NSW Population Health Priority Surveillance and Program Delivery Data Collection Activities

Summary Report 2012-2015

NSW GOVERNMENT | Health

Contents

Executive Summary

NSW Health is committed to performing best-practice surveillance activities to inform population health policies and programs. We recognise the need for timely, relevant and accurate information in order to monitor, protect and improve population health and reduce health inequalities in New South Wales (NSW).

This Report provides a summary of priority population health surveillance and program delivery data collection activities that will be undertaken by the Population Health Division of the NSW Ministry of Health during 2012-2015. It describes the strategic priority and level of investment for these activities and provides a summary of the data quality, system maturity and fitness for purpose of supporting surveillance and data collection systems. Particular attention is given to Aboriginal population health surveillance and program delivery data collection activities, due to the known disparity between the quality of population level information and the quality of data for Aboriginal populations. To meet population health challenges over the next three years, new and emerging priority activities have also been identified.

Key findings include:

- Most activities included in this Report were identified as very high or high priority, with corresponding links to national and state plans.
- Most surveillance activities were identified to be of high or very high priority. Despite the priority allocated to these activities, most required only low (less than $200,000 per year) or moderate ($200,000-500,000 per year) investment.

- By contrast, most program delivery activities were identified to be of very high priority and required very high overall investments. However, there was a consistent disparity between the total investment in these large-scale programs and the proportion of this investment allocated to data collection and program monitoring. Despite the high level of investment allocated to these programs, the proportion of funding for most program data collection activities was low (i.e., less than 2% of the overall program investment).
- Data quality and system maturity for the priority surveillance activities ranged from very high (e.g., *NSW Health Survey Program*, *Health Statistics NSW*, *Notifiable Conditions Surveillance*) to high (e.g., *Record Linkage Program, Oral Health Data Collection)* for purpose-built surveillance systems.
- By contrast, most program delivery data collections were identified to be of moderate to low data quality and system maturity. A number of programs reported wide disparities between the ratings for data quality, system maturity and fitness for purpose for these systems (low to moderate) and the ratings for priority and program investment (high to very high).
- The fitness for purpose of surveillance activities tended to be high to very high, while the fitness for purpose of program delivery data collection activities tended to be only low to moderate.
- When compared to the priority activities for the overall population, Aboriginal-specific programs and surveillance activities were assessed as having a consistently lower level of data quality, system maturity and fitness for purpose, even for some very high priority programs with very high levels of investment.

- New and emerging priorities for stakeholders responsible for well-established and sophisticated surveillance activities reported plans to increase the scope and efficiency of these systems.
- By contrast, stakeholders prioritised improving the data quality and system maturity of the systems supporting priority program delivery data collection activities, particularly for very high priority areas.
- Most stakeholders also identified improved reporting of Aboriginal status as a priority activity, particularly for key state-wide surveillance systems. Additionally, the *Enhanced Reporting of Aboriginality (ERA) through Record Linkage* and various programs to improve the identification of Aboriginal people were identified as important new initiatives.

This Summary Report was developed in consultation with Population Health Division's Centre Directors and Branch Managers and a project advisory group. It has been endorsed by the NSW Chief Health Officer and the Population Health Executive.

The Summary Report will assist with ongoing planning to ensure that surveillance and program delivery data collection activities remain a high priority for the Population Health Division. This Summary Report will also guide efforts to improve surveillance and program delivery data collection activities so that they are effective in monitoring the health of the population, are responsive to public health threats and are used to drive population health programs and policies.

SECTION 1

Introduction

This Report provides a summary of New South Wales (NSW) population health surveillance and program delivery data collection activities for 2012-2015. It focuses on the priority and investment allocated to these activities compared to the data quality, system maturity and fitness for purpose of supporting surveillance and data collection systems. It also considers new and emerging priority activities to ensure effective and efficient surveillance and program delivery data collection activities are in place to serve the future needs of NSW.

This Summary Report was developed to support the implementation of the *Population Health Surveillance Strategy NSW 2011 to 2020*[1] and complements *NSW 2021: A plan to make NSW number one*,[2] *Future Directions for Health in NSW: towards 2025*,[3] *Healthy People NSW: Improving the health of the population*[4] and the *Population Health Statement of Strategic Intent*.[5] These documents support the overall vision of good health and wellbeing for all people in NSW.

Purpose and objectives

This Summary Report highlights and summarises priority population health surveillance and program delivery data collection activities for the period 2012-2015. The aim of this Report is to promote the use of high quality surveillance and program delivery data collection activities to improve policy and program effectiveness, which will lead to better population health and reduced health inequalities in NSW.

The objectives of this Summary Report are to:

1. Identify and summarise the current priority surveillance and program delivery data collection activities for the Population Health Division for 2012-2015 as nominated by Centre Directors and Branch Managers;
2. Highlight the priority and investment allocated to these surveillance and program delivery data collection activities and provide an estimate of data quality, system maturity and fitness for purpose of supporting data collection systems;

3. Review the Aboriginal population health components of priority surveillance and program delivery data collection activities in detail; and
4. Describe new and emerging priorities and the next steps required to strengthen surveillance and program delivery data collection capabilities in the Population Health Division.

Scope of the Summary Report

This Report describes surveillance and program delivery data collection activities that are undertaken or supported by the Population Health Division of the NSW Ministry of Health. Primary responsibility for this plan and its implementation lies with the Population Health Division; with the Deputy Director-General, Population Health and NSW Chief Health Officer as the executive sponsor.

This Report includes population health surveillance activities as well as data collection activities that support key population health programs. It is not the intent of this Report to be a comprehensive list of all population health activities, but rather to highlight the priority activities across the Division. While priority surveillance and program delivery data collection activities will be described, a detailed analysis of indicators, interventions and outcomes is beyond the scope of this report. Additionally, this paper does not include monitoring of health system outcomes, as this information is routinely collected by other agencies (e.g., the Australian Bureau of Statistics).

Definitions

Population health surveillance has been defined as '*the ongoing systematic collection, assembly, analysis and interpretation of population health data, and the communication of information derived from these data, to stimulate response to emerging health problems and for use in planning, implementation and evaluation of health services and programs*'.[6]

Traditionally, population health surveillance has primarily concentrated on adverse health outcomes (disease and

death) and therefore on acute information needs.

For the purposes of this Summary Report, a broad
definition of surveillance will be used to include traditional
surveillance as well as program delivery data collection
activities, in order to capture population health surveillance
activities that focus on population health status and risks to
health as well as monitoring of program delivery process
and outcomes. This broad definition is consistent with the
Population Health Surveillance Strategy NSW 2011 to 2020.[1]

This Report covers the period from July 2012 to June 2015
and reflects recent changes to the structure of the Population
Health Division which were implemented in April 2012.

SECTION 2

Background

The four major goals of NSW Health are '*To keep people healthy*', '*To provide the health care that people need*', '*To deliver high quality services*' and '*To manage health services*'.[3] Population health surveillance is a fundamental component of the Ministry's role in monitoring population health status and outcomes and evaluating progress toward these goals.

The recent focus on prevention in health has also created new demands for population health information. At a national level, *The National Partnership Agreement in Preventive Health*[7] and developments such as the establishment of the Australian National Preventive Health Agency, form part of the national health reform agenda.[8] The NSW State Plan, *NSW 2021: A plan to make NSW number one*[2] and the *NSW Policy Framework for Prevention and Early Intervention*[9] also demonstrate a consistent move toward prevention and early intervention. This policy shift and the associated funding for large-scale preventative health interventions has resulted in an increased need for information to assist in the monitoring of program delivery and outcomes to evaluate the effectiveness of our prevention efforts.

This focus on prevention and early intervention falls largely outside of the scope of traditional surveillance for acute health problems and communicable disease. While it is important to maintain and strengthen traditional population surveillance activities, there is a need to ensure high-quality program delivery data collection activities are in place, in order to meet the demands for program reporting and enable accurate and effective program evaluation.

Current situation

The *Population Health Surveillance Strategy NSW 2011 to 2020*[1] aims to support population health policy and practice through leading-edge surveillance activities. These aims are supported by the following four objectives:

1. Carry out surveillance that identifies and drives the promotion of health and well-being and the response to health risks and inequalities;
2. Strengthen surveillance capacity;
3. Transform data into high quality information and knowledge;
4. Be ready to monitor new and emerging threats to health.

This 10-year strategy provides a comprehensive framework, key objectives and strategies as well as outlining the capacity and technical infrastructure required to support leading-edge surveillance activities. The priority surveillance activities mentioned in this strategy include the *NSW Health Survey Program*, *Notifiable Conditions Surveillance* and the *Record Linkage Program*. Strategies to disseminate surveillance information and provide an overview of population health in NSW include *The Health of the People of NSW – Report of the Chief Health Officer* and more recently the web-based *Health Statistics NSW* platform.

SECTION 3

Methods

A series of internal stakeholder consultations were completed with Population Health Division's Centre Directors and Branch Managers in order to identify current priority activities as well as new and emerging surveillance and program delivery data collection activities for the period 2012-2015 (Appendix 1).

Priority activities were summarised using 13 standard headings including the purpose of the activity, the business owners and the policy context (Appendix 2). The priority of the surveillance or program delivery data collection activity was determined by considering links to national, state and local plans. The level of investment was determined by considering the investment in the surveillance and program delivery activities as a whole. In addition, the proportion of funding allocated to data collection was separately identified for the population health program delivery activities.

Centre Directors and Branch Managers allocated ratings for priority and investment using a 4-point rating scale (very high, high, moderate or low priority or investment). Similarly, the data quality, system maturity and fitness for purpose were assessed by Directors and Managers using 4-point rating scales (very high, high, moderate or low) that were developed specifically for the purpose of this Summary Report. Data quality was assessed by reviewing the *completeness, timeliness, accuracy, representativeness, comparability*, *sensitivity* and *specificity* (Table 1, Appendix 2) of information obtained from the surveillance or data collection activity. System maturity was assessed by considering the *scope, sustainability, timeliness* and *accessibility* of information contained in the system as well as *quality control, confidentiality and system security* measures (Table 2, Appendix 2). Fitness for purpose was rated by considering the *purpose of the system* and the *adequacy of data collection* for program monitoring, reporting and evaluation (Table 3, Appendix 2). These 4-point rating scales were adapted from criteria developed by the US Centers for Disease Control and Prevention for the evaluation of surveillance systems.[10]

As the quality of information about the health of Aboriginal populations is known to be lower than that of information about the overall population at a state and national level[11-12], the Aboriginal population components of surveillance and program delivery data collection activities were explored separately. Stakeholders were asked to describe and rate the priority, investment, data quality, system maturity and fitness for purpose of these priority activities for Aboriginal people, using the same 4-point rating scales described previously (Appendix 2).

Additionally, stakeholders were asked to identify new and emerging priority activities, or activities that would improve or extend the existing priority surveillance and program delivery data collection activities. These new and emerging priority activities will ensure that the Population Health Division is constantly improving its surveillance and data collection capacity, and is ready to meet the demand for information about population health status and program effectiveness over the next three years.

A project advisory group consisting of the Population Health Division's Centre Directors was formed to oversee the development of this Report, and to provide regular comments and feedback on the scope and direction of the report and the information provided. The NSW Chief Health Officer was consulted and the report was reviewed and endorsed by the Population Health Executive. All stakeholders were asked to review draft and final documents to ensure completeness and accuracy.

Key Findings

Priority population health surveillance and program delivery data collection activities

The priority population health surveillance and program delivery data collection activities for 2012-2015 as identified by Centre Directors and Branch Managers are presented in Table 1. This table is not a comprehensive list of all surveillance and program delivery activities, but it does demonstrate the considerable breadth of priority surveillance and program delivery activities across the Population Health Division. Summary descriptions of each of these priority activities are provided in Appendix 3.

The priority and investment allocated to support surveillance and program delivery data collection activities have been identified in Table 1. Most priority activities were reported to be of very high or high priority, with corresponding links to national and state plans. The level of investment in priority surveillance activities tended to be low. The fitness for purpose of surveillance activities tended to be high to very high, while the fitness for purpose of program delivery data collection activities in most cases tended to be only low to moderate.

Most surveillance activities were identified to be of high or very high priority. Despite the priority allocated to these activities, most required only low (less than $200,000 per year) or moderate ($200,000-500,000 per year) investment (e.g., the *Record Linkage Program*, *Public Health Real Time Emergency Department Surveillance System (PHREDSS)* and the *Enhanced Surveillance Programs).* The surveillance activities that were of high or very high investment tended to have high staffing costs, such as the cost of surveillance and data entry officers for *Notifiable Conditions Surveillance* and telephone interviewers for the *NSW Health Survey Program.*

By contrast, most program delivery activities were identified to be of very high priority and required very high overall investments. Priority programs included the national and state priority *Obesity Prevention Programs* (*NSW Healthy Children Initiative Programs, Healthy Workers Initiative and Get Healthy Service*), *Tobacco Control Programs (Quit for*

New Life), Aboriginal Health Programs (e.g., *Chronic Care for Aboriginal People, Aboriginal Health Promotion Programs*) and *Maternity and Child Health Programs* (e.g., *Towards Normal Birth, Aboriginal Maternal and Infant Health Service*). However, there was a considerable difference between the total cost of program delivery for these large-scale programs and the proportion of funding allocated to data collection and program monitoring. Despite the high level of investment allocated to these programs, the proportion of funding for most program data collection activities was low (i.e., less than 2% of the overall program investment). For example, the *Quit for New Life Tobacco Control Program, Aboriginal Family Health Program*, *NSW Statewide Infant Screening – Hearing (SWISH) Program* and *Aboriginal Maternal and Infant Health Service (AMIHS)* were associated with very high annual program investment but a low proportional investment in data collection for program monitoring. It is important to note that *NSW Healthy Children Initiative Programs*, a very high priority population health activity, was the only program to have a very high annual investment in program delivery data collection (i.e., >5% of annual program cost). This very high level of investment is consistent with a focus on program monitoring and reporting.

A range of ratings for data quality, system maturity and fitness for purpose for surveillance and program delivery data collection activities was identified, from very high (e.g., *NSW Health Survey Program*, *Health Statistics NSW*, *Notifiable Conditions Surveillance*) to high (e.g., *Record Linkage Program, Oral Health Data Collection)* for purpose-built surveillance systems. Although these systems were of high data quality, system maturity and fitness for purpose; annual investment in these systems tended to be either moderate or low.

By contrast, most program delivery data collections were identified to be of moderate (e.g., *Housing for Health Program*, *Get Healthy Service*) to low data quality (e.g., *Aboriginal Health Programs, Maternity Services Programs* and the *Domestic Violence Routine Screening Program*). A number of programs reported wide disparities between the ratings for data quality, system maturity and fitness for

purpose for these systems (low to moderate) and the ratings for priority and program investment (high to very high). The very high priority *NSW Statewide Infant Screening Program, Chronic Care for Aboriginal People* and *Aboriginal Family Health Program* are examples of programs that lack efficient data collection systems for program monitoring and reporting. The *Get Healthy Service* had moderate data quality, system maturity and fitness for purpose, despite being a very high priority and investment program. Moderate or low ratings for data quality, system maturity and fitness for purpose are consistent with a low level of investment in data collection systems, despite the

provision of a high level of funding for program implementation each year. However, there were two very high priority programs (*NSW Healthy Children Initiative Programs* and the *Quit for New Life Program*) that were reported to have very high fitness for purpose, despite low system maturity. Purpose-built data collection systems will be completed for both programs during the 2012-2015 period. The ratings for data quality, system maturity and fitness for purpose for priority surveillance and program delivery data collection activities are provided in Table 1. Supplementary information is also provided in Appendix 3.

