



WA Data Linkage Branch

Birth registrations: linkage quality statement

Overview

The WA Data Linkage Branch (DLB) receives data for linkage from a wide variety of data collections. The quality of DLB's linkages is dependent on the quality and completeness of the data received. DLB's Data Quality Statements provide information about linkage quality, as well as the data attributes affecting that quality.

DLB first started linking birth registration data in 2002. The birth registrations data set is updated and linked monthly. As a core data set, birth data is routinely linked to other data sets. This means that birth data is continuously subject to standard linkage quality checks.

Birth registrations (babies)

Linkage quality metrics:

Baby's date of birth range	September 1881 – previous month
Total number of unique records	1,647,917
Total linkage proportion	94.5%
Linkage proportion of records with reasonable demographic information*	94.5%

* For the purpose of linkage, "reasonable demographic information" means complete demographic fields of given names, surnames, date of birth, and address.

Factors affecting linkage and/or use of data:

- 7.6% of the unlinked records are for babies who are not alive at birth.
- 96.1% of the unlinked records have a date of birth between 1940 and 1979.
 - Birth records with a date of birth post 1980 are expected to be linked to a corresponding Midwives Notification System (MNS) record but it can take up to three years for MNS records to enter the WA Data Linkage System.
- As a core data set, birth data is routinely linked to other data sets. This means birth data is continuously subject to standard linkage checks as part of the routine linkage process.

Birth registrations (mothers)

Linkage quality metrics:

Baby's date of birth range	September 1881 to previous month
Total number of unique records	1,647,917
Total linkage proportion	96.3%
Linkage proportion of records with reasonable demographic information*	99.9%

* For the purpose of linkage, “reasonable demographic information” means complete demographic fields of given names, surnames, date of birth, and address.

Factors affecting linkage and/or use of data:

- 55.3% of records have incomplete demographic information (missing one or more of the following: mother's given name, mother's surname or maiden name, mother's date of birth, or informant's street address).
- 99.5% of the unlinked records have no date of birth for the mother.
 - Note this field was not collected until 1992, prior to which only age was collected.
- 98.8% of the unlinked records have a baby's date of birth between 1940 and 1979.
 - The birth records of babies born in or before 1973 do not give the exact birth dates of the babies' parents.
- 1.1% of the unlinked records have no mother's surname or mother's maiden name.
- Birth records with a baby's date of birth after 1980 are expected to be linked to a corresponding midwives record but it can take up to three years for midwives' records to enter the WA Data Linkage System.
- As a core data set, birth data is routinely linked to other data sets. This means birth data is continuously subject to standard linkage checks as part of the routine linkage process.

Birth registrations (fathers)

Linkage quality metrics:

Baby's date of birth range	September 1881 to previous month
Total number of unique records	1,647,917
Total linkage proportion	94.5%
Linkage proportion of records with reasonable demographic information*	99.2%

* For the purpose of linkage, "reasonable demographic information" means complete demographic fields of given names, surnames, date of birth, and address.

Factors affecting linkage and/or use of data

- 0.1% of records have no father's demographic details at all.
- 93.5% of the unlinked records have no father's date of birth.
 - Note this field was not collected until 1992, prior to which only age was collected.
- 38.4% of the unlinked records have neither the father's given name nor surname details.
- 79.9% of the unlinked records have a baby's date of birth between 1940 and 1979.
 - The birth records of babies born in or before 1973, does not give exact date of birth information for the parents.
- As a core data set, birth data is routinely linked to other data sets. This means that birth data is continuously subject to standard linkage checks as part of the routine linkage process.

Contact

For more information contact the Manager, Data Linkage Systems:

Tom Eitelhuber

E: tom.eitelhuber@health.wa.gov.au

T: (08) 9222 2371

© Department of Health 2017

Copyright to this material is vested in the State of Western Australia unless otherwise indicated. Apart from any fair dealing for the purposes of private study, research, criticism or review, as permitted under the provisions of the *Copyright Act 1968*, no part may be reproduced or re-used for any purposes whatsoever without written permission of the State of Western Australia.

Statement last updated: 11 July 2017