

#### Q&A

- Please submit all questions concerning the content of the webinar through the Q&A panel
  - Submit questions immediately
  - All questions will be addressed after each speaker
- If you experience technical difficulties, please send us a note through the chat panel or call us at 217 698 0800 x 111
- Captioning is available using your Media panel

NAACCR

# CONCORD-2 Data Extraction Program March 14, 2013

#### Presenters

- Ron Dewar, Cancer Care Nova Scotia, Halifax, NS
- Chris Johnson, Cancer Data Registry of Idaho, Boise, ID
- Hannah Weir, Centers for Disease Control and Prevention, Atlanta, GA

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#### **Outline**

• Introduction to CONCORD-2 - Hannah

• Data Extraction program - Chris

• Considerations for Canadian registries - Ron



#### **CONCORD-2 Study**

- Global surveillance of cancer survival: the CONCORD programme
  - London School of Hygiene and Tropical Medicine
  - Prof Michel Coleman (PI)
- http://www.lshtm.ac.uk/eph/ncde/cancersurvival/research/c oncord/concord 2.html
  - Annex 5 Transmission of data files

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#### Why Participate in CONCORD-2

- NAACCR is preparing to publish survival data from cancer registries in North America – opportunity to learn how to conduct international comparative survival studies
- Build capacity within participating cancer registries for evaluation, analysis and interpretation of survival data
- Lifetables for states (including training on construction)
- Showcase registries' data including survival data presents more complete cancer burden information and makes registry data more relevant to cancer control planners and health policy analysts



## How does CONCORD-2 differ from first CONCORD Study?

- Diagnosis year
  - CONCORD: 1990-1994 followed through 1999
  - CONCORD-2: 1995-2009 followed through 2009
- Index cancers
  - CONCORD: female breast, colon, rectum, prostate
  - CONCORD-2: ... and stomach, colon, rectum, liver, lung, female breast, cervix, ovary, prostate, leukemia (including childhood)
- Survival methods
  - CONCORD: relative survival
  - CONCORD-2: net survival
- Survival interval
  - CONCORD: 5 year
  - CONCORD-2: short and long term survival
- Multiple primaries
  - CONCORD: first primary cancer
  - CONCORD-2: all primary cancers according to IACR rules

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#### **CONCORD-2 Registration**

- Canada
  - 12 provincial/territorial registries
  - 100% population coverage
- US
  - 37 registries
  - 82.7% population coverage



#### **Submission Date**

- US and Canadian registries can submit data through the end of April 2013
- If later, please contact CONCORD staff
  - Natalia Sanz Natalia.Sanz@lshtm.ac.uk

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#### **CONCORD-2 Data Extraction Program**

#### **Purpose**

To create 10 files of *in situ* and invasive cancer cases for patients diagnosed in your catchment area with one each of 10 index cancer between 1995 through 2009 according to IACR multiple primary rules.

Invasive cancers contribute to survival analyses. In situ cancers help measure the effect of screening.



#### **Caveats**

- US registries use SEER MP rules which have changed over time and tend to be more liberal than IACR rules, particularly in allowing for multiple cancers at the same cancer site with the same histology.
- Canadian registries have used different MP rules including SEER, CCR and IACR rules.
- Historically, population-based cancer survival used first cancers (only cancer or first of multiple cancers) so the choice of MP rules did not matter. However, this can bias the comparison of survival among cancer registries, and over time in the same registry.

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#### Why

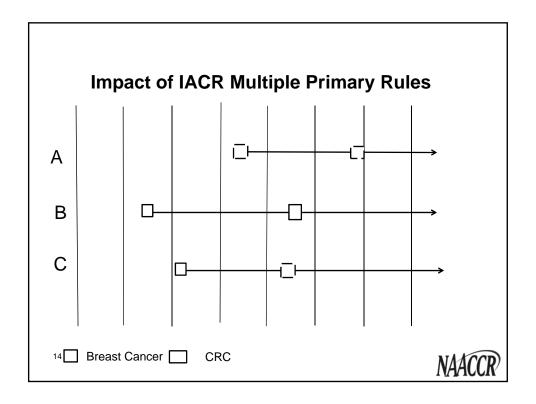
- Survival based on all cancers tends to be lower than survival based on first cancers.
- The number of MP cases in a registry will depend on the choice of rules and the operating length of the cancer registry.
  - Older registries operating for more years will have more information (i.e., past diagnoses) to identify MP.
- Younger registries may erroneously identify a subsequent primary as a first primary and include them in analyses of first primary cancers. Therefore, estimates from younger registries may be lower than older registries.

