Quality and safety markers – enabling equity monitoring

Privacy impact assessment report

January 2020

Contents

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Project summary

Background

The Health Quality & Safety Commission (the Commission) was set up under section 59 of the New Zealand Public Health and Disability Act 2000 'to lead and coordinate work across the health and disability sector for the purposes of monitoring and improving the quality and safety of health and disability support services'. The relevant legislation is set out in Appendix 1.

Since our establishment in 2010, we have designed and led improvement programmes across the health sector with the aim of reducing harm and improving quality. Examples include programmes to reduce healthcare-associated infections, reduce falls, and improve the safe use of medicines. We use information to monitor the processes and outcomes of these programmes and other important indicators of health system quality.

Traditional QSM approach

Our hospital-based monitoring parameters are called quality and safety markers (QSMs). The QSMs are sets of related indicators concentrating on specific areas of harm. These include:

- falls
- healthcare-associated infections:
  - hand hygiene
  - surgical site infection (specific to cardiac and orthopaedic surgeries)
- safe surgery
- electronic medicine reconciliation
- pressure injuries
- opioid prescribing
- patient deterioration.

More detail of current and upcoming QSMs can be found in Appendix 2.

Until recently, we have been able to source information for our QSMs with no risk of a privacy breach. This is because we have requested 'bird's eye' level, non-identifiable information from district health boards (DHBs). The information has fallen into two categories: national health data and health care provider data. Table 1 identifies the traditional QSM data sources, transfer approaches and risk mitigation strategies for each of the two categories.

Table 1: Current information sources for QSMs

	National health data	Health care provider data
Purpose	Monitoring the quality and safety of health services	
Data provider	National collections: National Minimum Dataset (NMDS)	Health care providers – to date, these are all DHBs
Data type available to us	Patient-level Non-identifiable	Aggregate data
Transfer	From Ministry of Health via secure transfer	From DHBs via email
Risk mitigation strategies	Removal of direct and indirect identifiers Encryption done by Ministry of Health	Aggregated data only: non-personal information

Oversight of QSMs

QSMs are generally considered during the development and scoping phase of a Commission quality improvement programme. Expert sector advice and clinical leadership is engaged in agreeing the approach to QSM development and shaping the QSM that the Commission will use.

QSMs are reported each quarter, and DHBs can review and provide feedback on draft data reports before they are published. Peer review is conducted in-house in the analytical team and within programme teams each quarter.

After the development phase, Commission programme teams retain oversight of the QSMs and monitoring for improvement. The Commission programme teams work with clinical leads and expert advisory groups to provide technical review of QSM data and communications around results.

Need for change

The need for this privacy impact assessment (PIA) has arisen because the Government, the Minister of Health and the Commission want to better monitor health equity as a key aspect of quality.

Health inequities are differences in health between population groups that are avoidable and unfair.[1] Our equity focus is strongly aligned with several of our work programme drivers:

- The relevant legislation: Te Tiriti o Waitangi, the New Zealand Public Health and Disability Act, and the United Nations Convention on the Rights of Indigenous Peoples
- Government policy: New Zealand Health Strategy, New Zealand Disability Strategy, Te Korowai Oranga, ‘Ala Mo‘ui, stated intentions of the current Government and Minister of Health

[1] World Health Organization. 2014. Equity. URL: www.who.int/healthsystems/topics/equity/en/ (accessed 18 December 2019).

- Commission strategic documents: the New Zealand Triple Aim, our Strategic Priorities 2017–21, and our internal Te Whai Oranga and Equity Action Plan.

We want to be able to monitor health system quality indicators more closely to see the results for different groups of people so that we can consider and shine the light on equity issues. This includes looking at different age groups, different genders and different ethnic groups. In order to do this, we have needed to change the data we collect from health care providers from aggregate data to de-identified patient-level data.

We are doing this PIA to discuss how we collect monitoring data from DHBs at the early developmental stages of this new collection. We want to make sure we have determined the best and safest approach to data transfer, storage and use. This will ensure we meet our legal and ethical responsibilities for data privacy, alongside our legislative objective to monitor health and disability services and our strategic priority to improve health equity.

We also want to be in a position to give DHBs confidence in our systems and processes so they are comfortable to provide the required data.

Brief overview of new approach to monitoring equity through our QSM processes

Equity monitoring means analysing whether our QSM results differ between groups of people, defined at this stage by age, gender and ethnicity. To do this, we have needed to change from using aggregated information to using personal-level (but de-identified) health information. To monitor equity, the Commission now collects age, gender and ethnicity information about the individuals who are included in the QSM sampling process.

This ‘demographic’ information is already held by DHBs, but it requires individual matching to the current ‘clinical’ QSM information. It is then transferred to the Commission for QSM purposes in de-identified but individualised data, which will include the three new fields: age, gender and ethnicity.

The Commission has now started to collect additional information to monitor the equity impact of change we see in QSMs over time. We are currently collecting this new data from some DHBs, and others are waiting on the conclusion of this PIA to begin to transfer the new data.

Table 2 highlights the traditional and current processes in development. The pink background highlights the new practice and the blue represents practice already in place.

Table 2: Change in approach to health care data

	National health data	Health care provider data
Purpose	Monitoring the quality and safety of health services	
Data provider	National collections: NMDS	Health care providers – to date, these are all DHBs
Data required	Patient-level Non-identifiable	We have stopped collecting aggregate data and instead have asked for QSM data to be matched by case to demographic information (gender, ethnicity, age group) from the NMDS.
Transfer	From Ministry of Health via secure transfer	From DHBs via email NB: Some DHBs are on the SEEmail system, which provides additional security. We hope that more DHBs will join the SEEmail system over time. We have investigated data transfer options and have decided not to progress with any options at present until Māori data sovereignty issues have been worked through. Offshore secure transfer options create risks for data sovereignty.
Risk mitigation strategies	Removal of direct and indirect identifiers Encryption done by Ministry of Health	Data will no longer be aggregated. It will be individual-level data, with age, ethnicity and gender for each case identified. There will be no specific unique identifiers provided, so the data will be anonymous. Although cases could theoretically be identified by those with prior knowledge of the case, the risk of identification is considered low. Even the Commission will not know the individuals concerned and would not be able to identify individuals without additional information.

Scope of the PIA

This PIA covers the provision of demographic information alongside health information from health care providers to the Commission. This information is required for the Commission to undertake its legislative objective and functions of monitoring the equity, quality and safety of health care (see Appendix 1).

