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Who are we?

The Centre for Victorian Data Linkage (CVDL) was established in 2009 with the aim of developing data linkage capacity and infrastructure in Victoria in line with best practice.

The CVDL is the Victorian state node of the Population Health Research Network (PHRN) (http://www.phrn.org.au/), which aims to build nationwide data linkage capability and infrastructure to safely manage health information and cross jurisdictional research projects.

The CVDL is located in the System Intelligence and Analytics branch, Strategy and Planning Division, Department of Health and Human Services.

What is data linkage?

Data linkage is a technique for identifying records in and across different data sources that belong to the same person, family, place or event in a way that protects individual privacy and can be used for analysis. Data linkage enables a person-centered, evidence-based approach to understanding the health and wellbeing of Victorians over time.

Data linkage units such as the CVDL use linkage software to process large numbers of records and identify whether they relate to the same person. There are two types of data linkage methods: deterministic and probabilistic. Deterministic linkage creates a link between records where fields match exactly across records. Probabilistic linkage assigns a statistical weight to each field that matches to assess the probability that the records belong to the same person. These weights are then aggregated to represent the probability that records belong to the same entity.

The CVDL currently uses deterministic data linkage with some fuzzy matching to allow slight variation in the linkage variables such as names and dates. Deterministic linkage ensures that records are unlikely to be incorrectly identified as belonging to the same person (false positives). Fuzzy matching takes into account slight variations in allowing records to link, whereas a strict implementation of deterministic linkage would reject them, and result in a greater number of false-negatives.

What is the value and limitation of linked data?

Linked data is highly valuable for researchers and policy makers as it enables analysis of individuals’ pathways through the service system, and provides insight regarding outcomes of intervention. Administrative data is relatively inexpensive to link compared with collecting resource intensive survey data, making exploration of many issues more feasible than previously. However, the quality of the source data impacts on the quality of the linkage, and poor quality data will result in linkage error, that is, links being missed or created where none exist. Some source data may be poorly documented, which creates difficulties for researchers in understanding the variables within the linked data. Linked data is built from the variables in existing source datasets, rather than specifically for research purposes, and the fields in the data may not specifically meet the requirements of the researcher or policy maker.
What linked data is available from CVDL?

The CVDL receives internal, departmental and external research requests to link data within and across datasets and has undertaken more than 500 linkage requests since 2009. During the first few years of the CVDL’s operation, most linkage was undertaken on a project-by-project basis. During the past couple of years, the CVDL has developed the Victorian Linkage Map, which provides an enduring resource of linked datasets.

The Victorian Linkage Map (VLM) is a system of linked records that are identified as belonging to the same person across 30 different Victorian health and human services datasets, including the following:

- Victorian Admitted Episodes Dataset
- Victorian Emergency Minimum Dataset
- Victorian Cost Data Collection
- Public mental health services
- Alcohol and Drug Information System
- Victorian Integrated Non-Admitted Heath Dataset
- Elective Surgery Information System
- Victorian Cancer Registry
- Victorian Radiotherapy Minimum Dataset
- Mental Health Community Support Services
- Family Services
- Family Violence Services
- Sexual Assault Services
- Disability Services
- Youth Justice
- Homelessness Services
- Victorian Death Index
- Community Health
- Child Protection
- Public Housing Tenancies
- Perinatal data collection
- Home and Community Care
- Dental Health Program Dataset
- Early childhood intervention
- Births Registry
- Public housing applications
- Cradle to Kinder program
- Early Parenthood Centers
- Public Health Event Surveillance System

How does CVDL protect privacy?

The CVDL has developed a range of robust processes to ensure compliance with the requirements of the Privacy and Data Protection Act and Health Records Act, as well as best practice data linkage techniques. This includes approval by data custodians for use of the data, and, where required, development of a Privacy Impact Assessment, and approval by an accredited Human Research Ethics Committee.

The CVDL employs data separation to help protect an individual’s privacy during the linkage and integration process. This separation means that an individual’s identifying information is kept separate from the corresponding content information and access by the CVDL staff is restricted to either one type of data or the other.
Accessing and using linked data

A request can be made to the CVDL to access linked data to inform research and policy development. The application process requires the requestor to document their research or policy questions in detail and to identify which data items will assist in addressing these questions. The CVDL advises on data custodian approvals required, as well as ethics committee approvals and privacy impact assessments which need to be completed by the requestor. The size and complexity of the required linked dataset depends on the specific questions being answered. For example, analysis of multiple linked data sets drawn from the Victorian Linkage Map requires access to high level analytical skills in a programming language such as SAS. The CVDL is developing information products to assist with the use and understanding of the Victorian Linkage Map linked dataset.

