



Privacy Commissioner
Te Mana Matapono Matatapu

Superannuation and NHI Matches :

Review of statutory authorities for
information matching

Report by the Privacy Commissioner to
the Minister of Justice pursuant to section
106 of the Privacy Act 1993 in relation to a
review of the operation of the:

- Deaths/GSF Deceased Persons
- Deaths/NPF Deceased Persons
- Births/MoH NHI & Mortality
- Deaths/MoH NHI & Mortality

January 2015

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Abbreviations and acronyms

The main abbreviations and acronyms used in this report are:

BDM	Births, Deaths and Marriages
GSF	Government Super Fund
MoH	Ministry of Health
NPF	National Provident Fund
NHI	National Health Index

1. Executive Summary

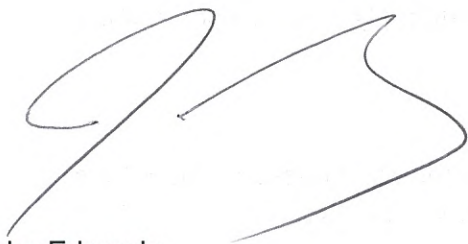
In this report I assess the ongoing value and suitability of three deaths matches and one births match. The Government Superannuation Fund and National Provident Fund use information from the Deaths Register, maintained by the Department of Internal Affairs, to ensure the correct entitlements are paid. The Ministry of Health used both birth and death data to check National Health Index information and update it.

Section 106 of the Privacy Act 1993 requires the Privacy Commissioner to carry out periodic reviews of the operation of each information matching provision and to consider whether:

- the authority conferred by each provision should be continued
- any amendments to the provision are necessary or desirable.

I conclude that the matches are effective and are generally operated in a manner consistent with the information matching controls in the Privacy Act.

I recommend that the matches continue.

A handwritten signature in black ink, appearing to be 'John Edwards', written in a cursive style.

John Edwards
Privacy Commissioner
January 2015

2. Deaths/GSF Deceased persons

2.1 Match objective

To identify members or beneficiaries of the Government Superannuation Fund (GSF) who have died.

2.2 Recommendation

I recommend that this match continue and have no suggested amendments to its operation.

2.3 Match assessment

The match is assessed against the criteria in section 98 of the Privacy Act 1993. In particular, I consider that:

Assessment summary

This match is a cost-effective method of identifying changes in entitlements. The match has been operated in a manner consistent with the information matching controls in the Privacy Act.

Financial cost/benefit and other outcomes

GSF advises that the main cost is fees for data which amount to approximately \$7,000 per annum paid to DIA. Processing each file requires approximately 7 hours per month.

The expected benefits of the match were:

- Limiting overpayments
- Improve payout of benefits to relatives and dependents of deceased members
- Locate 'missing' members, with whom contact has been lost.

The match has reduced the typical overpayment, which previously comprised 2-3 instalments, to a single instalment. This minimises overpayments.

Surviving spouse entitlements are established more promptly; and the administrators are also able to contact next of kin to pay out other entitlements.

Some 'missing' members have been traced, but no statistics on numbers of these are kept.

Compliance/operational difficulties

No difficulties in operating the match or complying with the information matching rules have occurred.

Scale of matching process

The scale of the match is appropriate. The match involves only two agencies and only information necessary to identifying persons who have died is transferred.

Alternative methods to achieve results

Alternative methods are unlikely to be as efficient. GSF previously relied upon notification from surviving spouses and executors, and scanning for death notices in newspapers. This

was time-consuming and significant numbers were not identified promptly resulting in additional distress for families of deceased people.

2.4 Match results

Period covered:	01/04/2009 – 30/06/2009	2009/10	2010/11	2011/12	2012/13
Records received for matching	12,013	33,356	30,650	30,501	30,235
Possible matches identified	3,517	9,540	9,009	9,333	9,486
Letters sent	138	544	591	679	678
Challenges	1	4	2	0	0
Successful challenges	1	4	2	0	0

2.5 Match operation

Before 2009 this match was operated under an agreement. Amendments to the Births, Deaths, Marriages, and Relationships Registration Act 1995 changed its status from 24 January 2009 to an authorised information matching programme.

