
Identity-NHI User Reference Information & Best Practice Advice

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About the National Health Index - Information for Health Providers

The National Health Index number (NHI number) is a unique number that is assigned to each person who receives healthcare in New Zealand. The NHI is an index of identity information associated with that unique number. The Health Information Privacy Code 1994 places restrictions on the creation and use of unique identifiers such as the NHI number.

NHI numbers are a combination of letters and numbers e.g. ABC1234.

The NHI holds the following information: name (including alternative names such as maiden names), NHI number, address, date of birth, place of birth, gender, New Zealand resident and citizenship status, ethnicity; date of death. Clinical information is not recorded on the NHI.

The information held allows individuals to be positively and uniquely identified for the purposes of treatment and care, and for maintaining medical records. Healthcare providers can be sure that they are talking about the same person, thereby reducing the chance of making a clinical decision based on wrong information. This certainty is increasingly important as patients become more mobile, when care occurs in both the primary and secondary sectors, and where emphasis is on 'shared' care.

The NHI and the NHI number are central to the vision of safe and secure sharing of information among health providers. An NHI number is fundamental for services to link information and get a better understanding of each person's needs.

The complexity of hospital care and the wide variety of primary care providers has led to the development of independent clinical information systems, such as pharmacy, laboratory, and admission/discharge/transfer. Important information relating to an individual patient is often held in more than one place. The NHI number allows all this information to be brought together.

A detailed account of how the NHI number can be used is available in the [NHI and MWS statement of use](#).

Health providers listed in Schedule 2 of the Health Information Privacy Code are allowed to access the information in the NHI. All authorised providers must comply with the provisions of the Privacy Act and Health Information Privacy Code when accessing and updating information in the NHI.

The Ministry assigns appropriate permissions, monitors and audits the actions of health provider use of the NHI. Some health providers have limited access to just view information; others are able to update information on the NHI.

Providers are responsible for ensuring NHI information is accurate and current. They will do so each time a patient presents for a health service and identity information has changed. They will contact the Ministry for assistance with any data issues they cannot correct themselves.

The Ministry of Health is committed to supporting the development of health professionals and health administration staff who use and/or update information on the National Health Index (NHI). To gain the knowledge and skills required to use the NHI effectively, staff must undertake appropriate training and be familiar with best practice documentation and requirements.

An on-line training module is available to health professionals and administrative staff who are new to using the NHI. Go to this link and follow the sign on instructions to begin. <http://learnonline.health.nz/>

The module has a deliberate focus on behaviours required in terms of the most significant data quality risks (and therefore potential clinical safety risks for patients).

- Creating an NHI record and NHI number when one already exists
- Updating identity details on the wrong NHI record (i.e. wrong person)
- Failing to update identity information on an NHI record in real-time
- Failing to address recognised data issues when noticed (i.e. potential duplicate records, data anomalies/inaccuracies)
- Unauthorised access to/use of NHI information

Best practice documentation can be found at this link

<http://www.health.govt.nz/our-work/health-identity/national-health-index/nhi-information-health-providers>

About the National Health Index - User Obligations for Access to NHI Information

Organisations approved under Schedule 2 of the Health Information Privacy Code may be approved for their staff to access the National Health Index and its information.

Following is the declaration the practice must have agreed to as part of obtaining this access.

My staff and I understand that:

1. The purpose of the National Health Index is to provide an NHI number for all patients in order to identify them correctly, and to support safe healthcare and sharing of patient health information
2. The National Health Index is used by all health providers and the quality of our updates to patient information on the National Health Index impacts other health providers
3. We must ensure that the NHI records accurately reflects the most recent information provided by a patient
4. We will only access NHI records if we need to and only for patients we are treating
5. Our use of the NHI will be monitored for appropriate access and quality updates
6. We can go to <http://www.health.govt.nz/our-work/health-identity/national-health-index/nhi-information-health-providers> to get resources to help us meet these obligations.

My staff and I understand

Our obligations under the Privacy Act 1993 and the Health Information Privacy Code (HIPC) 1994. The Foreword to the Health Information Privacy Code 1994 summarises the rules of the Code

- Rule 1. Only collect health information if you really need it.
- Rule 2. Get it straight from the people concerned.
- Rule 3. Tell them what you're going to do with it.
- Rule 4. Be considerate when you're getting it.
- Rule 5. Take care of it once you've got it.
- Rule 6. People can see their health information if they want to.
- Rule 7. They can correct it if it's wrong.
- Rule 8. Make sure health information is correct before you use it.
- Rule 9. Get rid of it when you are done with it.
- Rule 10. Use it for the purpose you got it.
- Rule 11. Only disclose it if you have good reason.
- Rule 12. Only assign unique identifiers where permitted.

Identity-NHI Best Practice Guidance BP ID-10 - Searching for a Person

Initiating the search process

BP ID 10.1 Search in your local system first. If you cannot find the patient locally, or you do not have the person's NHI number, then search the NHI

BP ID 10.2 Get the person's details in writing before you search the NHI e.g. registration or enrolment form.

BP ID 10.3 Search the NHI using the person's full name including their middle names, gender and full date of birth.

BP ID 10.4 If you are provided with an NHI number for a person use the NHI number to retrieve the NHI information and use the questioning process to confirm the details are correct for that person.

Entering the search criteria

BP ID 10.5 Format the full **name** across the spaces provided by your system, using the other given names/middle name field if it is available. Do not enter part of the name or initials.

BP ID 10.6 Enter the full **date of birth** if it is known. If you are not supplied an accurate date then use the **age range** option. Keep the range as small as possible ideally a single year e.g. 10-11 or 35-36. The maximum range is 10 years.

BP ID 10.7 Enter the **Gender** if it is provided. Use the unknown option if you are not sure.

