Appendix: Indicators relevant to diabetes

Table A.1: National Health Priority Area—diabetes mellitus indicator set

No.	Description
1	**Disease incidence and prevalence**
1.1	Prevalence rates for Type 1 and Type 2 diabetes in:
	(a) general population
	(b) Indigenous population
	(c) persons from culturally and linguistically diverse backgrounds
1.2	Incidence rates for Type 1 and Type 2 diabetes in:
	(a) general population
	(b) Indigenous population
	(c) persons from culturally and linguistically diverse backgrounds
1.3	Gestational diabetes among women aged 20–44 years, by parity
2	**Risk factors for diabetes and associated complications**
2.1	Prevalence rates for obesity and overweight (as measured by BMI) among persons with Type 2 diabetes and in the general population
2.2	Rates for non-participation in regular, sustained, moderate aerobic exercise among persons with Type 2 diabetes and in the general population
2.3	Prevalence rates for high blood pressure among persons with Type 2 diabetes:
	(a) ≥ 140 mmHg systolic and/or 90 mmHg diastolic and aged < 60 years
	(b) ≥ 160 mmHg systolic and/or 90 mmHg diastolic and aged ≥ 60 years, and/or
	(c) those on medication for high blood pressure
2.4	Prevalence rates for high levels of lipoproteins among persons with Type 1 and Type 2 diabetes:
	(a) total cholesterol above 5.5. mmol/L
	(b) high-density lipoproteins below 1.0 mmol/L
2.5	Prevalence rates for fasting hypertriglyceridaemia among persons with Type 1 and Type 2 diabetes
3	**Diabetes complications**
3.1	Proportion of persons with end-stage renal disease with diabetic nephropathy as a causal factor
3.2	Incidence rate for eye disease among clinically diagnosed persons with diabetes
3.3	Prevalence rate for foot problems among clinically diagnosed persons with diabetes
3.4	Incidence rates for coronary heart disease and stroke among clinically diagnosed persons with diabetes and in the general population

(continued)

Table A.1 (continued): National Health Priority Area—diabetes mellitus indicator set

No.	Description
4	**Hospital separations for diabetes complications**
4.1	Hospital separation rates for end-stage renal disease with diabetes as an additional diagnosis
4.2	Hospital separation rates for coronary heart disease or stroke where diabetes is an additional diagnosis
4.3	Hospital separation rates for conditions other than end-stage renal disease and coronary heart disease/stroke among persons with diabetes as a primary diagnosis or an additional diagnosis
5	**Mortality**
5.1	Death rates for diabetes in:
	(a) general population
	(b) Indigenous population
	(c) among persons from culturally and linguistically diverse backgrounds
5.2	Death rates for coronary heart disease and stroke among persons with diabetes in:
	(a) general population
	(b) Indigenous population
	(c) among people from culturally and linguistically diverse backgrounds
6	**Health status**
6.1	Self-assessed health status of persons with and without diabetes
7	**Screening and management**
7.1	Proportion of persons with diabetes tested for glycosylated haemoglobin (HbA1c) level at least every 6 months
7.2	Proportion of pregnant women being tested for gestational diabetes

Table A.2: National Health Sector Performance Indicators relating to diabetes, 2003

No.	Indicator	Description
Tier 1 Health status and outcomes		
1.08	Mortality for National Health Priority Area diseases and conditions	Death rates for National Health Priority Area diseases and conditions
Tier 2 Determinants of health		
2.07	Fruit and vegetable intake	Proportion of people eating sufficient daily serves of fruit or vegetables
2.08	Physical inactivity	Proportion of adults insufficiently physically active to obtain a health benefit
2.09	Overweight and obesity	Proportion of persons overweight or obese
Tier 3 Health system performance		
3.07	Potentially preventable hospitalisations	Admissions to hospital that could have been prevented through the provision of appropriate non-hospital health services
3.11	Management of diabetes	Proportion of persons with diabetes mellitus who have received an annual cycle of care within general practice
3.22	Enhanced primary care services	Percentage of GPs using enhanced primary care (EPC) items

Table A.3: Draft NDDWG indicator matrix for diabetes (as at March 2005)