Every four weeks Births, Deaths and Marriages (BDM) provide a copy of information from the Deaths Register covering the previous 12 weeks. The death extract includes full name at birth, full name at death, gender, birth date, death date, place of birth, and number of years lived in New Zealand (if not born in New Zealand).

The BDM data is matched against member records upon first name, middle name(s), last name, date of birth and gender. If these fields all match against more than one record, or if they only partially match then the records are manually reviewed and further information may be sought. A letter is sent to the member (their estate) to ensure the match is not in error before pensions are stopped.

Until May 2013 the transfer was made by encrypting the file and writing it to a CD. Since then, the file has been transferred online using RealMe to access DIA's "Agency Pick-up Service". The transfer is protected by the use of HTTPS, but the file is not encrypted. When the approval was issued in 2013, DIA and GSF were advised to implement file encryption by 2015.

2.6 Match authorisation

Births, Deaths, Marriages, and Relationships Registration Act 1995 section 78A.

3. Deaths/NPF Deceased Persons

3.1 Match objective

To identify members or beneficiaries of the National Provident Fund (NPF) who have died.

3.2 Recommendation

I recommend that this match continue and have no suggested amendments to its operation.

3.3 Match assessment

The match is assessed against the criteria in section 98 of the Privacy Act 1993. In particular, I consider that:

Assessment summary

This match is a cost-effective method of identifying changes in entitlement. The match has been operated in a manner consistent with the information matching controls in the Privacy Act.

Financial cost/benefit and other outcomes

NPF advises that the main cost is fees for data which amount to approximately \$7,000 per annum paid to DIA. Processing each file requires approximately 3 hours per month.

The expected benefits of the match were:

- Limiting overpayments
- Improve payout of benefits to relatives and dependents of deceased members
- Locate 'missing' members, with whom contact has been lost.

The match has reduced the typical overpayment, which previously comprised 2-3 instalments, to a single instalment. This minimises overpayments.

Surviving spouse entitlements are established more promptly; and the administrators are also able to contact next of kin to pay out other entitlements.

Some 'missing' members have been traced, but no statistics on numbers of these are kept.

Compliance/operational difficulties

No difficulties in operating the match or complying with the information matching rules have occurred.

Scale of matching process

The scale of the match is appropriate. The match involves only two agencies and only information necessary to identifying persons who have died is transferred.

Alternative methods to achieve results

Alternative methods are unlikely to be as efficient. Previously the agency relied upon notification from surviving spouses and scanning for death notices in newspapers. This was

time-consuming and significant numbers were not identified promptly resulting in additional distress for families of deceased people.

3.4 Match results

	01/04/2009 – 30/06/2009	2009/10	2010/11	2011/12	2012/13
Records received for matching	12,116	33,441	34,348	34,417	35,125
Possible matches identified - Pensioners	82	503	701	373	398
Possible matches identified - Contributors	24	552	393	85	167
Letters sent	106	1,055	1,094	458	565
Challenges	0	1	0	0	0
Successful challenges	0	1	0	0	0

3.5 Match operation

Before 2009 this match was operated under an agreement. Amendments to the Births, Deaths, Marriages, and Relationships Registration Act 1995 changed its status from 24 January 2009 to an authorised information matching programme.

Every four weeks Births Deaths and Marriages (BDM) provides a copy of information from the Deaths Register covering the previous 12 weeks. The death extract includes full name at birth, full name at death, gender, birth date, death date, place of birth, and number of years lived in New Zealand (if not born in New Zealand). The data is encrypted and transferred to NPF online.

The BDM data is matched against member records upon first name, middle name(s), last name, date of birth and gender. If these fields all match against more than one record, or if they only partially match, then the records are manually reviewed and further information may be sought. A letter is sent to the member (their estate) to ensure the match is not in error before pensions are stopped.

The transfer was made by encrypting the file and writing it to a CD until May 2013. Since then, the file has been transferred online using RealMe to access DIA's "Agency Pick-up Service". The transfer is protected by the use of HTTPS, but the file is not encrypted. When the approval was issued in 2013 DIA and NPF were advised to implement file encryption by 2015.