We have designed the scope of this PIA to future-proof ourselves for new improvement programmes and QSMs, and to work across existing programmes and QSMs, as much as possible. That said, we realise that the scope and design of new programmes may vary from our current models, so there is a caveat that any new programme may need a full PIA.

The scope of this PIA is information required to monitor the equity impact of change in the Commission's QSMs. Specifically, we want to assess the privacy impact of requesting and using de-identified but consumer-level data from health care providers (DHBs).

In terms of the Office of the Privacy Commissioner's information for agencies (Figure 1), our in-scope questions are:

- Purpose:
  - To fulfil our equity monitoring obligations with respect to QSMs, what clinical and demographic consumer-level information do we need to collect from health care providers?
- Agency responsibility:
  - How will that information be transferred to the Commission?
  - How will we keep this information secure?
- Fair collection:
  - Is consumer consent required for collecting that data?
  - Who will collect the information?
  - How will we ensure the accuracy of the information?
- Justified use:
  - How will we use this information: aggregation, analysis, presentation and publication?
  - Who will be able to access this information?
  - Will information be able to be used by a third party?
- Appropriate disposal:
  - How will we dispose of the information?

Figure 1: The Office of the Privacy Commissioner's conceptual diagram of information for agencies[2]

Some aspects of data use by the Commission are out of scope for this PIA. These include:

- information sourced through national collections
- information that is collected by providers and transferred to the Commission, where it is in aggregate format
- data collection from contracted providers or those without a direct health care role, including:
  - the Surgical Site Infection National Monitor, because this is a surveillance data set from different sources
  - hand hygiene data, which is collected through Hand Hygiene New Zealand
- information that is not required for the Commission to monitor our quality improvement programmes or QSMs
- data and information collected under mortality review committee legislation
- data collected by DHBs and other agencies for the Adverse Events Learning Programme.

The process

This PIA was undertaken by staff members across the Commission's Health Quality Intelligence, Learning and Improvement and Corporate Services. We used the Office of the Privacy Commissioner's PIA template,[3] the Health Information Privacy Code (HIPC) 1994

[2] Source: www.privacy.org.nz/privacy-for-agencies/getting-started/

[3] www.privacy.org.nz/news-and-publications/guidance-resources/privacy-impact-assessment/

(updated in September 2017)[4] and the Ministry of Health's Health Information Governance Guidelines[5] as primary references.

We recognise that the HIPC applies to the work of the Commission. Section 4(1)(e) identifies that the HIPC applies to:

> (e) information about that individual which is collected before or in the course of, and incidental to, the provision of any health service or disability service to that individual.

Section 4(2)(k) specifies the agencies that it applies to:

> (k) an agency which provides services in respect of health information, including an agency which provides those services under an agreement with another agency.

The HIPC gives specific guidance as to how we should undertake our PIA and understand and mitigate any privacy risks.

We drew on previous PIAs and brief analyses undertaken by the Commission. We completed internal peer review from staff members who are experienced in PIA, and external peer review from information technology consultants. We updated and evolved this PIA from their feedback.

As a final step, we received a peer review and suggestions from the Office of the Privacy Commissioner, and we have incorporated their recommendations and suggestions.

[4] www.privacy.org.nz/assets/Files/Codes-of-Practice-materials/Consolidated-HIPC-current-as-of-28-Sept-17.pdf

[5] Ministry of Health. 2017. *Health information governance guidelines*. Wellington: Ministry of Health.

Personal information

This section of the PIA shows the information that the Commission is already starting to receive from DHBs to monitor equity in QSM areas. It also shows the flow of information from collection at DHBs through to the Commission and our current plan to manage, handle and protect it.

We use the Office of the Privacy Commissioner definitions of personal information:

> 'Personal information' is any information that is capable of identifying a living human being. It doesn't have to be particularly sensitive or negative information.
>
> However, the level of sensitivity and the level of impact on individuals will affect whether your information handling is likely to breach the law, or whether there are other privacy risks that need to be mitigated.

Traditional information

The Commission traditionally collects information to update and publish QSMs.

Some of this information is collected directly from national collections (such as the NMDS). The remainder of this information is collected from DHBs following an agreed sampling process and is passed to the Commission as aggregated data.

The sampling approach has been developed to require minimal information collection and transfer. Appendix 2 provides a list of current QSMs, the information collected for each QSM, and whether the information is collected by DHB samples or through a national data set.

The Commission has built up these sampling processes as QSMs have been added to our work programme. Information security has been assessed and assured by the health quality intelligence group as part of day-to-day business. A full PIA has never been completed because the collection of aggregated information falls outside the scope of personal health information.

The QSMs are published on our website and updated on a quarterly basis.[6] The QSMs are presented by DHB, with no breakdown of population into subgroups.