The CVDL responds to multiple requests for linked data of varying complexity at the same time, and as a result is not able to meet short timeframes. The time taken will depend on complexity and operational considerations, and provision of all relevant approvals. The CVDL will advise on likely timelines at time of enquiry, and recommends that data linkage is considered early in project development, and that the CVDL is informed of potential requests as soon as possible. The CVDL is currently implementing a secure cloud-based access model for approved requests.

Expanding the linked data resource

The Department of Health and Human Services (DHHS) in partnership with the Department of Premier and Cabinet (DPC) is leading a project to establish the Victorian Social Investment Integrated Data Resource (VSIIDR), a person-centred enduring linked dataset to be used for health and social policy research purposes in the public interest. The project extends upon the VLM and incorporate data from other government departments, initially Victorian, and at a later stage Commonwealth data sets. The CVDL has recently acquired datasets from the Department of Education and Training. The CVDL has also recently become an accredited Integrating Authority for Commonwealth data. Accreditation enables the CVDL to undertake data linkage projects involving sensitive Commonwealth data, such as Medicare and Centrelink.

Further information

Please contact the Centre for Victorian Data Linkage to discuss linked data requests. 
cvd1@dhhs.vic.gov.au  (03) 9096 2707 / 2833

About System Intelligence & Analytics Branch

The System Intelligence and Analytics Branch comprises:

- Linkage, Modelling and Forecasting – including the Centre for Victorian Data Linkage;
- System Insights – including the Health Intelligence Unit; and
- The Centre for Evaluation and Research.

The Branch provides services across the Department and beyond which include:

- Data linkage, data release, and analysis of linked data
- Modelling and forecasting of health and human service utilisation and future service need
- Cohort analysis of health and human service clients, assessment of clients need, and opportunities for social investment to improve health and wellbeing
- Design and implementation of program evaluation, training in evaluation methods including program logic
- Surveys of Victorians’ health and wellbeing, including the Victorian Population Health Survey.
Data Linkage Request Process Details
The Centre for Victorian Data Linkage

Timeframes
The timeframe to finalise a project is dependent on a number of factors including linkage complexities and approval requirements. CVDL Client Services will assist as much as possible to provide an indication on a project timeframe for you to plan your project.

1 Data Request
1.1 The data user completes the Data Linkage Request Form.
1.2 The request form is submitted to cvdl@dhhs.vic.gov.au. The form should be accompanied by Head of Department approval (if external researcher), research protocol and any other accompanying documentation (e.g. HREC Application).

2 Technical Feasibility Assessment
2.1 The CVDL reviews the data linkage request form and assesses its technical feasibility. Technical feasibility assessment involves consideration of privacy preserving data flows, data de-identification, availability of requested data items, operational considerations, data access requirements and alignment with department objectives.
2.2 Feedback is provided and further details maybe requested. The request form may then need to be resubmitted.
2.3 The costs of data access via the CVDL Microsoft Azure data analysis environment are scoped and a quote is provided to the researcher.

3 Deed of Acknowledgment and Confidentiality
3.1 All external users must complete the Department of Health and Human Services (DHHS) Deed of Acknowledgment and Confidentiality which outlines the conditions of access to the data (with signatures from all recipients of the data and from the organisation legally responsible for the project) and return to cvdl@dhhs.vic.gov.au.
4 Ethical Approval

4.1 An appropriate ethical review and approval of all research projects is a statutory requirement under the Health and Information Privacy Principles. It is a key part of the consideration of the public interest in a research project and of the potential for harm to the participants who are the subject of the data.

4.2 The Client Service team can provide input and/or feedback on HREC applications that relate to access to linked data.

4.3 Requests from Data Users external to Victorian Government: Data User must obtain Human Research Ethics Committee (HREC) approval from an accredited Victorian HREC or, for cross-jurisdictional studies, from a HREC accredited under the National Mutual Acceptance scheme. Details on the requirements for HREC applications are here (https://www2.health.vic.gov.au/about/clinical-trials-and-research/health-and-medical-research). Data User must provide the CVDL with both Ethics application and approval letter.

4.4 Requests from Data Users Internal to Victorian Government: Data Users require Victorian HREC approval if the request is of a sensitive nature meets the criteria under Health Privacy Principle 2.2G or Information Privacy Principle 2.1C or is published externally.