3.6 Match authorisation

Births, Deaths, Marriages, and Relationships Registration Act 1995 section 78A.

4. Births/Ministry of Health (MoH) NHI and Mortality

4.1 Match objective

To verify and update information on the National Health Index (NHI) and to compile mortality statistics.

4.2 Recommendation

I recommend that this match continue and have no suggested amendments to its operation.

4.3 Match assessment

The match is assessed against the criteria in section 98 of the Privacy Act 1993. In particular, I consider that:

Assessment summary

This match is a cost-effective method of data validation. The match has been operated in a manner consistent with the information matching controls in the Privacy Act.

Financial cost/benefit and other outcomes

Based on MoH estimates, the match costs approximately \$47,000 to run per year, plus a charge of almost \$9,000 for the data. DIA's charge is based upon the number of records provided.

Compliance/operational difficulties

The match is compliant, but two issues are worthy of comment.

Retention of records

MoH has retained birth records received before 24 January 2009, and back-up files of matched data since then. This acts as an authoritative data source for the NHI in case users of the NHI create errors in the database by modifying the wrong record in attempts to correct it. This gives MoH a partial copy of the Births Register which is technically contrary to the retention rules in the Privacy Act. However, MoH holds much of this information anyway in the NHI so no significant risk is created.

Verification of matching

MoH does not check the results of the match with the families of the individuals before updating its records so there is a risk of errors. Based upon results of other deaths matches, errors in matching occur rarely. MoH does not check because MoH has no direct line of contact with the individuals. MoH does take considerable steps, using other sources of information, to ensure its matching is accurate. In addition, downstream users can correct this data if they become aware of a discrepancy. However this widespread ability to change core data can present other accuracy and privacy problems, which is a risk MoH is well aware of.

Scale of matching process

The scale of the match is appropriate. The match involves only two agencies and only appropriate birth record information is transferred.

Alternative methods to achieve results

Alternative methods are unlikely to be as efficient as there is no other comprehensive, reliable source of death information..

4.4 Match results

	2008	2009	2009/10	2010/11	2011/12	2012/13
Records received for matching	57295	33194	65,204	69,067	62,022	61,220
Possible matches identified	56898	33146	65,158	69,047	62,022	61,220
Not matched	397	48	46	20	0	0

- Possible matches result in the NHI record being verified or updated.
- 'Not matched' may include still births, multiple births and other cases where further investigation is require to ensure a correct match.

4.5 Match operation

This match was operated under a memorandum of understanding from 1987 until 24 January 2009 when amendments to the Births, Deaths, Marriages, and Relationships Registration Act 1995 changed it to an authorised information matching programme.

Each month Births, Deaths and Marriages (BDM) provides an encrypted file on CD to the MoH. MoH then requests the password, decrypts the file and adds it to their "working file". The extract file received from BDM is then deleted. BDM provides each child's names, gender, birth date, birth place, ethnicity, and parents' names, occupations, birth dates, birth places, address(es) and ethnicities. BDM also indicates whether the baby was stillborn.

From the working file an extract file of stillbirths is copied to be added to the Mortality Register for statistical reporting and research use.

The records in the working file are then matched for both baby and mother records against the National Health Index (NHI) database. There are three types of results from this matching.

- 1) Any unique matches are accepted as correct and passed to the "match results" file.
- 2) Any records that give more than one potential match to an NHI record are manually matched, if possible, on the basis of the information in the NHI, and the match passed to the match results file. If it is not possible to resolve the potential match, further investigation is undertaken and the NHI is updated as necessary.
- 3) For any records that do not return any potential matches MoH may choose to create a NHI record. Birth records that remain unmatched after a third attempt at matching, are deleted.

A "reference file" of linked baby and mother NHI numbers is created from the match results file. This is used to update the Maternity and Newborn Information System (MNIS) National Collection.

Then an NHI update file is created from the match results file. This update file is backed-up before being used to update the NHI. The back-up is retained as an authoritative data source for the NHI as MoH cannot currently prevent changes to the NHI by users.