BP ID 10.8 Enter an **address** if your system allows you to. The first line of a person's address is sufficient.

Evaluating the search results

BP ID 10.9 Evaluate the results carefully. The NHI search uses an algorithm based on all the criteria entered to find a set of possible candidates. The most likely match will be at the top of the list of results.

BP ID 10.10 Select the record and confirm all of the information i.e. check all the names on the NHI, the addresses, gender and date of birth.

BP ID 10.11 Use open-ended questions to confirm a person's details, e.g. what is your date of birth? What was your previous address? Are you known by any other names? What name do you prefer to be called? Do not give the patient the information; ensure they provide you with the information.

No result for the person being searched for

BP ID 10.12 Ask the following questions to help you determine whether the person should be able to be found on the NHI with an NHI number.

Were you born in New Zealand?	All babies born in NZ from 1989 are registered on the NHI at birth. If the person was born before 1989 and has not been to the doctor or hospital in NZ since then they may not be on the NHI.
How long have you been out of New Zealand?	If the person was born in NZ but left the country before 1989, and has not seen a NZ health provider since returning to NZ, they may not have an NHI number.
Have you seen any other doctor or health service in	If so, the doctor or practice may have instigated an

New Zealand?	NHI registration and have the NHI number
Have you received an immunisation in NZ?	A student younger than 19 may have received an immunisation and the healthcare provider who delivered the vaccination may have instigated an NHI registration and have the NHI number

BP ID 10.13 If you believe the person has been registered on the NHI but cannot be found, consider each of the following reasons and troubleshoot accordingly

- incomplete data, such as missing second and third names
- incorrect data, such as misspelt names and mis-typed dates of birth.
- alternate, or alias names being used
- out of date data e.g. address changes. Note - both the details on the NHI and/or the search criteria may be incomplete or incorrect.
ACTION REQUIRED: In all of the above scenarios, check the person’s details, get more information, and try again.
- if the person you are searching for is a baby and you cannot find them using the name provided, it may be because their birth-registered name has not been added to the NHI yet. ACTION REQUIRED: Search for the baby-of name. See NAMES section for the format of baby-of names.
- some names can be joined or broken in two parts. If the format on the NHI is different to how you are searching, the name may not be recognised by the search. Examples of these kinds of names are Terangi or Te Rangi, Yangtang or Yang Tang or Yang-Tang, Joanmaree or Joan Maree. The search can recognise a joined up family name, but may not recognise a joined up first name. ACTION REQUIRED: Try different variations of the name.

BP ID 10.14 If you still cannot find the person and you think they should be on the NHI, ask a colleague to search, and compare results, or call the Ministry Contact Centre for help.

System-generated errors when searching

EM07005 Search criteria too wide to perform a successful search. Please narrow your search and re-submit

BP ID 10.15 The search criteria you entered are not specific enough and there are too many results to present a meaningful set. Enter a middle names or a full date of birth.

EM07006 No results were found matching the search criteria provided

BP ID 10.16 Get more information and try again. You may need to add the person to the NHI.

Wildcard Search

You may be aware of a specific type of search called ‘wildcard’. This is where a small number of characters for the names (e.g. first 3 letters) would be entered and also may include a special character (usually an asterix) as search criteria.

BPID 10.17 The wildcard search type should NOT be used when searching the NHI. This is because the search engine has a whole range of smart features and looks for as much information as possible to find potential matches within the NHI. It does NOT widen the search when you limit the characters – in fact it has the opposite effect of narrowing the search so you are much less likely to get the set of search results you need to make the right selection.

BPID 10.18 An exception to this rule is made for those working in Emergency Departments in hospitals, when in a small number of cases, there is very little information to be able to search on, and this type of search is the only option possible to try and find the individual. Even then, it can prove to be unreliable in terms of results.

How the NHI search works

Is there a concept of search ‘type’	No. The NHI search algorithm works best if a full set of demographic information is provided as search criteria, and performs the search using fuzzy logic that covers all search types a user could think of. You should provide, at a minimum, full name, date of birth and gender.
Nature of the search	All the criteria submitted are used to search the NHI for possible matches
Scoring	<p>Results are scored on the following basis:</p> <ul style="list-style-type: none"> - A score is assigned to each record that represents how closely that identity record matches the search criteria - Each piece of the search criteria (e.g. surname, year of birth, month of birth etc.) is assigned a score, each part is weighted for importance and the individual scores add up to make the overall score - Each part of the search criteria is weighted differently – with names weighted about twice as high as a date of birth or address. <p>Records which score above a pre-determined threshold will be included in the search results and your local application will decide how many results to show you. The score for each record in the results should be displayed in your search results screen.</p>

<p>Name</p>	<p>All names on live (previously known as primary) and dormant (previously known as secondary) NHI records are searched against, including aliases</p> <p>A vast amount of phonetic similarities are considered</p> <p>The name returned in the search results is the name on the live NHI record that has a 'preferred name' flag (previously known as the main name). This may mean that the name returned does not look like what was submitted but can be the correct person being searched for. To establish this with certainty, the user needs to select that record and follow a confirmation of identity process with the patient i.e. check DOB, address, other names etc. (Note: The name displayed is subject to further testing and may change)</p> <p>All name data is "scrubbed" on input, so that the search ignores differences between upper and lower case, punctuation, diacritics, dashes and spaces</p> <p>Anonymous name values are ignored e.g. any names that contain the following strings will not contribute to the search score: Unidentified, People, Merge, Emergency, Baby, Twin, Unknown. Note that 'male' is not treated as an anonymous value as it is a Pacific Island name.</p> <p>The popularity of a name within the NHI will impact the score e.g. a match on Jack will score lower than a match on Edwin because there are more people in the index named Jack than Edwin</p>
<p>Name (continued)</p>	<p>When names are in the same order as the search criteria they will score slightly better than when the order is different e.g. Jane Mary Smith vs. Mary Jane Smith</p> <p>Names with similar spelling are considered for scoring. Minor spelling mistakes are catered for. E.g. If Sasha is being searched for then Sahsa would get some score and so would Sarah but Raewyn would not. Spelling mistakes in both given name and surname may result in the record not being found.</p> <p>NOTE: There are some current algorithm anomalies which will cause a record to not be found. The most common anomaly affects names which would normally be recorded as multi-part names, e.g. Te Rangī.</p> <p>If this name has been sent to the NHI and stored as Terangi and you are searching for Te Rangī, the record may not be found. The converse also applies - if you are searching for Terangi and the name is stored as Te Rangī it may also not be found.</p> <p>The problem also affects searches for Asian names which may be stored on the NHI as one given name or two.</p> <p>Stored on the NHI as Yu Jie Zhang Search for Yujie Zhang – record not found</p> <p>Stored on the NHI as Ruiping Liang, Search for Rui Ping LIANG – record not found</p> <p>In these cases, search again with the names either joined, split or hyphenated as the case may be.</p>

