CCR versus NAACCR:
Bridging the Gap with Standard Setters

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4-Statistics Canada,
5-Cancer Care Ontario,
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7-British Columbia Cancer Registry,
8-Registre québécois du cancer, Ministère de la Santé et des Services sociaux.
9-Queen Elizabeth Hospital, PEI.

ARE WE REALLY THAT DIFFERENT?

Statistics Canada Statistique Canada

Canada

REPORTING STRUCTURE

There are 13 Provincial and Territorial Cancer Registries (PTCRs) in Canada that report their data to the **Canadian Cancer Registry (CCR)** and the North American Association of Central Cancer Registries (NAACCR).

Each PTCR collects data independently, using various reporting structures and employing diverse systems for data processing. For this reason, evaluating differences between the variables to be reported to both standard setters is critical from a collection, processing and analytic perspective.

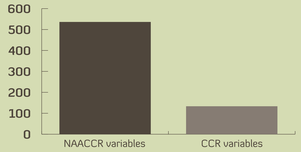
Comparing the number of CCR variables to NAACCR

-The NAACCR data set contains 536 variables while the CCR has a total of 133 variables.

-The major difference in the number of variables between the two may be attributed to the fact that NAACCR contains all the variables for the following standard setters: NPCR, CoC, SEER and CCCR.

-A number of NAACCR variables are standard setter specific, while other variables such as race and ethnicity are not collected by the CCR.

-The CCR data set will be expanding in the near future as treatment variables are currently being investigated for collection in Canada.



RESOLUTION ISSUES GROUP (RIG)

RIG is a sub-committee of the Data Quality Management Committee (DQMC) with representation from each of the PTCRs and Statistics Canada. This committee provides recommendations and advice to the DQMC on matters relating to new or changing variables and processes for standard reporting by the PTCRs to the CCR.

OBJECTIVES

The RIG committee was asked to conduct a comparison between CCR and NAACCR standards by examining variables currently collected by both standard setters.

The intent of conducting a comparison was to examine each variable in the CCR and either recommend adoption of the NAACCR standard or recommend continuing collection using the CCR standard.

METHODS

A review of the variables comparing both standard setters was completed between May and September 2011 over a cycle of meetings and PTCR review.

The following two reference documents were used for the review:

— The NAACCR Data Standards and Data Dictionary v12.1 (effective Jan 1, 2011)

— The CCR System Guide 2010

RESULTS

IDENTICAL VARIABLES

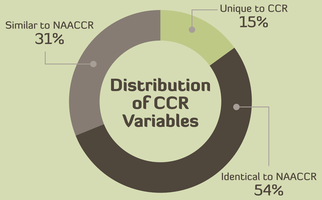
There were 72 identical variables defined from the comparison.

Many of these variables were among the most fundamental data items such as histology, topography and behaviour.

CCR variables name	NAACCR variables name
ICD-O-2/3 Topography	Primary Site
ICD-O-3 Histology	Histologic Type ICD-O-3
ICD-O-3 Behaviour Code	Behaviour Code ICD-O-3

The Collaborative Stage variables were identical including all the derived stage items.

AJCC 7th edition items have been added to the CCR for the current data submission and follow NAACCR standards.



Based on the comparison each CCR variable was assigned a status of;

-Identical: 72 variables
-Similar: 41 variables
-Unique: 20 variables

SIMILAR VARIABLES

There were 41 similar variables identified from the comparison.

Some of the similar items were related to personal information and patient/tumour identifiers such as Patient Reporting Province, Postal code, and Name fields.

Some of the differences are as minor as field length; others are allowances for special characters such as those identified in language requirements.

CCR variables name	NAACCR variables name
-Patient Reporting Province or Territory	-Registry ID
-Patient Identification Number (PIN)	-Patient ID Number
-Current Surname	-Current Surname
-First Given Name	-Name-First
-Second Given Name	-Name-Middle
-Province, Territory or Country of Birth	-Birthplace
-Birth Surname	-Name-Maiden
-Postal Code	-Addr At Dx-Postal Code

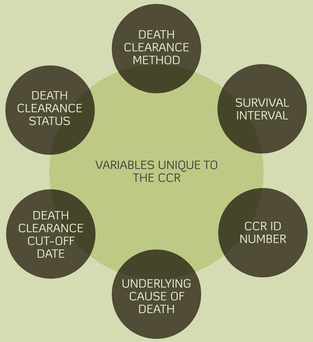
While similar to NAACCR, the CCR variables listed below are critical for record linkage and death clearance processes between the Canadian Vital Statistics database and the Canadian Cancer Registry and will be maintained in the current CCR standard.

CCR variables name	NAACCR variables name
Death Registration Number	DC State File Number
Underlying Cause of Death	Cause of Death
Date of Death Confirmation	Date of Last Contact or Death
Vital Status	Vital Status

UNIQUE VARIABLES

There were 20 variables that were unique and will be maintained in the CCR. Examples of these are as below.

- CCRID which is a key field for processing
- others here are related to vital statistics fields for record linkage and death clearance
- specific fields are collected for survival analysis.



PROCESS

Step 1 Created a spreadsheet listing all variables in the CCR and the comparable NAACCR variables.

Examined each variable in the CCR compared to NAACCR considering description, values and meaning, length and format.

Step 2 Noted identical, similar and unique variables.

Step 3 If similar variables existed between the CCR and NAACCR, evaluated their similarities and/or differences.

When there were differences, determined if the NAACCR standard could/should be adopted or to maintain the CCR standard.

Step 4 In the case of variables where the CCR standard must be maintained, and the NAACCR standard could not be adopted, an explanation was noted in the comparison document for future reference.

SUMMARY OF FINDINGS

- Understanding the similarities and differences provided a foundation for future decision making related to processes such as; collection, reporting, editing and submission to both standard setters.
- The comparison provided a starting point for future documentation for new variables that will be collected by the PTCRs and submitted to the CCR.
- The outcome of this review will improve the documentation and data quality for Canada.

NEXT STEPS

- Newer variables such as the date flags have been adopted in the same format as NAACCR which will benefit analysts working with the data.
- The RIG committee will utilize the same method for a future project which will assess the value of adding other NAACCR variables to the Canadian data set.
- In the future as variables are added to the CCR, the NAACCR standard will be strongly considered for adoption where possible which will add to comparability between the United States and Canada.

Canadian Cancer Society Société canadienne du cancer
Public Health Agency of Canada Agence de santé publique du Canada
Canadian Council of Cancer Registries Conseil canadien des registres du cancer
NAACCR
Canadian Partnership Against Cancer Partenariat canadien contre le cancer