The NHI is made available to external users and other agencies both in the form of direct access, and as update files.

An online transfer approval was issued effective until 30 June 2011 but this option was not used and MoH opted to continue to receive the data on CD.

4.6 Match authorisation

Births, Deaths, Marriages and Relationships Registration Act 1995 section 78A.

5. Deaths/MoH NHI and Mortality

5.1 Match objective

To verify and update information on the National Health Index (NHI) and to compile mortality statistics.

5.2 Recommendation

I recommend that this match continue and have no suggested amendments to its operation.

5.3 Match assessment

The match is assessed against the criteria in section 98 of the Privacy Act 1993. In particular, I consider that:

Assessment summary

This match is a cost-effective method of updating the NHI. The match is now being operated as consistently as is practicable with the information matching controls in the Privacy Act.

Financial cost/benefit and other outcomes

Based on MoH estimates the match costs approximately \$47,000 per year to run, plus a charge of almost \$3,500 for the data. DIA's charge is based upon the number of records provided.

Compliance/operational difficulties

Some MoH practices were not fully compliant with the information matching provisions. MoH has modified these practices and I am now satisfied that the match is compliant.

Verification issue:

MoH makes the NHI available to other agencies (such as DHBs) which may then rely on the information even though the recorded deaths have not been verified by MoH.

MoH does not verify that it has matched records correctly before adding date of death to the NHI record. MoH has no direct interaction with the individuals and so cannot send the equivalent of adverse action notices as required by section 103 of the Privacy Act.

MoH tries to minimise the risk as far as practicable. MoH has also amended its own process, from June 2009, to check two registers it administers (the National Booking System and the National Immunisation Register) for possible matches, before the NHI is updated. Where matches are found with these registers verification of the death is sought. This reduces the risk of people being removed from these registers in error.

MoH has also modified its system to notify downstream users of NHI information that the death has not been verified. This will reduce the chances that adverse action will be taken against individuals who are incorrectly notified as deceased on the NHI. MoH makes NHI information available in two ways:

- MoH provides files to health providers for updating their records. MoH has added a warning to these files that the death information has not been verified.
- MoH makes the NHI accessible online to authorised users. MoH has changed this system to indicate the source of the death information. This new information will be available to users when they update their systems which allow them to access the NHI.

These measures may not entirely eliminate the risk that individuals may be incorrectly noted as deceased on the NHI. But they are substantial enough that I am satisfied the risk is reduced and that the match is compliant.

Retention of data issue:

After creating a working file copy of the data received to be used in the match against the NHI, MoH retains the original full data received for a year to help match coroners' reports to the mortality register when needed for statistical purposes. This creates a risk that MoH will make decisions based upon information that was believed to be accurate when supplied but which may since have been corrected by DIA.

However this use is acceptable. The information is used only for statistical purposes. The alternative would involve requesting data again for this small number of cases resulting in additional costs for little real gain.

Scale of matching process

The match itself involves only two agencies and only appropriate information is transferred.

Alternative methods to achieve results

Alternative methods are unlikely to be as timely or reliable in identifying deaths.

5.4 Match results

NHI updating:

	25 Jan – 30 Jun 2009	2009/10	2010/11	2011/12	2012/13
Records received for matching	13755	28,976	29,501	29,981	30,141
Matched	12024	25,189	26,005	26,368	26,758
Not matched	1668	3,653	3,307	3,502	3,281
New NHIs allocated	63	134	189	111	102
Subsequent corrections	12	30	28	22	14

Stillbirths:

	25 Jan – 30 Jun 2009	2009/10	2010/11	2011/12	2012/13
Records received for matching	165	445	406	412	390
Matched	87	243	280	346	322
New NHIs allocated	78	202	126	66	68

Look-ups of retained BDM data:

	25 Jan – 30 Jun 2009	2009/10	2010/11	2011/12	2012/13
Cause of death check for coroners cases	96	210	270	233	275
Cause of death check, Dr certified	1601	3298	3257	3256	3026
Cause of death given, no Dr certifying	1831	3739	3713	3625	3378
Coroner in Certifying Dr field	298	581	607	589	656
NZ Pharmaco vigilance requests	0	159	529	53	610
Total	3827	7884	8380	7740	8196

5.5 Match operation

Amendments to the Births, Deaths, Marriages, and Relationships Registration Act 1995, effective from 24 January 2009, changed the status of this match to an authorised information matching programme. The match was previously operating under a memorandum of understanding.

