childcare centres and family members).

Campaign strategies

A number of campaign strategies were employed during the 2001 antibiotics consumer campaign. Each of these strategies was closely integrated with the others, and as such, used the same goal, objectives, target groups, key messages, visual images, and strategies. Specific strategies are detailed below.

Endorsements from NPS member organisations

The NPS approached a number of peak health organisations to request endorsement of the campaign. It was believed that having the campaign officially supported by key associations and peak bodies would be influential in giving the NPS campaign credibility, especially among the media, who were often unaware of the NPS.

Endorsing organisations for the 2001 campaign were:

- Australian Pharmaceutical Manufacturers Association (APMA)
- Australian Self-Medication Industry (ASMI)
- Consumers' Health Forum (CHF)
- Pharmaceutical Society of Australia (PSA)
- The Pharmacy Guild of Australia (Guild)
- The Royal Australian College of General Practitioners (RACGP)
- The Society of Hospital Pharmacists of Australia (SHPA).

Advertising

The basic advertising concept needed to convey the message to all target groups, be clearly branded as NPS, be simple and easy to understand, imply a service, and have an action attached to it. The approach (developed by DARE in conjunction with NPS' Community Communications Working Group and NPS staff) used the slogan: 'common colds need common sense'.

The general messages included: take it easy; drink plenty of fluids; and treat the symptoms. These messages were varied for parents and carers of children to include: get them to take it easy; give them plenty of fluids; and treat their symptoms.

Advertising for the 2001 campaign included:

- the placement of 300 posters in bus and tram shelters throughout Australia for a two-week period, with a further two-week burst in Sydney and Melbourne
- railway station posters in all capital cities that have train transport
- press advertisements in Sydney's Child (1/2 page), Melbourne's Child (1/2 page), the Australian Women's Weekly (1/2 page), and later in Australian Doctor (1/4 page) and Australian Pharmacist (1/2 page).

Publications and printed material

To support the consumer campaign numerous publications and printed materials were produced and disseminated. Individuals and organisations wishing to order any of the campaign materials completed a fax-back order form designed to ease the process of ordering campaign materials.

Publications and printed material developed specifically for the consumer campaign included:

- A brochure that contained the campaign messages as well as information about: What is a cold?; What causes the common cold, flu and coughs?; Will antibiotics help me get better more quickly?; What to do if you have a cough, cold or flu?; How to prevent the cold and flu viruses spreading?; and How a GP can help?

- A poster for health professionals (GPs and pharmacists) that could be displayed in waiting rooms and shop display areas. This poster for health professionals contained the message: “The best thing to prescribe for the common cold is common sense.”



Campaign brochure



Campaign poster for health professionals

- Using the campaign slogan, icons and image, a poster was developed for childcare facilities which targeted parents and carers of children. This poster contained the targeted message: “To treat common colds in children, just use common sense.” The fine print was carefully phrased to ensure the information was understood correctly, stating: “A child with a cold won’t get better more quickly by taking antibiotics. That’s because the common cold is a virus. So next time they have a cold, just give them plenty of love and a good dose of common sense. It’s important to contact your doctor if symptoms are severe or if the child is distressed.”
- A display unit was designed specifically for community pharmacies. This was a free-standing unit that carried the campaign slogan, icons and image together with the message: “You won’t get better more quickly by taking antibiotics because the common cold is a virus”.
- Stickers were developed using the campaign image, icons and slogan. These were designed more for use by childcare centres to give to children to take home where their parents and carers would see it.
- Supplementary campaign materials included: NPS News issue 15 on antibiotics; Prescribing Practice Review (PPR) issue 12 on antibiotics; Pharmacy Letter; and Symptomatic Management Pads (available in five languages: Arabic, Chinese, English, Greek, Italian and Vietnamese).

Information on the NPS Website

The NPS website was an additional source of information and was promoted on all the advertising. The home page of the NPS website contained the primary campaign icon and slogan. By clicking on this icon users were directed to the ‘common colds need common sense’ campaign page.

This page contained: basic information about the campaign; acknowledgement of the endorsing organisations; a copy of the campaign brochure; a copy of the main media release and fact sheets; and a copy of the community grant presentation.

Community-based education

A large component of the campaign was the provision of small grants (\$600) to support organisations with the delivery of community education programs. The aim was to undertake community-based education activities that would create local community awareness about the campaign and its objectives.

Recipients of the community grants were required to undertake at least two activities involving at least 30 people between June and August 2001. The types of activities undertaken included: public talks/meetings; special guest presentations at community clubs/events; media activity such as radio and television interviews; information booths and displays at shopping centres and public events/meetings.

Media liaison

A community service announcement (CSA) was professionally produced and distributed nationally to seven metropolitan radio stations plus more than 200 regional radio stations via the SKY digital courier. The CSA was also distributed to 50-70 radio stations throughout NSW where it was played twice a day between June and August.

In addition, an electronic press kit (EPK) was produced and distributed to the major television networks for national distribution via their internal satellite system. The EPK was distributed to the Chief of Staff/News Editor at six TV stations in Sydney (2,7,9,10,SBS and Foxtel) two days before the launch (along with a cold survival pack containing eucalyptus chest rub, bottle of water, throat soothers, orange, and lemon tea). The day before the launch a media alert was sent to all Australia TV stations telling them that the EPK was available from the Sydney stations.

General campaign distribution

Information about the campaign was widely distributed throughout Australia.