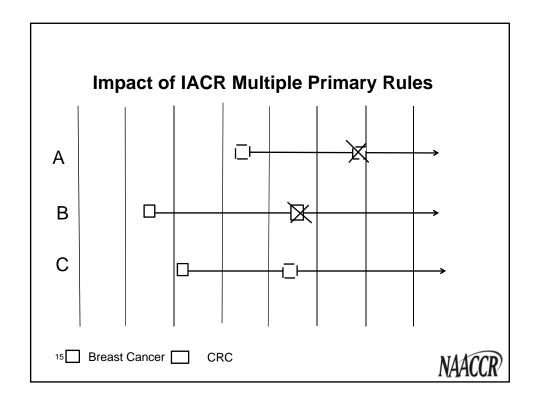


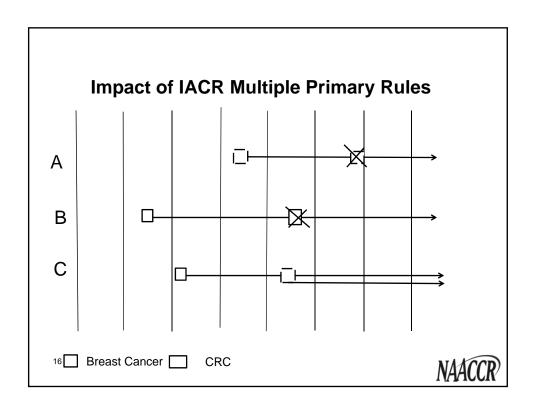
#### **To Avoid Bias**

- Brenner and Hakulinen (2007) recommended using all primary cancers according to IACR rules in comparative survival.
- IARC developed a program to process cases according to these rules. This program is used when publishing data from North American cancer registries in CI5. The logic is part of the SAS program to prepare CONCORD-2 files.









#### Input for CONCORD -2 File Preparation Program

- Select all in situ and invasive cancers, benign brains and borderline ovarian cancers.
- Select a beginning year when your registry was
  - <u>first population-based</u> (to ensure you identify all (or most) primary cancers associated with the index case)
  - high quality data (to ensure that the data are complete/accurate)
- To manage the file size you can eliminate single primary cases diagnosed before 1995.

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#### **VA Cases Should be Included**

From: RayeAnne Dorn

To: Tom Tucker

Sent: Wednesday, March 13, 2013 5:46:34 AM

Subject: Concord 2 Study

Dr. Tucker,

Thank you for your inquiry regarding the possibility of including Veterans Affairs cancer registry data in the current Concord 2 Study on global surveillance of cancer survival; and the subsequent conversations and supporting documentation you provided. Your extended support allowed me to present a successful argument to the VA leadership on the importance of participation in this initiative.

To that end, in behalf of the Deputy Under Secretary for Patient Care Services, I am authorized to extend a waiver of the prohibition on Veterans Affairs cancer registry data re-release from the individual state central cancer registries in support of Concord 2. Please use this e-mail as the authorization source to the constituent registries.

Wishing you success in this endeavor; in service to the Nation's Veterans, I remain, Raye-Anne Dorn, MPH CTR National Coordinator Cancer Programs VA Central Office - Cancer Programs VA Central Cancer Registry (VACCR) Washington, DC