Each month Births, Deaths and Marriages (BDM) provide an encrypted file on CD to the Ministry of Health (MoH). MoH then requests the password and decrypts the file.

BDM provides full names (including names at birth) address, occupation, ethnicity and gender, date and place of birth, date and place of death, and cause(s) of death.

Only a subset of the information received is required for matching to the NHI records, so a working file is created for matching. The full records received from BDM are retained for one year to assist in matching coroner's reports to the NHI. Death records that match to a single NHI record are assumed to be correctly matched.

Any death records that return more than one possible match to an NHI record are manually reviewed and matched. This may involve identifying and resolving instances where an individual has more than one NHI record.

Death records that are not matched are manually reviewed, and if no match can be found, an NHI record is created.

All death records that have been matched or have had new NHI records created for them are tagged with the NHI number.

At this stage in the process, the matches have not been verified. They are probably correct, but in any such system a small number of mis-matches is expected. To minimise the risk of people missing scheduled treatments the match results are matched to National Booking Reporting System (NBRS) (for elective surgical procedures) and National Immunisation Register (NIR) databases. Where possible matches to individuals listed on these systems are identified, MoH verifies the match by checking alternate information sources. A separate notification is received for deaths in publicly-funded-hospitals, and this is relied upon as verification for these deaths. For all other deaths, MoH verifies these primarily by checking medical certificates and coroners' notifications.

The matched file is loaded into the Mortality database. Then an extract from the Mortality database of the matched records (excluding any still pending verification) is used to update the NHI database.

This extract is also loaded to the National Collections data set. From there it is available to other databases and systems run by MoH and made available to health provider organisations (for example District Health Boards), with a warning message indicating that only some of the records have been subject to independent verification. This an important warning because the provider organisation might otherwise use the information to update records it holds without appropriate checking.

Some external users also have direct access to the NHI and may see the date of death on any record they are looking at. MoH is relying upon these people recognising any false data before action is taken.

Those records which were matched to records on the NBRS or NIR databases but were not able to be verified at the time of the deaths file processing, are subsequently followed-up and manually updated in the NHI, and, if required in the Mortality system.

The information received from BDM is retained for 12 months to assist with matching late-received information (e.g. coroner's reports) to NHI records.

5.6 Match authorisation

Births, Deaths, Marriages and Relationships Registration Act 1995 section 78A.

6. Background:

6.1 Information matching

Information matching involves the comparison of one set of records with another, usually to find records in both sets that belong to the same person. Matching is commonly used to detect fraud in social assistance programmes, or to trace people who owe debts to the Crown, but can also be used ensure people get entitlements as in the case of the unenrolled voters matches.

Oversight of this growing area of activity is important to safeguard individuals and maintain transparency and trust in government. The Privacy Act regulates information matching through controls directed at:

- authorisation – ensuring that only programmes clearly justified in the public interest are approved
- operation – ensuring that programmes operate within the information matching framework
- evaluation – subjecting programmes to periodic review.

6.2 Section 106

Section 106 of the Privacy Act requires the Privacy Commissioner to undertake periodic reviews of the operation of each information matching provision and to consider whether:

- the authority conferred by each provision should be continued
- any amendments to the provision are necessary or desirable.

A periodic review is necessary to assess the ongoing value and suitability of a programme in light of experience operating the programme. A programme may lose effectiveness over time if hit rates have peaked or the wider context has changed.

To conduct these reviews I consider mainly the information matching guidelines set out in section 98 of the Privacy Act. In particular I focus on whether each provision:

- continues to achieve its objective by providing significant monetary benefits or other comparable benefits to society
- raises concern because of the scale of matching (because of the number of agencies involved, the frequency of matching, or the amount of personal information being disclosed)
- is operating within the information matching controls in the Privacy Act.