- Letters were sent to a number of individuals and organisations to ensure the campaign received support, and to raise awareness of the campaign messages and NPS activities. These letters were sent to State Government Health Ministers and their departments, State Opposition Health Ministers and their departments, and Department of Health and Aged Care division heads. This information included a covering letter outlining the campaign aims, messages and strategies as well as samples of the brochure and posters.
- Promotional packages were sent to NPS member organisations and their related State-based organisations requesting their support and distribution to their members and other contacts.
- NPS facilitators were kept informed throughout the campaign via an initial information letter and an invitation to participate in the community grants program. In addition, facilitators received a promotional package containing a covering letter outlining the campaign aims, messages and strategies, samples of the brochure, stickers and posters, a fax-back order form for campaign materials, a 'donut' media release (with gaps for them to fill in their local information for local distribution) and fact sheets.
- The June edition of *NPS News* issue 15, distributed with *Australian Prescriber*, was used as a distribution mechanism for the campaign messages and materials. In addition the campaign slogan and icons were printed on the mailing label and a sample brochure was included.
- Pharmacies were sent a copy of the *PPR* on antibiotics as part of the newly developed *Pharmacy Letter* publication. The covering letter included information on the campaign. In addition, a sample brochure, poster, sticker sheet and order form were included.

- Direct mailers containing personalised feedback on prescribing of antibiotics as well as the NPS PPR on antibiotics were sent to GPs, other medical practitioners (OMPs) and specialists.
- Childcare facilities throughout Australia received a promotional package requesting their support for this community health campaign.
- Over 200 'cold survival packs' were distributed to the media.

Special requests for campaign materials

In addition to the planned distribution of material and promotional packages by the NPS, many organisations voluntarily requested campaign materials.

More detail on special requests for campaign materials is provided over.

Evaluating the 2001 antibiotics consumer campaign

Evaluating campaign reach

One of the key outcomes for the evaluation of the antibiotics consumer campaign was a measure of the reach of the campaign. This refers to the number of target groups who were exposed to the campaign messages via one or more medium.

Campaign reach was measured via:

- media placement analysis to monitor coverage of the campaign in the media
- advertising analysis to measure the relevance of the campaign, some of the posters placed in bus shelters were filmed *in situ* and commuters were interviewed about how they manage their coughs and colds
- campaign material distribution analysis and feedback through ongoing records kept by NPS staff as well as a phone and fax survey of a sample of individuals and organisations who ordered materials.

Media placement analysis

In 2001, newspaper articles on colds and the flu started to appear in the third week of May. This coincided with an early 'cold snap' in NSW, which probably brought forward the publishing dates of articles on 'winter ailments'.

The content of press coverage in 2001 was characterised by the following key topics:

- the cost of the common cold in lost workdays
- how to avoid catching a cold
- how to manage a cold or flu
- the difference between a cold and flu
- antibiotics will not speed recovery and unnecessary use reduces effectiveness in the long-term
- one in five people wrongly believe antibiotics are the answer for coughs, colds or the flu
- traditional remedies for the common cold.

Advertising analysis

The 'cold survival packs' (boxes of tissues, soothers, lemons etc), which were delivered with media kits, were well received. Anecdotal reports from the media indicated that these packs helped create awareness of the NPS, as well as the campaign they supported.

The campaign received a lot of radio coverage as well as the opportunity for Dr Stephen Phillips (Chair of the NPS Board) to be interviewed on Network Ten's Good Morning Australia.

Feedback regarding the advertising component of this campaign was positive. Both the bus and tram shelter, and railway station poster campaigns in the major metropolitan cities proved to be highly visible. Bus and tram shelter advertisements were displayed longer than the 2-week period contracted and, in some places, they remained up for a further 3 to 8 weeks. In some cities the bus shelter advertisements were not booked, however, they were displayed free of charge.

Campaign material distribution analysis

Table 4.3: Distribution of campaign materials

Product	Distribution
Campaign brochure	700 000
Poster for health professionals (A4 size as an insert in the PPR)	60 000 (A3: 35 000; A4: 25 000)
Promotional package for child care organisations	11 000
Poster for child care centers	15 000
Pharmacy display	5 000
Stickers	50 000 sheets of 12
Order form	22 000
NPS News 15	45 000
PPR 12 containing feedback on prescribing of antibiotics	17 826 (GPs 15 920 OMPs 1 906)
Symptomatic management pads	19 000 (English 15 000 Arabic 1 000 Chinese 1 000 Greek 1 000 Italian 1 000)

In addition to the general distribution of campaign materials, 1891 orders were received by fax. These orders came from a variety of organisations and individuals throughout Australia including: GPs (n=1267, 67%); childcare centres (n=429, 23%); community pharmacies (n=71, 4%); divisions of general practice (n=41, 2%); and hospital pharmacies (n=20, 1%). Orders were also received from community health centres, government organisations, hospitals, and schools (n=63, 3%).

Feedback from individuals and organisations who ordered campaign materials

An attempt was made to contact 189 organisations, randomly selected from the total database of those who had voluntarily ordered campaign materials (10% of the total). A total of 91 responses were received (48.2% of those randomly selected to provide feedback, 4.8% of the total who had returned the fax order form).

Overall, feedback was positive. Almost all respondents reported the quality of the materials to be either 'good' or 'excellent' (ranging from 92.3% to 100.0% responses for the stickers and poster for childcare centres respectively).

The usefulness of these materials was also rated highly. Response categories of 'useful' or 'very useful' were endorsed by 95.2%, 91.6%, 85.8%, 84.2% and 71.4% of respondents for the brochure, childcare poster, pharmacy display, stickers and poster for health professionals respectively.

Reported usage was also high with median use of brochures and stickers reported to be 90%. All respondents indicated they used the poster for health professionals and symptomatic management pads in English. A further 95.0% and 93.3% reported use of the poster for childcare centres and pharmacy display units respectively.

Evaluating the community education program

A total of 73 organisations received a grant, including:

- 11 pensioner and superannuants organisations
- 36 divisions of general practice
- 4 area community health services
- 11 hospitals (pharmacy departments)
- 2 senior citizens organisations
- 1 primary school
- 1 cancer/carers support group
- Hunter Drug Information Service
- Queensland Rural Medical Support Agency.

