# Further information about the HSU dataset and review

## Why did the Ministry want the HSU dataset methodology reviewed and what’s it doing about the recommendations?

The Ministry of Health commissioned Stats NZ to look at the methodology of the HSU dataset and consider whether it was the best source for vaccine reporting. This was to help ensure continuous improvement of future datasets used to report on vaccination rates.

Stats NZ’s review of the HSU dataset is a technical peer review of whether statistical methodologies have been appropriately applied. Stats NZ and the Ministry of Health collaborated on the review.

Stats NZ has endorsed the use of HSU data to calculate vaccination rates as appropriate and made recommendations for some further improvements.

The Ministry has accepted the Stats NZ recommendations and has either already implemented them or is in the process of doing so, with one exception[[1]](#footnote-1), which is still being worked through.

## What is the recommendation that is still being considered?

This recommendation relates to a technicality in ethnicity reporting, and is being considered jointly by the Ministry, Te Whatu Ora, and Te Aka Whai Ora to ensure this change will not negatively impact Māori.

People can and do identify with multiple ethnicities. In prioritised reporting, people are included in only one ethnic group according to a specified order. In the health sector, Māori is number one in the order and if Māori is one of the ethnicities identified, that person is reported as Māori.

In total response reporting, people are included in each of the ethnic groups they identify with. This means ethnic groupings will sum to a value greater than the total population, as a person can be represented in more than one ethnic group.

Total response reporting is particularly important for the Pacific population who may otherwise be reported as Māori.

## Why is the HSU dataset used for reporting vaccination rates?

HSU data includes anyone in New Zealand, including short term visitors, who uses a health service. This could be enrolling with a primary health organisation, being admitted to hospital, the ED, or filling a prescription. The dataset also reflects births and deaths during a 12-month period.

The HSU population count is used for calculating vaccination rates because it can be split in different ways and information can be used to identify and contact individuals, for example to send invitations for a vaccination. This makes the HSU dataset useful for identifying communities where coverage is low and for targeting resources.

It’s also important when reporting vaccination rates for ethnic groups that we use consistent ethnicity information in the numerator (count of vaccinated people) and the denominator (count of people eligible for vaccination). This is possible by using the HSU because ethnicity information comes from the same source which is the National Health Index for the total population and the number of people vaccinated.

We acknowledge that the use of HSU data – as with any dataset – has some limitations, with a small number of people potentially not included because they’ve had no interaction with the health system in a given year.

However, at a national level, the HSU 2020 count of the population is only around 90,000 or 2 percent below Stats NZ’s official population estimate for the same period.  HSU2021 is now around 110,000 people more than the Stats NZ estimate at 31 December 2021.

## What are the benefits of an updated (2021) HSU dataset?

We’re moving to the 2021 dataset because the 2020 set is becoming out of date with demographic changes, for example people being born and dying, people migrating within New Zealand and moving overseas, the population aging and more people becoming known to the health system through the 2021 COVID-19 vaccination campaign.

An updated HSU dataset will more accurately reflect the number of people currently eligible for vaccination in New Zealand.

The 2021 HSU dataset contains approximately 233,000 more people than the 2020 dataset – a 4.7 percent increase.  This is a positive increase as it shows a larger number of New Zealanders are engaging with the health system, making it easier for us to reach out to them with vaccinations.

Te Whatu Ora - Health New Zealand will be updating the dataset used for vaccine coverage reporting every six months so that we get the most accurate version as often as we can.

## What sources are used to create the HSU dataset?

The HSU dataset is a combination of information on individual health service users in any given year obtained from 15 different health data collections including: the National Enrolment Service (NES), the National Health Index (NHI), the National Minimum Dataset (NMDS, hospital discharge information); the National Non-Admitted Patient Collection, which includes ED visits (NNPAC); publicly funded laboratory tests undertaken in a community laboratory (LABS); publicly funded pharmaceuticals dispensings; the Programme for the Integration of Mental Health data (PRIMHD, mental health service use); the National Mortality collection; the National Maternity collection; the General Medical Subsidy (GMS); and the National Immunisation Register (NIR); and the COVID Immunisation Register (CIR).