	Setting		
National Diabetes Strategies Group (NDSG) questions across the continuum of care	**A. Health care organisation (funder, policy maker, service organisation)**	**B. Health care practice (levels of care—population health, primary, secondary and tertiary care, provider/service organisation)**	**C. Consumers**
1. Is care provided according to guidelines?	Indicators: 1A.1.1, 1A.1.2	Indicators: 1B.1.1, 1B.2.1	Indicators: 1C.2.1, 1C.4.1
2. Are we preventing or delaying the development of Type 2 diabetes?	Indicators: 2A.1.1, 2A.1.2, 2A.2.1	Indicators: 2B.1.1, 2B.2.1	Indicators: 2C.1.1, 2C.1.2, 2C.2.1
3. Is access equitable?	Indicators: 3A.1.1	Indicators: 3B.1.1, 3B.2.1	Indicators: 3C.1.1, 3C.2.1
4. Are we reducing the death and serious health effects of diabetes?	Indicators: 4A.1.1	Indicators: 4B.1.1, 4B.2.1, 4B.2.2, 4B.3.1	Indicators: 4C.1.1
5. Are we improving the quality of care for people with diabetes?	Indicators: 5A.1.1, 5A.2.1	Indicators: 5B.1.1	Indicators: 5C.1.1, 5C.3.1, 5C.3.2, 5C.3.3
6. Is case detection occurring optimally?	Indicators: 6A.1.1	Indicators: 6B.1.1, 6B.2.1	Indicators: 6C.1.1

Table A.4: Draft NDDWG indicators for diabetes (as at March 2005)

Question	Indicator	Definition
1. Is care (prevention, early detection and management) provided according to guidelines?		
	1A.1.1	The number and characteristics of diabetes guidelines identified.
		For each aspect of diabetes prevention, early detection and management for which guidelines exist:
		Are the guidelines Australian?
		Are they evidence-based?
		Have the guidelines been endorsed? If yes, by whom?
		Are the guidelines up to date?
		Are the guidelines written or available in consumer-friendly language?
		What is the level of dissemination of these guidelines to health care providers?
		Have the guidelines been implemented/incorporated into diabetes programs/initiatives?
		Are there mechanisms to audit diabetes prevention, early detection and management against the guidelines (in hospitals, diabetes centres and general practice)?
	1A.1.2	The proportion of programs to improve prevention, early detection and management consistent with guidelines.
	1B.1.1	The proportion of people with diabetes mellitus who have had an annual cycle of care (i.e. have had recorded):
		• a foot exam within the last 12 months
		• an eye exam within the last 2 years
		• microalbumin measured in the last year
		• HbA1C measured in the last 6 months
		• blood pressure measured in the last 6 months
		• lipids measured in the last 12 months
		• weight/BMI measured in the last 6 months
	1B.2.1	The proportion of GPs with register/recall systems (by Division).
	1C.2.1	The proportion of people with diabetes who are aware of the existence of guidelines for management.
	1C.4.1	The proportion of people with diabetes who know what their evidence-based healthy lifestyle options are.

(continued)

Table A.4 (continued): Draft NDDWG indicators for diabetes (as at March 2005)

Question	Indicator	Definition
2. Are we preventing or delaying the development of Type 2 diabetes?		
	2A.1.1	The number and characteristics of programs/initiatives identified to prevent/delay the development of Type 2 diabetes or modify the prevalence of Type 2 diabetes risk factors.
		For each program/initiative identified:
		Does it follow evidence-based guidelines?
		Is it ongoing?
		What is its reach?
	2A.1.2	The proportion of the population reached by Type 2 diabetes preventive programs.
	2A.2.1	The number and characteristics of mechanisms for monitoring the incidence of Type 2 diabetes and the prevalence of Type 2 diabetes risk factors.
		For each mechanism/data source identified:
		What is the type of mechanisms/data source?
		What is the scope and coverage of the collection?
		What is the frequency of data collection?
		Are data collected according to agreed national or international standards?
		Is the data set routinely analysed and reported on?
	2B.1.1	Incidence rate of Type 2 diabetes over time.
	2B.2.1	The prevalence of Type 2 diabetes mellitus risk factors over time:
		• obesity
		• physical inactivity
		• proportion of people following Australian dietary recommendations
	2C.1.1	The proportion of individuals who correctly identify the risk factors for Type 2 diabetes.
	2C.1.2	The proportion of people at risk of Type 2 diabetes who correctly identify that they are at risk.
	2C.2.1	The proportion of people at risk of Type 2 diabetes who know what their evidence-based healthy lifestyle options are.