<p>'Baby of' names</p>	<p>Newborns are often registered with a name of 'Baby of <mothers name>' e.g. Baby of Jane Smith</p> <p>If the name searched for contains BABY or TWIN then only the names in the index that also contain BABY or TWIN will be returned as search results</p> <p>If a baby/child can't be found when searching for their actual name, search using: Family name – <Mum's surname> First name – Baby of <Mum's name></p> <p>All twin baby names are standardised e.g. TWINONE, TWIN ONE</p> <p>If a multiple birth baby/child can't be found when searching for their actual name, search using: Family name – <Mum's surname> First name – <Twin One> of <Mum's name></p>
<p>Incomplete criteria entered</p>	<p>Do not submit incomplete names as search criteria</p> <p>If a name might be Anderson or Andersen then submitting any of these fully spelt names will provide a better score than just submitting 'And' or 'Ander'</p> <p>Providing the full name means that Anderton, Aderton and Amderton are also considered as search results as well as both spellings of "Anderson"</p>
<p>Date of birth and Age</p>	<p>Wherever a user has a date of birth it should be entered into the search</p> <p>If day and month are entered in reverse, the algorithm will search both ways</p> <p>All anonymous values are ignored e.g. default dates like 01/01/1900</p> <p>An age range will return matches for each year in the range with an equivalent score</p> <p>Date of birth cannot be used as the only search parameter</p>
<p>Address</p>	<p>If submitted, an address is used as an additional data item to influence the probability of a match</p> <p>The street name is used from the address line 1. E.g. Molesworth is used from the address '133 Molesworth St'</p> <p>Address cannot be used as the only search parameter</p>

Gender	<p>A match on submitted gender gives a small contribution to the score</p> <p>A mismatch on gender gives a large penalty to the overall score but will not rule out a record being returned in the results if the score is above the threshold</p> <p>If gender is blank or submitted as 'Unknown', the algorithm will treat all genders equally.</p> <p>Gender cannot be used as the only search parameter</p>
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Other useful things to know about the search

- The search assigns a score to each result. The most likely match gets the highest score. Your system should show you the score. It might help you to determine how close the results are to each other.
- If the top results are all showing a similar score, it is likely the name is a common name or an age range has been used. More details are needed i.e. middle name or a full date of birth to refine the search.
- The search will consider similar sounding names or common variations in spelling. All names the person has are considered i.e. their preferred name and all their other names (alternate names). If 2 NHI numbers are linked the full set of names from both records are considered.
- The name returned in the search result is the person's preferred name. Sometimes you will be searching for a name that may be an alternative name for the person. The highest scoring result may not look like the name you are searching for, but if you select the result and investigate other names you will see the name is an alternate name for the person.
- The search accommodates small differences in the date of birth e.g. 01/03/1965 and 03/01/1965 or 01/03/1965 and 01/03/1964 or 01/03/1965 and 02/03/1965
- Date of Death, place and country of birth can also be used as search criteria.
- Sometimes the search result list will include both Male and Female results. These results will have names and dates of birth similar enough to score the result high enough to be included.

Identity-NHI Best Practice Guidance BP ID-20 - Validate-Synchronise NHI and Local Record

The NHI is the master source of truth for health identity data for a patient, minimising the risk of providers creating duplicate identity records, and practitioners failing to access previous health information or current warnings to support clinical care.

Mastering is achieved through two means. Firstly, at a technical level, each NHI record has a version number against it. Secondly, PMS systems and business process must support correct behaviours in the exchange and update of identity information.

Each authorised provider with access to NHI information has a responsibility for ensuring it is current and accurate.

BP ID 20.1 When presented with a comparison between local and NHI data, you should confirm the correct information with the patient directly and perform updates on either system as appropriate.

BP ID 20.2 It is recommended that routine, regular checks should be done to verify current identity details for your enrolled patients. Any updates should be applied both locally and on the NHI.

Identity-NHI Best Practice Guidance BP ID-30 - Updating an NHI Record GENERAL

BP ID 30.1 Verify the person’s identity before making any updates to their identity information. This may be done using a passport, driver’s license etc.

BP ID 30.2 If you have the capability to update the NHI, you are expected to do so each time a patient presents for a health service and advises that their identity information has changed.

BP ID 30.3 If you do not have the capability to update the NHI (or certain fields within the NHI), but notice errors (e.g. date of birth) you are expected to notify the error by calling the Ministry Contact Centre and assist in getting it resolved.

BP ID 30.4 If a person advises you of a change of their information, or provides you with their new information, update the NHI record as soon as possible e.g. a change of address, name change.

BP ID 30.5 Wherever possible and appropriate, obtain evidence of the person’s identity information that you are changing before making an update.

