

National Divisions Diabetes Program



Executive Summary

- key findings

National Divisions Diabetes Program
Divisions Diabetes & CVD Quality Improvement Project

*Divisions improving quality of care &
health outcomes in chronic disease*

November 2003

Background

The NDDP Divisions Diabetes and CVD Quality Improvement Project has been in progress over the last eighteen months and the results are now available. The project collected information from GPs and Divisions of General Practice with diabetes and cardiovascular programs.

Of 101 Divisions with a diabetes program 79 provided information on their programs which were used to generate diabetes profiles for the Divisions. Using ABS 2001 Census data, Division data from HealthWiz, and prevalence data from the AusDiab study and AIHW, disease and risk factor prevalence rates were estimated. The population reach of Division diabetes programs was also calculated. The study also included an aggregation of de-identified unit level quality of care and health outcome indicator data from 22 Divisions with the same register and recall system (CARDIAB).

A summary of the series of reports which will be launched at the NDDP Forum 'Action on Quality' on 10-11 November 2003 are presented.

Diabetes health outcomes

Key findings

- Health outcomes improved across the three years for all indicators with the exception of body mass index.
- There was an increase in the number of patients having HbA1c within target of 7.0% over the period 2000-2002.
- There was an increase in the number of patients having blood pressure within target of 1.7% over the period 2000-2002.
- The numbers of patients with BMI within target decreased by 1.6% over the period 2000-2002.
- There was an increase in the number of patients having total cholesterol within target of 8.0% over the period 2000-2002. This was the greatest increase for any of the health outcome indicators.
- There was a net increase in the number of patients having microalbumin within target of 0.3% over the period 2000-2002. Microalbumin results within target improved by 2.5% from 2000-20001 and then declined by 1.9% from 2001-2002.
- The numbers of patients with high risk foot identified increased by 5.3% over the period 2000-2002.
- There was a decrease in the number of patients having retinopathy detected of 1.4% over the period 2000-2002.

Diabetes quality of care

Key findings

Total and median numbers of patients on registers:

- The overall increase in total numbers of patients on registers from 2000-2002 was 72.7%.
- The overall percent increase in the median number of patients registered across Divisions from 2000-2002 was 103.9%.
- The percent increase was greatest from 2001-2002 (80.3%).

Percent increases in median numbers of patients across Divisions having assessments:

- The percent increase from 2000-2002 in the median number of patients across Divisions having an eye check was 108.8%, for microalbumin was 113.1% and for total cholesterol was 108.8% meaning that the median number of patients across Divisions having these assessments had more than doubled from 2000-2002.

QOC 1:

- The quality of care for patients who had seen a GP at least once in that year increased overall for all parameters for the period 2000-2002 (although not necessarily in each year).
- The assessments most frequently conducted were BP (80.5% to 81.4% across the 3 years) and HbA1c (68.9% to 70.1% across the three years).

QOC 2:

The median percent of patients across Divisions who had all assessments conducted dropped from 4.1% (range: 0% - 14.9%) in 2000 to 3.4% (range: 0% - 17.2%) in 2001 and increased again to 6.2% (range: 0% - 17.2%) in 2002.

- The ranges indicate great variability across Divisions in the percent of patients receiving the full cycle of assessments.

QOC 3:

- The percent increase in the median number of patients registered across Divisions was 13.1% from 2000-2001 and 80.3% from 2001-2002.

QOC 4:

- The total number of assessments conducted across Divisions increased for all types of assessments across the three years 2000-2002.
- For all clinical indicators the rate at which patients joined the register outstripped the rate at which assessments were conducted.
- The increase was greater in 2001-2002 for all indicators except total cholesterol.
- The number of patients having glycaemic control assessed by HbA1c measurement increased by 46.3% over the period 2000-2002.
- The number of patients having blood pressure assessed increased by 45.3% over the period 2000-2002.

Diabetes programs – descriptions & perceptions

Key findings

- The most common program component was the presence of a register/recall system (44%).
- Diabetes educators (32%), practice nurses (20%), dietitians (14%) and podiatrists (10%) are important components of many Division programs.
- Divisions nominated podiatry (51%), diabetes educator (48%) and dietitian services (35%) as the most needed services.
- GP participation (37%), integration and collaboration (30%), patient reach (24%) and patient registration and recall (24%) were the most commonly named highlights or achievements by Divisions.
- The most often named barriers were lack of infrastructure and funding (49%), lack of commitment or interest including time constraints (43%) and problems associated with IM/IT (23%).
- GP support and provision of resources (39%) and practice nurse education or strategies (22%) were the most often mentioned areas around which future plans were envisaged.
- The most often mentioned organisations with whom Divisions formed strategic alliances were consumer organisations (42%), hospitals and area health services (38%), special interest groups or networks (35%), community service organisations (24%) and diabetes educators (23%).

Diabetes program reach

Key findings

- Population reach varied widely in participating Divisions across the three years 2000-2002.
- The range across Divisions for program reach in 2000 was from 1.5% to 39.8%, for 2001 was 2.2% to 72.3% and for 2002 was 2.2% to 87.9%.
- The reach of diabetes programs increased in all but one Division with an active diabetes register over the 3 years.
- The median reach across participating Divisions was 4.1% in 2000, 5.6% in 2001 and 10.1% in 2002.
- Program reach increased by 37% from 2000 to 2001 and by 80% from 2001 to 2002.