(continued)

Table A.4 (continued): Draft NDDWG indicators for diabetes (as at March 2005)

Question	Indicator	Definition
3. Is access equitable?		
	3A.1.1	The number and characteristics of diabetes and at-risk programs, initiatives and services for: • Aboriginal and Torres Strait Islander people • people of culturally and linguistically diverse backgrounds • people with different socioeconomic status • people from different geographic areas *For each program/initiative/service identified:* *What is the focus of the program?* *What is the target population?* *Does the program follow current evidence-based guidelines?* *Is it ongoing?* *To what extent is it culturally appropriate for all groups in the target population?* *Are there any population groups who are missed or not reached?*
	3B.1.1	The respective representation of Indigenous, culturally and linguistically diverse, socioeconomically disadvantaged, and geographically diverse groups, in diabetes, at-risk and screening programs (compared with their estimated representation in the community).
	3B.2.1	The respective number and characteristics of diabetes services available. *For services which provide management for people with diabetes, what is/are the:* *type of service?* *cost to consumers?* *hours of availability?* *waiting times?* *follow-up?* *outreach services?* *levels of use for different population groups?*
	3C.1.1	Satisfaction with cultural suitability of services available.
	3C.2.1	Self-reported barriers to access to management services.
4. Are we reducing the death and serious health effects of diabetes?		
	4A.1.1	The number and characteristics of existing data sources for assessing the trends in morbidity and mortality from diabetes and its complications, and their connectivity. *For each data source identified:* *What is the type of data source?* *What are the scope and coverage of the data collection?* *What is the frequency of data collection?* *Are data collected according to agreed national or international standards?* *Is the data set routinely analysed and reported on?* *What is the potential connectivity to other data sets?*

(continued)

Table A.4 (continued): Draft NDDWG indicators for diabetes (as at March 2005)

Question	Indicator	Definition
4. Are we reducing the death and serious health effects of diabetes? (continued)		
	4B.1.1	The diabetes-related death rate over time, among: • the general population • Aboriginal and Torres Strait Islander peoples • people of culturally and linguistically diverse backgrounds • people of different socioeconomic status • people from different geographic areas
	4B.2.1	Prevalence and incidence of diabetes, its complications and comorbidities over time (by subgroup, as per indicator 4B.1.1): • diabetes • cardiovascular disease • visual loss • end-stage renal disease • non-traumatic amputation
	4B.2.2	The proportion of people with Type 1 diabetes with complications, by duration of diabetes.
	4B.3.1	The diabetes-related life expectancy over time.
	4C.1.1	Quality of life of people with diabetes (measured by standardised questionnaire).
5. Are we improving the quality of clinical management for people with diabetes?		
	5A.1.1	The adequacy of systems identified to assess quality of clinical management. *For each system identified:* *Does it follow current evidence-based guidelines?* *Is it ongoing?* *Does it cover identified population groups?*
	5A.2.1	The number and characteristics of programs identified to improve the quality of clinical management. *For each program identified:* *Does it make use of current evidence-based or consensus guidelines (as appropriate)?* *Is it ongoing?* *What is the format of the program?*
	5B.1.1	The proportion of people with diabetes that meet guideline targets for: • HbA1C • blood pressure • cholesterol • weight/BMI
	5C.1.1	The proportion of patients satisfied with quality of care.
	5C.3.1	The proportion of patients who are confident they know how to self-manage their diabetes.
	5C.3.2	The proportion of patients who have attended a diabetes educator (for self-management education).
	5C.3.3	The proportion of patients who have a care plan for diabetes, and understand their self-management.

(continued)

Table A.4 (continued): Draft NDDWG indicators for diabetes (as at March 2005)

Question	Indicator	Definition
6. Is case detection occurring optimally?		
	6A.1.1	The proportion of health care practitioners who have a system in place to screen for Type 2 diabetes, and the characteristics of these systems.
		For each system identified:
		Does it follow current evidence-based guidelines?
		Is there a register/recall system?
		Is it culturally appropriate?
		Are primary care practices Practice Incentives Program (PIP) accredited?
	6B.1.1	The proportion of people at risk of Type 2 diabetes that are being screened, and the proportion of these undergoing appropriate screening (as defined by evidence-based guidelines).
	6B.2.1	The ratio of diagnosed to undiagnosed cases of Type 2 diabetes.
	6C.1.1	The proportion of at-risk people who are aware of the need for Type 2 diabetes screening.

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