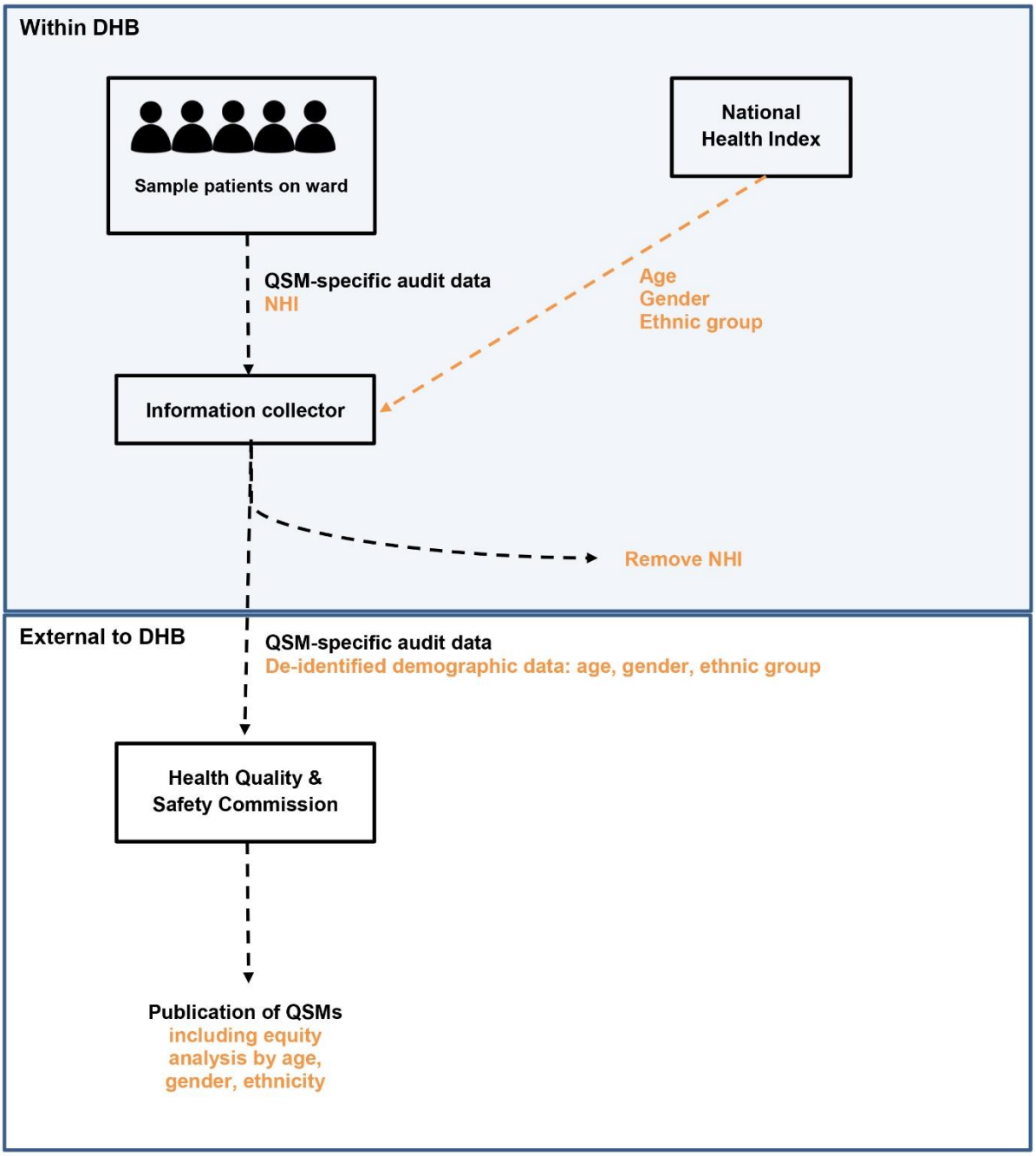
Planned information flow changes

For the purposes of this PIA, from this point on we focus specifically on QSM information that is collected directly by DHBs. We do not consider national collection data because the privacy risks are unchanged and already mitigated.

For clarity, the new steps that we are currently working to implement to be able to monitor equity change in our QSM areas are highlighted in Figure 2 in orange.

[6] www.hqsc.govt.nz/our-programmes/health-quality-evaluation/projects/quality-and-safety-markers/

Figure 2: The planned process of future information flow



Purpose of new information

The Commission has started to collect additional information to enable and support monitoring of the equity impact of sector work on QSMs. Equity monitoring means analysing whether our QSM results differ between groups of people, defined at this stage by age, gender and ethnicity.

To do this, we have started to change from using aggregated information to using personal-level (but de-identified) health information. An additional benefit of monitoring equity parameters is to detect (and correct) sampling bias. For example, at present it is possible that all QSM data is coming from females – we have no way of knowing for sure whether the samples collect information from a wide range of people.

We cannot continue to use aggregated information if we want to monitor equity impact. This is for two reasons.

- Firstly, the number within samples is too small to be able to transfer aggregated data split into different groups (eg, Māori patients at Auckland DHB, Pacific patients at Auckland DHB). We collect observations on 30 to 40 patients per month, which is too small to allow for an aggregated sample to be subdivided in this way.
- Secondly, we want to plan for potentially undertaking demographic monitoring at a national level (eg, Māori females nationally, Pacific youth nationally), which means we need to be able to 'slice and dice' the information in different ways at a national level once it reaches us. We cannot do this if we only receive aggregated data.

Collection of new information

To monitor equity, the Commission needs age, gender and ethnicity information about the individuals who are included in QSM sampling process.

This demographic information is already held by DHBs, but it requires appending to the current clinical QSM information, and then transfer to the Commission for QSM purposes. We have asked DHBs to record this demographic information at the same time they collect the clinical QSM data. For example, adding age, gender and ethnicity would occur at the same time as doing a skin check for the pressure injury QSM, or the same time as documenting a falls risk assessment for the falls QSM.

The most accurate and complete source of information about age, gender and ethnicity of hospital patients is the National Health Index (NHI) data set. Therefore, the Commission proposes to work with DHBs to collect prioritised level 1 ethnicity,[7] as well as gender and age, from the NHI collection.

In practice, this is best sourced from DHB staff who have access to the NHI data set. DHB clinical staff who record QSM-specific information will be able to access this information from a DHB staff member with whom they have routine interactions (eg, a ward clerk).

The internal oversight of DHBs' existing privacy governance structures already covers this kind of process, and therefore we have excluded it from the scope of this PIA. However,

[7] Ethnicity codes at level 1 and level 2 are shown in Appendix 4.

this process is the key mechanism for recording the information that we propose is transferred to us, and this consumer-level information is new for our QSM processes.

Transfer of new information

The Commission has requested that this information is transferred from DHBs to the Commission in individual, non-identified form with age, gender and ethnicity included, by email. Prior knowledge or additional data would be required to identify individuals from within the data set. The information currently is, and will continue to be, transferred by email.

The Commission and some DHBs are on SEEmail, which provides additional security by encrypting emails. However, currently not all DHBs are on SEEmail, so the transfer risks from these DHBs are higher. We hope that more DHBs will adopt the SEEmail secure email system over time.

The Commission has investigated alternative methods of secure transfer, but the tools and systems investigated involve offshore data transfer activity, which raises potential Māori data sovereignty risk. The Commission is working on establishing a data kaitiaki function, and we will need to seek advice from Māori about the development of new processes.

Storage of information

The Commission's information technology (IT) infrastructure is hosted by Revera (Spark) and is on an all-of-government infrastructure system as a service contract. These contracts are overseen by the Department of Internal Affairs, and providers are required to meet security standards. Revera also provides network management and desktop support services. Database storage is on in-country servers located within their purpose-built data centres behind Commission-dedicated firewalls. Revera provides regular security patching for the Commission.

All staff have unique logins, and database server access is separated and restricted to authorised staff. Once transferred, the information will be held in the Commission's secure data storage area, which can only be accessed by the Commission's health quality intelligence analytical team and content specialists who work on programmes relevant to the QSMs. Once transfer is complete, transfer emails are stored in the secure data storage area of the Commission's system, and not within inboxes.