4.5 Projects where explicit consent to use an individual’s personal identifiable information for data linkage has not been obtained, require an Ethics Committee to specifically consider and provide a waiver of consent as described in the National Statement on Ethical Conduct for Human Research Projects (https://www.nhmrc.gov.au/guidelines-publications/e72).

4.6 Approval from a HREC is one step in the data linkage request assessment process and does not constitute final approval for a data linkage project.

5 Privacy Impact Assessment

5.1 Victorian Government Internal projects: Data Users from DHHS or other government departments are required to complete a privacy threshold assessment and if required a full Privacy Impact Assessment on their project.

5.2 External projects: The CVDL will undertake a privacy impact threshold assessment and if required a full Privacy Impact Assessment (PIA) for external research projects. These assessments are completed in conjunction with the researcher and the Information Sharing and Privacy Unit in the Department and may incur a cost.

6 Data Custodian Approval

6.1 Use of each dataset involved in a data linkage project must be approved by the relevant Data Custodian.

6.2 For datasets held by the Victorian Government: the CVDL Client Services team will liaise with the relevant data custodians on behalf of the researcher. Data custodians are provided with the completed Data Linkage Request Form, ethics approval, PIA and any other supporting information including data flows, the specific data variables requested and how data will be de-identified. In considering the project, a data custodian may consider operational, policy and/or specific legislative requirements.

6.3 For datasets external to the Victorian Government: the data user must provide evidence of the relevant Data Custodians approval for the use of the data. CVDL can assist in this process if required.

7 Approval to collect non-DHHS data (if required)

7.1 It is a requirement of Victorian privacy legislation that the department may only collect health or personal information if it is necessary for one or more of the functions for activities of the department.

7.2 The Assistant Director, Linkage Modelling and Forecasting of the System Intelligence and Analytics Branch must approve all collections of external data sources.

7.3 If the collection of external dataset(s) into the department is approved, a Memorandum of Understanding may need to be negotiated between DHHS and the external data custodians to outline obligations and conditions of use of data.
8 Data Linkage

8.1 The CVDL Linkage Team uses the Victorian Linkage Map to find records that belong to the individuals that are the subject of the project in the approved datasets and assign an anonymous Linkage ID that represents an individual.

9 Data Integration

9.1 The CVDL Content Data team uses the Linkage ID to extract the approved content data items from the relevant datasets and creates new project specific person IDs.
9.2 Data de-identification processes are undertaken (i.e. aggregation and removal of personal identifiable data) to minimise the risk of re-identification of the data.
9.3 Quality assurance is undertaken ensuring technical and administrative processes align with the research request. A quality statement is produced.

10 Data Access

10.1 A project-specific virtual machine is created in the DHHS Microsoft Azure data analysis environment which contains the approved linked, unit record level, de-identified data for the project.
10.2 Creation and maintenance of the project-specific virtual machine will incur a cost which will be charged to the data user on a cost recovery basis.
10.3 Approved data users login to the project-specific virtual machine and analyse the data using a range of data analysis tools. Using the project Linkage ID, the researcher can determine which records from different datasets belong to the same individual, without having access to personal identifiable information.
10.4 Unit-record level data cannot be downloaded or copied from the virtual machine. Aggregated outputs are vetted by CVDL before they can be removed from the environment.
10.5 On completion of the project and/or after a timeframe approved by the data custodian, access to the virtual machine is removed.

11 Follow-up

11.1 All analysis, reports and/or presentation of linked data provided by DHHS must be provided to DHHS for review before submission for publication.
The access model for DHHS linked data has changed

Significant changes to Victorian privacy and information management standards mean that government needs to use a different approach to management of linked data. In addition, improved access processes are required to facilitate the use of the large amount of person-centred linked data now available in the Victorian Linkage Map (VLM). With the increasing size of the VLM, it is essential to ensure the trust of the public is maintained and provide assurances to data custodians responsible for the source datasets. For these reasons, access to and analysis of linked data for approved projects is now via a secure cloud based environment managed by the Centre for Victorian Data Linkage (CVDL). Researchers are provided with access to de-identified linked data within the secure cloud environment and analysis is undertaken via virtual machine.

How secure is the cloud?

The Microsoft Azure platform that the CVDL uses is very secure. The Azure cloud environment has been certified up to “Protected” by the Information Security Registered Assessors Program (IRAP) of the Commonwealth. The IRAP is an Australian Signals Directorate (ASD) initiative to provide high-quality information and communications technology (ICT) services to government in support of Australia’s security.

How do I access the data?