BP ID 30.6 Whenever you perform an update an identity data which has a source field associated with it, make sure you choose the means by which you obtained confirmation of the information e.g. you updated a name based on the sighting of a passport with that name, therefore you would enter ‘passport’ as the name source. This assists all others who view that name to assess how well they can trust the information.

BP ID 30.7 HOSPITAL-SPECIFIC Because of the high risks relating to identity overlays, your PMS system will warn you if there are people on the NHI that look the same as the person you are updating when you are updating CORE information (date of birth, gender, ethnicity). If there are, the following warning should be presented to you, together with a list of possible matches to the person you are updating. The list of possible matches may be very similar to the search results but you **MUST** always check the results before proceeding with the update.

WM02005	The patient identity information supplied may result in duplication of another identity. Are you sure this update is correct?’
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Identity-NHI Best Practice Guidance BP ID-40 - Updating an NHI Record NAME

It is very important for subsequent searching that all names are recorded on the NHI, and they accurately reflect the spelling and format provided by the patient.

The NHI can record many names for a person. Each name recorded on the NHI is made up of 5 parts

- Title e.g. Mr, Mrs, Dr etc.
- Given name/First name
- Other given name/middle names
- Family Name/Surname
- Name Suffix e.g. Snr

Each name may also have

- a date range that the name has been in use
- preferred name indicator
- evidence sighted as proof of a name e.g. Passport, Births Certificate etc
- name type e.g. maiden, Baby, anglicised

BP ID 40.1 PMS systems may not be able to retain all the names used by a person, but the NHI should have the complete set recorded. The local system should retain the preferred name and a verified or registered name if it is available.

BP ID 40.2 Record all names the person currently uses, and any names they have used in the past.

BP ID 40.3 Split the name accurately across the first, middle and family name parts. If a first name has 2 parts e.g. Te Rangi it is important that both parts appear in the first name field.

BP ID 40.4 Record the name exactly as it appears in the evidence. If evidence is not provided the name should still be recorded. Record it exactly as the person has written it on the registration form.

BP ID 40.5 **DON'T** make assumptions about spelling. Always check with the patient how their name is spelt.

BP ID 40.6 **DON'T** record a spelling variation of the person's name unless they provide it. The NHI has sophisticated searching algorithms accommodating spelling variations and small clerical errors. Adding spelling variations reduces the effectiveness of these searching algorithms.

BP ID 40.7 Always include hyphens and apostrophes that are part of the person's name.

BP ID 40.8 Record any information a person provides about their name e.g. from and to dates the name has been in use, and the type of name e.g. maiden. These are optional items and should not be guessed if the information is not provided.

BP ID 40.9 Inactivate a name when a person requests that a previously-used name be removed from their record.

BP ID 40.10 PMS users are not able to permanently remove a name from a person's record. If a person requests that a name be removed from their record because it is not a name they have ever used, phone the online support team to have it deleted.

BP ID 40.11 Where a name contains comments that are not a name, update the name type to Type=NOTE. Historically some notes have been added as a patient’s alternate name. These may be removed when all providers are using the new NHI interfaces.

BP ID 40.12 If a person has just a single name (i.e. no family name following given name, or no given name but has a family name), then record it on the NHI in the way it is given to you. However, most local systems will require that both a first and family name are entered. If this is the case, then enter the name given in both first and family name fields (i.e. repeat).

Baby-of Names

Babies are added to the NHI with a baby-of name. A baby-of name is so new-borns can be identified accurately and their safety ensured.

BP ID 40.13 Record a baby-of name for any child added to the NHI who is under 1 year old. A child’s Baby-of name should remain as an active name on the NHI until the child is at least one year old.

BP ID 40.14 Record the baby-of name with the following format

	Title	Given name First name	Other given name Middle names	Family Name Surname	Name suffix	Name type
Singleton	none	Baby of <mother’s first name>	none	Mother’s family name	none	BABY
Multiple birth	none	<Multiple><birth order> of <mother’s first name> Twin One of <mother’s first name> Twin Two of <mother’s first name> Triplet One of <mother’s first name> Quad One of <mother’s first name>	none	Mother’s family name	none	BABY
Examples		Baby of Janet		Smith		BABY
		Triplet Three of Jenny		Rannish		BABY

BP ID 400.15 The child’s registered name, and any other names the child is known by, should be added to the NHI as soon as possible after birth.

Evidence of Names

A name which has a name source of 'BREG' has been confirmed as a result of matching to the birth registration information supplied by the Department of Internal Affairs (DIA). Only the Ministry can assign a name source of BREG and only the Ministry can remove a registered name.

BP ID 40.15 If you are concerned a registered name on a person's record maybe incorrect, call the Ministry Contact Centre who can confirm whether a correction is necessary and fix the problem.

Other types of documentary evidence (source information) may be sighted by the person recording the name :

- BRCT Birth Certificate
- NZCI NZ Certificate of Identity
- NZCT NZ Citizenship Certificate
- NZET NZ Emergency Travel Document
- NZPV NZ Permanent Resident Visa (A New Zealand Permanent Resident Visa (not time bound) issued by Immigration New Zealand)
- NZTV NZ Resident Visa (A New Zealand Resident Visa (time bound) issued by Immigration New Zealand)
- NZRT NZ Refugee Travel Document, PPRT Passport

BP ID 40.16 Always select one of the name source options according to the evidence provided. If no proof has been sighted, select the option 'No proof sighted'. If the evidence you sight is not in the list of name source options e.g. drivers licence, then select option 'Other'. NZ Drivers Licence will be considered for inclusion in a future release.

Identity-NHI Best Practice Guidance BP ID-50 - Updating an NHI Record - ADDRESS

Up to 3 addresses can be recorded on the NHI for a person.