Analysis and presentation

The information provided to the Commission by DHBs will be analysed for equity monitoring.

We plan to continue the quarterly reporting of QSMs by DHB, adding quarterly reporting of QSMs by age band, gender and ethnicity. We will not analyse or publish these equity parameters by DHB, because we expect the numbers to be too low to guarantee anonymity.

A summary of the proposed changes to QSM information is given in Table 3. The existing information already used is highlighted in blue, and the new information that we are starting to use is highlighted with a pink background.

Table 3: Traditional collection and new data

Variable: Traditional or new	Information required by the Commission	Possible responses to data variable
Traditional	DHB	One of 20 DHBs
Traditional	Reporting period	Three-month period (eg, Jan–Mar 2018)
Traditional	QSM-related 'clinical' data	Specific to QSM (see Appendix 2)
New	Age	Age in years
New	Gender	Other – not specified/female/male
New	Ethnicity	Level 1 prioritised ethnicity

Privacy assessment

This section of this PIA considers the privacy requirements that the Commission must follow to uphold the law, possible risks of the changes to QSM information collection discussed, and our intended risk mitigation strategies.

The content is organised in **Table 4** according to the 12 privacy principles of the Privacy Act 1993 and the corresponding rules of the HIPC.

There are no recommendations resulting from our analysis of risk, which is considered low.

Table 4: Assessment of compliance against privacy principles

#	Description of the privacy principle	HIPC rules	Summary of personal information involved, use and process to manage	Assessment of compliance	Risk analysis
1	**Principle 1 – Purpose of the collection of personal information** Only collect personal information if you really need it.	**Rule 1 – Purpose of collection of health information** Health information must not be collected by any health agency unless: (a) the information is collected for a lawful purpose connected with a function or activity of the health agency; and (b) the collection of the information is necessary for that purpose.	The information is required for the Commission to undertake the required equity analysis of QSMs and to understand the impact of change on different population groups. Without this information, the Commission cannot undertake equity analysis of QSM data.	This process does not involve the collection of any information that is not required to complete QSM equity monitoring. We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	The QSM process collects only information that is required to complete the required QSM analysis. We consider the risk associated with this rule to be low.
2	**Principle 2 – Source of personal information** Get it directly from the people concerned wherever possible.	**Rule 2 – Source of health information** (1) Where a health agency collects health information, the health agency must collect the information directly from the individual concerned. There are a range of exceptions allowed for agencies under the HIPC. Subrule 2(2)(g) enables: (g) that the information: (i) will not be used in a form in which the individual concerned is identified;	This assessment considers secondary use of health data for research and statistical analysis, and that the data will not be used in any way that any individuals can be identified. Information will be provided by DHB staff, who will match QSM data they currently collect to NHI data to assign gender, age and ethnicity to individual cases, to enable group classification for equity monitoring purposes. This process is considered the most practical and	We consider the secondary use of information to be appropriate and justifiable in the case of equity monitoring of QSM areas as we believe it meets the specified exceptions in HIPC subrule 2(2)(g) and meets the requirements of the Health Information Governance	We believe that our agency meets the exceptions stated in HIPC subrule 2(2)(g) and consider the privacy risks associated with secondary collection for QSMs low.

#	Description of the privacy principle	HIPC rules	Summary of personal information involved, use and process to manage	Assessment of compliance	Risk analysis
		(ii) will be used for statistical purposes and will not be published in a form that could reasonably be expected to identify the individual concerned; or (iii) will be used for research purposes (for which approval by an ethics committee, if required, has been given) and will not be published in a form that could reasonably be expected to identify the individual concerned.	cost-effective approach to collection of the information required.	Guidelines 2017 for secondary use of data.	
3	**Principle 3 – Collection of information from subject** Tell them what information you are collecting, what you're going to do with it, whether it's voluntary, and the consequences if they don't provide it.	**Rule 3 – Collection of health information from individual** (4) It is not necessary for a health agency to comply with subrule (1) if the agency believes on reasonable grounds: (c) that compliance is not reasonably practicable in the circumstances of the particular case; It is not necessary for an agency to comply with this rule if it is not practicable for it to do so (subrule 3(4)(c)).	This proposal meets the exception requirement of this principle because individual-level engagement is not practicable in the circumstances. We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	Information extracted from health records is used, so this rule does not apply.	We believe that our work meets the exception stated in subrule 3(4)(c), and that the risks of secondary use of information from the QSM process are low.

4	**Principle 4 – Manner of collection of personal information** Be fair and not overly intrusive in how you collect the information.	**Rule 4 – Manner of collection of health information** Health information must not be collected by a health agency: (a) by unlawful means; or (b) by means that, in the circumstances of the case: (i) are unfair; or (ii) intrude to an unreasonable extent upon the personal affairs of the individual concerned.	The new process will use information already collected more effectively. It will not impact on consumers and is as unobtrusive as possible.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	We consider that there is little risk with regard to the QSM process from the manner of collection (secondary use).
5	**Principle 5 – Storage and security of personal information** Take care of it once you've got it and protect it against loss, unauthorised access, use, modification or disclosure and other misuse.	**Rule 5 – Storage and security of health information** (1) A health agency that holds health information must ensure: (a) that the information is protected, by such security safeguards as it is reasonable in the circumstances to take, against: (i) loss; (ii) access, use, modification, or disclosure, except with the authority of the agency; and (iii) other misuse; (b) that if it is necessary for the information to be given to a person in connection with the provision of a service to the health agency, including any storing, processing, or destruction of the information,	The Commission is experienced with information that falls into the category of 'potentially identifiable', and storage systems are already set up to manage the risks associated. The Commission's IT infrastructure is hosted by Revera (Spark) and is on an all-of-government infrastructure system as a service contract. These contracts are overseen by the Department of Internal Affairs, and providers are required to meet security standards. Revera also provides network management and desktop support services. Database storage is on in-country servers located within their purpose-built data centres behind Commission-dedicated firewalls.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	We consider that there is little risk with regard to the QSM process and practices of storage and security.