Satisfaction with the community education program was assessed by an evaluation form given both to those receiving the small grants and those attending the talks or activities.

Feedback from organisers

Evaluation forms were received from 62 organisations (84.93%) with detail on 164 different community presentations. The presenters were from a wide variety of backgrounds that primarily included: pharmacists (42.4%), GPs (38.6%) and nurses (15.2%). The remainder of presenters were occupational therapists (1.9%), NPS facilitators (1.3%), medical microbiologists (0.6%) and physiotherapists (0.6%).

The number of people attending the community presentations also varied (see Table 4.4) with most organisers indicating that they presented to less than 30 individuals (76.6%) at any given presentation.

Similarly, the type of groups where the presentations were conducted varied. These included but were not limited to: multicultural organisations (17.0%), aged care facilities and senior citizen groups (15.2%), schools (9.0%), child care facilities (5.4%), playgroups (3.6%) and community and mental health centers (3.0%).

Campaign brochures and stickers were provided at most presentations (97.0% and 76.8% respectively).

Table 4.4: Number of individuals attending the community presentations

Number range	%	Number range	%
<10	20.1	61-70	0
10-20	37.7	71-80	2.6
21-30	18.8	81-90	0.6
31-40	11.7	91-100	1.3
41-50	2.6	>100	3.2
51-60	1.3		

Most grant recipients (95%) indicated that they would participate in the community grants program again. The remainder (5%) indicated that they would probably participate again. Feedback received from grant recipients emphasised the high quality of material provided by the NPS, especially the PowerPoint slides, which were provided to assist presentations.

Many grant recipients also praised the support they received from local GPs and pharmacists. Some suggested that involving local GPs helped to motivate the community and provided an opportunity for consumers to speak freely and ask for medical advice outside the time constraints of a normal GP consultation. Others suggested that having support from local GPs and pharmacists created an ideal opportunity for divisions and these health professionals to work closely together.

Comments from grant recipients

'Motivating the local community without support from GPs is not easy.'

'Most people were delighted that someone had made an effort to talk to them.'

'A good way to educate the community ... participants could ask questions and have their concerns addressed at the same time.'

'Not being a pharmacist I feel the partnership I developed was very successful. The accredited pharmacists and I brought a different knowledge to the talk.'

'Good opportunity for the division, a GP and pharmacists to all work together on a task ... good to be able to offer the community something positive.'

Feedback from participants

In total, 2314 participants provided feedback. The median number of evaluation forms received from those attending the community presentations was 32.0 (range 1 – 136 responses) per organisation. The majority of respondents were female (82.19%) and in the 36 – 75 years age range (63.5%). A further 24.2% were aged over 75 years. The occupation of participants was broad and included individuals responsible for home duties (n=471), carers of children and the elderly (n=66), students (n=33), teachers (n=26) and many others. A further 338 received a pension or were unemployed and 580 were retired.

Overall, feedback from participants in the community activities was positive. Nearly all participants who responded (99.2%) indicated that they enjoyed the community activity. Most participants found the topic to be interesting and informative and reported the presentation materials and speakers to be of high quality.

Comments from participants

'It was clear, informative, wide ranging and practical.'

'Recognise difference between colds and flu.'

'It was good to be reminded of facts my mother always told me.'

'It was nice to hear a non biased view.'

'Good common sense information.'

'Speakers were knowledgeable and interesting.'

'Good opportunity to talk to a GP without having to pay.'

Many participants also praised the timing of the presentation as appropriate and others were impressed that the presentations provided an opportunity to talk freely with their local GPs.

Comments from participants

'An appropriate time to hear this talk with coughs and colds prevalent in our family.'

'I have a cold at the moment.'

'A good opportunity to talk to doctors without having to pay.'

'Good to talk with local GP informally.'

'Very informative as you often don't get enough time with your GP to discuss general illnesses.'

Evaluating consumer attitudes and behaviours regarding the appropriate use of antibiotics for URTIs

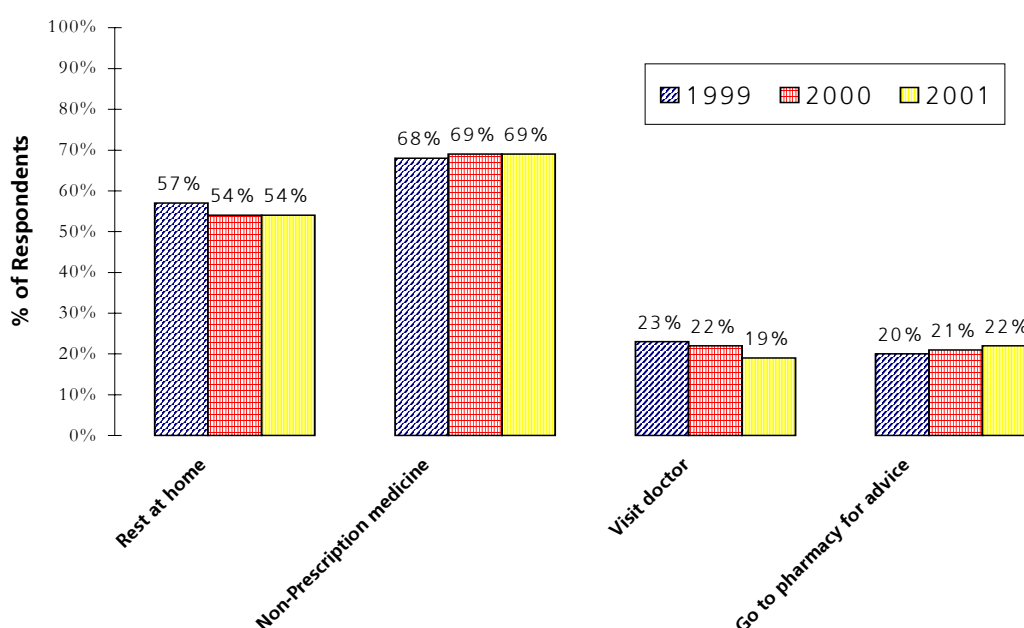
Medium term change in consumer attitudes and behaviours regarding the appropriate use of antibiotics for URTIs was measured using data from national consumer surveys. As part of their commitment to evidence-based practice, the NPS commissioned Campbell Research & Consulting to conduct a series of surveys of Australian consumers. Specifically, these surveys aimed to identify: the sources of information used by consumers about prescription medicine and attitudes and use of antibiotics for coughs, cold, and flu.

