# Executive Summary: Implications of ICD-11 Implementation in Canada

## Introduction

ICD-11 (*International Classification of Diseases, Eleventh Revision*) was adopted by a resolution of the 72nd World Health Assembly in 2019, and countries were encouraged to begin implementation starting January 1, 2022. The World Health Organization (WHO) published a 2019 version of ICD-10, confirming it would be the final iteration of the 10th revision. To support a smooth transition to ICD-11 in Canada, it is important to understand stakeholder needs, training requirements and statistical implications. To achieve this understanding, the Canadian Institute for Health Information (CIHI) interviewed external and internal stakeholders. This executive summary provides an overview of the assessment process, as well as 5 overarching themes and 5 recommendations stemming from it.

## Methods of assessment

### Consultations

CIHI engaged an external consultant to gather insights from internal and external stakeholders identified by the Classifications and Terminologies department. Participants included representatives from jurisdictional health ministries and/or health authorities, members of the National Coding Advisory Committee (NCAC) and National Clinical Administrative Databases (NCAD) Advisory Committee, representatives of the Canadian Health Information Management Association (CHIMA) and Canadian College of Health Information Management (CCHIM), and CIHI staff.

Interviews were conducted between November 1, 2019, and January 20, 2020, to gather insights and lessons learned from the implementation of ICD-10-CA and the *Canadian Classification of Health Interventions* (CCI), as well as to understand perspectives on ideal training and education and other necessary preparations for such a transition.

### Document review

The consultant reviewed historical documents related to the implementation of ICD-10-CA and CCI in Canada, as well as current publications related to data collection and reporting practices in the country.

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# Overarching themes arising from stakeholder feedback

5 overarching themes emerged from the consultations:

1. **Notify decision-makers early**

   Stakeholders emphasized the need to inform decision-makers and high-level authorities early in the process to ensure there are resources in their budgets and time in their schedules. Many jurisdictions reported undergoing changes in management structures and experiencing resource shortages.

2. **Prepare to enable a smooth transition**

   The prerequisite preparation activities identified by stakeholders for a smooth transition to ICD-11 included a series of strategic actions aimed at ensuring readiness across various levels. These actions include the following:

   - Training: As part of the lessons learned from implementing ICD-10-CA and CCI, stakeholders stated that training should not take place too early; individuals should have enough time to practise using the new classification and to become familiar with the expected new/revised coding standards. It was noted that virtual training should be used, especially to overcome geographical challenges. Additionally, stakeholder feedback highlighted the need for physicians to be trained both in understanding ICD-11 and in the requirements for improved clinical documentation. This would enable them to fully benefit from the rich data that can be collected using ICD-11. In addition to training for coders and physicians, stakeholders identified that training should also be provided to data analysts, data warehouse staff, epidemiologists, health record schools, decision-support staff, ministry-level personnel, patient safety personnel, quality assurance personnel, IT staff and research personnel.

   - Data collection systems: Data collection systems will need to evolve. CIHI's Discharge Abstract Database (DAD) in its current form cannot accommodate the ICD-11 code structure. Jurisdictions reported being at various stages of implementing disparate electronic health record (EHR) systems. However, they emphasized the need to move away from manual and retrospective data collection methods.

3. **Focus on the value add**

   A recurring topic of concern was the cost of implementing a new classification system and the need to demonstrate its value. The *WHO ICD-11 Implementation or Transition Guide* outlines the benefits of ICD-11:

   - Up-to-date scientific knowledge: There are more than 55,000 unique entities in line with current clinical practice.

   - Ease of use: The ICD-11 Coding Tool is easy to use and provides more accurate code selection. The electronic structure allows the coding tool to be embedded into other systems through use of an application programming interface (API), which facilitates use of natural language.

   - Multiple applications to meet health system priorities: Code lists for different levels of detail can be produced based on the use case.

   - Digital health compatibility and interoperability with health information systems: Each entity is linked to a Uniform Resource Identifier (URI), translations are done using a multilingual tool that is faithful to the original, and mapping tables are provided.