Table 1: Priority population health surveillance and program delivery data collection activities at a glance

Surveillance/Program Delivery Data Collection Activity	Priority	Total Investment	Investment in Data Collection	Data Quality	System Maturity	Fitness for Purpose
Centre for Epidemiology and Evidence						
NSW Health Survey Program						
• NSW Population Health Survey	Very high	Very high[1]	–	Very high	Very high	Very high
• School Students Health Behaviours Survey	Very high	Moderate[1]	–	Very high	Very high	Very high
• Other Surveys	Moderate	Moderate[1,2]	–	Very high	Very high	Very high
Record Linkage Program	Very high	Low	–	High	Very high	Very high
Maternal and Perinatal Surveillance						
• Perinatal Data Collection	Very high	Low	–	Moderate	Moderate	Very high
• Register of Congenital Conditions	Very high	Low	–	Moderate	Moderate	Very high
• Maternal / Perinatal Death Review	High	Low	–	Moderate/ High	Low	Very high
• SIDS Data Collection	Very high	Low	–	Low	Low	High
Population Health Information						
• Public Health Real-Time Emergency Department Surveillance System (PHREDSS)	High	Low	–	Moderate	Very high	High
• Death Registration Surveillance	High	Low	–	High	High	High
Health Statistics NSW	High	Moderate	–	Very high	Very high	Very high
Statistical Application for Population Health Research and Intelligence (SAPHaRI)	High	Moderate	–	Very high	Very high	Very high
Population Health Workforce, Development and Training	High	Very high[1]	Low	Moderate	Moderate	Moderate
Centre for Health Protection						
Notifiable Conditions Surveillance	Very high	Very high[1]	–	High	Very high	Very high
Enhanced Surveillance Programs						
• Seasonal Influenza Surveillance	High	Low	–	Moderate	Moderate	Moderate
• Vaccine Preventable Diseases Surveillance	Very high	Low	–	High	High	High
• HIV Risk Factor Surveillance	Very high	Low	–	High	High	High
• Tuberculosis Surveillance	Very high	Low	–	High	High	High
• Emerging Infectious Diseases Surveillance	Very high	Low	–	High	High	High
• Enteric Disease Surveillance (OzFoodNet)	Very high	Moderate	–	High	High	Moderate
Immunisation Surveillance						
• Child	Very high	Very high	–	Very high	Very high	Very high
• Adolescent (School-Based Program)	Very high	Very high	Very high	High	High	Very high
• Adult	Very high	Low[1]	–	High	High	High
Regional Drinking Water Quality Monitoring	High	Low	–	High	Very high	Very high
NSW Arbovirus Surveillance and Mosquito Monitoring Program	High	Low	–	Very high	Very high	Very high
Housing for Health Program	Very high	High[1]	Low	Moderate	Moderate	Moderate
Aboriginal Environmental Health Workforce	High	High[1]	Low	Moderate	Moderate	Moderate

Surveillance/Program Delivery Data Collection Activity	Priority	Total Investment	Investment in Data Collection	Data Quality	System Maturity	Fitness for Purpose
Centre for Population Health						
Obesity Prevention Programs						
• NSW Healthy Children Initiative Programs	Very high	Very high	Very high	High	Low	Very high
• Get Healthy Service	Very high	Very high	Moderate	Moderate	Moderate	Moderate
• Healthy Workers Initiative	Very high	Very high	Moderate	Low	Low	Low
Tobacco Control Programs						
• Quit for New Life	Very high	Very high	Low	High	Low	Very high
Falls Prevention Programs						
• Stepping On	High	High	Low	Moderate	Low	Low
Blood-Borne Viruses and STI Programs						
• HIV/AIDS and Sexual Health Ambulatory Care Minimum Data Set data collection	High	Very high	Moderate	Very high	High	Moderate
• NSW Hepatitis C Ambulatory Care Minimum Data Set data collection	High	Very high	Low	High	Low	Low
• NSW Needle and Syringe Program and Pharmacy Data Collection	Very high	Very high	Low	High	Moderate	Moderate
• Occupational Exposures to Blood-Borne Viruses Surveillance	High	Low	Low	High	High	Moderate
Centre for Aboriginal Health						
Chronic Care for Aboriginal People Program[4]	Very high	Very high	Low	Low	Low	Low
Aboriginal Ear Health Program	High	High	Low	Low	Low	Low
Aboriginal Family Health Program	Very high	Very high	Low	Low	Low	Low
NSW Aboriginal Health Promotion Program	Very high	Very high	Low	Low	Low	Low
NSW Hospitals Aboriginal Identification Project	Very high	Moderate	Low	High	High	High
Maternity, Children and Young People's Health						
Maternity Services						
• Towards Normal Birth in NSW (uses the Perinatal Data Collection)	Very high	Very high	Low	Moderate	Moderate	High
• NSW Statewide Infant Screening – Hearing (SWISH)	Very high	Very high	Low	Low	Low	Low
• Aboriginal Maternal and Infant Health Service (AMIHS)	Very high	Very high	Low	Moderate	Moderate	Moderate
Universal Services Programs						
• NSW Statewide Eyesight Preschooler Screening (StEPS)	High	Very high	Low	High	Moderate	Moderate
• Personal Health Record (uses the Health Survey Program)	High	Very high	Low	Very high	Very high	Moderate
Targeted Services for Vulnerable Populations						
• Building Strong Foundations (BSF) for Aboriginal Children, Families and Communities	Very high	Very high	Moderate	Moderate	Moderate	Moderate
• Health Assessments, Reviews and Interventions for Children in Out-Of-Home-Care	High	High	Low	High	Moderate	Moderate
Child Protection and Well-Being Services						
• Sexual Assault (adult and child)	High	High	Low	Moderate	Moderate	Moderate
• Domestic Violence Routine Screening	High	High	Low	Low	Low	Moderate
Centre for Oral Health Strategy						
Oral Health Surveys (national and state wide)	Very high	Low	–	Very high	Very high	Very high
Oral Health Surveillance	High	Low	Low	High	Very high	High
Office for Medical Research						
Research and Ethics Governance Program	High	Moderate	–	Low	Very high	Low

Notes: Table 1 shows priority population health surveillance and program delivery data collection activities where data collection currently exists in some form. This is not a comprehensive list of surveillance activities and includes priority activities as nominated by Centre Directors and Branch Managers. Surveillance and program delivery data collection activities have been assigned to the Centre responsible for delivery.

For population health programs, two ratings for investment have been provided; one to represent the total cost of the program and the other to indicate the proportion of funding specifically allocated to program delivery data collection. For surveillance activities, a single rating has been provided to represent the total investment (with the second column left blank), as the activity as a whole is dedicated to population health surveillance.

Key

[1] Investment value includes staff costs

[2] Survey funded by requesting organisation

[3] System maintained by the Office of Environment and Heritage

[4] Program run by Chronic Disease Management Office

Priority Activities

Surveillance Activity

Program Delivery Data Collection Activity

Priority

Very high = National priority with linked indicators

High = State priority with linked indicators

Moderate = LHD priority with linked indicators

Low = Not a current priority; may be in the future

Investment in program or surveillance activity (per annum)

Very high = >$1,000,000

High = $500,000 – $1,000,000

Moderate = $200,000 – $499,999

Low = <$200,000

Investment in data collection or surveillance component (per annum)

Very high = > 5% of program cost

High = 4–5% of program cost

Moderate = 2–3% of program cost

Low = < 2% of program cost

Data quality

Very high = Complete and accurate data

High = Mostly complete and accurate data

Moderate = Proportion of missing data

Low = Largely incomplete data

System maturity

Very high = National / state wide; electronic system

High = LHD / locally based; electronic system

Moderate = Locally based; electronic / paper system

Low = Local / site based; predominantly manual system

Fit for Purpose

Very high = Data are appropriate to monitor program targets; all required information is available

High = Data are adequate to monitor program targets; most required information is available

Moderate = Data does not comprehensively monitor program targets; some additional information is required

Low = Data are not adequate; the system does not meet your needs

Aboriginal population health surveillance and program delivery data collection activities

Priority Aboriginal population health surveillance and program delivery data collection activities were reviewed separately in order to further examine the disparity between the quality of information for the overall population and the quality of information for Aboriginal populations. Table 2 shows the priority and investment allocated to these activities compared to the data quality, system maturity and fitness for purpose of relevant supporting surveillance and data collection systems.

When compared to the overall ratings shown in Table 1, the ratings in Table 2 show a lower level of data quality for most Aboriginal-specific surveillance activities. Only two priority surveillance activities (*Child Immunisation Surveillance and Oral Health Surveys)* were reported to have very high or high quality data for Aboriginal populations. All other surveillance activities were identified to have moderate data quality for Aboriginal Populations, despite having very high data quality at a population level. Examples include the *NSW Health Survey Program*, *The Record Linkage Program* and *Health Statistics NSW.* Similarly, the *Notifiable Conditions Information Management System (NCIMS)*, a purpose-built surveillance system for notifiable communicable diseases, was reported to have high data quality at a population level, but moderate data quality for Aboriginal people.

Although there were a small number of Aboriginal-specific population health programs that were identified to have high or very high data quality (*Quit for New Life Program*, *NSW Aboriginal Sexual and Reproductive Health Programs*, *NSW Aboriginal Hepatitis C Programs* and the *NSW Hospitals Aboriginal Identification Project),* most population health programs were identified to have moderate or low data quality. In line with the ratings shown in Table 1, high priority Aboriginal Health programs such as the *Chronic Care for Aboriginal People Program* and the *NSW Aboriginal Family Health Program* were identified to have low data quality, despite considerable annual investment.

Additionally, Aboriginal-specific programs implemented by other Centres such as the *Aboriginal Health and Medical Research Council of NSW Tobacco Resistance and Control (ATRAC) program, Aboriginal Maternal and Infant Health Services (AMIHS), Building Strong Foundations for Aboriginal Children, Families and Communities and Aboriginal Oral Health* programs were all reported to have low data quality for program monitoring and reporting.

These disparities were consistently identified as limitations of current population health surveillance and program delivery data collection activities. Strategies to address these disparities and to improve the quality of Aboriginal-specific surveillance and program data should be prioritised within the Population Health Division.

Table 2:   Summary of Aboriginal population health surveillance and program delivery data collection activities

Surveillance/Program Delivery Data Collection Activity	Priority	Total Investment in Aboriginal Health Activity	Investment in Aboriginal Health Data Collection	Data Quality	System maturity	Fitness for purpose
Centre for Epidemiology and Evidence						
Health Survey Program: Aboriginal specific data	Very high	Moderate[1]	–	Moderate	Very high	Very high
Record Linkage Program: Aboriginal specific data	Very high	Low	–	Moderate	Very high	Very high
Health Statistics NSW: Aboriginal specific data	Very high	Low	–	Moderate	Very high	Very high
Aboriginal Population Health Workforce	High	High[1]	Low	Moderate	Moderate	Moderate
Centre for Health Protection						
Notifiable Conditions Surveillance: Aboriginal specific data	Very high	Low[1]		Moderate	Very high	Very high
Immunisation surveillance: Aboriginal specific data						
• Child	Very high	Low	–	Very high	Very high	Very high
• Adolescent (School-Based Program)	Very high	Low	Low	High	High	Very high
• Adult	Very high	Low[1]	–	Moderate	High	High
Housing for Health Program	Very high	High	Low	Moderate	Moderate	Moderate
Aboriginal Environmental Health Workforce	High	High[1]	Low	Moderate	Moderate	Moderate
Centre for Population Health						
Obesity Prevention Programs: Aboriginal component						
• Children's obesity prevention programs	Very high	Very high	Low	Low	Low	Low
• Adult obesity prevention programs	Very high	Very high	Low	Low	Low	Low
Tobacco Control Programs						
• Quit for New Life	Very high	Very high	Low	High	Low	Very high
• AH&MRC Tobacco Resistance and Control (A-TRAC)	Very high	High	Low	Low	Low	Low

Surveillance/Program Delivery Data Collection Activity	Priority	Total Investment in Aboriginal Health Activity	Investment in Aboriginal Health Data Collection	Data Quality	System maturity	Fitness for purpose
Centre for Population Health continued						
Falls Prevention Programs: Aboriginal component	High	Very high	Low	Low	Low	Low
Blood-Borne Viruses and STI Programs						
• HIV/AIDS and Sexual Health Ambulatory Care Minimum Data Set data collection: Aboriginal specific data	Very high	Very high	Moderate	Very high	High	Moderate
• Hepatitis C Ambulatory Care Minimum Data Set data collection: Aboriginal specific data	Very high	Very high	Low	High	Low	Low
• NSW Aboriginal Sexual and Reproductive Health Programs	Very high	Very high	Moderate	High	Very high	High
• NSW Aboriginal Hepatitis C Programs	Very high	Very high	Moderate	High	Very high	High
Centre for Aboriginal Health						
Chronic Care for Aboriginal People (CCAP) Program[2]	Very high	Very high	Low	Low	Low	Low
Aboriginal Ear Health Program	Very high	High	Low	Low	Low	Low
Aboriginal Family Health Program	Very high	High	Low	Low	Low	Low
NSW Aboriginal Health Promotion Program	Very high	Very high	Low	Low	Low	Low
NSW Hospitals Aboriginal Identification Project	Very high	Moderate	Low	High	High	High
Centre for Maternity, Children and Young People's Health						
Aboriginal Maternal and Infant Health Service (AMIHS)	Very high	Very high	Low	Moderate	Moderate	Moderate
Building Strong Foundations for Aboriginal Children, Families and Communities	Very high	Very high	Moderate	Moderate	Moderate	Moderate
Centre for Oral Health Strategy						
Oral Health Surveys: Aboriginal specific data	Very high	Low	–	High	Very high	Very high
Aboriginal Oral Health Programs	Very high	Very high	Low	Low	High	High

Notes: This is not a comprehensive list of surveillance and program delivery data collection activities and includes priority Aboriginal Health activities as nominated by Centre Directors and Branch Managers. Surveillance and program delivery activities have been assigned to the Centre responsible for delivery.

For population health program delivery data collection activities, two ratings for investment have been provided; one to represent the total cost of the Aboriginal Health component of the program and the other to indicate the proportion of funding specifically allocated to data collection. For surveillance activities, a single rating has been provided to represent the total investment (with the second column left blank), as the activity as a whole is dedicated to population health surveillance.

Key

[1] Investment value includes staff costs

[2] Survey funded by requesting organisation

[3] System maintained by the Office of Environment and Heritage

[4] Program run by Chronic Disease Management Office

Priority Activities

Surveillance Activity

Program Delivery Data Collection Activity

Priority

Very high = National priority with linked indicators
High = State priority with linked indicators
Moderate = LHD priority with linked indicators
Low = Not a current priority; may be in the future

Data quality

Very high = Complete and accurate data
High = Mostly complete and accurate data
Moderate = Proportion of missing data
Low = Largely incomplete data

Investment in program or surveillance activity (per annum)

Very high = >$1,000,000
High = $500,000 – $1,000,000
Moderate = $200,000 – $499,999
Low = <$200,000

System maturity

Very high = National / state wide; electronic system
High = LHD / locally based; electronic system
Moderate = Locally based; electronic / paper system
Low = Local / site based; predominantly manual system

Investment in data collection or surveillance component (per annum)

Very high = > 5% of program cost
High = 4–5% of program cost
Moderate = 2–3% of program cost
Low = < 2% of program cost

Fit for Purpose

Very high = Data are appropriate to monitor program targets; all required information is available
High = Data are adequate to monitor program targets; most required information is available
Moderate = Data does not comprehensively monitor program targets; some additional information is required
Low = Data are not adequate; the system does not meet your needs

New and emerging population health priorities

New and emerging priority surveillance and program delivery data collection activities for the period 2012-2015 are presented in Table 3. The priority of these activities has been identified, as has the allocated or planned investment. Most Centre Directors and Branch Managers prioritised improving the quality of information obtained and the system maturity of the systems supporting the identified priority program delivery data collection activities, particularly for very high priority areas such as *Tobacco Control, Obesity Prevention, HIV Risk Factor Enhanced Surveillance* and *Maternity Services Programs*. For example, new and emerging priority activities for the *Statewide Infant Screening – Hearing (SWISH)* program and the *Aboriginal Maternal and Infant Health Service (AMIHS)* program included developing improved data collection systems to increase the accuracy and effectiveness and reduce the effort associated with program monitoring and evaluation. Similarly, the development of the *Population Health Intervention Management System (PHIMS)* was identified as a priority activity for *Population Health Programs*. Further review of these priority activities is required to support efforts to improve data collection systems and will be led by the Centre responsible for program delivery.