These surveys were conducted in August 1999 (n=1,614), August 2000 (n=1,603) and August 2001 (n=1,800). In brief, the consumer surveys have shown that consumer behaviour and opinion has remained stable regarding: sources of information about medicines (particularly prescription medicine), actions taken for coughs, colds and sore throats and antibiotic use for coughs, colds and sore throats.

Treatment behaviour for flu-like symptoms

In July 2001, just over half of all Australians (56%) reported having a cough, cold, sore throat or flu-like symptoms. The most common treatment for these symptoms was self-medication using non-prescription medicines (including preparations commonly referred to as 'over-the-counter' [OTC] medicines, herbal medicines and natural therapies; 69%), and home rest (54%; Figure 4.1).

Figure 4.1 Actions taken for cough, cold, sore throat and other flu-like symptoms



Approximately six in ten (58%) consumers, used over-the-counter cough, cold and flu medications, representing a significant increase from 1999, in which just over three in ten (34%) consumers reported using over the counter cough, cold and flu medications to treat flu-like symptoms. The most frequent over-the-counter non-prescription medicines taken were cold and flu tablets (22%), cough mixtures (11%), and throat lozenges (9%).

One in five Australians either consulted a pharmacist (22%) or visited their doctor (19%) the last time they experienced a cough, cold, sore throat, or other flu-like symptom. Some form of medication was recommended or prescribed to almost nine in ten (86%) consumers who visited a doctor the last time they had a cough, cold, sore throat, or other flu-like symptoms. One in two (52%) Australians who went to a doctor reported being prescribed an antibiotic for their cough, cold or flu-like symptom. This is consistent with previous years (46% for 1999 and 2000).

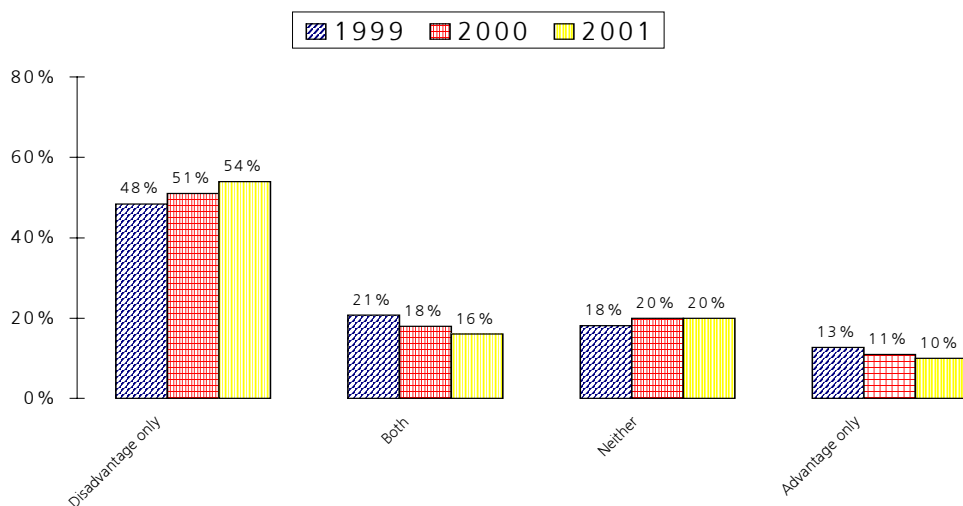
Persons over age 60 were more likely to visit a doctor for a cough, cold, sore throat or flu-like symptoms (26%) compared to those from middle aged (18%) or younger (18%) age groups. Other characteristics associated with persons who were more likely to visit a doctor for these symptoms included: those not working (25%), compared to those in full-time (17%) or part-time (13%) work; and those who live in metropolitan (21%) compared to rural (16%) locations. Overall, one in 10 (10%) consumers used an antibiotic the last time they had a cough, cold, sore throat, or other flu-like symptom. This was consistent with previous years (11% in 1999, and 10% in 2000).

Perceived effectiveness of antibiotics in the treatment of flu-like symptoms

The majority of Australians considered that antibiotics were inappropriate for the routine treatment of coughs or colds (73%), sore throat (68%), or flu (60%). Consumers were more likely to consider there to be disadvantages (70%) than advantages to using antibiotics for coughs and colds (Figure 4.2). Nevertheless, almost one in three (26%) considered that there are advantages to using antibiotics for a cough or cold.

Those who thought antibiotic prescription might be an advantage for coughs or colds perceived that antibiotic treatment would promote recovery (19%) and prevent deterioration (2%). Those who thought antibiotic prescription would be a disadvantage for coughs or colds (54%) perceived that antibiotic treatment would decrease immunity and increase resistance (41%), or simply be ineffective (36%).

Figure 4.2: Perceived advantages and disadvantages of antibiotics for coughs and colds



Two advantages of antibiotics were identified across the surveys, characterising perceptions that antibiotics promote recovery and prevent deterioration. Perceptions that antibiotics promote recovery were more prevalent among those in the younger age group compared with middle aged and older, and males compared to females.