#### Input Variables for CONCORD-2 File/Edits

NAACCR Data Items used in CONCORD-2 SAS program and GenEDITS Plus

.755\_Date of Death--Canada 60 Tumor Record Number 1756\_Date of Death--CanadaFlag 2830\_CS Lymph Nodes 380\_Sequence Number--Central 490\_Diagnostic Confirmation 2840\_CS Lymph Nodes Eval 500\_Type of Reporting Source 3400\_Derived AJCC-7 T 220\_Sex 3402 Derived AJCC-7 T Descript 80 Addr at DX--State 400 Primary Site 100\_postal code at DX (used only for Canada) 522\_Histologic Type ICD-O-3 3410\_Derived AJCC-7 N 523\_Behavior Code ICD-O-3 3412\_Derived AJCC-7 N Descript 90\_County at DX 3420 Derived AJCC-7 M 160 Race 1 440 Grade 161 Race 2 759\_SEER Summary Stage 2000 3422 Derived AJCC-7 M Descript 191\_NHIA Derived Hisp Origin 3020\_Derived SS2000 2935\_CS Version Input Original 192\_IHS Link 780\_EOD--Tumor Size 1990 Over-ride Age/Site/Morph 230\_Age at Diagnosis 820\_Regional Nodes Positive 2000\_Over-ride SeqNo/DxConf 240\_Date of Birth 830\_Regional Nodes Examined 2030\_Over-ride Site/Type 241\_Date of Birth Flag 870\_Coding System for EOD 2040\_Over-ride Histology 1060 TNM Edition Number 390\_Date of Diagnosis 2050 Over-ride Report Source 391\_Date of Diagnosis Flag 880\_TNM Path T 2060\_Over-ride III-define Site 890\_TNM Path N 1760\_Vital Status 2070\_Over-ride Leuk, Lymphoma 1750 Date of Last Contact 900 TNM Path M 2071 Over-ride Site/Behavior 1751\_Date of Last Contact Flag 940\_TNM Clin T 950\_TNM Clin N 960\_TNM Clin M

# NAACCR V122 to CONCORD-2 Translation Tool SAS Program

Chris Johnson

Cancer Data Registry of Idaho, Boise, ID



- THIS PROGRAM CONVERTS NAACCR V12.2
   DATA FILES (TYPE "I" LINE LENGTH 3339)
- TO THE FORMAT REQUIRED FOR THE CONCORD-2 DATA SUBMISSION
- REGISTRIES NEED TO MAKE CHANGES TO ITEMS 1-9 BELOW.

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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program

```
*** 1. CHANGE THE LIBNAME PATH TO THE DIRECTORY YOU WISH TO

*** WRITE SAS HTML OUTPUT TO (UNDER SAS 9.3). ***;

ods html

path="V:\data\CANCER\DEATHS\NDImatch\CONCORD_2\C2_DataExtrac
tionProgram\NAACCR_webinar"

gpath=""(URL=none);

ods html newfile=proc;
```



rogram\BetaTest2\Idaho19712009Cases.n12';

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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program

\*\*\* 3. WHICH COUNTRY IS YOUR CANCER REGISTRY IN?
UN-COMMENT THE LINE CORRESPONDING TO YOUR COUNTRY, AND
COMMENT OUT THE OTHER THREE LINES.
FOR UNITED STATES, LEAVE DEFAULT CODE.
\*\*\*;
%global VAR1 VAR2 FUPtype NDI\_year FirstYear LastYear OutLib
C2SiteCode fname fstar;



\*\*\* 4. WHAT IS THE 3-DIGIT REGISTRY CODE (VAR2) THAT WAS PROVIDED TO YOU BY THE CONCORD-2 STAFF? INPUT THIS CODE BELOW. IF YOUR CODE HAS A LEADING ZERO, USE THE LEADING ZERO. E.G. 010 FOR ALABAMA.

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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program

\*\*\* 5. DOES YOUR REGISTRY CONDUCT ACTIVE PATIENT FOLLOW-UP (MOSTLY, SEER REGISTRIES) OR PASSIVE FOLLOW-UP USING A COMBINATION OF STATE/PROVINCE DEATH CERTIFICATE LINKAGES AND NATIONAL DEATH LINKAGES USING EITHER THE US NATIONAL DEATH INDEX OR STATS CANADA (CD)?

```
*** IF ACTIVE FOLLOW-UP, THEN COMMENT OUT THE LINE
"%let FUPtype = 'Passive'." AND UN-COMMENT THE LINE
"%let FUPtype = 'Active'" ***;

%let FUPtype = 'Passive';
**let FUPtype = 'Active';
```