By contrast, new and emerging priorities for stakeholders responsible for well-established and sophisticated surveillance activities included plans to increase the scope and efficiency of these systems. For example, new and emerging priorities for *Health Statistics NSW* focused on developing new indicators. Additionally, a priority activity for *Notifiable Conditions Surveillance* was to expand the *Notifiable Conditions Information Management System (NCIMS)* to include electronic reporting for laboratory notifications.

Most stakeholders also identified improved reporting of Aboriginal status as a priority activity, particularly for state-wide surveillance systems such as the *NSW Health Survey Program* and *Notifiable Conditions Surveillance*. Additionally, the *Enhanced Reporting of Aboriginality (ERA) through Record Linkage* and various programs to improve the identification of Aboriginal people were identified as important new initiatives. These activities will contribute to efforts to improve the quality of data available for the surveillance and monitoring of programs delivered to Aboriginal populations and should be prioritised as important activities for the Population Health Division.

The new and emerging priority activities shown in Table 3 demonstrate the considerable variety of new and enhanced surveillance and program delivery data collection activities planned for the period 2012-2015. These activities highlight the high level of commitment and investment allocated to the development and maintenance of best-practice surveillance and program delivery data collection activities across the Population Health Division.

Table 3: Summary of new and emerging priorities for population health surveillance and program delivery data collection activities

Surveillance Activity and Description	Priority	Total Investment
Centre for Epidemiology and Evidence		
NSW Health Survey Program		
• Enhance reporting of Aboriginality; Investigate oversampling of Aboriginal populations	Very high	Low
Record Linkage Program		
• Establish a data management system to automate exchange of data between the Centre for Epidemiology and Evidence and the Centre for Health Record Linkage (CHeReL); this project is shared with the CHeReL	High	Moderate
• Enhanced Reporting of Aboriginality (ERA) through Record Linkage[1] – A feasibility study has been completed and a paper published; The protocol is currently being completed	High	Low
Maternal and Perinatal Data collections		
• Perinatal Data Collection[2] to be processed 6 monthly instead of annually	High	Low
• Implement electronic reporting for the Register of Congenital Conditions and the Perinatal Death Review Databases (due to be installed in most maternity hospitals in NSW)	High	Low
Population Health Information and Reporting		
• Population Health Real Time Emergency Department Surveillance System (PHREDSS) – Improve geographic capabilities of PHREDSS; Improve data quality and resolve issues associated with the implementation of FirstNet	Moderate Moderate	Low Low
• Death registration – Improve use of death registration data and geographic capabilities of system		
Health Statistics NSW		
• Incorporate the remaining indicators from the electronic Chief Health Officers (eCHO) Report, NSW Mothers and Babies Report and Adult Health Survey Report	High	Low
• Increase the volume of Local Government Area and Division of General Practice indicators; enhance reporting of Aboriginality		
• Incorporate Country of Birth health survey indicators and hospital activity indicators		
• Review strategies to improve data quality; Include complex data analysis; Develop new indicators	High	Low

Surveillance Activity and Description	Priority	Total Investment
Centre for Health Protection		
Notifiable Conditions Surveillance		
• Incorporate electronic reporting of laboratory notifications	Very high	Moderate
• Improve reporting of Aboriginality	Very high	Low
HIV/AIDS and Infectious Diseases Surveillance[3]		
• Improve quality of data for risk factors:		
– Median CD4 count at HIV diagnosis	Very high	Low
– Hepatitis C diagnosis (new infections, demographics, risk factors)	Very high	Low
Centre for Population Health		
Population Health Programs		
• Improve data quality for monitoring, evaluation and performance of high priority programs for tobacco control and obesity prevention	Very high	High
• Development of the Population Health Intervention Management System (PHIMS)	Very high	High
HIV Surveillance:		
• Surveillance of community HIV viral load	High	Low
HIV/AIDS and Infectious Diseases Programs		
• HIV/AIDS and Sexual Health Minimum Data Set – Incorporate priority populations and standardise counting business rules	High	Low
• Hepatitis C Minimum Data Set – Implement occasion of service reporting and support Local Health Districts to adopt systems to facilitate data collection	High	Low
• NSW Needle and Syringe Program and Pharmacy Data Collection – Improve data collection processes	Very high	Low
• HIV / Hepatitis C Health Promotion Programs – Measurement of intervention effectiveness; complexity of care metrics and systems	High	Low
Centre for Aboriginal Health		
Improving Identification of Aboriginality		
• Enable recording of Aboriginality in Western Sydney Local Health District Emergency Department Data Collection	High	Low
Maternity, Children and Young People's Health		
Maternity Services		
• Aboriginal Maternal and Infant Health Service (AMIHS) – Improve the quality of data collection by providing all AMIHS services with training and access to the ObstetriX database	High	Moderate
Universal Services Programs		
• NSW Statewide Infant Screening – Hearing (SWISH) Program – Develop a statewide database and improve the quality of data available for outcome measurement and program monitoring.	High	Moderate
• Statewide Eyesight Preschooler Screening (StEPS) Program – Develop a statewide database and improve the quality of data available for outcome measurement and program monitoring.	High	Moderate
Targeted Services for Vulnerable Populations		
• Health assessment, reviews and interventions for children and young people in Out-of-Home-Care	High	High
Centre for Oral Health Strategy		
Oral health surveys and reporting		
• Implement oral health surveys with a focus on Indigenous populations, the elderly and special needs groups	High	Low
• Establish routine reporting of disease status at the point of service	High	Low
• Establish a common minimum data set for reporting oral health status for Aboriginal populations	High	Low
Oral Health Programs: Enhanced Surveillance		
• Medicare Teen Dental Program – Analyse routinely collected data for monitoring and program evaluation	High	Low

Notes: This is not a comprehensive list of planned activities and includes new and emerging priority activities as identified by Centre Directors and Branch Managers. Priority activities have been assigned to the Centre that will be responsible for delivery.

Key

[1] This project is also a component of the NSW Hospital Aboriginal Identification Project

[2] Data set managed by the Demand, Performance and Evaluation Branch

[3] New and emerging priority activities provided by the Centre for Population Health

Priority Activities

Surveillance Activity
Program Delivery Data Collection Activity

Priority

Very high = National priority with linked indicators; current system inadequate or not operational
High = State priority with linked indicators; current system insufficient
Moderate = LHD priority with linked indicators; Current system operational; upgrades required
Low = Not a current priority; may be in the future

Investment (per annum)

Very high = >$1,000,000
High = $500,000 – $1,000,000
Moderate = $200,000 – $499,999
Low = <$200,000

Next steps

The surveillance and program delivery data collection activities described in this Summary Report will be implemented by the Population Health Division of the NSW Ministry of Health. There will be a review of this Report in 2015 to ensure that surveillance and program delivery data collection activities are relevant and meet the strategic objectives of the NSW Ministry of Health.

The NSW Population Health Executive will oversee the review of this updated Summary Report to ensure that it continues to align with the objectives of the *Population Health Surveillance Strategy NSW 2011 to 2020*[1] and the *Population Health Statement of Strategic Intent,*[5] and to ensure that priority surveillance and program delivery data collection activities continue to meet the demand for information associated with emerging population health issues.

SECTION 6

References

1. NSW Department of Health, Centre for Epidemiology and Research. Population Health Surveillance Strategy NSW 2011 to 2020. July 2011. Available at: http://www.health.nsw.gov.au/pubs/2011/surveillance_strategy.html (last accessed 23 March 2012)

2. NSW Government. NSW 2021: A plan to make NSW number one. March 2010. Available at: http://2021.nsw.gov.au/sites/default/files/NSW2021_WEB%20VERSION.pdf (last accessed 29 March 2012)

3. NSW Department of Health. Future Directions for Health: Towards 2025. February 2007. Available at: http://www.health.nsw.gov.au/pubs/2007/pdf/future_directions.pdf (last accessed 23 March 2012)

4. NSW Department of Health, Population Health Division. Healthy People NSW: Improving the health of the population. February 2007. Available at: http://www.health.nsw.gov.au/pubs/2007/pdf/healthy_people.pdf (last accessed 23 March 2012)

5. NSW Department of Health, Population Health Division. Population Health: Statement of Strategic Intent. April 2011.

6. Thacker SB, Berkelman RL. Public health surveillance in the United States. Epidemiol Rev 1988; 10:164-90.

7. Department of Health and Ageing. National Partnership Agreement on Preventive Health. November 2008. Available at: http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/national_partnership_on_preventive_health.pdf (last accessed 23 March 2012)

8. Australian Government. A National Health and Hospitals Network for Australia's future. Available at: http://www.yourhealth.gov.au/internet/yourhealth/publishing.nsf/Content/nhhn-report-toc/$FILE/NHHN%20-%20Full%20report.pdf (last accessed 23 March 2012)

9. NSW Government. M2007-20 State Plan Priority F4: policy framework on prevention and early intervention. December 2007. Available at: http://222/dpc.nsw.gov.au/publication/memos_and_circulars/ministerial_memoranda/2007/m2007-20 (last accessed 23 March 2012)

10. Centres for Disease Control and Prevention. Updated Guidelines for Evaluating Public Health Surveillance Systems: Recommendations from the Guidelines Working Group. July 2001. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5013a1.htm (last accessed 3 January 2012)

11. Department of Health and Ageing. National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes. November 2008. Available at: http://www.coag.gov.au/intergov_agreements/federal_financial_relations/docs/national_partnership/NP_closing_the_Gap_indigenous_health_outcomes.pdf (last accessed 15 March 2012).

12. Vos T, Barker B, Begg S, Stanley L, Lopez A. Burden of disease and injury in Aboriginal and Torres Strait Islander Peoples: the Indigenous health gap. Int J Epidemiol 2009; 38:470-7.

Appendices

Stakeholder Consultations

Consultations with Centre Directors and Branch Managers

Centre / Branch	Name	Position	Interview type
Centre for Epidemiology and Evidence			
Centre	Sarah Thackway	Director	Face-to-face
Epidemiology and Biostatistics Branch	Lee Taylor	Associate Director	Face-to-face
	Helen Moore	Manager	Face-to-face
	Margo Barr	Manager	Face-to-face
Population Health Intelligence Branch	Michelle Cretikos	Associate Director	Face-to-face
	David Muscatello	Manager	Face-to-face
Evidence and Evaluation Branch	Jo Mitchell	Associate Director	Face-to-face
Centre for Health Protection			
Centre	Jeremy McAnulty	Director	Face-to-face
Communicable Diseases Branch	Paula Spokes	Manager	Face-to-face
	Jennie Musto	Manager	Face-to-face
	Amanda Christensen	Manager	Face-to-face
Immunisation Branch	Sue Campbell-Lloyd	Manager	Face-to-face
	Su Reid	Senior Policy Analyst	
Environmental Health Branch	Paul Byleveld	Manager	Face-to-face
	Adam Capon	Manager	Face-to-face
	Jeff Standen	Manager	Face-to-face
Centre for Population Health			
Centre	Jo Smith	Director	Face-to-face
Statewide Major Projects Branch	Brendan Goodger	Manager	Face-to-face
Strategic Research and Development Branch	Bev Lloyd	Manager	Face-to-face
Strategic Policy and Partnerships Branch	Andrew Whitehead	A/Manager	Face-to-face
AIDS and Infectious Diseases Branch	Darryl O'Donnell	Associate Director	Face-to-face
	Daniel Madeddu	Manager	Face-to-face
	Jo Holden	Senior Policy Analyst	Face-to-face
	Deni Fukunishi	Senior Policy Analyst	Face-to-face
Centre for Aboriginal Health			
Centre	Carmen Parter	Director	Face-to-face
Research and Evaluation Unit	Jessica Stewart	Manager	Face-to-face
Maternity, Children and Young People's Health			
Centre	Cathrine Lynch	Director	Face-to-face
Maternity Services	Ros Johnson	Associate Director	Face-to-face
Children, Young People and Family Health and Wellbeing	Mailin Suchting	A/Associate Director	Face-to-face
Maternity and Child Health	Elizabeth Best	Principal Policy Officer, AMIHS	Face-to-face
	Elisabeth Murphy	Senior Clinical Advisor	Face-to-face
Centre for Oral Health Strategy			
Centre	John Skinner	Manager	Telephone
	Shanti Sivaneswaran	Principal Policy Officer	Telephone
Mental Health Drug and Alcohol Office			
Programs Development and Coordination	Brian Woods	Associate Director	Face-to-face

Fields for description of surveillance and program delivery data collection activities and scales for self-assessment of data quality, system maturity and fitness for purpose

Required information

1. Title of activity/program
2. Description
3. Purpose
4. Priority (Very high [e.g., part of national performance agreement], high [e.g., part of state plan], medium [e.g., Local Health District (LHD) or local priority], low [e.g., not a priority at present, may be prioritised in the future])
5. Policy context
6. Linked indicators for surveillance activities; Policy and program indicators for program monitoring activities
7. Business owners
8. Level of investment for the program compared to level of investment for the surveillance / delivery data collection component
9. Activity status (active/ongoing or planned/intermittent) and expected timeframes (ongoing or anticipated date of completion)
10. Data collection system
    a. Primary point of collection
    b. Frequency of reporting
11. Self-reported rating for data quality (Table 1 – Very High, High, Moderate, Low data quality)
12. Self-reported rating for system maturity (Table 2 – Very High, High, Moderate, Low system maturity)
13. Self-reported rating for system fitness for purpose (Table 3 – Very High, High, Moderate, Low fitness for purpose)

Table 1: Criteria for rating the data quality of population health surveillance and program delivery data collection activities