The main disadvantage identified by consumers (41%) was the effect antibiotics have on decreasing immunity and resistance to disease. Concerns in relation to lower immunity and resistance to disease as a result of antibiotic use for a cough or cold, were more likely to be identified by people who:

- were middle aged compared to younger or older
- were in full-time work compared to those not working
- were on a high, rather than middle or low income
- lived in metropolitan areas rather than rural areas
- used medications supplied by a pharmacist rather than a doctor.

The second most commonly reported disadvantage to using antibiotics for coughs or colds, was a perceived lack of effectiveness (Table 4.5).

Table 4.5: Disadvantages to using antibiotics

	1999 (1,614)	2000 (1,603)	2001 (1,800)
	%	%	%
Decrease immunity and increase resistance	40	35	41
Not effective	32	23	36
Negative impact	15	6	16
Prefer natural alternatives	8	3	5
Cost	3	2	4
Other	1	2	2
Don't know	1	-	-
Not answered/ none	31	32	31

Note: Percentages add to more than 100% because of multiple responses.
Lower figures in the year 2000 reflect a lower total number of (multiple) responses compared with 1999.

Information about antibiotics

One in four (25%) respondents mentioned that they had heard, seen or read something about the use of antibiotics for coughs or colds. Overall, 20% identified the media as the main source of this information. Specific media sources included television (8%), national newspapers (5%), magazines (4%), radio (1%), and local newspapers (1%).

Only 4% of consumers considered the information that was seen or read encouraged the use of antibiotics, and 20% considered this information discouraged the use of antibiotics.

Evaluating the changing profile of NPS with consumers

The extent of campaign awareness as well as general awareness of the NPS and its activities among consumers and GPs was assessed through the inclusion of appropriate questions in the national consumer and GP surveys.

It is envisaged that in the future examination of other key stakeholder and target groups will also be made where possible. These groups could include: key personnel within the Commonwealth Department of Health and Aged Care, Veterans Affairs and the HIC; medical specialists; pharmacists; NPS member organisations; childcare organisations and facilities; divisions of general practice; and NPS facilitators.

Consumer awareness of NPS

A low level of awareness exists among Australian consumers in relation to the NPS and its functions. Only one in ten (10%) of those surveyed had heard of the NPS. Of those who had heard of the NPS, the most commonly performed functions were reported as:

- providing drugs or subsidies for disadvantaged groups (3%)
- encouraging the wise use of medicines (1%)
- checking on doctors (1%)
- reducing the price of medications (1%)
- providing community education (1%);
- providing a register of people using drugs (1%)
- education for doctors (1%)
- regulating prescription medications (1%).

Individual sources of information about the NPS, identified by those who had heard of the organisation, were reported to include:

- television (36%)
- major newspaper (28%)
- magazines (22%)
- a doctor or GP (11%)
- radio advertisements (9%)
- local newspaper (7%)
- family or friends (7%)
- pamphlets (5%)
- a pharmacist (4%)
- medical literature (4%)
- posters (4%)
- the Internet (2%).

Those who had heard of the NPS were more likely to include those who:

- were middle aged (13%) rather than young (9%) or old (5%)
- have had their medication reviewed formally by a GP or pharmacist (14%) compared to those who had not (10%).

Consumer awareness of the antibiotic campaign

In 2001 two questions were asked regarding whether respondents were aware of recent advertising produced by the NPS regarding antibiotic use: 'Do you recall seeing any blue and orange posters or pamphlets that mention taking antibiotics for coughs or colds?' and 'Can you recall the National Prescribing Service or the NPS being mentioned in that information about using antibiotics to treat coughs and colds?'

Consumer awareness was low in relation to both knowledge of the posters and (consequently) awareness of the NPS name. Only 5% of respondents indicated that they were aware of the campaign posters and 4% of these recalled the involvement of the NPS with this material.

5. NPS divisional facilitators: Implementing services for consumers at a local level

NPS facilitators are required to submit activity reports after the completion of NPS activities in their division. As at 31 December 2001, a total of 469 activity reports had been received by the NPS. Of these, there were 37 reports of activities that targeted consumers in the local community from 19 different divisions. On occasion, pharmacists and/or GPs also attended these activities, generally as invited speakers.

Topics covered in these community activities included: upper respiratory tract infections (URTIs - 15), medication review or QUM (18), depression (3), and menopause (1). The major drug groups addressed during these activities varied: combination of several medicines (17), antibiotics alone (9), antibiotics together with other medicines including analgesics and respiratory medicines (7), antidepressants (3) and hormone replacement therapies (1).

Whilst all attempts are made to receive complete feedback from facilitators it is sometimes the case that activity reports may not have been provided to NPS or those returned may underestimate participation in activities. However, at a minimum the activity reports submitted to date indicate that:

- more than 3000 consumers have attended at least 85 community presentations
- at least 45 community presentations (53%) were directed at elderly persons
- at least 26 community presentations (31%) were directed at NESB populations
- at least 11 community presentations (13%) were directed at parents or carers of young children.

Table 5.1 provides examples of the community activities that have been reported together with detail on the objectives and methods of delivery.

Table 5.1 is followed by detail from four divisions who have undertaken community activities in their local area. These four case studies have been included in this report as examples of the types of community activities NPS facilitators are undertaking.

It is important to note that community education is not core business for NPS facilitators. The NPS does, however, support facilitators with this type of activity.