BP ID 50.1 Always record at least one residential address. The person's 'usual' residential address must be recorded as their primary address. A person's deprivation quintile and DHB are derived from the primary residential address. If a person often resides at more than one address e.g. a child whose parents are at different addresses then both addresses can be added. A person's previous address can remain on the NHI as one of the 3 addresses

BP ID 50.2 Record a person's mailing address as well, if they prefer to be contacted by mail at an address other than their residential address.

BP ID 50.3 All NZ addresses should be validated using the eSAM address service.

BP ID 50.4 For a person visiting from overseas e.g. a tourist, record their full overseas address including the country as their primary address (residential address). Overseas addresses cannot be validated in eSAM. Use the NotValidated Reason of Overseas for these addresses. A New Zealand address where they can be contacted during their stay should be recorded as well.

BP ID 50.5 For a person who does not have a place of residence (e.g. a person living on the streets), record the suburb and city of the area where they live, and enter 'No Fixed Abode' in the first line of the address. Use the NotValidated Reason of No Fixed Abode for these addresses. A second address can be added to the NHI as a contact address for the person.

BP ID 50.11 For a person living on a boat moored off-shore or in a marina that does not have an address in eSAM record the closest suburb and city or town and enter a description of where their boat is currently moored. The address will not be eSAM validated, use a NotValidated reason of 'Other'.

BP ID 50.6 Record the building or setting a person is residing at e.g. apartment building or retirement village in the separate PMS field for building name, NOT as part of the actual address. Hospitals using the old NHI interfaces can only view and record the building name when it is entered in the first line of the address, starting the line with a '.' These will be recorded on the NHI as un-validated addresses.