Data quality	Description
Very high	*Completeness* – there is a comprehensive ascertainment of case / subject matter; data includes all fields of interest; data complete for all required fields *Timeliness* – data are entered/compiled rapidly; data are available when required *Accuracy* – data are exact, correct and valid *Oriented* – there is focused, targeted and intended data collection; programs collect only data that is appropriate to their goals and objectives *Representativeness* – data are considered to accurately represent the target population *Comparability* – data sets conform to related data sets allowing for comparison at a local, state, national or international level *Sensitivity / Specificity* – there is correct detection of true cases – very high sensitivity – and low numbers of false cases (non-cases that should not have been included) – very high specificity – 90-100% of the time
High	*Completeness* – there is a adequate ascertainment of case / subject matter; data includes most fields of interest; data complete for more than 80% of required fields *Timeliness* – data are mostly rapidly entered/compiled; there may be short delays in accessing required data *Accuracy* – data are mostly correct and valid *Oriented* – data collection is planned; programs collect data that are appropriate to their goals and objectives *Representativeness* – data are considered to represent the target population *Comparability* – data sets conform to other related data sets allowing for comparison at a local or state level *Sensitivity / Specificity* – there is correct detection of true cases (high sensitivity) and limited numbers of non-cases that should not have been detected (high specificity) 80-89% of the time
Moderate	*Completeness* – there is incomplete ascertainment of case / subject matter; data includes some fields of interest; data are complete for up to 70% of required fields *Timeliness* – data are not promptly entered/compiled or responsive to demands; there are recognised delays in accessing required data *Accuracy* – data are generally correct and valid *Oriented* – data collection may not be planned for specific surveillance or monitoring activities; various data sources of general relevance may be used *Representativeness* – there are known differences between the surveillance / monitoring data and the target population *Comparability* – data sets do not consistently conform to other related data sets; limited comparability at a state or local level *Sensitivity / Specificity* – there is correct detection of true cases (moderate sensitivity) and moderate inclusion of non-cases that should not have been included (moderate specificity) 70-79% of time
Low	*Completeness* – there is an inadequate ascertainment of case / subject matter; data includes few fields of interest; data are incomplete for more than 50% of required fields *Timeliness* – there are lengthy delays in data acquisition; data are known to be insufficient for surveillance / monitoring purposes *Accuracy* – data is not generally accurate or valid for surveillance / monitoring purposes *Oriented* – data collection is not planned; multiple other data sources of variable relevance may be used for surveillance or monitoring purposes *Representativeness* – there are significant differences between the data set and target population; data are not considered to be representative of the target population *Comparability* – data sets do not conform to other related data sets; limited comparability at any level *Sensitivity / Specificity* – there is correct detection of true cases less than 70% of the time (low sensitivity) and/or cases that should not have been detected are included (low specificity – less than 70%)

Table 2: Criteria for rating the system maturity of population health surveillance and data collection activities

System maturity	Description
Very high	*Scope* – national or state-wide electronic surveillance / monitoring system with single integrated database and standardised well-defined minimum data sets *Sustainability* – skilled system administration and data management staff dedicated to the system; formal system maintenance agreements are in place *Timeliness* – daily to monthly reporting is readily achievable and accessible *Accessibility* – data are easily accessible in unit record format if required, from an internet-based interface or electronic data warehouse *Quality control* – frequent quality assurance, data management and maintenance of data feeds and formats *Confidentiality and system security* – data users are always required to sign confidentiality agreements against disclosure; strict data governance and security (e.g., password protection, security protocols) are in place
High	*Scope* – LHD or locally based surveillance / monitoring system with single integrated database for all data, standardised minimum dataset *Sustainability* – system administration and/or data management staff are readily available; system maintenance is performed *Timeliness* – annual reporting is achievable and accessible *Accessibility* – data are accessible in unit record format if required, from a database or other electronic system *Quality control* – regular quality assurance, data management and maintenance of data feeds and formats *Confidentiality and system security* – data users are required to sign confidentiality agreements against disclosure; adequate data governance and security procedures (e.g., password protection) are in place
Moderate	*Scope* – LHD or locally based surveillance / monitoring with local stand-alone database / data collection system; no minimum data set or limited data standards *Sustainability* – system administration or data management is performed intermittently *Timeliness* – biennial or less frequent reporting; data are not easily accessible *Accessibility* – data available in aggregate format only; combination of electronic and paper-based systems; moderate workload to compile *Quality control* – quality assurance, data management and review of data formats are conducted infrequently *Confidentiality and system security* – data users may not be required to sign confidentiality agreements against disclosure; data governance and security procedures (e.g., password protection) may not be in place
Low	*Scope* – Local or site-based surveillance / monitoring system with no supporting electronic database; extremely limited data standards *Sustainability* – system administration or data management is performed infrequently or not at all *System purpose* – purpose of data collection system is unrelated and poorly aligned to program / surveillance objectives *Timeliness* – data not routinely collected, analysed or reported *Accessibility* – data accessible; however predominantly manual / paper-based system with high workload to compile *Quality control* – quality assurance, data management and review of data formats are conducted infrequently/not at all *Confidentiality and system security* – data users are not required to sign confidentiality agreements against disclosure; data governance/security procedures (e.g., password protection) are not in place

Table 3: Criteria for rating fitness for purpose of population health surveillance and program delivery data collection activities

Fitness for purpose	Description
Very high	*System purpose* – purpose-built or highly aligned surveillance/monitoring system is in place. System directly meets all surveillance or program delivery information needs. *Data collection* – data collected is appropriate to evaluate, track or monitor program targets, goal, benchmarks and for reporting on key performance indicators at a national and state level. All required information is available (e.g., denominator data; economic / cost-effectiveness information if required)
High	*System purpose* – purpose of data collection system includes monitoring surveillance trends/program delivery. System meets most surveillance or program delivery information needs. *Data collection* – data are adequate to evaluate, track or monitor program targets, goal, benchmarks and for reporting on key performance indicators at a state and local level. Most of the required information is available (e.g., denominator data; economic / cost-effectiveness information if required)
Moderate	*System purpose* – data collection system is primarily for other purposes such as resource allocation or clinical administration. System meets some surveillance or program delivery information needs. *Data collection* – data collection does not comprehensively evaluate, track or monitor program targets, goals, benchmarks and for reporting on key performance indicators at a LHD or local level. Some additional information is available (e.g., denominator data; economic / cost-effectiveness information if required).
Low	*System purpose* – purpose of data collection system is unrelated and poorly aligned to program / surveillance objectives *Data collection* – data are not adequate to evaluate, track or monitor program targets, goal, benchmarks and for reporting on key performance indicators at a local or site level. Required information is not available (e.g., denominator data; economic / cost-effectiveness information if required)

APPENDIX 3

Description of priority population health surveillance and program delivery data collection activities

Centre for Epidemiology and Evidence

NSW Health Survey Program	
NSW Population Health Survey	
Description:	The NSW Population Health Survey is a telephone survey of approximately 15,000 people across NSW, completed between February and December each year. The main aims of this survey are to learn about the health of people in NSW and the factors that affect it, the use of health services and people's attitudes to health services and policies. Results are presented annually for adults and biannually for children.
Purpose:	Monitoring and surveillance
Priority:	Very high priority
Policy context:	National Partnership Agreement in Preventive Health; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Survey participation rates (calculated quarterly and reported annually) Data quality (coefficient of variance) and timeliness Number of data requests Use of data in publications and reports
Business owners:	Centre for Epidemiology and Evidence
Investment:	Very high investment ($1.5M per year for adult and child health survey)
Timeframe/activity status:	Annual survey (between February and December); reported annually for adults and biennially for children
Data collection:	Telephone survey (Computer Assisted Telephone Interview)
Data quality:	Very high data quality for overall population Moderate data quality for Aboriginal populations (small sample size; under-reporting of Aboriginal status; differences between surveillance data and target population)
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose
NSW School Students Health Behaviours Survey	
Description:	The NSW School Students Health Behaviours Survey collects information about the health behaviours and attitudes of secondary school students in NSW. The survey includes questions on tobacco, alcohol, illicit drug use, and sun protection from the Australian Students' Smoking, Alcohol and Drug Survey, with supplementary questions on nutrition, mental health, physical activity, sun protection, and injury. The results from the NSW School Students Health Behaviours Survey are used to provide information about, and comparisons of, trends in health behaviours and attitudes of secondary school students. This information will assist in the development of policies and programs designed to improve student health. It also provides an indicator of the effectiveness of existing health education strategies.
Purpose:	Monitoring and surveillance
Priority:	Very high priority
Policy context:	National Partnership Agreement in Preventive Health; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Survey participation rates Data quality (coefficient of variance) and timeliness Number of data requests Use of data in publications and reports
Business owners:	Centre for Epidemiology and Evidence
Investment:	Moderate investment ($750,000 for survey every three years ($250,000 per year))
Timeframe/activity status:	Survey completed triennially
Data collection:	Self-administered questionnaire
Data quality:	Very high data quality for overall population Moderate data quality for Aboriginal populations (small sample size; under-reporting of Aboriginal status; known differences between surveillance data and target population)
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Other Surveys

Description:	The Health Survey Program is involved in a number of other surveys and studies that monitor population health including the Australian Capital Territory Health Survey, the NSW Falls Prevention Baseline Study (2009) and epidemiological investigations.
Purpose:	Monitoring and surveillance
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Survey participation rates Data quality (coefficient of variance) and timeliness Number of data requests Use of data in publications and reports
Business owners:	Centre for Epidemiology and Evidence
Investment:	Funding provided by organisation that requests survey; total cost dependent upon sample size of survey ($60 per survey quoted by the Health Survey Program)
Timeframe/activity status:	Survey's completed on request
Data collection:	Telephone Survey (Computer Assisted Telephone Interview)
Data quality:	Very high data quality for overall population Moderate data quality for Aboriginal populations (small sample size; under-reporting for Aboriginal status; known differences between surveillance data and target population)
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Record Linkage Program

Description:	The data linkage program (run by the Centre for Health Record Linkage) aims to create and sustain a record linkage infrastructure for the health and human services sector, and provide access to these resources to bona fide researchers and health planners and policy makers.
Purpose:	IT support; problem solving; evaluation
Priority:	Very high priority
Policy context:	National Partnership Agreement in Preventive Health; NSW 2021: A plan to make NSW number one; Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Availability and timeliness of linked data – enhanced data linkage routinely used Number of requests for linked data Datasets available with enhanced reporting of Aboriginal and Torres Strait Islander people
Business owners:	Jointly managed by NSW Health and the Cancer Institute NSW
Investment:	Low investment ($110 000 per year for infrastructure; no other regular funding)
Timeframe/activity status:	Ongoing – The master linkage key is continuously updated with links within and between core health-related datasets in NSW and the ACT; Data linkage performed regularly with external datasets on a project-by-project basis
Data collection:	Datasets on master linkage key. Data linkage performed for external datasets on request.
Data quality:	High data quality for overall population Moderate data quality for Aboriginal populations (small sample size; under-reporting of Aboriginal status; known differences between surveillance data and target population)
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Maternal and Perinatal Surveillance

NSW Perinatal Data Collection

Description:	The NSW Perinatal Data Collection (PDC) is a statewide surveillance system that monitors patterns of pregnancy care, services and pregnancy outcomes. It covers all births in New South Wales, that is, live born babies regardless of gestational age and stillbirths of at least 20 weeks gestation or 400 grams birth weight.
Purpose:	Surveillance
Priority:	Very high priority
Policy context:	National Healthcare Agreement 2011; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Linked indicators:	As per minimum data set
Business owners:	Centre for Epidemiology and Evidence (maintained by Demand, Performance and Evaluation Branch)
Investment:	Low investment (nil additional funding)
Timeframe/activity status:	Annual reporting in the NSW Mothers and Babies Report
Data collection:	Perinatal data collection
Data quality:	Moderate data quality (reduced accuracy and completeness; delays in data transfer)
System maturity:	Moderate system maturity (statewide electronic database; notifications received in paper Perinatal data collection form or on record extracted in an approved electronic format)
Fitness for purpose:	Very high fitness for purpose

NSW Register of Congenital Conditions

Description:	The NSW Register of Congenital Conditions is a statewide surveillance system that monitors the occurrence of scheduled congenital conditions to plan services for affected families and identify changes in incidence that may warrant investigations. Scheduled congenital conditions include all structural malformations, chrosomal abnormalities, and four medical conditions; cystic fibrosis, phenylketonuria, congenital hypothyroidism and thalassaemia major.
Purpose:	Surveillance
Priority:	Very high priority
Policy context:	National Healthcare Agreement 2011; NSW 2021: Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Linked indicators:	Number of cases of congenital conditions in infants up to one year of age Number of cases of congenital conditions among terminations of pregnancy, spontaneous abortions and unknown outcomes of pregnancy Trends in selected congenital conditions
Business owners:	Centre for Epidemiology and Evidence
Investment:	Low investment (nil additional funding)
Timeframe/activity status:	Annual reporting in the NSW Mothers and Babies Report
Data collection:	Paper notifications received from the Perinatal Data Collection, laboratories, doctors etc; Data checked and entered into access database
Data quality:	Moderate data quality (known under-enumeration of certain congenital conditions)
System maturity:	Moderate system maturity (electronic/paper-based system; moderate workload to compile data)
Fitness for purpose:	Very high fitness for purpose

Maternal and Perinatal Death Review

Description:	Maternal and Perinatal death review is completed by the NSW Maternal and Perinatal Committee, a quality assurance committee appointed by the Minister for Health to review maternal and perinatal morbidity and mortality in NSW. Maternal death review is contained in a confidential, password-protected database. The Perinatal Death Review Database includes information on about 800 perinatal deaths per year. Perinatal deaths include: for 2000 to 2005, all perinatal deaths in NSW of at least 500 grams birth weight or 22 weeks gestation; and for 2006 and subsequent years, stillbirths of at least 400 grams birth weight or 20 weeks gestation and all neonatal deaths. Deaths are classified according to the Perinatal Mortality Classifications of the Perinatal Society of Australia and New Zealand.
Purpose:	Surveillance
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Policy indicators:	Number of maternal deaths by year and by cause Number of perinatal deaths by year; Perinatal death associated with maternal drug dependency-abuse Causes of neonatal death
Business owners:	Centre for Epidemiology and Evidence
Investment:	Low investment (nil additional funding)
Timeframe/activity status:	Annual reporting in the NSW Mothers and Babies Report
Data collection:	Notifications received and medical record review completed; confidential reviews completed by the NSW Maternal and Perinatal Committee
Data quality:	Moderate data quality (time delay in notifications and review process) for Maternal death review High data quality for Perinatal death review
System maturity:	Low system maturity (paper-based system for medical record reviews)
Fitness for purpose:	Very high fitness for purpose

SIDS Data Collection

Description:	The Sudden Infant Death Syndrome (SIDS) data collection contains suspected and confirmed SIDS cases reported to coroners in NSW, including details on mother, dates of birth and death of baby, place of death, place of autopsy, final diagnosis and risk factors.
Purpose:	Surveillance
Priority:	Very high priority
Policy czontext:	National Healthcare Agreement 2011; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Policy indicators:	Number of SIDS notifications per year Number of SIDS cases per year
Business owners:	Centre for Epidemiology and Evidence
Investment:	Low investment (nil additional funding)
Timeframe/activity status:	Ongoing data collection
Data collection:	Notifications received are entered into the database awaiting confirmation from the coroner
Data quality:	Low data quality (marked delay in confirming cases on register)
System maturity:	Low system maturity (paper-based system; high workload to compile)
Fitness for purpose:	High fitness for purpose