\*\*\* 6. FOR REGISTRIES CONDUCTING PASSIVE FOLLOW-UP, INPUT THE LATEST YEAR OF NATIONAL DEATH DATA THAT YOU HAVE LINKED TO AND UPDATED YOUR DATABASE WITH. \*\*\* IN THE US, THIS CANNOT BE LATER THAN 2010 BECAUSE 2010 IS THE LATEST YEAR OF NDI DEATHS AVAILABLE AS OF THE TIME OF THE CONCORD-2 DATA SUBMISSION. \*\*\*; \*\*\* IF THE LATEST YEAR OF NATIONAL DEATHS LINKED TO IS 2010, USE THE DEFAULT CODE: \*\*\*; %let NDI\_year = '2010'; \*\*\* IF THE LATEST YEAR OF NATIONAL DEATHS LINKED TO IS 2009, USE THIS CODE: "%let NDI\_year = '2009';" \*\*\* IF THE LATEST YEAR OF NATIONAL DEATHS LINKED TO IS EARLIER THAN 2009, USE THAT VALUE FOR NDI\_YEAR. \*\*\* IF YOU DO NOT LINK TO NATIONAL DEATH DATABASES, USE THIS CODE:

## NAACCR V122 to CONCORD-2 Translation Tool SAS Program

\*\*\* 7. WHAT IS THE EARLIEST INCIDENCE YEAR OF CASES THAT YOU WISH TO INCLUDE IN THE FILES SENT TO CONCORD-2? DEFAULT IS 1995. IF NECESSARY, INPUT A CHANGE INSIDE THE QUOTES BELOW. \*\*\*; %let FirstYear = '1995'; 

\*\*\* 8. WHAT IS THE LATEST INCIDENCE YEAR OF CASES THAT YOU WISH TO INCLUDE IN THE FILES SENT TO CONCORD-2? DEFAULT IS 2009. IF NECESSARY, INPUT A CHANGE INSIDE THE QUOTES BELOW. \*\*\*;

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%let LastYear = '2009';



\*\*\* 9. MODIFY THE PATH THAT WILL BE USED FOR THE OUTPUT FILES THAT WILL BE SUBMITTED TO CONCORD-2. THE FILES AND FILENAMES WILL BE GENERATED AUTOMATICALLY AND WILL FOLLOW THE NAMING CONVENTION OF ANNEX 5 OF THE CONCORD-2 DOCUMENTS.

\*\*\*;

%let OutLib =
%str(V:\data\CANCER\DEATHS\NDImatch\CONCORD\_2\C2\_DataExtract
ionProgram\NAACCR\_webinar\);

\*\*\* A FILE CALLED **FOREdits.N12** WILL BE WRITTEN HERE.
YOU ARE TO USE THIS FILE TO RUN THROUGH GENEDITS Plus for
CONCORD-2 AND INTER-RECORD EDITS. \*\*\*;

## NAACCR V122 to CONCORD-2 Translation Tool SAS Program

That is it! Registries should not have to modify any of the remaining SAS code.

Registries should run each Step of the SAS code and review the results, one Step at a time.



\*\*\* STEP 1 - ENSURE THAT CONCORD-2 VAR1 AND VAR2 ARE CORRECTLY MAPPED TO COUNTRY AND REGISTRY AND ALL MACRO VARIABLES WERE POPULATED CORRECTLY \*\*\*;

VAINIAD	VARIABLES WERE FOR GEATED CORRECTED ,							
country_check	registry_check	datayears	FUP_check	FUP_year	RegName			
YOUR COUNTRY IS: United States of America	YOUR REGISTRY IS: Idaho Cancer Data Registry	YOUR DATA COVER 1995 - 2009 INCIDENCE YEARS	YOUR REGISTRY CONDUCTS Passive FOLLOW-UP	AND THE LAST YEAR OF COMPLETE (NATIONAL) DEATH ASCERTAINM ENT IN YOUR DATASET IS: 2010	Idaho Cancer Data Registry			

## NAACCR V122 to CONCORD-2 Translation Tool SAS Program – STEP 2

\*\*\* STEP 2 - READ IN NAACCR VARIABLES THAT WILL BE MAPPED TO CONCORD LAYOUT \*\*\*;

FREQUENCY
DISTRIBUTION OF
INDEX CASES UNDER
SEER MP/H RULES

Table of indexsite by indexhist						
indexsite		indexhist				
		Haematological	Total			
	0	8950	8950			
Breast F	14885	22	14907			
Cervix	677	1	678			
Colon	6706	48	6754			
Liver	703	13	716			
Lung	10504	35	10539			
Ovary	1657	7	1664			
Prostate	14329	1	14330			
Rectum	2177	9	2186			
Stomach	1018	143	1161			
Total	52656	9229	61885			
			BTA			

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\*\*\* STEP 3 - IMPLEMENT IACR/IARC MULTIPLE PRIMARY AND HISTOLOGY RULES. THIS SAS CODE PROVIDED BY IMS. PRODUCES RESULTS IDENTICAL TO IARCcrgTOOLS. \*\*\*;

 Many thanks to Jennifer Stevens and others at Information Management Services, Inc. (IMS)!