Example

```
Addr Line 1 .RITA ANGUS RETIREMENT VILLAGE
Addr Line 2 66 COUTTS STREET
Suburb KILBIRNIE
City/Town WELLINGTON 6022
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BP ID 50.7 Record the dates an address is in use if a patient provides this detail.

BP ID 50.8 Inactivate an address when a person requests a previous address be removed from their record. If you need space to record a new address, then inactivate the oldest address.

BP ID 50.9 If a patient confirms they have never lived at an address, and requests this address be removed from their NHI record, phone the Ministry Contact Centre to get this address deleted.

BP ID 50.10 If you are unable to get to a validated address using eSAM, and believe the address should be able to be validated, phone the Ministry Contact Centre for assistance. Any new addresses may need to be added to the reference data. Record these addresses on the NHI with a Not Validated reason of Other.

If a person responds with an ethnicity that you are not sure how to classify use this Statistics NZ website to help find the correct code. http://www.stats.govt.nz/tools_and_services/ClassificationCodeFinder.aspx

For more information about ethnicity go to

- Ethnicity Data Protocols link

<http://www.health.govt.nz/publication/ethnicity-data-protocols-health-and-disability-sector>

- Ethnicity data Audit Toolkit

<http://www.health.govt.nz/publication/primary-care-ethnicity-data-audit-toolkit>

- Statistics NZ Ethnicity Standard

<http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/ethnicity.aspx#>

Identity-NHI Best Practice Guidance BP ID-70 - Updating an NHI Record CORE

Core Identity fields on the NHI are considered to be the following:

- Date of Birth
- Date of Death
- Place of Birth and Country of Birth
- Gender
- Citizenship Status

BP ID 70.1 If you believe that any of these details are incorrect, or need changing or updating, and you cannot update them using your PMS you should phone the Ministry Contact Centre to discuss.

Hospital users of the NHI are able to update only 2 of these identity fields – **date of birth and gender**.

Place and country of birth, and **citizenship status** are not yet visible to users of the NHI through hospital systems.

Hospital users continue to see and use the **NZ Residency** field on the old NHI, but this is not visible to users of GP PMS systems.

Patient management systems cannot update the **date of death** field on the NHI. All updates to the date of death are done by the MOH identity data management team after matching NHI identity with the official death registrations monthly. There may be a time gap between a death occurring and the date of death being applied to the NHI record.

The date of death source code on the NHI indicates the source of the Date of Death information.

A Date of death with a source :

DREG has been provided by DIA as a registered death.

MCCOD has been updated by a practice or hospital whose doctor completed the Medical Certificate Cause of Death and will be upgraded to DREG when the death is subsequently registered with DIA.

CORONER has been updated by the Ministry from information provided by the coroner and will also be upgraded to DREG when the death is subsequently registered with DIA.

OVERSEAS and *OVERSEAS OFFICIAL* are deaths that have occurred overseas.

Birth registrations are also matched with the NHI to ensure **date of birth** is recorded correctly and registered birth names are updated on the baby's NHI record.

Best Practice for initial recording of information in these CORE identity fields in the NHI during the ADD process is covered in **BP ID-80 Adding a New NHI Record**.

Identity-NHI Best Practice Guidance BP ID-80 - Adding a new NHI Record

It is very important to ensure the person being added to the NHI does not already have an NHI number. Almost all New Zealanders have an NHI number. Almost all babies are added to the NHI by the hospital or midwife when they are born. It should only be necessary to add someone who is new to New Zealand and has not yet been to a health care provider, hospital or after-hours service.

BP ID 80.1 Search the NHI thoroughly before adding someone to the NHI.

BP ID 80.2 Ask the person to complete a written registration form so all their details can be recorded accurately.

BP ID 80.3 Ask the person to provide evidence of their identity before adding them to the NHI.

Adding someone to the NHI who already has an NHI number means the person's health records will be separated and a true and complete picture of their health will not be available. Important information may not be included in the information available to the healthcare provider. This may lead to poor clinical decisions and a reduction in the quality of care and support the person receives. Because of this risk, your system will warn you if there are people on the NHI that look the same as the person you are adding. If there are, the following warning should be presented to you, together with a list of possible matches to the person you are adding. The list of possible matches may be very similar to the search results:

WM02005	The patient identity information supplied may result in duplication of another identity. Are you sure this update is correct?
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BP ID 80.4 Always review the possible duplicate identities to be sure they are not the person you are adding to the NHI before overriding the duplicate warning to proceed.

The following details must be completed to add a person to the NHI

- Full name
- Gender
- Date of Birth
- Place and country of Birth
- Usual residential Address
- NZ Citizenship Status
- Ethnicity

Name, Address and Ethnicity

BP ID 80.5 The information recorded in these fields in an ADD should be in accordance with all of the same best practice statements under

- **BP ID-30 Update NHI Record – General**
- **BP ID-40 Update NHI Record - Name**
- **BP ID-50 Update NHI Record - Address and**
- **BP ID-60 Update NHI Record - Ethnicity.**

Date of Birth

BP ID 80.6 Enter the person's full date of birth as it appears on the evidence provided. Select one of the source code options to indicate whatever you have sighted as evidence. If no evidence has been supplied, then select 'no proof sighted'.

Sometimes a person may not know the actual day of their birth. The NHI will allow a person's date of birth to be recorded with only a year or only a year and month.

Gender

BP ID 80.6.1 The standard gender question should always be presented when a person is asked to provide their gender. Refer to the Mandatory Question Requirements of the Statistics NZ Gender standard. For the Gender Identity Standard and the Frequently Asked Questions go to the Statistics NZ link below:

<http://www.stats.govt.nz/methods/classifications-and-standards/classification-related-stats-standards/gender-identity.aspx>

Examples

What gender do you identify as?
 Male
 Female
 Gender diverse, please state:

What gender do you identify as?
 Male
 Female
 Gender diverse

What gender do you identify as?

What is your gender identity?

BP ID 80.6.2 Gender is self-identified and patients may wish to describe their gender in ways other than male and female. The NHI will only allow you to record gender of Male Female or Unknown. If someone identifies as something other than Male or Female record this as U on the NHI until other codes are added to comply with the Statistics NZ Gender Identity Standard.

Place and Country of Birth

BP ID 80.7 Where possible enter the person's place and country of birth as it appears on the evidence provided. If no evidence is provided record the place and country of birth provided by the person anyway. Select one of the source code options to indicate whatever you have sighted as evidence. If no evidence has been supplied, then select 'no proof sighted'.

Citizenship Status

BP ID 80.8 Where possible record the persons NZ Citizenship status Yes/No/Unknown as provided on their evidence of eligibility. Select one of the source code options to indicate whatever you have sighted as evidence. If no evidence has been supplied, then select 'no proof sighted'.

Identities on the NHI are matched to the Department of Internal Affairs (DIA) Births Register and the DIA supplied citizenship status is updated on the NHI. These records will appear with a NZ Citizenship Status Source='DIA'. The NZ Citizenship Status cannot be updated if the Source=DIA.

Un-Identified Persons (Hospital and Accident & Emergency/Medical specific information)

If a person arrives unconscious or in circumstances that mean their identity cannot be confirmed, the person should be added to the NHI, with an intention to establish their correct identity and reconcile later.

BP ID 80.9 The format of an unknown person's identity record should contain the following:

Name

Given name First name	Other given name Middle names	Family Name Surname
Unknown <facility name where patient presented>	day and month of admission in words	description to help providers recognise the person
Unknown Wellington Hospital	Fifth June	Blue Shirt