Population Health Information	
Public Health Real-Time Emergency Department Surveillance System (PHREDSS)	
Description:	The Public Health Real-Time Emergency Department Surveillance System (PHREDSS) records real time separation data from metropolitan emergency departments and ambulance calls in NSW, to monitor trends in acute illness in the NSW population.
Purpose:	Problem detection; surveillance
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Number of automated reports
Business owners:	Centre for Epidemiology and Evidence
Investment:	Low investment ($100,000 – $150,000 per year)
Timeframe/activity status:	Ongoing project.
Data collection:	Daily reporting from Emergency Departments and Urgent Ambulance Calls
Data quality:	Moderate data quality (missing fields; moderate completeness; however very timely)
System maturity:	Very high system maturity
Fitness for purpose:	High fitness for purpose (limitations of using (Emergency Department/Urgent Ambulance Calls) data for surveillance)
Death Registration Surveillance	
Description:	Death registration data is provided daily by the Registry of Births, Deaths and Marriages and analysed for deaths that mention pneumonia or influenza on the death certificate. Cause of death is received as free text, prior to hospital coding. Data is analysed year-round, however is reported in the Influenza Season Enhanced Surveillance Database in winter.
Purpose:	Problem detection; surveillance
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	% all deaths that mention pneumonia or influenza on the death certificate
Business owners:	Centre for Epidemiology and Evidence
Investment:	Approximately $10,000 per year
Timeframe/activity status:	Ongoing project; Daily reporting
Data collection:	All cause data from the Registry of Births, Deaths and Marriages
Data quality:	High data quality
System maturity:	High system maturity
Fitness for purpose:	High fitness for purpose
Health Statistics NSW	
Description:	Health Statistics NSW is an interactive, web-based application that allows users to access data and tailor reports about the health of the NSW population for their own use. Health Statistics NSW provides information on the health status and demography of the NSW community, health inequalities and the determinants of health, the burden of disease and current health challenges and trends in health and comparisons between age groups and geographic locations.
Purpose:	Reporting tool for surveillance data
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Number of users accessing data Number of ad hoc information requests Additional data information and reports added to Health Statistics NSW
Business owners:	Centre for Epidemiology and Evidence
Investment:	Moderate investment ($350,000 per year)
Timeframe/activity status:	System implemented (2011) and operational – System regularly updated
Data collection:	NSW Population Health Survey, Chief Health Officers Report, NSW Mothers and Babies Report, Hospital Performance and Activity Report
Data quality:	Very high data quality for overall population Moderate data quality for Aboriginal populations (small sample size; under-reporting of Aboriginal status; data may be incomplete; known differences between surveillance data and target population)
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Statistical Application for Population Health Research and Intelligence (SAPHaRI)

Description:	SAPHaRI is an environment that enables users to discover information through the exploration of data. It uses SAS Enterprise Guide as the core business intelligence tool. SAPHaRI will replace HOIST as a data repository for key population health datasets and will provide greatly enhanced capabilities for statistical analysis and research by users via web services and will offer a far more modern and intuitive web-based graphical user interface. It is due to contain a single repository of metadata. The management and maintenance of SAPHaRI will streamline negotiations with external data custodians.
Purpose:	Support for surveillance program
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Number of new research projects that use SAPHaRI
Business owners:	Centre for Epidemiology and Evidence
Investment:	Moderate investment ($350,000 per year)
Timeframe/activity status:	System in place and operational – To replace HOIST in 2012; Datasets regularly updated
Data collection:	HOIST data sets
Data quality:	Very high data quality
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Population Health Workforce, Development and Training

Description:	Training programs to maintain the population health workforce and ability to respond to acute health issues. Training programs include: • NSW Public Health Officer and Biostatistical Officer Training programs • Specialist Training Program • NSW Population Health Networks
Purpose:	Workforce development
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Promoting the generation and effective use of population health research in NSW: A strategy for NSW Health, 2011-2015; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Number of trainees completing each program Number of graduates for each training program Number of trainees employed within the NSW Health System
Business owners:	Centre for Epidemiology and Evidence
Investment:	Very high investment (>$5M per year in total for training programs and staff costs); low investment in monitoring / data collection
Timeframe/activity status:	Ongoing
Data collection:	N/A
Data quality:	Moderate data quality (recognised delays in accessing required data; data collection may not be planned for program monitoring purposes)
System maturity:	Moderate system maturity (electronic / paper-based system; high workload to compile data)
Fitness for purpose:	Moderate fitness for purpose (data collection primarily for other purposes but meets some program delivery needs; data does not comprehensively monitor program targets)

Centre for Health Protection

Notifiable Conditions Surveillance

Description:	The Notifiable Conditions Information Management System (NCIMS) is a register of diagnoses of certain scheduled medical conditions (including Blood-borne virus, sexually transmissible infections, vaccine preventable diseases, enteric diseases, respiratory infections and zoonotic diseases) and adverse events following immunisation as notified to the NSW Ministry of Health.
Purpose:	Disease detection; case based reporting; surveillance for public health response
Priority:	Very high priority
Policy context:	National and state based protocols and plans for disease surveillance and response; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Number of new notifications Number of locally acquired cases of hepatitis A, measles and meningococcal disease % completeness of identification of Aboriginality on priority conditions NCIMS data quality indicator targets achieved
Business owners:	Centre for Health Protection
Investment:	Very high investment ($770,000 per year for infrastructure plus costs for surveillance officers)
Timeframe/activity status:	Continuous data collection
Data collection:	Notifications from laboratories, hospitals, medical practitioners, schools and child care centres – data collected and entered by Public Health Unit staff
Data quality:	High data quality for overall population Moderate data quality for Aboriginal populations (under-reporting of Aboriginal status; data may be incomplete)
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Enhanced Surveillance Programs

Seasonal Influenza Surveillance

Description:	Triangulation and analysis of influenza data gathered and received from different sources on a weekly basis for statewide reporting.
Purpose:	Problem description; surveillance
Priority:	High priority
Policy context:	State based protocols and plans for disease surveillance and response; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Number of ILI, bronchiolitis and pneumonia presentations to Emergency Departments Number of positive lab tests for influenza A and B Number of pneumonia and influenza related deaths
Business owners:	Centre for Health Protection (Communicable Diseases Branch)
Investment:	Low investment
Timeframe/activity status:	Weekly reporting during winter months
Data collection:	Emergency Department Reports, sentinel laboratory aggregate reporting and death registry data
Data quality:	Moderate data quality (selection of sites not necessarily representative of target population (particularly for laboratory reporting))
System maturity:	Moderate system maturity (mixture of electronic and paper-based systems)
Fitness for purpose:	Moderate fitness for purpose (data collection systems primarily for other purposes; data does not comprehensively monitor program targets)

Vaccine Preventable Diseases Surveillance

Description:	Collation and analysis of immunisation status and other data for statewide reporting.
Purpose:	Enhanced surveillance
Priority:	Very high priority
Policy context:	National and state based protocols and plans for disease surveillance and response; Vaccine preventable diseases surveillance program; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	The Serogroup Subtype field is completed (where lab diagnosis method allows) for invasive meningococcal disease (IMD) => 80% The Serogroup Subtype field is completed (where lab diagnosis method allows) for invasive pneumococcal disease (IPD) in cases younger than 5 years or older than 50 years => 80% The genotype is recorded for at least one measles case per epidemiologically-linked measles cluster = >80% Vaccination information is completed for children aged 7 years or younger for all nationally notifiable vaccine preventable diseases that require follow up and where their vaccination status is recorded on the Australian Childhood Immunisation Register (ACIR) = >95%.
Business owners:	Centre for Health Protection (Communicable Diseases Branch)
Investment:	Low investment
Timeframe/activity status:	Annual reporting to the Department of Health and Ageing
Data collection:	Notifications from laboratories, hospitals, medical practitioners, schools and child care centres – data are collected and entered by Public Health Unit staff
Data quality:	High data quality
System maturity:	High system maturity
Fitness for purpose:	High fitness for purpose

HIV Risk Factors Surveillance

Description:	Collection and analysis of risk factor data for statewide reporting.
Purpose:	Enhanced surveillance
Priority:	Very high
Policy context:	National and state based protocols and plans for disease surveillance and response; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population Maintain a stable rate of or reduce HIV notifications in NSW through the effective design, implementation and evaluation of HIV prevention programs for priority populations
Linked indicators:	Number of newly diagnosed HIV notifications
Business owners:	Centre for Health Protection (Communicable Diseases Branch)
Investment:	Low investment
Timeframe/activity status:	Annual reporting and quarterly updates
Data collection:	Notifications from laboratories & medical practitioners – data collected and entered by HIV surveillance officer
Data quality:	High data quality
System maturity:	High system maturity
Fitness for purpose:	High fitness for purpose

Tuberculosis Surveillance

Description:	Collation and analysis of risk factor, treatment and outcome data for statewide reporting.
Purpose:	Enhanced surveillance
Priority:	Very high priority
Policy context:	National and state based protocols and plans for disease surveillance and response; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Linked indicators:	Identify and treat all TB cases Identify and screen TB case contacts without delay Prevent TB among Aboriginal people
Business owners:	Centre for Health Protection (Communicable Diseases Branch)
Investment:	Low investment
Timeframe/activity status:	Annual reporting
Data collection:	Notifications from laboratories, hospitals, medical practitioners, schools and child care centres – data collected and entered by NSW Chest Clinic staff
Data quality:	High data quality
System maturity:	High system maturity
Fitness for purpose:	High fitness for purpose

Emerging Infectious Diseases Surveillance

Description:	Identification and management of emerging threats for control and statewide reporting.
Purpose:	Enhanced surveillance
Priority:	Very high priority
Policy context:	National and state based protocols and plans for disease surveillance and response; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Linked indicators:	Coordinate the implementation of the public health recommendations from the pandemic influenza evaluation for population health
Business owners:	Centre for Health Protection (Communicable Diseases Branch)
Investment:	Low investment
Timeframe/activity status:	Ad hoc
Data collection:	Emergency Department Reports, sentinel laboratory aggregate reporting and death registry data
Data quality:	High data quality
System maturity:	High system maturity
Fitness for purpose:	High fitness for purpose

Enteric disease surveillance (OzFoodNet)

Description:	Identification and management of enteric disease control and statewide reporting.
Purpose:	Enhanced surveillance
Priority:	Very high priority
Policy context:	National and state based protocols and plans for disease surveillance and response; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Linked indicators:	% suspected food-borne disease outbreaks where investigation commenced within 24 hours of report. % gastrointestinal outbreaks in institutions investigated and initial controls recommended within 24 hours of report % gastrointestinal outbreaks in institutions where data was completed within 30 days after outbreak commenced
Business owners:	Centre for Health Protection (Communicable Diseases Branch)
Investment:	Moderate investment
Timeframe/activity status:	Quarterly and Annual reporting
Data collection:	Notifications from laboratories, hospitals, medical practitioners, schools and child care centres
Data quality:	High data quality
System maturity:	High system maturity
Fitness for purpose:	Moderate fitness for purpose (data does not comprehensively evaluate or monitor goals and benchmarks; known limitations of current system)

Immunisation surveillance (child, adolescent and adult surveillance)

Description:	Reporting of immunisation coverage to reduce the incidence of vaccine preventable diseases in children and increase immunisation coverage rates through the implementation of a National Immunisation Program for children less than five years of age, adolescents and adults.
Purpose:	Problem description; surveillance
Priority:	Very high priority
Policy context:	National Partnership Agreement on Essential Vaccines; National Partnership Agreement on Preventative Health; National Indigenous Reform Agreement; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; NSW State Immunisation Strategy, 2008-2011; Population Health Statement of Strategic Intent
Linked indicators:	% children at 1, 2 and 4 years of age that are fully immunised % Aboriginal children at 1, 2 and 4 years of age fully immunised % NSW Health Survey respondents aged 65 years and over reporting have received influenza and pneumococcal vaccines (influences in last 12 months and pneumococcal in last 5 years) % increase in immunisation coverage in identified areas of low immunisation coverage
Business owners:	Centre for Health Protection
Investment:	Very high investment ($130M investment for total program per year; budget for surveillance): • $1.7M for data from the Australian Childhood Immunisation Register • $1M for Rec-Find project (scanning) • $113,000 for questions on Health Survey Program • $100,000 for reporting of vaccine distribution

Timeframe/activity status:	Continuous Current data-scanning project (Rec-Find is an interim register for capture of scanned forms). The School Based Vaccination Program Register will be implemented in late 2012.
Data collection:	Quarterly reporting of childhood immunisation data from the Australian Childhood Immunisation Register Quarterly reporting of aggregate data from Public Health Units for adolescents Annual reporting from NSW Health Survey Program for adults Adverse events reporting (data extracted daily from NCIMS and sent to the Therapeutic Goods Administration)
Data quality:	Very high (child data from the Australian Childhood Immunisation Register); High (aggregate data from Public Health Units for adolescents); High (adult data from the Health Survey Program)
System maturity:	Very high (child); High (adolescent); High (adults)
Fit for purpose:	Very high (child); Very high (adolescents); High (adults)
Aboriginal Health component:	
Data quality:	Very high (child data from the Australian Childhood Immunisation Register); High (aggregate data from Public Health Units for adolescents); Moderate (rating as per Health Survey Program)
System maturity:	Very high (child); High (adolescent); High (adults)
Fitness for purpose:	Very high (child); Very high (adolescents); High (adults)

Regional Drinking Water Quality Monitoring

Description:	Water samples are collected from supply systems outside of Sydney and Hunter Region and tested for 27 chemical characteristics. Local Public Health Units are alerted if guideline values are exceeded. Results are stored in the NSW Health Drinking Water Database. The project services team is coordinating the redevelopment of the database and implementation of a software solution.
Purpose:	Problem detection; monitoring
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Compliance with guideline values (27 chemical characteristics)
Business owners:	Centre for Health Protection
Investment:	Low investment (Current system maintained at less than $30,000 per year; $500,000 committed to upgrade of system)
Timeframe/activity status:	Ongoing. System upgrade to be completed in April 2012
Data collection:	Drinking water testing (through Division of Analytical Laboratories (Sydney), Greater Murray Water Testing Laboratory (Albury) and the Northern Rivers Pathology Service (Lismore))
Data quality:	High data quality
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

NSW Arbovirus Surveillance and Mosquito Monitoring Program

Description:	Monitoring of mosquito vector populations in coastal and inland areas of NSW by routine sampling.
Purpose:	Problem detection/routine surveillance
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Population Health Statement of Strategic Intent
Linked indicators:	Number of arbovirus notifications
Business owners:	Centre for Health Protection in partnership with Westmead Hospital
Investment:	Low investment ($60,000 per year for surveillance provided by the Centre for Health Protection (Environmental Health Branch), funded through agreement with Westmead Hospital))
Timeframe/activity status:	Weekly reporting
Data collection:	Routine sampling; notifications via NCIMS
Data quality:	Very high data quality
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Housing for Health Program	
Description:	Housing for Health is a copyright methodology for improving living conditions in Aboriginal communities. The program aims to assess, repair or replace health hardware so that houses are safe and occupants have ability to carry out healthy living practices. All works are prioritised by health benefit. Data are collected on 240 items (including repairs and costs) and entered into a statewide access database. Manual data collection and reporting is completed from the summary database.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Policy indicators:	Proportion of discrete Aboriginal communities that have received housing for health upgrades Number of houses in discrete Aboriginal communities that have received housing for health upgrades
Program indicators:	Improvements in nine critical health living practices as measured by the *Housing for Health Survey* Improvements in house function for electrical safety, fire safety and structural safety; ability to wash; removing waste safely; and ability to store, prepare and cook food
Business owners:	Centre for Health Protection with funding provided by the Centre for Aboriginal Health
Investment:	High investment for program but low investment in monitoring / data collection; A 10-year evaluation was completed in 2010 (approximately $100,000 investment)
Timeframe/activity status:	Ongoing program; Plan to complete program evaluation in 2013 and/or 2015
Data collection:	Data are collected at the individual level following housing upgrades in all communities. Data are stored in a central database, but at present, no routine analysis or program evaluation is completed
Data quality:	Moderate data quality (delays in accessing data; limited comparability)
System maturity:	Moderate system maturity (reporting from LHDs; moderate workload)
Fitness for purpose:	Moderate fitness for purpose (data collection is not effective for routine monitoring)
Aboriginal Environmental Health Workforce	
Description:	The Aboriginal Environmental Health Officer Training Program was established to improve education, training and employment opportunities for Aboriginal people in the NSW Health Environmental Health sector. In 2010/2011 there were seven Aboriginal Environmental Health Officer positions.
Purpose:	Workforce development
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	Number of trainees completing each program per year Number of graduands per year Increased number of trainees employed within the NSW Health System
Business owners:	Centre for Health Protection (Aboriginal Environmental Health with funding provided by the Centre for Aboriginal Health. Co-funding also provided by Local Government)
Investment:	High investment in workforce; low investment in program monitoring
Timeframe/activity status:	Ongoing
Data collection:	N/A
Data quality:	Moderate data quality (recognised delays in accessing required data; data collection may not be planned for monitoring purposes)
System maturity:	Moderate system maturity (predominantly manual system; data management performed intermittently; data not routinely collected; high workload to compile data)
Fitness for purpose:	Moderate fitness for purpose (data collection primarily for other purposes but meets some program delivery needs; data does not comprehensively monitor program targets or benchmarks)