		everything reasonably within the power of the health agency is done to prevent unauthorised use or unauthorised disclosure of the information; and (c) that, where a document containing health information is not to be kept, the document is disposed of in a manner that preserves the privacy of the individual. (2) This rule applies to health information obtained before or after the commencement of this code.	Revera provides regular security patching for the Commission. Information will be held in the Commission's secure data storage area, which can only be accessed by specific identified members of the Commission's Health Quality Intelligence analytical team and specific identified members of the Commission's Quality Improvement Advisor team. Information will only be used for monitoring equity within QSMs over time. We are also working to continuously improve our systems.		
6	**Principle 6 – Access to personal information** Where an agency holds personal information in such a way that it can be readily retrieved, individuals should have access to their personal information.	**Rule 6 – Access to personal health information** (1) Where a health agency holds health information in such a way that it can readily be retrieved, the individual concerned is entitled: (a) to obtain from the agency confirmation of whether or not the agency holds such health information; and (b) to have access to that health information.	This project will not involve the Commission holding information in any form that would make it readily retrievable for any individual. As the Commission has no way of identifying individuals within the information provided to us by DHBs, we will not be able to provide individuals with access. The Commission will be using existing DHB information for secondary analysis, and it will be de-identified. At no stage will the Commission have information that can easily identify individuals.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	We consider that there is little risk with regard to this process and principle. The agency will not hold readily identifiable personal information and cannot retrieve or provide access to it.

7	**Principle 7 – Correction of personal information** They can correct it if it's wrong, or have a statement of correction attached.	**Rule 7 – Correction of health information** (1) Where a health agency holds health information, the individual concerned is entitled: (a) to request correction of the information; and (b) to request that there be attached to the information a statement of the correction sought but not made.	The new information the Commission will be relying on can be checked and corrected within DHBs, where the information is collected and stored. Patients can request to view and/or correct their health information within DHB records. This project has no impact on this.	The Commission will not be able to identify individuals in the data we hold, so cannot provide access, nor the opportunity to correct. We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule, as We will not hold personally identifiable information and cannot correct it. Risks regarding this principle are managed within DHBs.
8	**Principle 8 – Accuracy etc of personal information to be checked before use** Make sure personal information is correct, relevant and up to date before you use it.	**Rule 8 – Accuracy etc of health information to be checked before use** (1) A health agency that holds health information must not use that information without taking such steps (if any) as are, in the circumstances, reasonable to ensure that, having regard to the purpose for which the information is proposed to be used, the information is accurate, up to date, complete, relevant and not misleading. (2) This rule applies to health information obtained before or after the commencement of this code.	DHBs are already subject to the Privacy Act regarding this principle and are required to ensure information is up to date and complete. This project has no impact on this process. The Commission will request the most up-to-date data from the NMDS from DHBs to ensure that we get the most up-to-date and correct information.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	We consider that there is little risk with regard to this process and principle. The main risk is accuracy of the NMDS, but we can minimise risk by matching NMDS data at the time of QSM data collection.

9	**Principle 9 – Not to keep personal information for longer than necessary** Get rid of it once you're done with it.	**Rule 9 – Retention of health information** (1) A health agency that holds health information must not keep that information for longer than is required for the purposes for which the information may lawfully be used. (2) Subrule (1) does not prohibit any agency from keeping any document that contains health information the retention of which is necessary or desirable for the purposes of providing health services or disability services to the individual concerned. (3) This rule applies to health information obtained before or after the commencement of this code.	This project does not alter how DHBs hold personal information, or the length of time. The Commission has a records disposal plan that has been agreed with Archives New Zealand.[8] The policy allows for data policy and procedure records to be transferred to Archives New Zealand for retention after 15 years. The policy allows for data and working records to be destroyed after they are no longer required for analysis or are superseded. Data analysis documentation is to be destroyed 15 years after data sets are no longer in use.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule.	We consider that there is little risk with regard to this process and principle.
10	**Principle 10 – Limits on use of personal information** Use it for the purpose you collected it for, unless one of the exceptions applies.	**Rule 10 – Limits on use of health information** A health agency that holds health information obtained in connection with one purpose must not use the information for any other purpose unless the health agency believes on reasonable grounds: (e) that the information: (i) is used in a form in which the individual concerned is not identified;	The purpose of the Commission having this information is for us to uphold our legislative responsibility to monitor the quality and safety of the health and disability sector. It will not be used for any other purpose than the equity monitoring of QSMs.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule. The requirements of HIPC subrule 10(1)(e) are met.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule. The requirements of HIPC subrule 10(1)(e) are met. Potential risks are well managed by meeting these requirements.

[8] The detail can be viewed at: https://www.archway.archives.govt.nz/ViewEntity.do?code=DA674

		(ii) is used for statistical purposes and will not be published in a form that could reasonably be expected to identify the individual concerned; or (iii) is used for research purposes (for which approval by an ethics committee, if required, has been given) and will not be published in a form that could reasonably be expected to identify the individual concerned.			
11	**Principle 11 – Limits on disclosure of personal information** Only disclose it if you've got a good reason, unless one of the exceptions applies.	**Rule 11 – Limits on disclosure of health information** (2) Compliance with paragraph (1)(b) is not necessary if the health agency believes on reasonable grounds that it is either not desirable or not practicable to obtain authorisation from the individual concerned and: (c) that the information: (i) is to be used in a form in which the individual concerned is not identified; (ii) is to be used for statistical purposes and will not be published in a form that could reasonably be expected to identify the individual concerned; or (iii) is to be used for research purposes (for which approval by an ethics committee, if	The Commission does not intend to publish or disclose any individual-level information (including de-identified information). The information received by DHBs will be analysed at a national level for equity parameters. Usual suppression techniques will also apply where there are small numbers for any group as additional risk management.	We consider that this proposal meets the requirements of this privacy principle and HIPC rule. The requirements of HIPC subrule 11(2)(c) are met.	We consider that there is little risk with regard to the QSM process proposed.

		required, has been given) and will not be published in a form that could reasonably be expected to identify the individual concerned.			
12	**Principle 12 – Unique identifiers** Only assign unique identifiers where permitted.	**Rule 12 – Unique identifiers** (1) A health agency must not assign a unique identifier to an individual unless the assignment of that identifier is necessary to enable the health agency to carry out any one or more of its functions efficiently.	There are no unique identifiers attached to this project.	We consider that this proposal meets the requirements of this privacy principle because unique identifiers are not used.	We consider that there is little risk with regard to the QSM process because unique identifiers are not used.

Risk assessment

On the basis of our analysis, we consider the risks from the information and process changes to the QSM process to be low, with good mitigation strategies already in place.