Separate virtual machines (data environments) will be set up for each approved project to ensure security. The CVDL will provide access to a de-identified linked data set in the cloud environment that is required to complete a specific project, which may be at unit record level where approved by data custodians. Researchers will analyse the data on the virtual machine, using available software such as R, Python and SQL. Researchers will also have access to Microsoft Office, as well as Power BI to undertake visualisations. Researchers may request to install particular software on a virtual machine on a BYO licence arrangement. Approved researchers will be provided with a log-on to access the virtual machine.

Can I remove my research results?

Researchers cannot download, print, email or save linked data outside the Azure environment. Researchers may request release of outputs (such as analysis, modelling, graphs and tables) when required for publications, presentations, policy documents and so on. The CVDL approves analytic outputs prior to removal from the environment to ensure a sufficient level of aggregation has been undertaken to meet privacy and confidentiality requirements. The CVDL will also request data custodian approval for release of the outputs.

Is there a cost?

The CVDL is charged by Microsoft for the amount of cloud computing processing power that we use. The CVDL is currently developing a costing model to estimate the cost of particular projects based on the amount of cloud computer processing power required. The costing model will be based on cost-recovery principles.

Any more questions?

Please contact the Centre for Victorian Data Linkage on cvdl@dhhs.vic.gov.au.
Datasets available in the Victorian Linkage Map

September 2018

The Victorian Linkage Map

The Centre for Victorian Data Linkage (CVDL), located in the Victorian Department of Health and Human Services (DHHS) has developed the Victorian Linkage Map, a system of linked records combining personal identifiers (such as name and date of birth) from multiple datasets. The Victorian Linkage Map enables identification of records which belong to the same person across thirty different Victorian health and human services datasets. The CVDL uses linkage identifiers to anonymously identify content and case variables relating to an individual across datasets. Unlike previous project-by-project methods of data linkage, the Victorian Linkage Map (VLM) provides an enduring resource of linked data.

The timeliness and frequency of data available is dependent on data collection procedures in the source organisations. Some Departmental data, such as Child Protection, is almost real-time and supports quarterly updates, while others are assembled as a summary of the year’s activity for submission to the Australian Institute for Health and Welfare (AIHW) for national reporting. Some datasets, such as the Victorian Cancer Registry, experience a significant lag as the relevant secondary data is sourced and compiled by hospitals.

Descriptions of the datasets and their areas of coverage are provided below.

Description of current datasets

1. Admitted hospital episodes

Admitted patient activity is captured in the Victorian Admitted Episodes Dataset (VAED), which provides a comprehensive dataset of the causes, effects, nature of illness and immediate outcome following treatment, and the use of hospital health services in Victoria. The VAED supports health service planning, policy formulation, epidemiological research and public hospital funding under the casemix system. All Victorian public and private hospitals, including rehabilitation centres, extended care facilities and day procedure centres, report a minimum set of data for each admitted patient episode.

Data

VAED data is currently included in the VLM for admitted episodes from July 1993 to January 2018. The available data includes fields relating to patient demographics including residential location, causes, effects and nature of illness, type of care, diagnosis, procedures, source of funding (public vs private) and month and year of arrival and departure.

2. Non-admitted hospital services

The DHHS maintains data around the provision of a range of non-admitted services in Victoria to provide equitable funding to public hospitals and support health services in their planning, policy formulation and epidemiological research. The Victorian Integrated Non-Admitted Health (VINAH) dataset comprises data about non-admitted services including the Hospital Admission Risk Program (HARP), Specialist Clinics (Outpatients), Palliative Care
Datasets in the Victorian Linkage Map August 2018

(PC), Post-Acute Care (PAC), Subacute Ambulatory Care Services (SACS), Victorian HIV Service (VHS) and the Victorian Respiratory Support Service (VRSS).

Data
VINAH data is currently included in the VLM for the period January 2008 to January 2018. The data items vary between programs, but in general include patient demographics, referral details, medical condition, and service provided.

3. Emergency department presentations
The Victorian Emergency Minimum Dataset (VEMD) comprises demographic, administrative and clinical data detailing presentations at Victorian public hospitals with designated emergency departments. The VEMD does not capture emergency department presentations at private hospitals.

Data
VEMD data is currently included in the VLM for emergency presentations between July 1999 to December 2017. The available data includes fields relating to patient demographics including residential location, diagnosis and procedures, arrival and departure details.

4. Elective surgery waiting lists
The Elective Surgery Information System (ESIS) is a patient-level collection of elective surgery waiting list data from approved Victorian public healthcare services. Elective surgery is planned surgery that can be booked in advance as a result of a specialist clinical assessment resulting in placement on an elective surgery waiting list.

