

Appendix 7. NPS evaluation data sources

Potential Data Source	Description
Measuring scope, usage, reach	
Corporate and program records	Detailed records of program implementation will be maintained to document process issues (e.g. program design, delivery, costs). Detailed project documentation will also be produced as per the project management framework.
NPS orders and registration databases	The orders database is a detailed record of material/resource distribution. Registration databases exist for specific NPS publications (e.g. <i>NPS RADAR</i> , <i>NPS News</i> , and <i>Australian Prescriber</i>). These electronic records monitor the number of registrations and key demographic data.
NPS activities database	A record of participation by divisions of general practice in NPS activities. The reports summarise all activities over a 6 month period. Feedback on the data is provided to NPS facilitators.
NPS participation database	A record of individual participation in NPS activities. Used to record participation in activities that are eligible for inclusion in point allocation under the Royal Australian College of General Practitioner's professional development programs & the <i>Quality prescribing initiative</i> (QPI) of the Commonwealth Government's <i>Practice incentives program</i> (PIP). Provides data summaries for NPS management and the Board that can be shown at an individual participant level (de-identified) or aggregated at a divisional level.
<i>National prescribing curriculum</i> (NPC)	Data on participation by medical students and interns. This is maintained by the University of South Australia via web links. This informs NPS on the number of students and interns at participating universities using the curriculum modules, how they are using the modules, the drugs selected and added to personal formularies.
Databases of calls to NPS telephone services	Calls to NPS Medicines Line are recorded on data collection forms. The forms are scanned into databases maintained by Mater Pharmacy Services in Brisbane. The data provides a tally including the number of calls, profession of caller, caller demographics, reason for call and response provided.
Monitoring of NPS websites	Routine monitoring of the NPS websites and web resources (i.e. www.nps.org.au , www.npsradar.org.au , www.australianprescriber.com). Data provides measures of overall interest in the sites and patterns of use.
Media monitoring	The NPS Strategy and Communications team regularly collates data on issues attracting media attention that refer to NPS or comment on QUM issues.
Data on health professional workforce and Australian population	Denominator data on the health professional workforce and the Australian population will be regularly collected from sources including the Australian Bureau of Statistics and the Australian Institute of Health and Welfare.

Potential Data Source	Description
Measuring changes in awareness, perceived value and quality, sustainability and enablers and barriers to implementation	
Key informant interviews	Involves regular consultation with stakeholders and end-users (i.e. health professionals and consumers) to determine perceived acceptability and attributed value of NPS activities and obtain input to inform future directions. Methods include face-to-face in-depth interviewing, telephone interviews and potentially email/online interviews.
Focus groups	Involves regular consultation with groups of stakeholders and end-users (i.e. health professionals and consumers) to determine perceived acceptability and attributed value of NPS activities and obtain input to inform future directions.
Surveys	Involves regular consultation with stakeholders and end-users (i.e. health professionals and consumers) to determine perceived acceptability and attributed value of NPS activities and obtain input to inform future directions. Methods include telephone surveys, paper-based postal surveys, online surveys and national omnibus surveys.
NPS feedback database	NPS maintains detailed electronic records of all comments (i.e. telephone, mail, email, in person), its services, products and programs, as well as the response to this feedback. Feedback is also directly requested via the website.
Division operations analyses	Detailed analysis of the operations within divisions of general practice is undertaken when required, to explore how NPS is working 'on the ground'. This commonly involves interviews with facilitators and other key staff members or affiliates.
Case studies	Evaluating the implementation of quality use of medicines programs at the community level. Data collection methods include pre/post computer-assisted telephone interviewing (CATI) surveys, telephone interviews, postal surveys, face-to-face in-depth interviews, and participatory action research.
Communication research	Undertaken with readers of specific NPS publications as required. This involves reviewing feedback from stakeholders, reviewing writing/design/editorial processes, conducting a scoping of intended readers, developing performance requirements and benchmarks for the publication, conducting a functional analysis of the publication, end user testing.
Readership surveys	Targeted surveys of readers of specific NPS publications (e.g. <i>NPS News</i> , <i>NPS RADAR</i> , and <i>Australian Prescriber</i>). These are undertaken on an ad-hoc basis to answer specific evaluation questions. Methods include paper-based postal surveys and online surveys.
Measuring changes in attitudes, skills, knowledge and intention to change behaviour	
National surveys of GPs, pharmacists, nurses and specialists	National, paper-based postal surveys of GPs, pharmacists (every 4 years), nurses and specialists (every 2 years) are undertaken to track changes in key evaluation variables of interest among these target groups.
Surveys of GPs pre/post implementation of local programs	Paper-based postal surveys of GPs are undertaken pre and post implementation of local educational visiting activities, where required, to understand changes (if any) in GP knowledge and attitudes about specific therapeutic topics.
National surveys of consumers	National telephone surveys of consumers are undertaken every 2 years to track changes in key evaluation variables of interest among this target group.
Omnibus/pulse surveys of consumers	Targeted CATI surveys are commissioned on an ad-hoc basis to monitor consumer awareness and up-take of NPS quality use of medicines messages following specific consumer advertising campaigns.
Measuring changes in behaviour	
Data on prescribing and use of medicines	The use of multiple sources of drug utilisation data to answer evaluation questions around changes in prescribing and use of medicines by health professionals due to NPS activities.
Data from health professional education and quality assurance activities	Self reported data on prescribing and recommendations by GPs and pharmacists completing NPS case studies, clinical audits and pharmacy practice audits is tracked over time, using time series analysis, as aggregate measures of changes in prescribing and use of medicines.
Drug utilisation data from the Drug Utilisation Sub-Committee (DUSC data)	The Pharmacy Guild undertakes an annual survey of a representative sample of community pharmacies for the Drug Utilisation Sub-Committee (DUSC), to overcome the omission of the 'under co-payment' data within the Medicare Australia data set. The drug utilisation data in the DUSC database can be used to produce an overall estimate of community prescription drug usage in Australia. This data is publicly available and free of charge.