Table 5.1: Examples of divisional community activities, objectives and methods of delivery

Objectives	Delivery
<ul style="list-style-type: none"> ▪ To promote wise use of medicines by the elderly. 	<p>Presentations at Senior Citizen’s Clubs during normal meeting times.</p>
<ul style="list-style-type: none"> ▪ To promote awareness of how to safely use medicines in the community. 	<p>Interactive community talks.</p>
<ul style="list-style-type: none"> ▪ To educate the general community on the wise use of medicines and minor tranquilisers. ▪ To encourage the general community to discuss their medication with their GP and/or pharmacist. 	<p>Presentation to a group of women aged over 55.</p>
<ul style="list-style-type: none"> ▪ To inform consumers about both their rights and responsibilities concerning their health and medications and the roles of other health professionals in the team. ▪ To inform consumers about the wise use of medicines. ▪ To flag common problems around medicine use. ▪ To promote communication between consumers and health professionals. ▪ To promote the message of ‘wise use of medication’. ▪ To raise consumer awareness about the various categories of medication available to them, and the potential dangers of mixtures of these. ▪ To build relationships between the various health professionals and community organisations. 	<p>Community presentation in church hall and early childhood centre to Arabic speaking audience using an interpreter.</p>
<ul style="list-style-type: none"> ▪ To inform and make seniors aware of necessity for polypharmacy issues to be addressed, including necessity of medication reviews. 	<p>Community presentations to mostly Italian senior citizens.</p>
<ul style="list-style-type: none"> ▪ To provide consumers with QUM principles on wise use of medicines and to raise awareness of the concept of medication review within the community. 	<p>As guest speaker at a regular meeting at a pensioners and superannuants club, where speakers are invited to address the group on issues relevant to the age group.</p>

Objectives	Delivery
<ul style="list-style-type: none"> ▪ To promote the quality use of medicines in the local Aboriginal community. ▪ To promote the concept of recording medications, via a medication record card, and the value of communication between health providers. ▪ To reinforce a newly designed culturally relevant medication card. 	<p>A launch of the medication card at the Elder's village, which was attended by Aboriginal community elders, Aboriginal health workers, TAFE students, and the media.</p>
<ul style="list-style-type: none"> ▪ To raise awareness among parents of young children as to what it means to "be wise with medicines", particularly antibiotic usage for acute bronchitis and URIs. ▪ To provide opportunities for this group of consumers to ask questions of the GP presenter. 	<p>Presentations to parents of young children attending playgroups.</p>
<ul style="list-style-type: none"> ▪ To provide consumers with advice on the management of upper respiratory tract infections, and the futility of using antibiotics for the majority of these conditions. 	<p>An article written for the local newspaper for a regular lifestyle column that focuses on health issues.</p>
<ul style="list-style-type: none"> ▪ To inform consumers on common colds and flu, when to use antibiotics, symptoms and treatment options. 	<p>Presentations to new mothers and NESB mothers (Chinese) at a Community Aid Centre and an Early Childhood Centre.</p>
<ul style="list-style-type: none"> ▪ Community education on facts on common colds and the overuse of antibiotics. 	<p>Presentation in a common room of a nursing home</p>
<ul style="list-style-type: none"> ▪ Community and health professionals education on facts on common colds and the overuse of antibiotics. 	<p>Presentation at an in-service meeting in a nursing home common room.</p>
<p>Personal contact with people:</p> <ul style="list-style-type: none"> ▪ to dispel some myths about antibiotics ▪ to reinforce good health measures ▪ to encourage discussions and provide an opportunity to ask questions ▪ to embrace the consumer as the most important player in quality use of medicines. 	<p>Community presentations and interview on community radio station.</p>

Objectives	Delivery
<ul style="list-style-type: none"> ▪ To educate consumers about managing winter coughs, colds and influenza. ▪ To assist consumers to make informed choices about appropriate use of medicines they obtain in pharmacies, including over the counter and complementary medicines. ▪ To help consumers and their general practitioners use antibiotics appropriately for upper respiratory tract infections and bronchitis. 	<p>Presentations at a child care centre, a radio station, a primary school and a rotary club.</p>
<ul style="list-style-type: none"> ▪ To raise awareness in the community of incidence of depression and to de-stigmatise. 	<p>Information session with four speakers.</p>
<ul style="list-style-type: none"> ▪ To present an overview of depression as an illness as well as to help identify symptoms that are meaningful and the medication that works, how long it takes, what options of treatment are available. ▪ Identification of a suicidal person. 	<p>Community talk to Vietnamese elders with translator at a Senior Citizen's Club.</p>
<ul style="list-style-type: none"> ▪ To inform the community groups involved of "depression" - its management, diagnosis and long term sequelae (focusing on medication, side effects and management of these). 	<p>Presentations, some with translators, to Yugoslav groups and Vietnamese elders.</p>
<ul style="list-style-type: none"> ▪ To inform participants of the current therapeutic guidelines for HRT. ▪ To increase knowledge of participants about the symptoms of menopause. ▪ To increase knowledge of the use of complementary therapies in HRT. ▪ To inform participants of the short and long term effects of HRT. 	<p>Presentations with high level of interest.</p>

Case studies from divisions of general practice (DGP)

Case study 1: Sunshine Coast DGP

During a six week period (July to September 2001), Sunshine Coast DGP undertook community presentations to support the NPS' '2001 Common Colds Need Common Sense' antibiotics consumer campaign.

A total of 48 consumers participated in these events, which lasted on average one hour each. These presentations were delivered by guest GPs as well as the NPS facilitator at both child care and community centres.

Target areas: The target therapeutic area covered by these presentations was respiratory tract infections and the target drug groups were antibiotics and respiratory medications.

Key messages: The key messages delivered during these presentations included: common colds need common sense; antibiotics don't cure a virus; and rest, oral fluids and symptomatic management are the best treatment for common colds.

Recruitment: Participants were recruited as a result of phone calls and visits from the NPS facilitator as well as posters advertising the events.

Costs: GP presenters were paid for their time. There were no incentives offered to the participants.

The only costs required for undertaking these activities were labour costs for both the facilitator and the GP presenters.

Report from the facilitator: The facilitator reported the events to be moderately successful: 'Those who participated provided very positive feedback, however, it was difficult to attract good numbers to the presentations'.