Data
ESIS data is currently included in the VLM from June 1990 to February 2018. Data items include patient age, elective surgery procedures, date of registration on waiting list, date of admission and patient postcode.

5. Victorian Cost Data Collection
The Victorian Cost Data Collection (VCDC) is a dataset reflecting the cost and mix of resources used to deliver patient care. Victorian public hospitals are required to report costs for all operational funded activity, and are expected to maintain patient costing systems that monitor service provision to patients and allow for the accurate determination of patient level costs. All Victorian metropolitan and major rural health services are required to submit annual patient level cost data to the VCDC.

Data
VCDC data has been consolidated with the VAED for years 2009-10 – 2015-16 (inclusive) in our latest linkage map. Key costing data is available by CCU, Emergency, ICU, Imaging, Medical, Surgery, Medical NON-Surgery, Nursing, Pathology, Pharmacy, Theatre, Allied & Total cost.

6. Victorian Ambulance service
The Victorian Ambulance Minimum Dataset (VADS) collects data at unit-record level about services provided by Ambulance Victoria (AV). Ambulance Victoria provides emergency medical response, including pre-hospital care and medical transport. Data is available regarding emergency road transport, non-emergency road transport, treatment without transport, and air transport. Note that VADS does not include detailed clinical information.
Data

VADS data is included in the VLM from July 2014 to January 2018. It includes information on patient demographics including location of residence, case timing, case location, case outcome and response type.

7. Clinical public mental health services

Specialist mental health services in Victoria are divided into two service delivery types: clinical and non-clinical. Clinical services focus on assessment and treatment of people with a mental condition. These services are called area mental health services and are managed by general health facilities, such as hospitals. There are reporting requirements for Victorian Government public mental health services using the CMI/ODS system. CMI/ODS comprises two systems. The Client Management Interface (CMI) is the local client information system used by each public mental health service. The Operational Data Store (ODS) manages a set of selected data items from each CMI.

When a public mental health service accepts a person’s referral for service delivery or intervention, the person becomes a client of the service and should be registered in the Client Management Interface/Operational Data Store (CMI/ODS) system.

Data

Clinical public mental health services data is currently included in the VLM from January 1983 to February 2018. Available data includes demographic, clinical status including diagnosis, and service history for each person registered on the CMI/ODS system as receiving public clinical mental health services. Registered and non-registered Mental Health clients are included in this data.

8. Mental Health Community Support Services

Mental Health Community Support Services (MHCSS) provide non-clinical mental health services, for example, they support people with psychiatric disability to manage their self-care, improve social and relationship skills and achieve broader quality of life via physical health, maximise participation on community life, housing, education and employment.

Access to Mental Health Community Support Service (MHCSS) programs – Individualised Client Support Packages, Youth Residential Rehabilitation Services, Adult Residential Rehabilitation Services and Supported Accommodation Services – is via the catchment-based intake assessment services.

Data

Mental Health Community Support Services data is currently included in the VLM from July 2008 to October 2017. The system includes client demographics, contact hours, bed days, client support units and service types on individuals who receive MHCSS services which is reported to DHHS from funded sector service providers.

9. Alcohol and Drug Services

The main source of data on Alcohol and Drug Services is sourced from the ADIS application which is a reporting platform for agencies funded to provide alcohol and other drug treatment, drink drive assessment and education, and Local Drug Strategy Primary Health Services. The information form the system is consolidated in the ADIS, a collection of all data from Victorian government-funded drug-treatment services. ADIS data is used to monitor agency performance and together with other information, is used extensively to inform service planning and policy development.
ADIS data is included in the VLM from July 2000 to December 2017. The data items include client demographics and geography, diagnosis, and drug and alcohol treatment episode details.

10. Cancer diagnosis

The Victorian Cancer Registry (VCR) is a population-based cancer registry aiming to provide comprehensive, accurate and timely information for cancer control. All Victorian hospitals, pathology services and prescribed registers, are required to notify details of patients admitted and treated for cancers reportable under the Cancer Act, 1958, as amended. The VCR now holds information on nearly 1 million tumours diagnosed in Victorians over more than 30 years.

VCR data has been included in the VLM from January 2002 to December 2016. Available items include patient demographics including geographic location and tumour details such as site, morphology, grade, behaviour and date of diagnosis.

11. Medical Radiation Treatment

The Victorian Radiotherapy Minimum Data Set (VRMDS) contains demographic, administrative and clinical data for admitted and non-admitted patients treated in Victorian Radiotherapy facilities in the public and private sector. The VRMDS commenced in 2008-09 as an initiative of the Department of Health in collaboration with the Victorian radiotherapy providers. The purpose of the data collection is to provide the Department with relevant data to inform service planning considerations for radiotherapy facilities, including metrics which inform this, such as utilisation rate analysis against optimal rates.