However, the analysis revealed that there are three areas where the Commission's QSM process, for valid reasons, does not comply with the HIPC, but does fit within allowable exceptions. These are summarised below.

Summary of exceptions

The PIA process has yielded exceptions to three privacy principles and HIPC rules. These are:

- Source of personal information: We are not collecting data directly from individuals, but are using data from health records provided by DHBs (secondary collection).
- We are not directly disclosing or requesting permission from individuals for the use of their data and are not requiring DHBs to do so.
- We cannot provide opportunities for individuals to correct data.

Below, we provider further commentary about the issues considered, and our proposed actions.

Source of personal information (Principle 2, Rule 2)

We are not collecting data directly from individuals, but we are using personal data from health records provided by DHBs (secondary collection).

We are relying on secondary collection from DHBs, which we believe is appropriate due to the following exclusions to Principle 2:

- Getting it from DHBs will not prejudice the individual's interests.
- The information will not be used in any way that identifies the individual concerned.
- Collecting this information from DHBs will protect public revenue and enable DHB staff to spend less time collecting and providing the data to the Commission.
- Collecting this information from the individuals concerned is not practicable.

The HIPC provides specific exceptions that the Commission's QSM collection fits within. Subrule 2(2)(g) enables:

> (g) that the information:
>
> (i) will not be used in a form in which the individual concerned is identified;
>
> (ii) will be used for statistical purposes and will not be published in a form that could reasonably be expected to identify the individual concerned; or

(iii) will be used for research purposes (for which approval by an ethics committee, if required, has been given) and will not be published in a form that could reasonably be expected to identify the individual concerned.[9]

The Health Information Governance Guidelines outline policies, procedures and other useful details for health providers who collect and share personal health information, enabling them to do these legally, securely, efficiently and effectively. These guidelines note:

> The use of health information for secondary purposes is permissible where the purpose was identified and stated at the point of collection, or where the information is used for research or statistical purposes but not published in a way that identifies the consumer.[10]

While appropriate for the purposes of QSM equity monitoring, this method of collection has roll-on effects for other privacy principles and HIPC rules (3 and 7), which are discussed below.

We note that there is some theoretical risk of possible re-identification of de-identified information, but prior knowledge or access to additional information about context would be required. We believe that our transfer, analysis, storage and publication processes will adequately manage this risk.

Disclosure and seeking permission from individuals (Principle 3, Rule 3)

Because there is no direct engagement with individual consumers with regard to the collection of QSM data, it is not practicable to disclose or seek permission. DHB staff will use medical records to provide QSM data. This proposed secondary data use is more practical and cost effective than gathering information directly from individuals, representing more appropriate use of limited health sector resources.

We consider that this proposal meets the requirements of the Health Information Governance Guidelines for secondary use of data, as highlighted in the quote above. The information collected through secondary processes will be used for statistical purposes with no identification of individuals. The Health Information Governance Guidelines support the secondary use of health information without requiring DHB staff to check with the individuals concerned.

We consider this proposal also meets the exception requirements of Principle 3, as it is not practicable to collect from individuals directly. We note also that the HIPC refers to this rule applying only when information is collected from an individual. In this case, HIPC Rule 3 does not apply.

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[9] www.privacy.org.nz/assets/Files/Codes-of-Practice-materials/Consolidated-HIPC-current-as-of-28-Sept-17.pdf (see page 9).

[10] www.health.govt.nz/our-work/ehealth/digital-health-sector-architecture-standards-and-governance/health-information-standards/approved-standards/hiso-100642017-health-information-governance-guidelines (see page 28).

Offering individuals the opportunity to correct data (Principle 7, Rule 7)

As the Commission will itself not be able to identify individuals in the data we hold, we cannot offer individuals the opportunity to correct data.

However, the new information the Commission will be relying on can be checked and corrected in the original record within DHBs, where the information is collected and stored. Patients can request to view and/or correct their health information within DHB records. This project has no impact on this.

Summary of responses to the questions raised in the 'Scope of the PIA' section

This section provides brief responses, summarising the details covered in this report, to the questions that were raised in the Scope of the PIA section on page 7.

- Purpose:
  - To fulfil our equity monitoring obligations with respect to QSMs, what clinical and demographic consumer-level information do we need to collect from health care providers?

> We require age, ethnicity and gender information on each individual who is reported on in the QSM sample, alongside the other QSM data (see Appendix 2).

- Agency responsibility:
  - How will that information be transferred to the Commission?
  - How will we keep this information secure?

> We will transfer the data by email, noting that the Commission and some DHBs have the additional protection of SEEmail, but some DHBs do not.
>
> We will provide secure access within the Commission's system, and only named Commission staff will have access to the data.

- Fair collection:
  - Is consumer consent required for collecting that data?
  - Who will collect the information?
  - How will we ensure the accuracy of the information?

> DHB staff will provide the information from health records and the New Zealand Health Information Service. Consumer consent is not required because there will be no identification of any individuals within the work. We will rely on the accuracy of NMDS and clinical records to ensure that data is correct. We will ask DHB staff to check the NMDS to collect demographic data, as this is the most accurate record.

- Justified use:
  - How will we use this information: aggregation, analysis, presentation and publication?
  - Who will be able to access this information?
  - Will information be able to be used by a third party?

> This information will only be used for the purposes of QSM equity reporting. Reporting will occur quarterly. The public can access the reports, and these can be used by third parties. However, data will not be available beyond the health quality intelligence analysts who will complete the analytical work for reporting.

- Appropriate disposal:
  - How will we dispose of the information?

We will work according to the Commission's policy and records disposal schedule, as reviewed and published on the Archives New Zealand website: www.archway.archives.govt.nz/ViewEntity.do?code=DA674

Recommendations to minimise impact on privacy

There were no recommendations made as a result of this PIA in terms of the Commission's processes and risk mitigation.

However, this PIA did note that not all DHBs are using SEEmail (see Transfer of new information on page 13), and the Commission will encourage them to do so.

Action plan

There are no actions proposed for the Commission as a result of this PIA.

Appendix 1: Extract from the New Zealand Public Health and Disability Act 2000 relating to objectives and functions of the Health Quality & Safety Commission (HQSC)

59B Objectives of HQSC

The objectives of HQSC are to lead and co-ordinate work across the health and disability sector for the purposes of—

(a) monitoring and improving the quality and safety of health and disability support services; and

(b) helping providers across the health and disability sector to improve the quality and safety of health and disability support services.