Structure and organisation of Division diabetes and CVD programs

Key findings

- Divisions found it difficult to provide reliable data about practice IT systems.
- Divisions that provided accreditation support to practices had a significantly greater proportion of accredited practices within their Division area.
- Thirty-one Divisions (39% of the survey) had a diabetes register/recall system and nine (20%) had a CVD register/recall system. There was a large increase in the number of active diabetes patients from 11074 (191 for CVD) in 2000 to 25175 (432 for CVD) in 2002. There was also a corresponding significant increase in the GP/active registered diabetes patient ratio from a median of 27 in 2000, to 35 in 2001, and 42 in 2002.
- Divisions that maintained registers were significantly more likely to provide de-identified results of clinical audit activities to practitioners, practices and to their Division Board/Executive.
- There was an increase of 25% in registered diabetes patients between 2000-01 (n=4119) and 2001-02 (n=5147). Seventy-seven percent of the rise in 2001-02 occurred after the introduction of National Integrated Diabetes Program on 1 November 2001.

Division cardiovascular programs – descriptions & perceptions

Key findings

- The most common program component was the GP education (42%), which was probably held in conjunction with diabetes GP education (as the percentages for both programs was the same).
- Only 21% of Divisions with a CVD program utilised a register, compared to 44% of Divisions with a diabetes program.
- Of the SNAP risk factors, physical activity was the primary focus of the Divisions (23%) and highlighted as a program element before the other risk factors (15%).
- No specific health professional was named as an important component of a Division program (ie: Cardiac Rehab nurses, Dietitians or Exercise Physiologists).
- Divisions nominated guidelines, decision support and continuing professional development (CPD) as the most needed resources (19%) with services and funding needed to resource CVD programs (10%).
- Management, models and services were the most commonly named highlights or achievements by Divisions (49%), closely followed by health promotion, patient education and physical activity (44%).
- The most often named barriers were lack of funding (33%) and service allocation (33%).
- In terms of future plans envisaged, Divisions were targeting their population group at risk and those with established CVD in the community (17%), providing CPD as a component of their programs (31%) and focusing their programs on physical activity (22%).
- Strategic alliances were nominated with major state and national organizations (49%) and linkages were made with local, state and national programs (59%).
- Importance was also placed on community, consumer and ATSI linkages (38%) and liaison with local service providers (36%).

Cardiovascular disease – quality of care and health outcomes

Key findings

Increase in numbers of patients having assessments in different programs:

- For all programs, the numbers of patients having assessments increased over the three years.
- The increase in total patient registrations was similar from 2000-2001 (42.2%) and 2001-2002 (45.2%).
- The increase in patient numbers was greatest in CVD only programs in 2001-2002 (65%).
- Quality of Care (QOC) improved across the three years for all indicators in diabetes and CVD programs, except for HbA1c and microalbumin.
- QOC improved across the three years for all indicators in CVD only programs except for blood pressure and total cholesterol (decreases occurred).
- QOC for BMI improved in both CVD only and diabetes and CVD programs. The health outcome indicator for BMI was much better for the CVD only program, than the CVD and diabetes program.
- QOC for blood pressure and total cholesterol improved in diabetes and CVD combined programs, whereas it decreased for CVD only programs.

Health outcomes

- The health outcome indicators of patients registered on both a diabetes and CVD program were not as favourable as those on a diabetes program alone.
- Net improvements in health outcomes across the three years were found for total cholesterol, LDL, and triglycerides for patients registered on a diabetes and CVD program.
- Patients enrolled on a CVD only program had improved health outcome indicators overall for BMI, total cholesterol, HDL and LDL.
- There was a difference in the percentage of patients with health outcomes within target across the three years for BP depending on whether patients were in a CVD only or combined diabetes/CVD program. There were less patients within target in the combined program. This is only partly due to the different BP targets applicable to these two groups (<140/90 for CVD only and <130/85 for diabetes/CVD). The difference remains when the diabetes/CVD group are analysed with the target of 140/90 although it is not as great.

Trends in integration

Key findings

- Fifty-eight percent (47/81) of Divisions participating in the DDCQIP survey recorded that they had integrated programs.
- There has been an increase of integrated Division programs from 1997 when there were 3, to 2002 where there were 47. Fifty-six percent of this increase has occurred since the year 2000.
- Sixty-one percent of Divisions with integrated programs also operated a Divisions register/recall system.
- The chronic disease areas most reported as integrated were diabetes (92%), mental health (66%), CVD (66%), and asthma (61%).
- The study revealed some distinct dimensions to Division integrated programs: a) disease oriented or clinically focused eg integrated disease profiles; b) integrated across professions eg, multi-disciplinary, multi-tasking; c) organizational integration, eg practice support; or d) institutional integration eg, Area Health Service or Aboriginal Medical Service.
- The main *advantages* of integrated programs as reported by Divisions (n=42) were: resource sharing (57%), service coordination (48%), holistic approach (38%) and avoiding duplication (33%).

Data quality

Key findings

Data completeness

Data completeness is a crucial data quality dimension. The analysis of completion rates for key data variables from Division register data across 16 Divisions showed that age and gender fields showed high completion rates but the variables detailing microalbumin units, management methods and diabetes duration were less than optimal and required improvement.

Dimensions of data quality

Divisions identified a number of key factors affecting data quality:

- Security and confidentiality
- Professional development
- Accountability, communication and ownership

Validation and quality assurance

Divisions emphasised the importance of routine data validation to check on completeness of data items and invalid data entries.