More details of these datasets can be found at: [https://www.health.govt.nz/nz-health-statistics/national-collections-and-surveys/collections](http://scanmail.trustwave.com/?c=15517&d=1pPy4lMEJcbLIjaAgLDGdMC-NYa2X2GxamqRJ9RJAw&u=http%3a%2f%2fhttp%2a3a%2a2f%2a2fhttp%2a2a3a%2a2a2f%2a2a2fhttps%2a2a2a3a%2a2a2a2f%2a2a2a2furldefense%2a2a2a2ecom%2a2a2a2fv3%2a2a2a2f%2a2a2a5f%2a2a2a5fhttps%2a2a2a3a%2a2a2a2fwww%2a2a2a2ehealth%2a2a2a2egovt%2a2a2a2enz%2a2a2a2fnz-health-statistics%2a2a2a2fnational-collections-and-surveys%2a2a2a2fcollections%2a2a2a5f%2a2a2a5f%2a2a2a3b%2a2a2a21%2a2a2a21AuqdxLo%2a2a2a212WP-SNz92S6i-fk%2a2a2a5fV9uKdPJE4%2a2a2a5f19s-luliftd8Y7J4lfg8P3LwPIYKt3SylmqGmBlJK2dg%2a2a2a24%2a2a5f%2a2a5f%2a2a3bJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJQ%2a2a21%2a2a21AuqdxLo%2a2a213IZGMEqe7jhHB%2a2a5f6OLIPegcTrqRsMTG4vLDdvyowhHSmTqLvXnWZK8oP79kuc8mr3uzhBZg%2a2a24%2a5f%2a5f%2a3bJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUl%2a21%2a21AuqdxLo%2a21zHOgIZJinFVk1K7tOOKkkEYc0%2a5foA8%2a5fgWQrINV-02yZBcNYqrcwop95mcLx8WjZ6v5LCfGg%2a24%5f%5f%3bJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUlJSUl%21%21AuqdxLo%21xTdOhludiDaCkEhsm8NnJeVjN0Lrvu9Sv4iTge8acof1Qf2%5f10Jfkp8A1iXRdUaIWm9M5A%24)

## What’s the difference between Stats NZ’s estimated resident actual population and the HSU 2020 data population?

It’s very difficult for any agency to know exactly how many people are in New Zealand at any one given time. Stats NZ’s population estimates and projections measure the resident population and exclude short-term visitors to New Zealand. In other words, they exclude non-residents, and include some residents who are currently overseas.

The HSU has generally had high coverage of the New Zealand population because most New Zealanders use health services. Nationally the HSU 2020 count of the population is only around 90,000 or 2% below Stats NZ’s official population estimate for the same period.

The HSU for 2021 is about 2 percent higher than the Stats NZ’s population estimate for 2021.

Regardless of the denominator used (Stats NZ data versus HSU data) the Ministry, health providers and communities have gone to great lengths to vaccinate as many people as possible. This has included using a wide variety of providers, promotional campaigns, large scale events and many providers offering vaccination to family members or friends accompanying people who are getting vaccinated. Some of these people would not have previously been captured in our HSU records (because they’d had no recent involvement with health services) but are included in our vaccination data.

## What’s being done now to boost vaccination rates?

Improved HSU data is just one of the ways that helps us reach out to more New Zealanders. Let’s not forget the hundreds of pharmacies, general practices, community providers and others who are offering a range of vaccinations across the motu, and the recent widening of the eligibility for free flu vaccines and Covid boosters, as well as a huge range of localised vaccination initiatives that are being led by communities for communities.

Boosters are available free to every New Zealander aged 16 and over; and second boosters are now available to everyone aged 50 and over and healthcare, aged care and disability workers aged 30 and over, six months after getting their first booster. People need to check their eligibility before turning up to get their second booster, as you need to wait the full six months before getting your booster.

Flu vaccines are available FREE for all people 65yrs+, Maori & Pacific people aged 55-64yrs, people with underlying health conditions, and from 1 July 2022, access was widened permanently for people with specific mental health or addiction issues, and temporarily widened for all children aged 3 - 12 years.

With new COVID-19 subvariants, flu and other respiratory illnesses all having an impact on our communities and creating extra challenges for our health system, we’re encouraging every New Zealander to play their part to help keep well this winter.

The best thing we can do to protect ourselves – and our hard-working hospital and healthcare staff this winter – is to be up to date with ALL of our vaccinations. This includes having your influenza and COVID-19 vaccinations – with Covid boosters in particular adding an even better layer of protection against Omicron.

1. Ethnicity data should be collected and reported according to ‘total response’ rather than ‘prioritised’, to better reflect the ethnicities reported by people using health services. [↑](#footnote-ref-1)