The VRMDS has been included in the VLM from January 2010 to December 2017. Available data includes patient level demographics including geographic location and treatment details.

12. Community health services

Community health services deliver a range of primary health, human services and community-based support to the Victorian community. These include universal services as well as targeted services for vulnerable population groups such as children, pregnant women, refugee and asylum seekers and those with chronic disease. Community health services receive funding from a range of DHHS programs for services including health promotion, general counselling, allied health and nursing services.

There are currently 86 Victorian community health services which comprise 31 independently managed registered community health centres and 55 community health centres that are part of larger health services. The Community Health dataset comprises data reported quarterly by Victorian community health providers on their services as funded by the Department.

Community health services data has been included in the VLM from July 2008 to June 2017. The data is a collection of transaction records for each client contact, including client demographics, service type, service hours and service duration.
13. **Home and Community Care**

The Home & Community Care (HACC) Program provides a comprehensive range of basic maintenance and support services for frail aged people, people with a disability and their carers so they can remain living in the community. The program was previously jointly funded by the Australian Government and the State and Territory governments.

On 1 July 2016 the funding and management of Home and Community Care (HACC) program services changed significantly. Access to these services is now based on age. Services for older people (people aged 65 and over and Aboriginal people aged 50 and over) are now funded and managed by the Commonwealth Department of Health through the Commonwealth Home Support Programme (CHSP). The CHSP provides the similar types of services that were provided by the HACC program. These services include help with housework, personal care, meals, social support and groups activities, nursing care, allied health and home maintenance.

Services for younger people (people aged under 65 and Aboriginal people aged under 50) remain funded and managed by the Victorian Department of Health and Human Services under the HACC Program for Younger People (HACC PYP).

**Data**

HACC data is available in the VLM from July 2005 to June 2017. HACC data for people aged 65 plus and Aboriginal people aged 50 and over is available only until 30 June 2016, prior to transfer of this program to the Commonwealth. Available data items include client demographics, carer details, service usage and need to assistance in particular activities of daily life.

14. **Public dental services**

The Dental Health Program provides public dental care to eligible Victorians. This includes health care and pensioner concession cardholders and their children, and all children aged 0-12 years. The Department of Health & Human Services funds Dental Health Services Victoria (DHSV) to deliver both routine and urgent dental care. Services are delivered through the Royal Dental Hospital Melbourne and 79 clinics across Victoria, operated by community health and rural public health services. The Dental Health dataset contains data about the public dental services funded by the Dental Health Services. It does not include information about private dental services.

**Data**

Public dental services data is available in the Victorian Linkage Map from Jan 2011 to July 2017. Available data items include patient demographics, treatment type, eligibility and treatment history.

15. **Notifiable infectious diseases**

The Health Protection Branch of DHHS aims to prevent and control the spread of infectious diseases and other conditions in the community and thereby reduce as far as practicable the incidence and prevalence of infectious diseases in Victoria. The accurate and timely monitoring of these diseases through this data collection allows the unit to:

- respond to specific incidents/cases;
- respond to and control outbreaks;
- plan and implement education and prevention strategies.

Under the Public Health and Wellbeing Regulations 2009, the Department of Health & Human Services is authorised by law to collect information from medical practitioners and pathology services about diagnoses of certain health related conditions in Victoria. The Public Health Event Surveillance System (PHESS) holds data on notifiable diseases that medical practitioners are required by law to notify. This includes a range of contagious
datasets, viral infections and sexually transmitted infections. The collection exists to monitor and control the occurrence of infectious diseases and other specified conditions in Victoria, and helps to prevent further illness.

Data

Notifiable infectious disease data is included in the VLM from January 1991 to January 2018. The data includes patient demographics, dates of notification, infectious disease type.

16. Births

All babies born in Victoria need to be registered with the Registry of Births Death and Marriages within 60 days. The law requires both parents to register a child’s birth, although there are circumstances where just one parent can register the birth including where the father is unknown, the other parent has died or the other parent refuses to sign. The CVDL obtains this data from the Registry of Births Death and Marriages under a Memorandum of Understanding.

Data

Births Registry data is currently available in the VLM from January 1993 to January 2018. The available fields are baby’s date of birth (5 year age groups), baby’s sex, mother’s date of birth (5 year age groups), birth order (in case of multiple births).