Case study 2: Monash and Central Bayside DGP

During the period February 2000 to August 2001, Monash and Central Bayside DGP undertook seven presentations on the 'Wise use of medicines' at local Senior Citizen's clubs, a Community Health Centre and a local church group.

These presentations, delivered by a local GP and pharmacist, lasted between 1 and 2 hours each. The presentations were delivered during the normal meeting time and venue for each of the clubs/groups. A total of 235 consumers attended the presentations.

Objective: The objective of the presentations was to promote wise use of medicines by the elderly.

Key messages: Questions to ask your pharmacists and doctor; using medicines wisely (disposing of unwanted/expired medicines); and the benefits of medicine checks and asking for one.

Recruitment: Participants were recruited as a result of internal advertisements within each of the Senior Citizen's clubs.

Costs: GP and pharmacists presenters were paid for their time. There were no incentives offered to the participants.

The only costs required for undertaking these activities were labour costs for both the facilitator and the presenters.

Report from the facilitator: The facilitator reported the events to be: "well received by the senior citizens. They enjoyed the doctor and pharmacist speakers. Good to use a doctor and pharmacist from each club's local area".

Case study 3: Illawarra DGP

During May 2000, Illawarra DGP undertook a program to promote the quality use of medicines in the local Aboriginal community.

Program objectives: promote the concept of recording medications via a medication record card; highlight the value of communication between health providers; and reinforce the use of a newly designed culturally relevant medication record card.

Key messages: Have medications recorded on medication card; take the medication card at all visits to a doctor, hospital or chemist; discard old or unneeded medications; ask your doctor or pharmacists questions about medications; bring medications to a doctor for review if uncertain about names and uses; ask GP for a medication review; and don't ignore the value of preventive medications, even though disease may be asymptomatic.

The program: The program involved designing medication cards based on existing cards in use. These cards have never been available to the Aboriginal community, despite eight translations being available for NESB individuals.

A new medication card, with culturally relevant symbols was designed for distribution via the Aboriginal Medical Service (AMS). To support the medication card, a poster was also developed for use in AMS waiting rooms. This poster contained an array of old medications and safety messages on disposal of old medications. These posters were developed to promote use of the medication cards.

The concept of the card was promoted at a launch held at the Elder's village, which outlined QUM objectives and the benefits of a medication card. The Aboriginal community elders were individually invited, as well as Aboriginal Health Workers and TAFE students. A press release went to the Koori Newspaper to advertise the event. The launch, with lunch, went for approximately two hours. The event was attended by 2 GPs, 12 other health professionals and 20 consumers. Local media was also present.

Funding and costs: This program was funded by a Quality Use of Medicines Community Grant obtained from the then Department of Health and Aged Care. This funding of \$500 covered the costs for developing the waiting room poster as well as the costs for providing food at the launch of the medication card.

Report from the facilitator: The NPS facilitator reported: "Members of the community present at the launch provided positive feedback as to the perceived usefulness of the medication cards ... 2 of the 3 GPs from the AMS attended the launch, and all support the cards".

Case study 4: Canning DGP

During June to July 2001, Canning DGP held two one-hour information sessions, conducted by a consultant pharmacist and presented at a local Women's Health Centre.

Purpose of sessions: To inform participants of the current therapeutic guidelines for hormone replacement therapy (HRT); increase participant's knowledge regarding the symptoms of menopause; increase participant's knowledge regarding using complementary therapies; and inform participants of both the short and long-term effects of HRT.

Key messages: Choice of HRT depends on patient preference and goal of therapy; the role of HRT on the management of osteoporosis is under review; the long-term risks associated with HRT are still under review; and discuss your concerns and options with your GP.

These sessions were attended by 2 health professionals and 25 consumers.

Report from the facilitator: The NPS facilitator reported: "There was a great deal of interest in the session ... participants demonstrated a high level of self-disclosure on personal issues ... participants were very engaged in the session".

6. Priorities for future consumer services

The array of services provided by the NPS to GPs, pharmacists and specialist medical professionals continue to expand and our reach continues to grow. To date, 97 divisions of general practice, equating to just under 80% of divisions throughout Australia, have a contract with the NPS. A total of 9,469 GPs, equating to nearly 50% of GPs throughout Australia, have participated in at least one NPS activity.

Similarly, the NPS will continue to make a concerted effort to make available appropriate QUM services for consumers that link closely with the services for health professionals. The immediate priorities for NPS consumer services include the 2002 Consumer Antibiotics Campaign and a national medicines information service for consumers.

The 2002 consumer antibiotics campaign

Following the success of the NPS' first nation-wide consumer campaign addressing the inappropriate use of antibiotics in the community, a nation-wide antibiotics consumer campaign will continue to be an annual focus for the NPS.

The second nation-wide campaign planned for winter 2002 will be essentially the same as that undertaken in 2001. The key messages and campaign slogans will be retained. However, the strategies will be revised and developed in response to evaluation of the 2001 work. Early recommendations for the 2002 campaign include:

- increase campaign reach to the rural and remote sections of the country
- direct activities towards parents and teachers of young children
- make a concentrated effort to increase the number of organisations participating in the community grants program
- encourage the participation of culturally diverse organisations.

National medicines information service for consumers

Based on the successful format of the existing NPS Therapeutic Advice and Information Service (TAIS) for health professionals, the medicines information service for consumers will be a dedicated 1300 telephone service. Operated by a multi-member consortium on behalf of the NPS, this service will provide consumers with access to detailed medicines information.

7. References

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9. Consumers' Health Forum of Australia. Choosing your medicine: making an informed decision about complementary and non-prescription therapies 1999.
10. Consumers Health Forum of Australia. Understanding consumer behaviour and experiences in relation to the use of medicines. Literature Review 1999.