Centre for Population Health

Obesity Prevention Programs	
NSW Healthy Children Initiative Programs	
Description:	The Healthy Children's Initiative includes a range of programmatic activities for children and young people from birth to 17 years of age. These activities seek to promote healthy weight, healthy eating and physical activity for children and young people using a settings-based approach. The following three key programs have been approved as part of the initiative: • Children's Healthy Eating and Physical Activity Program • Targeted Family Healthy Eating and Physical Activity Program • Public Health Education Program
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Preventative Health; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; NSW Government Plan for Preventing Overweight and Obesity in Children, Young People and their Families; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Policy indicators:	Increase in proportion of children at unhealthy weight held at less than five per cent from baseline by 2013; Proportion of children at healthy weight returned to baseline level by 2015 Increase in mean (average) number of daily serves of fruits and vegetables consumed by children by at least 0.2 serves for fruits and 0.5 serves for vegetables from baseline by 2013; 0.6 services for fruits and 1.5 serves for vegetables by 2015 Increase in the proportion of children participating in at least 60 minutes of moderate physical activity each day from baseline by 5% by 2013; by 15% by 2015.
Program indicators:	Program Reach Adoption of program key performance indicators (program components and organisational change by key settings (primary schools and early childhood services))
Business owners:	Centre for Population Health and other agencies
Investment:	Very high investment ($53M over 4 years from July 2011 (Commonwealth funding) to deliver programs included in the implementation plan; further $53M in reward payments (in addition to facilitation funds) if key performance benchmarks are achieved). Funding for the evaluation and performance monitoring component will be at least 5%.
Timeframe/activity status:	Ongoing
Data collection:	
Policy indicators:	Programs evaluated against key performance benchmarks at two time points: at June 2013 and December 2014 (projected to June 2015)
Program indicators:	A purpose-built system for performance monitoring of settings based programs will be introduced in the next 12 months – rating criteria for data quality, system maturity and fitness for purpose reflect this new system Individual program evaluations will be completed
Data quality:	High data quality for overall population
	Low data quality for Aboriginal populations (under-reporting of Aboriginal status; data may be incomplete; data may not be accurate for monitoring purposes)
System maturity:	Low system maturity (local, predominantly manual system; high workload to compile data)
Fitness for purpose:	Very high fitness for purpose

Get Healthy Service

Description:	The Get Healthy Service is a component of the Healthy Workers Initiative and a stand alone program. The NSW Get Healthy Information and Coaching Service is an existing free and confidential telephone based service that provides information and ongoing support to NSW adults who would like to eat healthier, be more active and maintain a healthy weight. In particular, this program will target workplaces and industries that have: • Significant numbers of employees with greater risk of chronic diseases; • Significant number of people working in blue collar occupations; • Significant numbers of Aboriginal and Torres Strait Islanders; • Significant numbers of people from culturally and linguistically diverse backgrounds; and • Are in rural and remote areas
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Preventative Health; NSW 2021: A plan to make NSW number one; NSW Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Policy indicators:	Increase in proportion of adults at a healthy weight Increase in mean number of daily serves of fruits and vegetables consumed by adults Increase in proportion of adults participating in at least 30 minutes of moderate physical activity on five or more days of the week Reduction in state baseline for proportion of adults smoking daily
Program indicators:	Number of people registering for the NSW Get Healthy Information and Coaching Service Number of people receiving coaching and or information from the NSW Get Healthy Information and Coaching Service
Business owners:	Centre for Population Health
Investment:	Very high investment ($4M investment over 4 years in collaboration with the University of Sydney); Moderate investment in monitoring / data collection
Timeframe/activity status:	5 years from 2012 with phased service delivery
Data collection:	NSW Population Health Survey Planned evaluation of initiative in collaboration with Sydney University
Data quality:	Moderate data quality for overall population (data may be incomplete for some required fields; recognised delays in data acquisition) Low data quality for Aboriginal populations (under-reporting of Aboriginal status; data may be incomplete; may not be accurate for monitoring purposes)
System maturity:	Moderate system maturity (Locally based data collection system; combination of electronic and paper-based system; high workload to compile data)
Fitness for purpose:	Moderate fitness for purpose (data collection primarily for other purposes but meets some program delivery needs)

Healthy Workers Initiative

Description:	The Healthy Workers Initiative is a statewide program that works in partnership with workplaces as points to access individuals in order to address five risk factors for lifestyle-related illness: poor nutrition, physical inactivity, overweight and obesity, smoking and harmful alcohol consumption. The three components of the program are: *Get Healthy@Work* (organisational support and facilitation service), Get Healthy Information and Coaching Service and targeted communications to employers and employees. The initiative is focused on people aged 35 to 55 in paid employment.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Preventative Health; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Policy indicators:	Increase in proportion of adults at a healthy weight Increase in mean number of daily serves of fruits and vegetables consumed by adults Increase in proportion of adults participating in at least 30 minutes of moderate physical activity on five or more days of the week Reduction in state baseline for proportion of adults smoking daily
Program indicators:	Program indicators not yet developed for *Healthy Workers Initiative*
Business owners:	Centre for Population Health
Investment:	Program investment of 46 million over 4 years; funding for evaluation not yet determined
Timeframe/activity status:	4 years from 2012 with phased service delivery
Data collection:	NSW Population Health Survey
Data quality:	Low data quality for overall population and Aboriginal populations (data may be incomplete; may not be valid for program monitoring purposes)
System maturity:	Low system maturity (local monitoring system; purpose of data collection system poorly aligned to program objectives)
Fitness for purpose:	Low fitness for purpose (purpose of data collection poorly aligned to program objectives; data may not be adequate for monitoring or reporting)

Tobacco Control Programs	
Quit for New Life	
Description:	The Quit for New Life program delivers smoking cessation interventions to pregnant Aboriginal women. The program involves the provision of smoking cessation training for health workers, resource development and provision of free nicotine replacement therapy. The program is run in partnership with the Aboriginal Maternal and Infant Health Service (AMIHS).
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	World Health Organization's Framework Convention on Tobacco Control; National Tobacco Strategy 2010-2015; National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent; Strategic Directions for Tobacco Control in NSW 2011-2015.
Policy indicators:	Proportion of Aboriginal women that smoke during pregnancy Proportion of pregnant Aboriginal women who live in smoke free homes Proportion of Aboriginal women (who are smokers) that are offered Nicotine Replacement Therapy (NRT)
Program indicators:	Program reach Adoption of program components by key settings
Business owners:	Centre for Population Health and Maternity, Children and Young People's Health. Proportion of funding provided by Centre for Aboriginal Health
Investment:	Very high level of investment
Timeframe/activity status:	Implementation will commence from 2012/13 and will be ongoing with annual reporting
Data collection:	An interim data collection system will be established for data collection and performance monitoring from 2012/13. In the long term, it is planned that data will be collected via existing systems such as Chime and ObstetriX.
Policy Indicators:	NSW Population Health Survey, Australian Bureau of Statistics, Mothers and Babies Report Local Health Districts/Aboriginal medical Services provide quarterly reports to the Centre for Population Health
Program Indicators:	Purpose-built data collection system to be developed in the next 12 months
Data quality:	High data quality
System maturity:	Low system maturity (local / site based surveillance; predominantly manual system)
Fitness for purpose:	Very high fitness for purpose
Tobacco Resistance and Control (A-TRAC)	
Description:	The AH&MRC Tobacco Resistance and Control (A-TRAC) has the broad goal of reducing the harms of tobacco use for Aboriginal people by integrating tobacco control and smoking cessation activities into the Aboriginal Community Controlled Health Service (ACCHS) model of comprehensive primary healthcare. It includes a number of strategies to build tobacco control capacity within Aboriginal Community Controlled Health Services. The planning, development and consultation phase of the project was conducted during 2010 and the implementation of program strategies commenced in 2011.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Tobacco Strategy 2010-2015; National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent; Strategic Directions for Tobacco Control in NSW 2011-2015
Business owners:	Centre for Population Health provides funding to the AH&MRC for program delivery
Investment:	Very high investment ($1.72M over 4 years provided to the AH&MRC (approximately $430,000 per year))
Timeframe/activity status:	Ongoing
Data collection:	Completed by the AH&MRC from Aboriginal Community Controlled Health Services
Data quality:	Low data quality (recognised delays in accessing data; data may not be accurate for program monitoring purposes)
System maturity:	Low system maturity (local / site based data collection; predominantly manual system)
Fitness for purpose:	Low fitness for purpose (system does not facilitate measurement of outcomes)

Falls Prevention Programs (Stepping On)

Description:	Falls prevention programs include a range of interventions targeting falls prevention in older people aged greater than 65 years (and greater than 45 years for Aboriginal groups). The primary intervention is the *Stepping On* program.
Purpose:	Program delivery
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Falls – Prevention of falls and harm from falls among older people: 2011-2015; Population Health Statement of Strategic Intent
Policy indicators:	Number of hospital admissions as a result of a fall injury in people aged 65 years and older
Program indicators:	Number of *Stepping On* programs run by Local Health Districts
Business owners:	Centre for Population Health
Investment:	High investment ($750,000 funding per year); Low investment for program delivery data collection.
Timeframe/activity status:	4 year program. Annual reporting.
Data collection:	NSW Population Health Survey data, NSW Falls Prevention Baseline Survey Data collected at site level for individual programs
Data quality:	Moderate data quality for population level data (data may be incomplete; delays accessing data; various data sources used) Low data quality for Aboriginal populations (data may be incomplete; data may not be representative of target population)
System maturity:	Low data quality (local or site based reporting; moderate workload to compile)
Fitness for purpose:	Low system maturity (data collection system poorly aligned to program objectives)

Blood-Borne Viruses and STI Programs

HIV/AIDS Sexual Health Ambulatory Care Minimum Data Set data collection

Description:	The NSW HIV/AIDS and Sexual Health Ambulatory Care Minimum Data Set is a data repository that stores demographic, service activity and clinical information (reason for service/diagnosis) in relation to ambulatory care activities provided through Local Health District facilities concerning HIV/AIDS, blood-borne viruses and sexually transmissible infections.
Purpose:	Program monitoring and input to funding distribution
Priority:	High
Policy context:	National and NSW HIV/AIDS Strategies; National and NSW STI Strategies; NSW Drug Strategy; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Policy indicators:	Number of client occasions of service within publicly funded HIV and sexual health services that are for testing, treatment or management of a diagnosed condition by specific priority population. Target groups include Aboriginal people, sex workers and gay men and other homosexually active men.
Business owners:	Centre for Population Health
Investment:	Very high investment in HIV/AIDS and Sexual Health programs; Moderate investment in surveillance activity (outsourced to external company)
Timeframe/activity status:	Ongoing
Data collection:	HIV/AIDS and Sexual Health Minimum Data Set. Data collected monthly to HIV/AIDS and Related Programs Units (LHD level) and to the Centre for Population Health quarterly.
Data quality:	Very high data quality for overall population Very high data quality for Aboriginal populations
System maturity:	High system maturity
Fitness for purpose:	Moderate fitness for purpose (only collects information on people accessing publicly funded services – known limitation associated with the use of clinical data as a measure of program delivery)

Hepatitis C Ambulatory Care Minimum Data Set data collection

Description:	The NSW Hepatitis C Ambulatory Care Minimum Data Set is a statewide repository of demographic and service activity in relation to ambulatory care activities provided through Local health District facilities concerning Hepatitis C virus assessment, treatment and treatment completion.
Purpose:	Program monitoring
Priority:	High priority
Policy context:	National and NSW Hepatitis C Strategies; NSW Drug Strategy; NSW State Plan; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Policy indicators:	Number of clients initiated onto treatment for hepatitis C in the public sector (target groups include Aboriginal people, correctional settings clients, culturally and linguistically diverse background clients and rural settings clients)
Business owners:	Centre for Population Health
Investment:	Very high investment in Hepatitis C programs; Low investment in program monitoring
Timeframe activity status:	Ongoing
Data collection:	Service level data reported to Local Health Districts which then report data quarterly to the Centre for Population Health
Data quality:	High data quality for overall population and for Aboriginal populations
System maturity:	Low system maturity (manual system using spreadsheets; reporting by LHDs; high workload to compile)
Fitness for purpose:	Low fitness for purpose (data does not comprehensively monitor program targets or measure the amount of work involved in treating clients; Only records number of clients and not occasions of services)

NSW Needle and Syringe Program and Pharmacy Data Collection

Description:	Needle and Syringe Program (NSP) service activity data has been collected since the program was established in 1998 and is an important source of information used to measure the overall efficiency of NSP services and plan effective service delivery.
Purpose:	Program monitoring; evaluation
Priority:	Very high priority
Policy context:	National and NSW HIV/AIDS Strategies; National and NSW Sexually Transmissible Infections Strategies; Australia's National Drug Strategy; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Policy indicators:	Number of needles and syringes distributed in the public sector and pharmacy sector
Business owners:	Centre for Population Health
Investment:	Very high annual investment in NSP programs; Low investment in monitoring and data collection
Timeframe activity status:	Ongoing
Data collection:	Collected by LHDs and reported to the Centre for Population Health on a quarterly basis.
Data quality:	High data quality
System maturity:	Moderate system maturity (mix of electronic / paper based systems)
Fitness for purpose:	Moderate fitness for purpose (data does not comprehensively monitor program targets; known limitations of data collection)

Occupational Exposures to Blood-Borne Viruses Surveillance

Description:	The Occupational Exposures to Blood-Borne Viruses data repository stores parenteral (needlestick and sharps) and non-parenteral (blood and/or body fluid exposure) data from NSW publicly funded health facilities. The provision of information about workplace injuries to the Workcover Authority of NSW is a legislative requirement. Data is used by Local Health Districts and health facilities to identify injury trends, and examine the impact of programs and procedures aimed at reduce the occurrence and significance of exposures.
Purpose:	Surveillance
Priority:	High priority
Policy context:	Occupational Health and Safety Act, National and NSW Infection Control Guidelines; NSW 2021: A plan to make NSW number one; Population Health Statement of Strategic Intent
Policy indicators:	Reported rate of occupational exposure to blood and or body fluids (parenteral and non-parenteral exposures) that present a risk of transmission of blood-borne diseases.
Business owners:	Centre for Population Health
Investment:	Low investment (outsourced to an external organisation)
Timeframe/activity status:	Ongoing
Data collection:	Collected by health facilities and reported twice yearly to the Centre for Population Health
Data quality:	High data quality
System maturity:	High system maturity
Fitness for purpose:	Moderate fitness for purpose (data does not comprehensively monitor program targets; known limitations of data collection)