17. Perinatal data

The Consultative Council on Obstetric and Paediatric Mortality and Morbidity (CCOPMM) is responsible for collecting and monitoring data on all Victorian births. Health services are required to report the information set out in the Consultative Council on Obstetric and Paediatric Mortality and Morbidity (CCOPMM) birth report for inclusion in the Victorian Perinatal Data Collection (VPDC). This includes non-hospital births and birth-related events from 20 weeks gestation onwards.

CCOPMM relies upon the cooperation of obstetricians, neonatologists, paediatricians, midwives, general practitioners and medical records personnel to provide it with the maximum amount of relevant information on each case. A Perinatal Death Certificate and a Confidential Medical Report on Perinatal Death is completed for each stillbirth or neonatal death by the attending physician or pathologist.

Data

Perinatal data is currently available in the VLM from 1999 to 2016. CCOPMM authorises release of data items required for a specific linkage request. Available data items include: maternal characteristics, obstetric conditions, procedures and outcomes, neonatal morbidity and birth anomalies.

18. Deaths – Victorian Death Index

All deaths in Victoria are registered with the Registry of Births, Deaths and Marriages. Usually, death registration is done by the funeral director. A medical practitioner is responsible for recording the Medical Certificate relating to cause of death. The CVDL obtains Victorian Deaths Index data from the Registry of Births Deaths and Marriages under a Memorandum of Understanding.

Data

Victorian Death Index data is currently available in the VLM from January 1994 to January 2018. The available data items include: Date of birth of deceased, date of death, age at death, cause of death, sex of deceased, number of
siblings, marital status at death, number and age of children, last residence of deceased. Note that the cause of death data is not coded to ICD-10, and where this is required for the research purposes, the National Cause of Death Unit Record File is the preferred source.

19. Deaths – National Cause of Death Unit Record file

State and Territory Registrars of Births Deaths and Marriage and State Coroners provide data relating to deaths registered in Australia in a given reference year to the Australian Bureau of Statistics. The ABS then codes the cause of death data using ICD-10. The Australian Coordinating Registry for access to the National Cause of Death Unit Record File is the Queensland Registry. The file is updated annually.

Data

The National Cause of Death Unit Record file is available via CVDL for all eight Australian jurisdictions for January 2006 to December 2016. Due to the time required for the ABS to collect and code data from all state jurisdictions, there is a substantial time lag in data availability. The dataset includes both coronial and registry data. Available data items include age at death, gender, date of death, state/territory of usual residence, underlying cause of death, coroner case flag.

20. Child Protection Services

Child Protection services are provided by DHHS and receive, assess and investigate reports where children may be at risk of significant abuse or neglect within their family. Child Protection services also ensure that appropriate services are provided to protect children from harm. Child protection workers enter details of their intervention in the Client Relationship Information System (CRIS), an online client management and case management system. This includes creation and management of client records, case notes and reports relating to child protection reports, investigation, substantiation, court activity and out of home care placements.

Data

Child protection data is included in the VLM from January 1992 to January 2018. However, data prior to the early 2000s was transferred from a previous information system and the available variables and quality is limited. Available variables relate to the demographic details and service history of children reported to the child protection system. This includes details of reports, investigations, court activity and out of home care placements.

21. Youth Justice Services

Youth Justice Services are provided by the Department of Justice and Regulation, and include programs and resources to assist young offenders to develop the knowledge, skills and attitudes to manage their lives effectively without further offending. Through supervision, offending related programs and linkages to appropriate support services, the youth justice service promotes opportunities for rehabilitation and contributes to the reduction of crime in the community. The

Youth Justice workers enter details of their intervention in the Client Relationship Information System (CRIS), an online client management and case management system. The youth justice service transferred from DHHS to DOJR in early 2017, but CRIS remains the case management system.

Data

Youth justice data is available in the VLM from January 2000 to December 2000. Data items include client demographics, order types and dates.
22. **Family Services**

Family services promote the safety, stability and development of vulnerable children, young people and their families, from birth to 17 years of age, by providing case work service and linking families with relevant support services. These services are provided by agencies funded by DHHS, and include Child FIRST and Integrated Family Services. Child FIRST services is the entry point into family services and undertakes an assessment of family need. The Integrated Reports and Information System (IRIS) records key data about the client and service profile as reported by the agencies.

**Data**

Family services data is included in the VLM from January 2007 to January 2018. Available data includes client demographics, referral details, client issues and service activities, case outcome and closure reasons.