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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program – STEP 4

\*\*\* STEP 4 - SELECT CASES FOR INCLUSION IN CONCORD 2 STUDY \*\*\*;

Table of indexsite by indexhist							
indexsite	indexhist						
		Haematological	Total				
	0	8861	8861				
Breast F	14129	20	14149				
Cervix	677	1	678				
Colon	6472	48	6520				
Liver	703	12	715				
Lung	10379	35	10414				
Ovary	1625	7	1632				
Prostate	14329	1	14330				
Rectum	2164	9	2173				
Stomach	1015	138	1153				
Total	51493	9132	60625				

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\*\*\* STEP 5 - WRITE A NAACCR V12.2 FILE FOR USE WITH GENEDITS PLUS FOR CONCORD-2 AND INTER-RECORD EDITS. REGISTRIES ARE TO FIX ALL EDIT ERRORS AND ONLY SUBMIT DATA FILES TO CONCORD-2 WHEN THERE ARE NO ERRORS IN EITHER GENEDITS PLUS OR INTER-RECORD EDITS. THE IDEA IS TO CREATE A CLEAN FILE IN ORDER TO MINIMIZE OR ELIMINATE THE NEED FOR SUBSEQUENT DATA SUBMISSIONS FROM REGISTRIES TO CONCORD DUE TO ERRORS IN THE FILES.

ForEdits.N12

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#### **NAACCR V122 to CONCORD-2 Translation Tool** SAS Program – STEP 5

GenEDITS Plus Report Cover Page CONCORD-2 test - Idaho

Date of Run - 2/27/2013 GenEDITS Plus version - 1.2.5 Edit Engine version - 4.0.1.7 Data File -

V:\data\CANCER\DEATHS\NDImatch\CONCORD 2\C2 DataExtractionProgram\BetaTest2\ForEdits.N12

Records in File - 60625 Range Processed - 1 - 60625

Range Processed - 1 - 60625

Metafile - C:\Program

Files\RegPlus\GenEDITSplus\metafiles\Concord\_v12\_2C\_2013Feb19.rmf

Record Layout - NAACCR DATA EXCHANGE VS 12.2

Edit Set1 - CONCORD-2 Edits

Processed Records - 60625 Total Exception Records - 0 Total Messages - 0 Total Error Messages - 0 Total Warning Messages - 0