NSW Aboriginal Sexual and Reproductive Health Programs

Description:	The NSW Aboriginal Sexual and Reproductive Health Programs have a target group of Aboriginal young people aged 12-19 years of age. The aim of the program is to increase access for Aboriginal adolescents to sexual and reproductive health programs. The program has been developed with education elements, statewide support workers and sexual and reproductive health workers. It has a strong emphasis on evaluation.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; National and NSW HIV/AIDS Strategies; National and NSW STI Strategies; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Policy indicators:	Reduced sexually transmissible infections (STIs), including HIV, among Aboriginal young people Increased proportion of young people accessing sexual and reproductive health care
Program indicators:	Increased age-appropriate sexual and reproductive health literacy among Aboriginal young people Increased self-reported confidence and intention among Aboriginal young people in discussing sexual and reproductive health issues with peers and sexual partners Increased knowledge of pregnancy choices, including access to and use of contraception and pregnancy testing among Aboriginal young people Increased use of condoms with new partners among sexually-active Aboriginal young people
Business owners:	Centre for Population Health in partnership with Kirby Institute and Family Planning NSW
Investment:	Very high level of investment in the program; moderate investment in data collection for program monitoring
Timeframe activity status:	Ongoing
Data collection:	Comprehensive evaluation component that combines Kirby Institute's GRAHNITE data collection software installed in selected (9-10 sites) Aboriginal Community Controlled Health Services (ACCHSs), Kirby Institute's surveys of young participants, and by Family Planning NSW's local projects measuring changes through: pre-, mid-point and post- assessments
Data quality:	High data quality
System maturity:	Very high system maturity
Fitness for purpose:	High fitness for purpose

NSW Aboriginal Hepatitis C Programs

Description:	The NSW Aboriginal Hepatitis C Programs aim to: • develop and implement multidisciplinary chronic hepatitis C models of care that are culturally sensitive and accessible to Aboriginal people • build and sustain a skilled and competent chronic hepatitis C workforce to meet the needs of Aboriginal communities • increase NSW Aboriginal Communities' awareness and knowledge of hepatitis C testing, treatment and care • develop an evaluation framework to measure the effectiveness of the Programs
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; National and NSW Hepatitis C Strategies; NSW Drug Strategy; NSW State Plan; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population
Policy indicators:	Number of clients with Aboriginal backgrounds who are initiated onto treatment for hepatitis C in the public sector
Business owners:	Centre for Population Health in partnership with Kirby Institute and the National Centre for HIV Social Research (NCHSR)
Investment:	Very high level of investment in the program; moderate investment in data collection for program monitoring
Timeframe/activity status:	Ongoing
Data collection:	Comprehensive evaluation component that combines Kirby Institute's GRAHNITE data collection software installed in selected (9-10 sites) Aboriginal Community Controlled Health Services (ACCHSs), and the National Centre for HIV Social Research (NCHSR) qualitative and quantitative research with workforce and clients
Data quality:	High data quality
System maturity:	Very high system maturity
Fitness for purpose:	High fitness for purpose

Centre for Aboriginal Health

Chronic Care for Aboriginal People (CCAP) Program

Description:	This Chronic Care for Aboriginal People (CCAP) is one component of the Chronic Disease Management Program run by the Chronic Disease Management Office (the other component is the Connecting Care Program). The Chronic Care for Aboriginal People Program provides the strategic direction for existing and new initiatives that address chronic care service delivery for Aboriginal people. This strategy replaces the Aboriginal Vascular Health Program and the Renal Health Project. It is targeted at Aboriginal people aged 15 years and older who have been diagnosed with or are at risk of chronic disease, particularly diabetes, renal, respiratory and cardiovascular disease.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Preventative Health; National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Living Well – The NSW Aboriginal Health Chronic Care Initiative; Population Health Statement of Strategic Intent
Policy indicators:	Number of hospital admissions and readmissions for Aboriginal people with chronic disease Rates of chronic disease among Aboriginal people
Program indicators:	Use of care plans to reduce progression and complications of chronic disease Patient experience for Aboriginal people
Business owners:	Chronic Disease Management Office with Memorandum of Understanding and funding provided by the Centre for Aboriginal Health
Investment:	$4.5M per year for delivery of the program; program evaluation to be completed 2012
Timeframe/activity status:	Launched 2007
Data collection:	Admitted Patient Data Collection; Health Survey Program
Data quality:	Low data quality (various data sources used; under-reporting Aboriginal status)
System maturity:	Low system maturity (limited data standards, difficult to access data)
Fitness for purpose:	Low fitness for purpose (data collection poorly aligned to objectives; data not adequate to measure program outcomes)

Aboriginal Ear Health Program

Description:	The Aboriginal Ear Health Program replaces the NSW Otitis Media Screening Program and comprises of nine strategies under three key areas of action to reduce the prevalence and burden associated with middle ear disease. The three key areas are prevention and awareness (reduce exposure to tobacco smoke, breastfeeding and nutrition and environmental health), environmental identification (professional development, parents and cares knowledge and children's knowledge) and treatment and support (timely medical care, best practice management and reducing recurrent infection).
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Preventive Health; National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; Aboriginal and Torres Strait Island Health Performance Framework, 2008 Report; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Population Health Statement of Strategic Intent
Policy indicators:	Number of children diagnosed with otitis media and hearing loss Rates of smoking during pregnancy Number of Aboriginal mothers that maintain breastfeeding to 5 months from birth Number of safe, healthy houses for Aboriginal people (Housing for Health)
Program indicators:	Awareness of ear health in Aboriginal communities Program reach
Business owners:	Centre for Aboriginal Health
Investment:	High investment (Recurrent funding $800,000 per year for program). Nil additional funding allocated to program delivery.
Timeframe/activity status:	Ongoing; program report to be completed 2014-2016
Data collection:	NSW Population Health Survey, NSW Mothers and Babies Report Data for rates of otitis media are taken from the NSW Mothers and Babies Report The program may measure the prevalence and incidence of otitis media in a representative sample of communities in another two to four years
Data quality:	Low data quality (prevalence not measured; missing data; delays in accessing data)
System maturity:	Low system maturity (difficult access data; high workload to compile)
Fitness for purpose:	Low fitness for purpose (data collection not adequate to measure program outcomes)

Aboriginal Family Health Program

Description:	A collection of new and existing initiatives focused on reducing the incidence and impact of family violence in Aboriginal communities in NSW through prevention, early intervention and community development.
Priority:	Program delivery
Policy context:	National Partnership Agreement on Preventive Health; National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent; NSW Health Aboriginal Family Health Strategy: Responding to family violence in Aboriginal communities (2011-2016); Keep them Safe – A shared approach to child wellbeing 2009-2015; Violence to End the Silence; Interagency Plan to Tackle Child Sexual Assault in Aboriginal communities
Program indicators:	Number of Emergency Department presentations and hospitilisations due to family violence Number of reports of domestic violence recorded by police Number of child protection reports
Program indicators:	Number of referrals to Keep Them Safe Initiatives Availability and accessibility of culturally appropriate services
Business owners:	Centre for Aboriginal Health
Investment:	Very high investment (Recurrent funding $2M per year); Nil additional funding allocated to program monitoring or evaluation
Timeframe/activity status:	Ongoing
Data collection:	Annual reporting by LHDs against actions specified in LHD Aboriginal Family Health Action Plan; Annual reporting by services funded to employ an Aboriginal Family Health Worker via Aboriginal Family Health Worker Data Form; Annual reporting by Centre for Aboriginal Health
Data quality:	Low data quality (data reported by LHDs; not collated or analysed)
System maturity:	Low system maturity (manual, paper based system; reporting by LHDs)
Fitness for purpose:	Low fitness for purpose (data not adequate for program delivery)

NSW Aboriginal Health Promotion Program

Description:	The NSW Aboriginal Health Promotion Program aims to prevent the onset of chronic disease and injury in the Aboriginal population in NSW through the provision of targeted primary prevention health promotion interventions that modify major behavioural chronic disease risk factors. Local Health Districts are funded to provide evidence based primary prevention interventions that address the following five key priorities for action: *Smoking, Physical activity, Nutrition, Alcohol and injury prevention*.
Purpose:	Service delivery
Priority:	Very high
Policy context:	National Partnership Agreement on Preventive Health; National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; Aboriginal and Torres Strait Island Health Performance Framework, 2008 Report; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Population Health Statement of Strategic Intent
Policy indicators:	Smoking: Reduce % of Aboriginal people who smoke tobacco; Reduce % of Aboriginal children and young people who take up smoking; Reduce % of pregnant Aboriginal women who smoke Physical Activity: Increase % of Aboriginal children and young people participating in for at least 60 minutes of moderate physical activity every day; Increase the % of Aboriginal adults participating in adequate physical activity for at least 30 minutes of moderate physical activity on five or more days a week; Increase % of Aboriginal adults who are a healthy weight; Increase % of Aboriginal children and young people who are a healthy weight. Nutrition: Increase the consumption of fruit and vegetables by Aboriginal children and young people; Increase the consumption of fruit and vegetables by Aboriginal adults. Alcohol: Reduce the harmful and hazardous consumption of alcohol by Aboriginal adults; Reduce the harmful and hazardous consumption of alcohol by Aboriginal young people Injury prevention: To reduce accidental and intentional injury among Aboriginal people
Investment:	Very high investment ($1.4M per annum for delivery of the program); low investment in program delivery data collections; program evaluation to be completed 2012.
Timeframe/activity status:	Ongoing. From 2013 the Aboriginal Health Promotion Program will undergo a change of direction from traditional allocations of funds to a primary focus on building capacity of the Aboriginal health workforce, thereby strengthening health promotion capabilities and practice.
Data collection:	Annual reporting by LHDs against indicators specified in the Aboriginal Health Promotion Program's Funding Guidelines.
Data quality:	Low data quality (data reported by LHDs; prevalence not measured; data not collated or analysed)
System maturity:	Low system maturity (manual, paper based system; reporting by LHDs)
Fitness for purpose:	Low fitness for purpose (data not adequate for program delivery)

NSW Hospital Aboriginal Identification Project

Description:	The NSW Hospital Identification Project aims to address the under-identification of Aboriginal People by adopting a system-wide approach that goes beyond staff training and improvements in administrative systems to include initiatives that promote the cultural competency of each hospital. The objective of the program is to deliver reforms that create environments in which Aboriginal people feel safe to identify and where hospital staff recognise the importance of the Aboriginality question. The key outcome measure is the improved identification of Aboriginal people in administrative data sets. The project will be administered in eight hospitals in NSW. There will be two arms of the project, one that focuses on enhanced reporting of Aboriginality for inpatient data collection (using the Admitted Patient Data Collection (APDC)) and the other arm that focuses on enhanced reporting of Aboriginality in emergency department data collection (Emergency Department Data Collection).
Purpose:	Service delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; Aboriginal and Torres Strait Island Health Performance Framework, 2008 Report; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Population Health Statement of Strategic Intent
Policy indicators:	Improved identification of Aboriginal people Rates of discharge against medical advice (from the APDC) Rates of incomplete waits in Emergency Departments (from the Emergency Department Data Collection)
Investment:	Moderate investment ($700,000 allocated to the project over 3 years or $250,000 per year)
Activity status:	Implementation over 3 years from program commencement (2012-2015)
Data collection:	Baseline data from Australian Institute of Health and Welfare (AIHW) validation surveys. Evaluation data from routinely collected hospital administrative data (e.g., Emergency Department Data Collection, Perinatal Data Collection)
Data quality:	High data quality
System maturity:	High system maturity (high quality system, however it has only been implemented as a pilot study to date)
Fitness for purpose:	High fitness for purpose

Maternity, Children and Young People's Health

Maternity Services

Towards Normal Birth in NSW (uses data from the Perinatal Data Collection)

Description:	This policy provides direction to NSW maternity services regarding actions to increase the vaginal birth rate in NSW and decrease the caesarean section operation rate; to develop, implement and evaluate strategies to support women and to ensure that midwives and doctors have the knowledge and skills necessary to implement this policy.
Purpose:	Evaluation
Priority:	Very high priority
Policy context:	NSW Framework for Maternity Services; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Population Health Statement of Strategic Intent; Caring Together; Caring Together Building Sustainability; Towards Normal Birth Policy
Linked indicators	Up to 10 identified measures linked to 10 steps to provide women-centred labour and birth care. The indicators are currently being developed.
Business owners:	Maternity, Children and Young People's Health
Investment:	Very high investment ($42.8 million investment over 4 years); low investment in program delivery data collection
Timeframe/activity status:	Policy published 2010; implementation is expected to be completed by June 2015 – Baseline audit of measures by 2011; 100% of measures to be achieved by 2015
Data collection:	LHDs to report against indicators.; no statewide data collection system at present
Data quality:	Moderate data quality (as per Perinatal Data Collection)
System maturity:	Moderate system maturity (electronic/manual system) at present (however high system maturity for ObstetriX and other electronic databases)
Fitness for purpose:	High fitness for purpose

NSW Statewide Infant Screening Hearing (SWISH)

Description	The NSW Statewide Infant Screening – Hearing (SWISH) Program is an early hearing detection and intervention program for infants born or residing in NSW. The core elements of the program include: Screening of all newborn infants; diagnostic audiology for those infants who get a refer result from the screening test; paediatric/medical assessment and parent support services for those diagnosed with a hearing impairment; and referral to early intervention services. The screening program is offered by LHD's while diagnostic audiology, assessment and support services are undertaken in John Hunter Children's Hospital, Sydney Children's Hospital and the Children's Hospital at Westmead.
Purpose:	Program delivery
Priority:	High priority
Policy context:	Future Directions for Health in NSW – towards 2025; Population Health Statement of Strategic Intent
Linked indicators:	Key indicators reported by LHD's: • Population coverage of screening program (screening to be provided for 95% newborn babies) • Diagnosis provided for newborns identified with hearing loss through screening by 3 months of age (% compliance with indicator) • Intervention programs commenced for babies identified with hearing loss through diagnosis by 6 months of age (% compliance with indicator)
Business owners:	Maternity, Children and Young People's Health
Investment:	Very high investment in program implementation; low investment in program delivery data collection
Timeframe/activity status:	Ongoing / active program; Yearly reporting
Data collection:	LHD's collect required data elements in accordance with indicators and report to NSW Health for analysis. There is no statewide reporting system at present – program requires central information management system to enable monitoring and reporting of the program against local, national and international benchmarks
Data quality:	Low data quality (data may be incomplete; delays in data acquisition; not valid for monitoring purposes)
System maturity:	Low system maturity (local, predominantly manual system)
Fitness for purpose:	Low fitness for purpose (system poorly aligned with program objectives; data collection not adequate to monitor outcomes)

Aboriginal Maternal and Infant Health Service (AMIHS)

Description:	AMIHS is a community based maternity service that aims to improve health outcomes for Aboriginal women during pregnancy and to decrease perinatal morbidity and mortality. The program involves a midwife working in partnership with an Aboriginal Health Worker or Aboriginal Education Officer to provide care to pregnant Aboriginal women, new mothers and their babies in a culturally safe environment. The service is comprised of seven targeted antenatal / postnatal programs for Aboriginal women and infants in selected LHD's.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Indigenous Reform Agreement; National Partnership Agreement on Indigenous Early Childhood Development; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Program indicators:	Offer a service to 100% of eligible pregnancy women in AMIHS catchment area 80% of eligible pregnant women offered AMIHS service take up this service Reduce the rate of prematurity in Aboriginal babies to less than 10% Increase the access to antenatal care before 16 weeks to 75% Reduce perinatal mortality by 10% Reduce smoking in pregnancy Reduce low birth weight (<2500gms) by 10% Increase the proportion of babies (a) exclusively and fully breastfed at discharge from hospital; and (b) at six weeks 100% of women and their babies will be 'offered' a referral by the midwife to the local early childhood health service within two weeks of birth.
Business owners:	Maternity, Children and Young People's Health with funding provided by the Centre for Aboriginal Health
Investment:	Very high investment in program implementation (Over $7M per year for the program – $600,000 funding received (National Partnership Agreement) for evaluation over 5 years (approx $120,000 per year))
Timeframe/activity status:	Ongoing program – Quarterly reporting (number of women through AMIHS services) and yearly reporting for key performance indicators
Data collection:	Aboriginal Maternity Data Collection (implemented in January 2011) – AMIHS data collected via ObstetriX data base and held centrally in the Perinatal Data Collection Online System Aboriginal Medical Services provide deidentified information; Quarterly reporting on program reach and annual reporting for program indicators
Data quality:	Moderate data quality – Note high data quality reported for data collected via ObstetriX whereas the reporting via paper based forms was of low data quality
System maturity:	Moderate system maturity (combination of electronic database and manual systems)
Fitness for purpose:	Moderate fitness for purpose (system meets program delivery needs) at present – Will be high fitness for purpose when ObstetriX available in all AMIHS services