Unknown Christchurch Hospital	Twenty second December	Car Accident

Address

- Line 1 Unknown
- Line 2 Unknown
- Line 3 suburb of hospital/facility
- Line 4 City of hospital/facility

Date of Birth

Estimate the person's age and enter a year of birth only. If your system will not allow only a year to be entered use the 1 Jan as the day and month and their estimated year of birth. DO NOT use the admission date as the date of birth because the registration will look like a baby which may trigger processes that are inappropriate for the person.

Gender

Use Unknown

Ethnicity –

Use 99999 Not Stated

Place and country of birth

Use Unknown

Citizenship status

Use Unknown

BP ID 80.10 Add or update the NHI record you have created with the person’s known details as soon as the patient has been identified. Search the NHI for the person’s usual NHI number and make a request to link the person’s usual NHI number and the unidentified NHI number. This means that the NHI number you have used for the unknown person will now become ‘dormant’ (unless they never had one to start with), and their pre-existing NHI number will remain as the ‘live’ one.

Pre-allocated NHI numbers (Hospital-specific information)

Pre-allocated numbers come from a block of NHI numbers that have been taken out of the normal sequence of NHI numbers currently being assigned to new registrations. The set of pre-allocated numbers in use at the moment comes from the ‘J’ range – that is, they start with the letter J.

Health providers and hospitals need to use a person’s NHI number to access their health information and to request other services e.g. tests, X-rays, prescription. Hospitals need a person’s NHI number to admit them into hospital. Sometimes a person’s usual NHI number cannot be used and a hospital will use a pre-allocated NHI number. These situations are described below

How pre-allocated numbers are used

- ***In Emergency Departments***

A common use of pre-allocated NHI numbers is in emergency departments when demographic details cannot be obtained from the patient or those accompanying the patient.

These numbers are usually pre-loaded into the local system with details such as “Emergency Red Bracelet 1” or similar (this will vary between organisations). The number is used for the patient until the true details of the patient can be ascertained and the correct NHI number, if one exists, can be found. When the person is fully identified the pre-allocated number must be updated with the correct patient details, made ‘live’ on the NHI, and linked with the person’s usual NHI number. It is essential to add the correct details to the pre-allocated number so that a link request is clear for Ministry data analysts who manage the linking process.

- ***When the NHI is unavailable***

If the local system has lost its connection to the NHI or the NHI database is not available, then pre-allocated numbers can be used locally until the connection is restored. Once the NHI can be accessed again, the pre-allocated numbers used during the outage should be made ‘live’ on the NHI database.

- ***In Maternity Units***

Pre-allocated numbers are assigned to some babies in an emergency situation or where the maternity unit has no access to the NHI after hours.

It is essential to make these numbers 'live' on the NHI as soon as possible. If the baby needs to be transferred to a tertiary unit, the pre-allocated number should travel with the baby, and the receiving unit will need to be advised that they should put the pre-allocated number into their own system and make it 'live' if this has not already been done. If the pre-allocated number has already been made 'live', then the details can be downloaded from the NHI into the local system.

Obtaining pre-allocated NHI numbers

Pre-allocated numbers can be obtained by contacting the Ministry's Health Identity team with details of your request. A record is maintained of which pre-allocated numbers have been assigned to which organisation and their use is tracked.

E-mail the team on datamanagementservices@moh.govt.nz

Making a pre-allocated number 'live' on the NHI database

A pre-allocated number must first be added to the NHI in the same way you would perform a new registration. Your patient management system will give you the option of entering a pre-allocated NHI number somewhere on your patient register screen. If your patient management system does not allow you to enter a pre-allocated NHI number, then you will need to contact the Ministry Contact Centre to complete this. Alternatively the pre-allocated number may have already been registered on the NHI with pre-allocated details as shown below. When a pre-allocated number has been assigned to a patient, that persons details must be updated on the pre-allocated number on the NHI as soon as possible.

If the patient already has an NHI number then a request to link the pre-allocated number to the patient's usual NHI number will have to be made. The pre-allocated NHI number will then become a dormant NHI number for that person. See Resolution of duplicate identity

Identity-NHI Best Practice Guidance - Managing Multiple NHI Numbers

(Duplicate, Identification and Resolution)

A person may have been registered on the NHI more than once and therefore have been assigned more than one NHI number.

Any health provider may become aware a person has been assigned more than one NHI number. In these instances you should phone the online support team for them to further investigate. While this is in progress, you should select whichever NHI number has the earliest ALPHA letters and use that as the assigned NHI number for your patient. The NHI system also monitors constantly for possible duplicate identities when updates and adds of records are being made.

All 'possible duplicate' requests are investigated by a team of Ministry analysts who use the information provided by the reporter, and other evidence held against the history of the NHI. The analyst also checks information about pairs of NHI numbers previously requested as links, but found to be separate identities, and also checks records for twins and other multiple births.

If it is decided that the records are for the same person, they are 'linked' (this was formerly called 'merge'). Linking means that two or more NHI numbers are then always associated with a single person. One NHI number is nominated the LIVE number (sometimes called the master or primary NHI number). The others are referred to as DORMANT (sometimes called secondary or minor NHI numbers). It is usual for the earliest NHI number to be designated as the live NHI number, with the NHI linked into it being dormant. However, in some situations the newer NHI number will be nominated as the live one. All relevant information from both records is retained e.g. all names. After NHI numbers are linked, a request for either NHI number will return the live NHI number and make available a list of NHI numbers that have been linked.

Each night, all links are notified to DHBs and other providers in files containing the pairs of NHI numbers. Any linking affecting enrolments are electronically notified to the enrolling GP Practice. Anytime a system retrieves a person's information from the NHI, the linking information is supplied. It is expected that systems should check this linking information and if local records need updating a user should be alerted to investigate and resolve possible duplicates locally.

Steps to follow if you suspect potential duplication:

1. Investigate local records to confirm a possible duplicate. Check details directly with the patient where possible e.g. previous address and other names the person may have used previously. Check with the local hospital data quality team.
2. Request a link by phoning the online support team as soon as possible after discovering the duplicate. NOTE: Some hospital systems are able to send a link request electronically via the NHI system
3. Select the NHI number which you are going to consider live while the investigation is underway (earliest alpha number).
4. Make a note in the patient record that a link request has been made so that anyone using the record can consider the information under both NHI numbers.
5. Update local records as soon as possible after a decision on the link has been received from the NHI system either by link files, system notification messages, or confirmation from the Contact Centre.

Some hospital systems cannot link/merge hospital patient records for duplicate NHI numbers while a person is an inpatient at the hospital. These hospitals ask that the NHI linking is postponed until after the patient is discharged. The Ministry is working with hospitals to remove this dependency because it is critical every service and all providers within the DHB know more than one NHI number is 'in play' for the patient concerned. Where possible, linking of NHI numbers by Ministry analysts is completed as soon as the investigation confirms a duplicate. Hospitals should inform the Ministry when a patient with a postponed link request has been discharged.