Global Option: - Skip Failed



	National Program of Cancer Registries – Cancer Surveillance Syste Inter–Record Edits Summary Report – February 27, 2013 12:21 Pt NAACCR Version(s) 12		
	Edit Name	Errors	
	Verify Place of Birth Same on All Records for a Patient (IR01)	0	
	Verify Date of Birth Same on All Records for a Patient (IR02)	0	
	Verify Sequence Number-Central of 00-59 using Age at Diagnosis (IR03A)	0	
	Verify Sequence Number-Central of 60-87 Using Age at Diagnosis (IR03B)	0	
	Verify Race Same on All Records for a Patient (IR04)	0	
	Verify Sex Same on All Records for a Patient (IR05)	0	
	Verify Sequence Number-Central of 00-59 Using Dates of Diagnosis (IR06A)	0	
	Verify Sequence Number-Central of 60-87 Using Dates of Diagnosis (IR06B)	0	
	Verify Sequence Number-Central not in Conflict with Number of Primaries in Sequence Range of 00-59, and 99 (IR07A)	0	
	Verify Sequence Number-Central Not in Conflict with Number of Primaries in Sequence Range of 60-88 (IR07B)	0	
	Verify Date of Follow-up Same on All Records for a Patient (IR08)	0	
	Verify Same Primary Not Reported Twice for a Person (IR09)	0	
	Verify Vital Status Same on All Records for a Person (IR10)	0	
	Verify Cause of Death Same on All Records for a Person (IR11)	0	
	Verify No Multiple Bladder Primaries Reported for a Person (IR13A)	0	
	Verify No Multiple Prostate Primaries Reported for a Person (IR13B)	0	
	Verify No Multiple Kaposi Sarcoma Primaries Reported for a Person (IR13C)	0	
	Verify Spanish Surname or Origin Same on all Records for a Person (IR14)	0	
	Verify NHIA Derived Hisp Origin Consistent for a Patient (IR15)	0	
	Verify Type of Reporting Source and Sequence NumberCentral 00-59 (IR16A)	0	
	Verify Type of Reporting Source and Sequence NumberCentral 60-87 (IR16B)	0	
37	Verify IHS Linkage Same on All Records for a Patient (NPCR IR01)	0	NIACCO
	Total	0	NAACCK

```
*** STEP 6 - MAP NAACCR ITEMS TO CONCORD VARIABLES ***;
...
label VAR5 = 'IARC CHECK flag';
VAR5 = '9';
*** IARC CHECK FLAG NOT PROVIDED FROM NORTH AMERICAN
REGISTRIES ***;

label VAR7 = 'Region';
if VAR1 = '1840' then VAR7 = put(stfips(N12_80),z2.)||N12_90;
else if VAR1 in ('1124','5630') then VAR7 = '99999';
*** THIS CODE WILL NEED TO BE MODIFIED TO ACCOMMODATE CANADA
AND/OR PUERTO RICO REGIONS BELOW REGISTRY ***;

*** THIS CODE WILL NEED TO BE MODIFIED IF A US STATE DOES NOT
PROVIDE COUNTY CODES ***;

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```

\*\*\* STEP 6 - MAP NAACCR ITEMS TO CONCORD VARIABLES \*\*\*;

label VAR8 = 'Race/ethnicity';

\*\*\* RACE/ETHNICITY CODED TO 99 FOR CANADA, USES USCS
CATEGORIES FOR US, PUERTO RICO, GUAM \*\*\*;

\*\*\* USES NHIA FOR HISPANIC ETHNICITY \*\*\*;

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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program – STEP 6

\*\*\* STEP 6 - MAP NAACCR ITEMS TO CONCORD VARIABLES \*\*\*;