23. **Cradle to Kinder services**

The Cradle to Kinder program is an intensive ante and postnatal support service to provide longer term, intensive family and early parenting support for a group of vulnerable young mothers and their children. The service commences in pregnancy and continues until the child reaches four years of age. The Cradle to Kinder program provides a whole-of-family service in the form of pre-birth support, intensive and longer term interventions and case work support until the child reaches four years of age. Cradle to Kinder builds the capacity of parents to not only provide for their children’s health, safety and development, but to build their own self-reliance and sustainability through access to education, vocational training and employment. The Cradle to Kinder service is provided by funded agencies and the data is reported to the department via the Integrated Reports and Information System (IRIS).

**Data**

Cradle to Kinder data is available in the VLM from May 2001 to January 2018. Data items include client demographics, referral details and service details.

24. **Early Parenting Centres**

Early parenting centres offer a range of specialised support, counselling and advice services aimed at supporting parents who need additional support to care for their infant/toddler. Early parenting centres are funded by DHHS to provide:

- Day stay services - an intensive day program providing early parenting support
- Residential services - a centre-based intensive parenting program in which parents stay at the centre for a five-day period to build their parenting competence and capacity
- Group services - group-based programs attended by parents and their children, which are designed to improve parent-child relationships and interaction.

**Data**

Early parenting centres data is available in the VLM from January 2007 to January 2018. Data items include client demographics, referral details and service details.

25. **Family violence**
DHHS funds agencies which provide services to perpetrators and victims/survivors of family violence. The family violence data is recorded in the Integrated Reports and Information System (IRIS), and records key information about the client and service profile.

Data

Family violence data is included in the VLM from July 2007 to January 2018. Available data includes client demographics, referral details, client issues and service activities, case outcome and closure reasons.

26. Sexual Assault Services

Sexual assault services respond to people who have experienced sexual assault, or to perpetrators of sexual assault that has been reported. Services include crisis care responses, counselling, casework, group-work, advocacy and a statewide after-hours telephone crisis service. Sexual Assault Services data is also recorded in the Integrated Reports and Information System (IRIS) similarly to Family Services and Family Violence services

Data

Sexual assault service data is included in the VLM from July 2007 to January 2018. Available data includes client demographics, referral details, client issues and service activities, case outcome and closure reasons.

27. Disability Services

DHHS provides and funds services for people with intellectual, physical, sensory, cognitive and neurological disabilities. Support falls into two categories. These are short-term supports such as respite services, behaviour supports, case management and therapy and long term supports such as individual support packages and supported accommodation. The National Disability Insurance Scheme (NDIS) is significantly changing the way that disability services are provided in Victoria. The NDIS is being rolled out in stages from July 2016 to July 2019, and people receiving support from DHHS are moving to the NDIS at different times depending on where they live and the type of support they receive.

Departmental disability services workers record information about departmental clients on the Client Relationship Information System (CRIS). Service providers use a similar package called CRISSP.

Data

Disability services data is included in the VLM from July 2015 to June 2017. Available data includes client demographics and service details.

28. Public Housing waiting list and tenancies

Public housing is a form of long-term rental housing for vulnerable people on low incomes. The data is from a register of client housing information in the Victorian public system. Social housing refers to affordable housing owned by non-government agencies and is not captured in this collection.

Data

Public housing data is included in the VLM from January 1991 to February 2018 and includes data about the housing waiting list, applications for public housing and public housing tenancies, including client demographics and family structures.
29. **Homelessness**

The department and funded community service organisations provide housing and support to Victorians most in need. These services include long-term housing programs as well as temporary accommodation and homelessness support.

The homelessness dataset captures information about homelessness services provided for the full range of homelessness issues including crisis, family violence, homelessness risk etc. The DHHS Homelessness Data Collection mirrors the Specialist Homelessness Services Collection (SHSC) conducted by the Australian Institute of Health and Welfare (AIHW).

**Data**

Homelessness data is available in the VLM for the 2015-16 and 2016-17 financial years only, and up to December 2017. Prior to this, the data was provided by funded agencies directly to the AIHW. Data items include client demographics and service details.

30. **Early childhood intervention services**

Early Childhood Intervention Services (ECIS) support children with a disability or developmental delay from birth to school entry and their families. The overall aim of these services is to provide parents and families with the knowledge, skills and support to meet their child’s needs, and to optimise the child’s development and ability to participate in family and community life. These services have been provided and funded by the Department of Education and Training but are now progressively transferred to the NDIS between mid-2016 to mid-2019.

**Data**

Early childhood intervention service data is available in the VLM from July 2015 to Jun 2017. Data items include client demographics and service details.