- Linkages with other classifications and terminologies: ICD-O (*International Classification of Diseases for Oncology*) is incorporated. Links to SNOMED-CT (Systematized Nomenclature of Medicine — Clinical Terms) are facilitated through the Foundation.

- Ongoing maintenance: ICD-11 is maintained by WHO and member states of the WHO-FIC (World Health Organization–Family of International Classifications) Network, through which all countries benefit.

A communication strategy should be developed that highlights how ICD-11 could potentially save costs. Key items to note could include how ICD-11 will integrate with existing vendor products and other terminologies in use, how ICD-11 can help reduce retrospective manual data collection and how case-mix groups will transition to the coding system. As previously mentioned, coders are in short supply, so there needs to be a way to reduce the burden of manual data collection.

4. **Keep vendors informed**

It is important to keep vendors informed about the progress of ICD-11 implementation in Canada. The ICD-11 Coding Tool is available free of charge from WHO and can be integrated into other software using the ICD-11 API. Integration of the tool is recommended to eliminate the possibility of vendors using maps to migrate from various versions of ICD-10 to ICD-11, which carries the risk of incorrect coding.

5. **Improve quality of clinical documentation**

The quality of clinical documentation was a recurring concern. Physicians will need to understand the value of ICD-11, as improved clinical documentation contributes to enhanced patient care, better outcomes and more effective research and analysis.

There is potential to have coding be a byproduct of electronic clinical documentation, which would save time and resources. Collecting data directly from clinical documentation or identifying conditions through computer-assisted coding would give coders time to focus on more complex coding or code validation. It is possible that not every chart would have to be coded manually.

# Recommendations

The following 5 recommendations were proposed for consideration to support a smooth transition to ICD-11 in Canada:

1. **Establish a pan-Canadian implementation task force to help plan and prepare for the adoption of ICD-11**

Suggested members would include representatives from provincial and territorial ministries of health, health information technology experts and physicians.

2. **Take a pan–health system perspective**

ICD has traditionally been used primarily in the acute care sector; however, consideration should be given to a pan–health system implementation. The production and delivery of comparable and actionable information regarding the full range of types of health care provided in Canada and abroad will be much better served by using the consistent language of ICD-11 in all jurisdictions. ICD-11 has been designed to address the needs of a broad range of use cases: mortality, morbidity, epidemiology, case mix, quality and safety, mental health, primary care, disease surveillance, and billing and reimbursement, among others.

3. **Consider conducting a bridge coding study to foster a better understanding of the implications of implementing ICD-11 on the case-mix methodology**

   Some items to consider are the impacts of ICD-11's new codes and features — including the movement of codes between chapters or categories, the relocation of mapped codes between ICD-10-CA and ICD-11, and the increase in code length, as well as incorporation of extension codes.

4. **Determine the need for a Canadian version ("linearization")**

   Determine whether a Canadian ICD-11 linearization is required and identify the level of specificity required to maintain statistical continuity. During the development of ICD-11, country-specific content from approved national modifications, including Canadian-specific content, was added to the foundation layer. This was done with the intent of eliminating the need for national modifications but would still facilitate creation of a national linearization as an output of the foundation when necessary.

5. **Review coding standards**

   Review the *Canadian Coding Standards for ICD-10-CA and CCI* to determine which standards should be retained, which could be deleted and whether new standards are required. Education is essential to keep coders up to date on the best coding practices and to ensure international comparability and reporting of health statistics. The *Canadian Coding Standards* was created to supplement missing directives in ICD-10 and to provide education to facilitate correct code selection. ICD-11 demonstrates significant improvements in coding directives. However, it is anticipated that some areas where codes have changed in ICD-11 (e.g., stroke, mental health) will continue to require either education or coding standards.

# Conclusion

The implementation of ICD-11 presents both significant opportunities and challenges for health care systems. Successful implementation will require collaborative efforts at the national, jurisdictional and regional levels. The 5 overarching themes from stakeholder consultations help align preparations in an organized approach, while the 5 recommendations provide specific actions to consider when assessing impacts, communicating changes and planning for the future.

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