Australian Government

Department of Health, Disability and Ageing

First Nations Health Reporting:

Differences between nKPI and OSR reporting tools

Introduction

As the focus on continuous quality improvement increases, informed by real-world health data, new and enhanced tools and software are becoming available. Health services often ask which tools they can use to monitor and improve their nKPI and OSR data and to help them meet their practice targets.

This article clarifies which software and reports are supported for accurate reporting of nKPI and OSR, and why. Some practical tips for health services to enhance their data are also included.

What's happening / context

The range of software and tools on the market and their capability has grown significantly in recent years. Tools such as the Pen Clinical Audit Tool (Pen CAT), Polar and Primary Sense, can be very useful for health services to support practice improvement, population health and business development.

The only reports currently approved, and validated, for nKPI and OSR are the reports produced directly by and reported from clinical information systems (CIS) i.e., Best Practice, Communicare, Medical Director and MMEx. Solving Health, experts in use of CIS data, work directly with each of the CIS vendors to enhance and refine these reports as the systems change and new data become available. This provides greater visibility of their 'rules', enables refinements when needed, and delivers optimal consistency of reports across vendors despite their different functionality and capability.

Reports for the nKPI and OSR are built to carefully defined Specifications (link in the Resources section below) with very clear inclusion and exclusion criteria across many different data elements. The Specifications also consider the differences between the CIS to ensure the reported data is consistent and comparable across reports. This is important because it provides confidence in the accuracy and completeness of data for different stakeholders:

- For health services to trust the data, monitor progress and identify opportunities for improvement
- For the Department of Health, Disability and Ageing
- To determine which data are included in the national reports produced by the Australian Institute of Health and Welfare (AIHW)
- To inform equitable allocation of funding under the Indigenous Australians' Health Program funding model.

Reports built for submission of nKPI and OSR data to the Health Data Portal are tested prior to the commencement of each January and July reporting round. This validation process uses the same sample set of patient data for all CIS to enable consistent comparisons. Validation also checks that no new or unexpected errors have been introduced into the software reports since the last reporting round.

The CIS vendors maintain documentation that explains the data and rules used to inform nKPI and OSR reports. A separate article is available that provides more information on these user guides and links to the relevant documents. Please refer to the resources section below for more information.

Data limitations in alternative tools

Due to the complexity of the indicators and multiple data elements, it's essential that comparable algorithms are used across the reporting tools. Some of the extraction tools (such as the Pen CAT) use their own definitions and calculation 'algorithms'. Those may not be completely aligned with the definitions and calculations specified for each nKPI indicator or OSR item. For example, in the nKPIs, the rules for counting what is accepted as a valid visit for the purpose of calculating a regular client are very specific to ensure only valid clinical contacts are counted; and the list of codes/terms for specific conditions, outlined in the nKPI condition coding framework, are tailored specifically to the nKPIs and First Nations healthcare.

Although some of the data extraction tools originally contained nKPI/OSR reports, maintenance of these has not been funded and they are now out of date. Their reporting rules were not updated when the nKPI and OSR indicators were reviewed and revised in 2019 and subsequent years. This means the reports they produce may not align to the current indicator definition and criteria. For example:

- The current specification for PI12, 'BMI Recorded', includes all male and female clients aged 18 and above, across all BMI classifications. However, the version of PI12 in the CAT report reflects an older definition which only included clients aged 25 and above who were classified as overweight and obese.
- The two new indicators, for sexually transmitted infections and ear health, were not built. These new indicators are so complex, with very specific inclusion and exclusion rules, it would be extremely difficult to replicate reporting in another tool without specific guidance.

Data management tips

Each CIS vendor provides the functionality to submit reports directly to the Health Data Portal. Concurrently with generating data to send to the Health Data Portal, each vendor also produces a report (sometimes several reports) that health services can use locally to monitor progress and identify opportunities for improvement.

These reports include patient level data that health services can use to improve indicators and reach the targets set by an individual health service. For example, the reports show

which clients are included in an indicator (the numerator) and, when used alongside the denominator, can help identify other clients who were eligible but not counted. It is important to note that only aggregated data goes to the portal; the patient level data is not sent to the portal, it is only available for local health service use.

The CIS reports also include four data items (also known as measure codes) that count the Total Number of Aboriginal and Torres Strait Islander Regular Clients (TNATSIRC). These values are also submitted to the Health Data Portal. Although they are named with an 'nKPI' prefix, they aren't referenced as a standalone nKPI. The data in these measures can be used to identify which clients have had sufficient visits to be counted as regular clients, and which don't have 'age' and/or 'sex' recorded. Clients missing either of these data points will be excluded from most indicators, so reviewing and updating incomplete records can directly improve your nKPI data. These data items are:

NKPI-00001	The number of Indigenous regular clients without gender or age recorded
NKPI-00002	The number of Indigenous regular clients with gender recorded but not age recorded
NKPI-00003	The number of Indigenous regular clients with age recorded but not gender recorded
NKPI-00004	The number of Indigenous regular clients with both gender and age recorded

Note that these measures include Males, Females and sex recorded as Another Term. Clients recorded as Another Term are not counted in the majority of nKPI indicators.

Key takeaways:

- Just because another tool shows results for an nKPI or OSR indicator, do not assume the data are comparable to your CIS report, i.e. what is reported to the Health Data Portal.
- CIS reports can also be used to support data quality improvement and will help health services to identify which clients are counted in and 'missing' from specific indicators.

Resources

Links to supporting documents, information and further reading:

- **Specifications for nKPI and OSR:** This document is written for health services and clinical information system vendors. It provides a detailed overview of foundation data elements (including differences between nKPI and OSR) and a full explanation of each indicator - covering inclusions, exclusions, counting rules and disaggregation points (including the related data 'measure codes' that you may see in your CIS reports). It also highlights variances in vendor implementation for some data. You can access the Specifications here: https://www.solvinghealth.au/specifications. **Links to CIS vendor user guides are also listed at the bottom of the webpage.**

For more data management tips see the other articles in this series available at: Clinical Information System (CIS) Education Articles