Section 59B: inserted, on 9 November 2010, by section 17 of the New Zealand Public Health and Disability Amendment Act 2010 (2010 No 118).

59C Functions of HQSC

(1) The functions of HQSC are—

(a) to advise the Minister on how quality and safety in health and disability support services may be improved; and

(b) to advise the Minister on any matter relating to—

(i) health epidemiology and quality assurance; or

(ii) mortality; and

(c) to determine quality and safety indicators (such as serious and sentinel events) for use in measuring the quality and safety of health and disability support services; and

(d) to provide public reports on the quality and safety of health and disability support services as measured against—

(i) the quality and safety indicators; and

(ii) any other information that HQSC considers relevant for the purpose of the report; and

(e) to promote and support better quality and safety in health and disability support services; and

(f) to disseminate information about the quality and safety of health and disability support services; and

(g) to perform any other function that—

(i) relates to the quality and safety of health and disability support services; and

(ii) HQSC is for the time being authorised to perform by the Minister by written notice to HQSC after consultation with it.

Appendix 2: Quality and safety markers (QSMs)

QSM	Markers	Definition	Data source	Sample size
Falls	Process marker 1: Assessment rate per 100 samples	Percentage of patients aged 75 and over (Māori and Pacific Islanders 55 and over) who are given a falls risk assessment	DHB collection, submit each quarter	130 patients audited
	Process marker 2: Plan rate per 100 samples	Percentage of patients assessed as being at risk who have an individualised care plan that addresses their falls risk	DHB collection, submit each quarter	130 patients audited
	Outcome marker: Fractured neck of femur rate per 100,000 admissions	Number of patients with fractured neck of femur per 100,000 admissions	The Commission extracts and calculates from NMDS data	
Hand hygiene	Process marker: Compliance rate per 100 samples	Percentage of opportunities for hand hygiene taken	DHB collection	Minimum number of observations as set out by Hand Hygiene New Zealand
	Outcome marker: *Staphylococcus aureus* bacteraemia rate per 1,000 bed-days	Number of *Staphylococcus aureus* bacteraemia infections per 1,000 bed-days	Numerator is from DHB collection, denominator is from NMDS extracted and calculated by the Commission	
Surgical site infection orthopaedic	Process marker 1: Antibiotic administered in the right time	Percentage of hip and knee arthroplasty primary procedures where antibiotic given 0–60 minutes before 'knife to skin'	DHB submission to National Monitor	
	Process marker 2: Right antibiotic in the right dose	Percentage of hip and knee arthroplasty procedures where 2 g or more cefazoline or 1.5 g or more cefuroxime given	DHB submission to National Monitor	

QSM	Markers	Definition	Data source	Sample size
	Outcome marker: Surgical site infection rate per 100 procedures	Number of surgical site infections per 100 hip and knee procedures	DHB submission to National Monitor	
Surgical site infection cardiac	Process marker 1: Antibiotic administered in the right time	Percentage of cardiac procedures where antibiotic given 0–60 minutes before 'knife to skin'	DHB submission to National Monitor	
	Process marker 2: Right antibiotic in the right dose	Percentage of cardiac procedures where 2 g or more cefazoline for adult patients and ≥ 30 mg/kg for paediatric patients given	DHB submission to National Monitor	
	Process marker 2: Skin preparation	Percentage of cardiac procedures where an appropriate skin antisepsis in surgery was applied using alcohol/chlorhexidine or alcohol/povidone iodine	DHB submission to National Monitor	
	Outcome marker: Surgical site infection rate per 100 procedures	Number of surgical site infections per 100 cardiac procedures	DHB submission to National Monitor	
Safe surgery	Process marker 1: Observation	Number of observational audits carried out for each part of the surgical checklist, which are sign in, time out and sign out	DHB collection	50 of each part
	Process marker 2: Uptake	Percentage of audits where all components of the checklist were reviewed, including sign in, time out and sign out	DHB collection	50 of each part
	Process marker 3: Engagement	Percentage of audits with engagement scores of 5 or higher, including sign in, time out, sign out	DHB collection	50 of each part

QSM	Markers	Definition	Data source	Sample size
	Outcome marker 1: Deep vein thrombosis/Pulmonary embolism (DVT/PE) observed-to-expected ratio	Ratio of observed vs expected based on a risk adjustment model of postoperative DVT/PE	The Commission calculates from NMDS	
	Outcome marker 2: Sepsis observed-to-expected ratio	Ratio of observed vs expected based on a risk adjustment model of postoperative sepsis	The Commission calculates from NMDS	
Electronic medicine reconciliation (eMedRec)	Structure marker 1: eMedRec implementation	eMedRec implemented anywhere in the DHB (Yes/No)	DHB collection	
	Structure marker 2: eMedRec implementation	Number and percentage of relevant wards with eMedRec implemented	DHB collection	
	Process marker 1: eMedRec with 72 hours	Percentage of relevant patients aged 65 and over (55 and over for Māori and Pacific peoples) where eMedRec was done within 72 hours of admission	DHB collection	
	Process marker 2: eMedRec with 24 hours	Percentage of relevant patients aged 65 and over (55 and over for Māori and Pacific peoples) where eMedRec was done within 24 hours of admission	DHB collection	
	Process marker 3: eMedRec at discharge	Percentage of patients aged 65 and over (55 and over for Māori and Pacific peoples) discharged where eMedRec was included as part of the discharge summary	DHB collection	
Pressure injuries (from 1 July 2018)	Process marker 1: Documented current pressure injury assessment	Percentage of patients with a documented pressure injury assessment	DHB collection	Patient notes to be reviewed at the same time as skin check carried out

QSM	Markers	Definition	Data source	Sample size
	Process marker 2: Documented current individualised care plan	Percentage of at-risk patients with a documented individualised care plan	DHB collection	Patient notes to be reviewed at the same time as skin check carried out
	Outcome marker 1: Hospital-acquired pressure injury	Percentage of patients with hospital-acquired pressure injury	DHB collection	Skin checks should be carried out on a minimum of five randomly selected patients for a ward or unit, assuming a ward size of about 22–25 beds. For smaller wards or units (eg, fewer than 15 beds), three randomly selected patients will be enough, while for larger wards or units (eg, more than 30 beds), seven randomly selected patients will be enough.
Opioids (outcome measures from 1 July 2018; process and balance measures from 1 July 2018 with public reporting from 1 December 2019)	Process marker 1: Documented sedation scores	Percentage of patients with documented sedation scores	DHB collection	A sample of 10 patients per week, per hospital
	Process marker 2: Documented bowel function monitored	Percentage of patients with documented bowel function monitored	DHB collection	A sample of 10 patients per week, per hospital
	Balance marker 1: Patients with uncontrolled pain	Percentage of patients with uncontrolled pain (may not be publicly reported, but an indicator for local purposes)	DHB collection	A sample of 10 patients per week, per hospital
	Outcome marker 1: Opioid-related adverse drug events	Percentage of patients with opioid-related adverse drug events	Numerator and denominator from NMDS	
Patient deterioration (outcome and	Structural marker 1: Eligible wards using	Percentage of eligible wards using the New Zealand early warning score	DHB collection	At the end of each month, determine the total number of