Potential Data Source	Description
Measuring changes in attitudes, skills, knowledge and intention to change behaviour	
Data from Medicare Australia	Includes data (by financial year) from the Medicare Benefits Schedule (MBS) and the Pharmaceutical Benefit Scheme (PBS). MBS statistics are reported by scrambled provider number and are based on items (e.g. standard GP consultations) and groups (e.g. professional attendances, pathology services). PBS data includes all prescriptions dispensed nationally for which the Australian Government pays a subsidy. This data provides the total number of subsidised prescriptions dispensed, gross price and net benefit of prescriptions, and the number of individuals and households with safety net cards. NPS uses data from Medicare Australia to track changes in prescribing that may be attributed to NPS activities. Data is also used in economic modelling of NPS programs.
Computerised GP prescribing data from users of Medical Director via Health Communication Network (GPRN data)	The General Practice Research Network (GPRN) is a national network of Australian GPs established in August 2000 by the Health Communication Network (HCN). GPRN provides de-identified longitudinal patient data both to evaluate the use of electronic patient management systems and to investigate the capabilities of primary source data for pharmacoepidemiology and population health monitoring. Data is available on request to HCN.
Data from the Bettering the Evaluation and Care of Health Program (BEACH data)	The BEACH data set is derived by having a random sample of GPs nationwide (1000 pa) complete standard information forms describing 100 consecutive patient encounters. This information is regularly recorded and includes the patient's reason for attending, the diagnosis, problems reported and medicines prescribed. BEACH data is useful when knowledge and consideration of patient diagnosis and presentation are required to interpret prescribing data.
DVA data	Department of Veterans Affairs data.
Data linkage	Used for large cohort studies, such as the <i>45 years and up study</i> in NSW.
Measuring changes in health and economic outcomes	
Data on health care utilisation and outcomes	The use of multiple sources of data on health care utilisation and outcomes to answer evaluation questions. Evidence from previous studies may also be incorporated here.
Data from the Australian Institute of Health and Welfare (AIHW)	Includes databases such as the <i>National Hospital Morbidity Data Collection</i> and <i>National Cardiovascular Disease and Diabetes Database</i> . This data provides information on deaths from particular conditions and the number of related procedures and operations conducted within Australian hospitals, and has the potential to assess the effect of NPS-influenced changes in prescribing on hospital related health outcomes.