Appendix 1

NPS publications and reports *

February 2002

Title	Date	Description
National Prescribing Service 1998 - 1999 Annual Report	June 1999	Provides detail on achievements of the NPS for the 1998/1999 financial year. This includes detail on: our mission; how we support quality prescribing in Australia; our organisation; our services for prescribers and consumers; and how we plan to build for the future.
National Prescribing Service 1999 - 2000 Annual Report	June 2000	Provides detail on achievements of the NPS for the 1999/2000 financial year. This includes detail on: highlights for the year; our progress; our partnerships; our programs; and our people.
National Prescribing Service 2000- 2001 Annual Report	June 2001	Provides detail on achievements of the NPS for the 2000/2001 financial year. This includes detail on: our programs and services; what we have achieved; how we operate; our corporate governance; our operations; our programs and services; and our working groups.
1 st National GP Survey	May 2000	This report presents the outcomes of the NPS' first national survey of GPs. Conducted in collaboration with the Department of General Practice, University of Adelaide, this survey aimed to establish baseline information regarding: GP knowledge and behaviour around the activities of NPS at both national and divisional levels; GP knowledge of evidence-based prescribing; GP prescribing practices; GP contact with pharmacists and other health professionals; options for keeping up to date with changes in medical practice; and attitudes/barriers towards the clinical use of computers. Both quantitative and qualitative data were collected and are reported in this publication.

Title	Date	Description
2 nd National GP Survey	February 2001	This report provides detail on the outcomes of the NPS' 2 nd national GP survey, and a comparative analysis between the first and second GP surveys.
1 st National Consumer Survey	October 1999	This report summarises survey information on the beliefs, attitudes and behaviour of the Australian population regarding their experience of cold or flu-like symptoms, and related use of antibiotics. The survey was conducted during the first two weekends of August 1999 as part of the quarterly Campbell National Health Monitor™ comprising over 1,600 persons aged 16 and over throughout Australia.
2 nd National Consumer Survey	November 2000	<p>This report summarises the results of two surveys of Australian consumers. The report identifies health professionals consulted in July 1999 and 2000; sources of health information considered important and accessed in July 1999 and 2000; and information on the beliefs, attitudes and behaviour of the Australian population regarding their experience of cold or flu-like symptoms, and related use of antibiotics.</p> <p>The survey was conducted during the first weekend of August 2000 as part of the quarterly Campbell National Health Monitor™. A sample of 1,603 persons aged 15 and over throughout Australia were surveyed.</p>
3 rd National Consumer Survey	October 2001	<p>This report presents the results of the third survey of 1,800 Australians conducted in early August 2001. The survey was included as part of the Campbell National Health Monitor™ and replicates earlier surveys of 1,600 conducted in August 2000, and August 1999.</p> <p>Findings are reported over six key areas of investigation, including: visits to health practitioners; information about prescription medicine; prescription of new medications; treatment behaviour for flu-like symptoms; perceived effectiveness of antibiotics in the treatment of flu-like symptoms; and consumer awareness of the NPS and its functions.</p>

Title	Date	Description
Evaluation Plan	April 2000	This report contains two main sections. The first section documents and describes the current Australian Health Care System and details the position of the NPS within the QUM policy and prescribing environment. In the second section, the evaluation questions and hypotheses for the NPS are detailed.
Divisional Operations Analysis	2000	In order to explore how the NPS was working 'on the ground' at the divisional-level, site visits were undertaken to selected divisions where interviews with facilitators, and other key staff members (e.g. CEOs) or affiliates were undertaken. This report presents the outcomes of these visits. In particular, some of the different models being used to deliver the 'NPS program', their strengths and weaknesses, and factors which facilitate or act as barriers to implementation are identified.
NPS Evaluation Report No.1	June 2000	The first evaluation report provides a comprehensive overview of early NPS evaluation results. Much of the available data is at a baseline stage and, as such, the emphasis of this report is on the findings of 'process' evaluation. Changes in prescribing trends for <i>h.pylori</i> eradication therapy and NSAIDs is reported based on DUSC data.
NPS Evaluation Report No.2	November 2000	The second evaluation report presents a focus on three themes: 1. the therapeutic area of antibiotics for URTIs (and bronchitis); 2. the use of divisional case studies to explore how the implementation of local-level programs is working 'on the ground' within divisions of general practice. This evaluation method was used to identify some of the different models being used to deliver the 'NPS program', their strengths and weaknesses, and factors which facilitate or act as barriers to implementation; 3. some of the methodological challenges and lessons learnt thus far in the course of the NPS evaluation.

Title	Date	Description
NPS Evaluation Report No.3	July 2001	<p>The third evaluation report provides a comprehensive overview of evaluation results to the end of July 2001. This report includes summaries of information from:</p> <ul style="list-style-type: none"> ▪ NPS stakeholder interviews (November 1999) ▪ GP telephone surveys (January 2000) ▪ two nation-wide paper-based GP surveys conducted in conjunction with the Department of General Practice, University of Adelaide (November 1999 and October 2000) ▪ division operation analysis (October 2000) ▪ activity reports provided to the NPS by divisional facilitators (June 2001) ▪ data maintained by NPS on the distribution of written material (June 2001) ▪ the second service report on the NPS Therapeutic Advice and Information Service (TAIS) (June 2001).
Strategic Plan 2001		<p>This publication provides detail on the NPS' strategic plan for 2001 and beyond. This includes detail on: issues, opportunities and barriers to maintaining our forward momentum; the organisational structure; our strategic objectives (1. facilitation, coordination and leadership, 2. service delivery, 3. evaluation, 4. policy); our priorities; expected outcomes; and performance measures.</p>

* In some cases, copies of these publications can be found on either the NPS web page: www.nps.org.au or by contacting the NPS office: Level 1, 31 Buckingham St Surry Hills NSW 2010 (Phone: 02 9699 4499, Fax: 02 9699 5155 or email: info@nps.org.au).

Other publications and reports may also be available. The above list is updated regularly.