It is possible that you may be using a dormant NHI number for a person. This is not a problem but rather an administrative process needing action. Any of the linked NHI numbers can be used for the patient, but when communicating with outside parties, or updating national systems or regional systems with patient information, you need to use the live NHI number. Check your details about the person with the NHI details, and use the standard process in your PMS to update the patient's NHI number to the live number. If you have any concerns about the linking call the online support team for help and confirmation.

Identity-NHI Best Practice Guidance - Managing Identity Confusion

(More than one person associated with the same NHI number)

How identity confusion happens

Identity confusion has its origins in three ways.

The first is when a provider who has NHI access, does a search and selects the wrong person from the search results list. Usually this involves some kind of data update, as the information for the person they've selected looks almost exactly like their patient, but needs some change. They then 'assign' that NHI number to their patient and use the number for all patient information from that point on.

This scenario results in the original person to whom the NHI was assigned now disappearing from the National Health Index, and the wrongly assigned-updated person has an NHI number which has clinical information/medical history associated with it that has nothing to do with them. You can see how this could result in serious risk to both people in terms of treatment or decisions based on wrong or missing information.

An example to help with understanding:

John Raymond Smith, Born 23/2/1958 Address 5 Broad St, Lower Hutt, Wellington
Johnny Ray Smith Born 22/3/1958 Address 55 Exeter Sq, New Plymouth

Among all the other John Smiths returned on a search result, without careful confirmation, a user might select John Raymond when actually the person they are dealing with is Johnny Ray. When Johnny Ray says he has previously lived in lower Hutt the user adds a new name Johnny Ray to John Raymond's record and updates the address to 55 Exeter Sq, New Plymouth. The user has **overlaid** Johnny Ray's identity onto John Raymond's record. This is a very serious mistake and often very difficult to detect. As well as the wrong information now showing on John Raymond's record, the information about Johnny Ray's treatment will be recorded with John Raymond's NHI number.

With adequate training these mistakes can be avoided.

The second is when a merge of two NHI numbers/records has been performed when it appears that they are the same person and therefore need the duplication resolved. At some point in time subsequent to that merge it is discovered that they were not the same person, but two different people, and the merge was an error.

In this scenario, each person's NHI number/record must be re-established, and the details for each record untangled and associated correctly.

The third is when someone has just incorrectly recorded the wrong NHI number into a system or onto a document containing patient health information. This results in that provider (and subsequent providers) believing the NHI number is correct unless they check/re-check.

These are serious situations and must be addressed as soon as you become aware of them.

In all the scenarios described above, the practice manager and the doctor who has been treating your patient will need to work together to correct all the patient information associated with the wrong NHI number. The MOH online support team will be able to help with advice and help.

Steps to follow to put the situation right

1. Find your patient's correct NHI number.
2. Identity details – check the person's details with them and their registration or enrolment form.
3. Check the patient's enrolment history as it may help you find the other person's practice. Contact them, explain what has happened and tell them they may need to enrol the other person on NES. If you are not yet using NES, then ring the Ministry Contact Centre who will provide guidance.
4. Do the following in order
 - Get the enrolment history to find the other person's GP practice
 - End the enrolment on NES
 - Change the NHI number on your patient's record
 - Enrol your patient on NES
 - Contact the other person's practice so they can enrol the other person on NES
5. Once your patient's NHI number is corrected, make a note in the patient's file that this mistake has occurred, the date it was corrected, and any other important details you think need to be included. Sometimes a patient's doctor will contact the patient and explain what has happened if they consider it is necessary. The patient can help in making sure that another provider doesn't make the same mistake.
6. Referrals – If your patient has a referral to another provider or hospital service, and the wrong NHI number has been used, contact them and explain what has happened so they can correct their records. You may need to send a new referral. Consider past closed referrals, you may decide they need similar action.
7. Prescriptions – contact the pharmacy who dispensed your patient's medication, explain what has happened so they can correct their records. You may need to contact the patient, explain the situation and ask which pharmacy they use. The pharmacy details will be on their medication.
8. Test Results, discharge summaries, information received from other providers – Assess each item and determine if the information is actually for your patient or for the other person. Take action accordingly.
9. GP2GP - If you have sent your patient's records to another GP contact them and explain what has happened so they can correct their records.
10. Regional or national clinical data repositories (CDR) - If you have shared your patient's information with a Clinical Data Repository (CDR) e.g. Canterbury's HealthOne, then contact the administrators of the repository and explain what has happened. They will need to know the records and people affected. They will have a process to follow.

To prevent recurrence

Always follow best practice for searching the NHI. Be thorough in your search. Remember you are finding one person's record among 8 million possibilities. If you are not sure ask a colleague to search, and see if you come to the same conclusion about the NHI number to use. If in doubt ring the online support team for help.

Take care to confirm the NHI you select belongs to your patient. Check all the names and all available addresses.

Ensure the NHI has COMPLETE, CURRENT and ACCURATE information about your patients. This helps other providers when they are searching the NHI

Identity Data Quality Monitoring & Management

As health provider systems get upgraded to include direct web service interfaces to the National Health Index (NHI), data quality becomes an increasingly important focus. This guidance will help users of these systems understand how data quality within the NHI is monitored and managed.

The NHI web services ensure business rules are maintained and therefore, wherever possible, poor quality data does not get updated to the NHI.

All requests to the NHI e.g. retrieve, update, add etc. are logged with the Organisation ID of the provider (who is authorised to access the NHI) and the User ID of the person (who initiated the request).

The Ministry Contact Centre and Identity Data Management teams constantly monitor registrations and changes made to patient information on the NHI to ensure any issues are found quickly and fixed or resolved.

Where possible, the analysts in these teams will work directly with providers to address any concerns with what users are doing. Nominated data quality contacts in District Health Boards and Primary Healthcare Organisations (PHO) are points of contact for notification of issues, and have a responsibility for ensuring users of the NHI have the appropriate training and knowledge.

Currently, regular performance reporting is sent to DHBs as part of the Operational Policy Framework, Indicators of DHB Performance measures. There are five key indicator measures for NHI data quality.

The measures include:

- Number of new NHI registrations in error i.e. duplication
- Number of times when an NHI record was created with ethnicity recorded as a non-specific value instead of a specific value
- Number of times when an NHI record that contained a specific ethnicity value was updated to a non-specific value
- Number of times when an invalid data update was made i.e. identity overlay
- Number of times when a NZ address could have been validated through eSAM but wasn't

There is a package of documentation available to support users to maintain the best possible data quality within the Index. These can be accessed via the NES website, where they can either be directly downloaded or by links to where they reside on other websites.

<http://www.health.govt.nz/our-work/primary-health-care/primary-health-care-subsidies-and-services/national-enrolment-service>

In addition, there is always support and assistance available to DHBs, PHOs and practices by phoning the Ministry Contact Centre.