Universal Services Programs

Statewide Eyesight Preschooler Screening (StEPS)

Description:	The StEPS program is a statewide population-based vision screening program for all four year old children in NSW. The program aims to identify childhood vision problems early (during critical development period) so that treatment outcomes can be maximised and avoid preventable vision impairment/blindness later in life by treating childhood vision problems early).
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	*National Framework for Action to Promote Eye Health and Prevent Avoidable Blindness;* Future Directions for Health in NSW – towards 2025; Population Health Statement of Strategic Intent
Policy indicators:	Population coverage of screening program
Program indicators:	Number offered / accepted / declined visual acuity screen Number passed visual acuity screen Number where follow-up required Number screened of Aboriginal / Torres Strait Islander background
Business owners:	Maternity, Children and Young People's Health
Investment:	Very high investment ($3.98M for 2011/2012; Low investment for program delivery data collections
Timeframe/activity status:	Program implemented in 2008; Ongoing / active project.
Data collection:	LHDs are responsible for developing and maintaining a database to record all children who have participated in the StEPS program; No statewide reporting system at present Quarterly reporting by LHDs
Data quality:	High data quality
System maturity:	Moderate system maturity (LHD level reporting; electronic / paper based system)
Fitness for purpose:	Moderate fitness for purpose (statewide database required for program monitoring)

Personal Health Record (uses the Health Survey Program)

Description:	The Personal Health Record (Blue Book) is distributed to all families with a newborn in NSW. It is a parent held health record for the child's health history, including details of their growth and development. The Personal Health Record provides parents with information about, and a record of, the minimum schedule of child health and development surveillance and screening checks recommended by NSW Health.
Purpose:	Screening / surveillance
Priority:	High priority
Policy context:	NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025
Linked indicators:	Universal healthy home visit performance indicators
Business owners:	Maternity, Children and Young People's Health
Investment:	Very high investment in program implementation; low investment in program delivery data collection
Timeframe/activity status:	Ongoing / active project
Data collection:	All data recorded by clinicians and parents in the Personal Health Record – there is no statewide system for data collection Representative data on parental use of the Personal Health Record and visits to GP and Child Health services are collated in the Child Health Survey and reported in the bi-annual Child Health Report
Data quality:	Very high data quality (as per Child Health Survey)
System maturity:	Very high system maturity (as per Child Health survey)
Fitness for purpose:	Moderate fitness for purpose (data collection system primarily for other purposes; not adequate for program monitoring)

Targeted Services for Vulnerable Populations

Building Strong Foundations for Aboriginal Children, Families and Communities

Description:	Building Strong Foundations, for Aboriginal Children, Families and Communities (BSF) is a primary health care model of care, involving Aboriginal Health Workers and Child and Family Health Nurses working in partnership to provide a strengths based approach to early childhood health for children 0 to school age entry and their families. The program aims to promote health and wellbeing, support parenting, enhance community development, identify health, development and wellbeing concerns, and provide or refer children and families for early intervention to ensure children they have the best possible start in life and are ready for school. This model is consistent with the Supporting Families Early' policy suite, AMIHS and Families NSW principles and is based on the ecological systems theory of child development. The BSF Program promotes culturally appropriate and safe practice based on sound evidence, knowledge and skills. It closely interfaces with Aboriginal maternity programs especially the NSW AMIHS.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Partnership Agreement on Indigenous Early Childhood Development; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Families NSW / NSW Health *Supporting Families Early*
Program indicators:	Program reach Draft key performance indicators • Increase in the proportion of children in BSF offered Child Health Checks • Increase in the proportion of children in BSF who complete a Child Health Check • Increase the proportion of children in BSF that are within a healthy weight range at 6 months, 12 months, 2 years, 3 years and 4 years • >95% of children in BSF have received all age appropriate immunisations at 12-15 months • 100% of children in BSF who, following a child health check, have identified health, development and/or wellbeing concerns are referred for further assessment • >90% of BSF families with a newborn have a review or new SAFESART assessment completed including EPDS before 2 months • 80% of BSF families who have a young baby receive the recommended SAFESTART assessment including EPDS at 6-8 months as per SFE policy • Increase the proportion of infants in the BSF program at 6 months who are smoke free • Increase the proportion of infants that are exclusively breastfed to 4 months • Increase the proportion of infants aged 6 months placed to sleep on their backs from birth • Reduce the proportion of children in BSF who have decayed, missing or filled teeth at 4-5 years • Increase the proportion of children in BSF who attend early childhood education/preschool programs in the year prior to school entry (does not mean routine school orientation day/s) • All parent/carers with identified mental health or wellbeing issues are referred for further mental health assessment, support and/or intervention when required
Business owners:	Maternity, Children and Young People's Health with funding provided by the Centre for Aboriginal Health
Investment:	High investment in program delivery; moderate investment in program delivery data collection
Timeframe/activity status:	Active / ongoing
Data collection:	Yearly reporting by LHDs using a standardised template
Data quality:	Moderate data quality (delays in accessing data)
System maturity:	Moderate system maturity (predominantly manual system)
Fitness for purpose:	Moderate fitness for purpose (system not effective for measuring outcomes)

Health Assessments, Reviews and Interventions for Children in Out-Of-Home-Care

Description:	The Out-Of-Home-Care (OOHC) program focuses on providing health screening, assessment, intervention and review for children and young people entering and in statutory out of home care in order to improve health, wellbeing and development outcome.
Purpose:	Program delivery
Priority:	Very high priority
Policy context:	National Standards for Out-of-Home Care; National Clinical Assessment Framework for Children and Young People in Out of Home Care; NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Keeping them Safe – a shared approach to child wellbeing 2009-2015; NSW Children's Guardian – NSW Standards for Statutory Out-of-Home care
Policy indicators:	% of children and young persons (under 16) receiving a comprehensive multidisciplinary Health and developmental within 30 days of entering Out-of-home care
Business owners:	Maternity, Children and Young People's Health and LHD's
Investment:	High investment in program delivery; moderate investment in program delivery data collection
Timeframe/activity status:	Ongoing / active project
Data collection:	OOHC coordinators in LHDs collect and record data using approved reporting template – quarterly reporting
Data quality:	High data quality
System maturity:	Moderate system maturity (mixture of paper and electronic reporting templates; moderate workload to compile)
Fitness for purpose:	Moderate fitness for purpose (system improvements required for program monitoring)

Child Protection and Well-Being Services

Sexual Assault (Adult and Child)

Description:	NSW Health Sexual Assault Services and Child Protection Units provide crisis and ongoing counselling, medical, forensic responses and court support to child victims of sexual assault and counselling and support for non-offending significant others. Data are routinely collected by the Ministry of Health on all initial presentations.
Purpose:	Clinical service delivery
Priority:	High priority
Policy context:	NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Keeping them Safe – a shared approach to child wellbeing 2009-2015
Policy indicators:	Number of initial presentations per month
Program indicators:	Specific KPIs have been developed
Business Owners:	Maternity, Children and Young People's Branch
Investment:	Very high investment in program implementation (Funded by LHD's); low investment in program delivery data collection
Timeframe/activity status:	Ongoing / Active project
Data collection:	Clinical data collection
Data collection:	Data collected by Sexual Assault Services and Child Protection Units (due on 10th day of following month in which presentation was made) Current data collections for Child Protection Services (PANOC) and Sexual Assault Services (SADS) – unsupportable from hardware, systems and data management perspective
Data quality:	Moderate data quality (some missing data)
System maturity:	Moderate system maturity (LHD reporting; moderate workload to compile)
Fitness for purpose:	Moderate fitness for purpose (system requires updating)

Domestic Violence Routine Screening

Description:	The Domestic Violence Routine Screening program is implemented in all public antenatal, early childhood health, drug and alcohol and mental health services with a focus on female patients and on partner abuse. Two screening questions are included in the assessment process and built into existing tools (e.g., Mental Health Outcomes Assessment Tool (MH-OAT). Disclosure of domestic violence defined as positive response to one or both of the screening questions.
Purpose:	Surveillance to inform service development
Priority:	High priority
Policy context:	NSW 2021: A plan to make NSW number one; Future Directions for Health in NSW – towards 2025; Policy and procedures for identifying and responding to domestic violence; Keep Them Safe: A Shared Approach to Child Wellbeing; Stop the Violence End the Silence – The NSW Domestic and Family Violence Action Plan (under review); NSW Health Policy and Procedures for Identifying and responding to Domestic Violence
Policy/Program indicators:	Number of Women screened by service type Disclosure rate for domestic violence
Program indicators:	Number of participating services / program reach
Business owners:	Maternity, Children and Young People's Health in partnership with MHDAO
Investment:	Low investment (resource funding ad hoc)
Timeframe/activity status:	Ongoing / active project
Data collection:	LHD's collect snapshot data from services that are screening; Snapshot conducted annually in November and reported to the Ministry of Health in March in hard copy and excel format
Data quality:	Low data quality (locally / site based data collection; snapshot data collection only; high workload to compile data)
System maturity:	Low system maturity (predominately paper based system)
Fitness for purpose:	Moderate fitness for purpose (does not facilitate outcome measurement)

Centre for Oral Health Strategy

Oral Health Surveys (national and statewide)

Description:	The Centre for Oral Health Strategy (COHS) coordinates and funds state wide and national oral health surveys with the aim of improving reporting of oral health and disease status in NSW. Survey data is used to plan COHS programs and research projects. Future surveillance priorities include a focus on the following target groups: early childhood, people with special needs, Aboriginal and Torres Strait Islander populations, older people and rural communities. Recent oral health surveys have included: • Child Dental Health Survey, 2007 • NSW Teen Dental Health Survey, 2010 • Child Dental Health Survey 2003-4 • National Survey of Adult Oral Health 2004-2006
Purpose:	Surveillance
Priority:	Very high priority
Policy context:	Healthy Mouths Healthy Lives: Australia's Oral Health Plan 2004-2013; NSW Oral Health Strategic Directions 2011-2020
Linked indicators: (National benchmarks)	Rates of decay in primary and permanent teeth for children % adults with complete tooth loss; % adults with fewer than 21 natural teeth % dentate adults who wear dentures % adults with untreated coronal decay Average number of teeth per person missing due to pathology Average number of decayed, missing or filled teeth per person
Business owners:	Centre for Oral Health Strategy
Investment:	Low investment
Timeframes:	Implementation of dental surveys is ad hoc
Data collection:	NSW Child Health Dental Survey (2007); NSW Teen Dental Health Survey (2010); National Survey of Adult Oral Health (2004-06); Child Dental Health Survey, Australia 2003-04
Data quality:	Very high data quality for overall population
	High data quality for Aboriginal populations
System maturity:	Very high system maturity
Fitness for purpose:	Very high fitness for purpose

Oral Health Surveillance

Description:	The Oral Health Data Collection is a repository of all eligible clients (children and adults) who contact a NSW oral health service. NSW Oral Health clinics provide patient details, prioritisation codes, waiting times, reasons for seeking care, diagnosis, treatment and separation of data and costs. It has been facilitated by the implementation of the Information System for Oral Health. The purpose of this data collection is to provide timely outcome-focused oral health status data and to enable the Department to monitor the efficiency of oral health service provision in NSW.
Purpose:	Surveillance
Priority:	High priority
Policy context:	NSW Oral Health Strategic Directions 2011-2020; Population Health Statement of Strategic Intent
Linked indicators:	Demographic data for each patient Prioritisation codes and waiting times for assessment and treatment Data on reasons for seeking care Diagnosis, treatment and separation data Financial estimates on the costs of internal and external service provision
Business owners:	Centre for Oral Health Strategy
Investment:	Low investment
Timeframe/activity status:	Ongoing.
Data collection:	Ongoing data collection
Data quality:	High data quality
System maturity:	Very high system maturity
Fit for purpose:	High fitness for purpose

Aboriginal Oral Health Programs

Description:	The aim of the Aboriginal Oral Health Program is to coordinate high quality oral health services to the Aboriginal people of NSW. The development of a 'hub and spoke' service delivery model provides dentists for rural Aboriginal community controlled health services that have dental facilities but not dentist. Refocussing services for Aboriginal people also includes the establishment of the Aboriginal Oral Health Clinic and the Aboriginal Research and Development Unit in the Sydney Dental Hospital. The primary use of the clinic is to capture overflow clients from the three metropolitan Aboriginal Medical Services.
Purpose:	Service delivery
Priority:	Very high
Policy context:	National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes; NSW Oral Health Strategic Directions 2011-2020; NSW 2021: A plan to make NSW number one
Linked indicators:	Demographic data for each patient Prioritisation codes and waiting times for assessment and treatment
Business owners:	Centre for Oral Health Strategy
Investment:	High investment ($1.7M funding per year from the Commonwealth Government); low investment in program monitoring
Timeframe/activity status:	Ongoing
Data collection:	Ongoing data collection at site level
Data quality:	Low data quality (incomplete data; delays in data acquisition; data not accurate for program monitoring)
System maturity:	High system maturity
Fit for purpose:	High fitness for purpose

Office for Medical Research

Research and Ethics Governance Program

Description:	The Research and Ethics Governance Program is a system for managing and reporting NSW human research ethical review and governance information. At present there are systems used to support submission, ethical review and governance of all applications for health and medical research completed in public health institutions. The Australian Research Ethics Database (AU RED) is used to process and manage research ethics and site authorisation applications. The Online Forms Network is used for the electronic management and submission of applications by research. A review is underway to analyse the systems efficacy and identify options for improvement. The current system is not sustainable or fit for purpose.
Purpose:	Information management system
Priority:	High priority
Policy Context:	Promoting the generation and effective use of population health research in NSW: A strategy for NSW Health, 2011-2015; Future Directions for Health in NSW – towards 2025; Healthy People NSW – Improving the health of the population; Population Health Statement of Strategic Intent
Linked indicators:	N/A
Business owners:	Centre for Epidemiology and Evidence
Investment:	Moderate investment
Timeframe/activity status:	The Australian Research Ethics Database (AU RED) and Online Forms Network are operational. A review is currently underway to gather requirements, specify the system requirements and commence the procurement process for the review.
Data collection:	Data entered into system by research officers for all Ethics Committees
Data quality:	Low data quality (difficult to extract data from system; poor quality data)
System maturity:	Very high system maturity (state wide / electronic system)
Fit for purpose:	Low fitness for purpose (system does not meet user needs)

Acknowledgements

The Population Health Surveillance Advisory Group guided the development of this document. The Group comprised:

- Associate Professor Sarah Thackway, Director Centre for Epidemiology and Evidence, NSW Ministry of Health; University of New South Wales (Chair)
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This paper was completed by Belinda Crawford and Dr Michelle Cretikos with support from Associate Professor Sarah Thackway. It was based on work commenced by Germaine Cumming.