QSM	Markers	Definition	Data source	Sample size
structural measures from 1 January 2018; process measures from 1 April 2018)	the New Zealand early warning score			wards using the New Zealand early warning score
	Process marker 1: Early warning score	Percentage of audited patients with an early warning score calculated correctly for the most recent set of vital signs	DHB collection	Audit of at least 130 patients each quarter across the DHB's hospital(s)
	Process marker 2: Escalation of care	Percentage of audited patients that triggered an escalation of care and received the appropriate response to that escalation as per the DHB's agreed escalation pathway	DHB collection	Audit of at least 130 patients each quarter across the DHB's hospital(s)
	Outcome marker 1: In-hospital cardiopulmonary arrests	Number of in-hospital cardiopulmonary arrests in adult inpatient wards, units or departments	DHB collection	Number of in-hospital cardiopulmonary arrests
	Outcome marker 2: Rapid response escalations	Number of rapid response escalations	DHB collection	Number of rapid response escalations

Appendix 3: Example data fields and content

QSM quarterly data collection	Pressure injuries

DHB	Current reporting quarter
Auckland DHB	*Jul–Sep 2018*

Individual records table

Patient index	Report period	Age_ at_ audit	Gender	Ethnicity	Has _assess ment	At_risk	Has_care_ plan	Hospital_ acquired_PI	Non-hospital_ acquired_PI	Hospital_ name	Specialty	Unit/ Ward
Jan-Mar 2018_1	***Jan–Mar 2018***	70	Female	Asian	No	No assessment	Yes	No	Yes, stage 2			
Jan-Mar 2018_2	***Jan–Mar 2018***	67	Male	Māori	Yes	No	No	Yes, stage 2	Yes, stage 2			
Jan-Mar 2018_3	***Jan–Mar 2018***	115	Female	Pacific	No	No assessment	No	Yes, stage 4	Yes, stage 2			
Jan-Mar 2018_4	***Jan–Mar 2018***	40	Male	Pacific	Yes	Yes	No	Yes, stage 3	Yes, stage 3			
Jan-Mar 2018_5	***Jan–Mar 2018***	66	Female	Māori	Yes	Yes	No	Yes, stage 1	Yes, stage 4			
Jan-Mar 2018_7	***Jan–Mar 2018***	70	Female	NZ European	Yes	Yes	No	No	No			
Jan-Mar 2018_8	***Jan–Mar 2018***	82	Male	Asian	Yes	Yes	Yes	No	No			
Jan-Mar 2018_9	***Jan–Mar 2018***	96	Female	NZ European	Yes	Yes	Yes	No	No			
Jan-Mar 2018_10	***Jan–Mar 2018***	66	Female	NZ European	Yes	Yes	Yes	No	No			

Jan-Mar 2018_11	***Jan–Mar 2018***	64	Female	NZ European	Yes	Yes	Yes	No	No			
Apr-Jun 2018_12	***Apr–Jun 2018***	95	Female	Asian	No	No assessment	No	No	Yes, stage 2			
Apr-Jun 2018_13	***Apr–Jun 2018***	90	Female	Asian	No	No assessment	No	Yes, stage 2	No			
Apr-Jun 2018_14	***Apr–Jun 2018***	98	Female	NZ European	Yes	Yes	Yes	Yes, stage 2	No			
Apr-Jun 2018_15	***Apr–Jun 2018***	96	Female	NZ European	Yes	Yes	Yes	Yes, stage 3	No			
Apr-Jun 2018_16	***Apr–Jun 2018***	79	Female	Asian	Yes	Yes	Yes	Yes, stage 1	No			
Apr-Jun 2018_17	***Apr–Jun 2018***	89	Male	Māori	Yes	Yes	Yes	Yes, stage 1	No			
Apr-Jun 2018_18	***Apr–Jun 2018***	71	Female	NZ European	Yes	Yes	Yes	Yes, stage 1	Yes, stage 2			
Apr-Jun 2018_19	***Apr–Jun 2018***	90	Male	Māori	Yes	No	No	No	Yes, stage 2			
Apr-Jun 2018_20	***Apr–Jun 2018***	63	Female	NZ European	Yes	No	No	No	Yes, unstageable			
Apr-Jun 2018_21	***Apr–Jun 2018***	51	Female	Pacific	Yes	Yes	Yes	No	No			
Apr-Jun 2018_22	***Apr–Jun 2018***	81	Female	Pacific	Yes	No	No	Yes, stage 1	Yes, stage 3			
Apr-Jun 2018_23	***Apr–Jun 2018***	70	Female	Māori	No	No assessment	Yes	Yes, stage 3	Yes, stage 3			
_24												
_25												

Appendix 4: Ethnicity codes at level 1 and level 2

Extract from: Ministry of Health. 2017. *HISO 10001:2017 Ethnicity Data Protocols*. Wellington: Ministry of Health.

Level 1 – code order	
Code	**Descriptor**
1	European
2	Māori
3	Pacific Peoples
4	Asian
5	Middle Eastern/Latin American/African
6	Other Ethnicity
9	Residual Categories
Level 2 – code order	
Code	**Descriptor**
10	European nfd*
11	New Zealand European
12	Other European
21	Māori
30	Pacific Peoples nfd
31	Samoan
32	Cook Islands Māori
33	Tongan
34	Niuean
35	Tokelauan
36	Fijian
37	Other Pacific Peoples
40	Asian nfd
41	Southeast Asian
42	Chinese
43	Indian
44	Other Asian
51	Middle Eastern
52	Latin American
53	African
61	Other Ethnicity
94	Don’t Know
95	Refused to Answer
96	Repeated Value
97	Response Unidentifiable
98	Response Outside Scope
99	Not Stated

* nfd = not further defined