```
if &FUPtype = 'Active' then do;
if N12_1760 in ('0','4') then VAR15 = '2';
else if N12_1760 in ('1') and length(N12_1750) = 8 and N12_1750 < '20101231' then VAR15 = '3';
else if N12_1760 in ('1') and length(N12_1750) = 6 and N12_1750 < '201012' then VAR15 = '3';
else if N12_1760 in ('1') and length(N12_1750) = 4 and N12_1750 < '2010' then VAR15 = '3';
else if N12_1760 in ('1') and length(N12_1750) = 8 and N12_1750 >= '20101231' then VAR15 = '1';
else if N12_1760 in ('1') and length(N12_1750) = 6 and N12_1750 >= '20101231' then VAR15 = '1';
else if N12_1760 in ('1') and length(N12_1750) = 4 and N12_1750 >= '201012' then VAR15 = '1';
else VAR15 = '9';
end;
```

\*\*\* NEED TO CHECK LOGIC FOR VAR15=3 WHEN DATE OF LAST CONTACT IS NOT A COMPLETE DATE \*\*\*;

\*\*\* CANADIAN REGISTRIES MAY NEED TO ADDRESS 'DATE OF DEATH - CANADA' \*\*\*;



\*\*\* STEP 7 - CHECK RESULTS OF DATA TRANSLATION \*\*\*;

VAR1	Frequency	Percent	Cumulative Frequency	
1840	60625	100.00	60625	100.00

Registry					
VAR2	Frequency	Percent	Cumulative Frequency	Cumulative Percent	
130	60625	100.00	60625	100.00	

		Person (			
VAR3	Frequency	Percent	Cumulative	Cumulative	
			Frequency	Percent	
Present	60625	100.00	60625	100.00	

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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program – STEP 7

\*\*\* STEP 7 - CHECK RESULTS OF DATA TRANSLATION \*\*\*;

 IARC CHECK flag

 VAR5 Frequency
 Percent Cumulative Frequency
 Cumulative Percent

 9
 60625
 100.00
 60625
 100.00

		Sex						
VAR	6 Frequency	Percent	Cumulative Frequency	Cumulative Percent				
1	30488	50.29	30488	50.29				
2	30136	49.71	60624	100.00				
9	1	0.00	60625	100.00				

	Region						
VAR7	Frequency	Percent	Cumulative Frequency	Cumulative Percent			
16001	13538	22.33	13538	22.33			
16003	245	0.40	13783	22.73			
16005	2774	4.58	16557	27.31			
16007	285	0.47	16842	27.78			
16009	578	0.95	17420	28.73			
16011	1514	2.50	18934	31.23			

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\*\*\* STEP 7 - CHECK RESULTS OF DATA TRANSLATION \*\*\*;

 seerracerec
 N12\_191
 VAR8 Frequency Frequency
 Cumulative Frequency

 1
 0
 02
 57726
 57726

 1
 1
 01
 682
 58408

## THERE SHOULD BE NO BLANK VALUES FOR ANY OF THE CONCORD-2 VARIABLES

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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program – STEP 7

\*\*\* STEP 7 - CHECK RESULTS OF DATA TRANSLATION \*\*\*;

Table of	VAR18	y VAR15	
VAR18(Year of V.	AR15(Las	t known vi	ital status)
last known vital status)	1	2	Total
1995	0	556	556
1996	0	966	966
1997	0	1153	1153
1998	0	1395	1395
1999	0	1564	1564
2000	0	1714	1714
2001	0	1715	1715
2002	0	1904	1904
2003	0	2067	2067
2004	0	2131	2131
2005	0	2327	2327
2006	0	2262	2262
2007	0	2524	2524
2008	0	2713	2713
2009	0	2846	2846
2010	10878	2121	12999
2011	6678	1674	8352
2012	11197	233	11430
2013	7	0	7
Total	28760	31865	60625

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indexhist	VAR19	VAR21	Frequency	Cumulative Frequency
	1	9999	371	371
	2	9999	1368	1739
	4	Other	773	2512
	5	Other	47613	50125
	6	Other	4	50129
	7	9999	1084	51213
	8	Other	25	51238
	9	Other	255	51493
Haematological	1	Haematological	302	51795
Haematological	2	Haematological	460	52255
Haematological	4	Haematological	120	52375
Haematological	5	Haematological	7863	60238
Haematological	6	Haematological	4	60242
Haematological	7	Haematological	250	60492
Haematological	8	Haematological	6	60498
Haematological	9	Haematological	127	60625

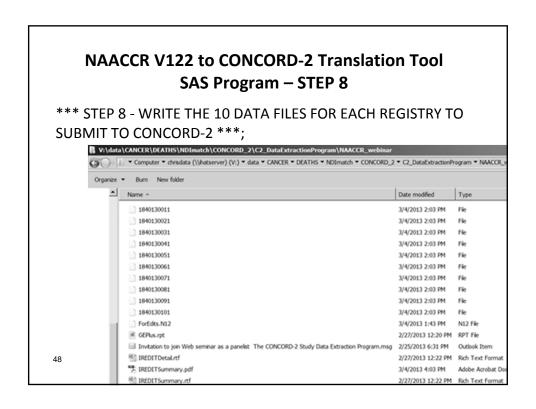
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## NAACCR V122 to CONCORD-2 Translation Tool SAS Program – STEP 7

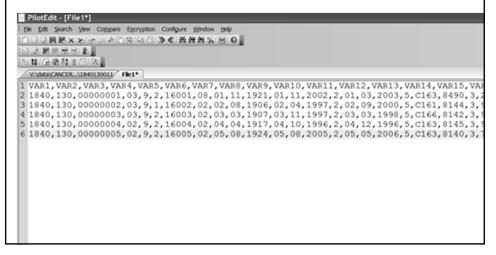
NAACCR

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	9	SAS	Pr	ngr	am	<b>–</b> !	STI	EP 7	,		
	•	,,			AR14 b			,			
	VAR14(Year of							tage 200	0)		
	diagnosis)	0	1	2	3	4	5	7	9	Total	
	1995	0	0	0	0	0	0	0	3195	3195	
	1996	0	0	0	0	0	0	0	3285	3285	
	1997	0	0	0	0	0	0	0	3469	3469	
	1998	0	0	0	0	0	0	0	3644	3644	
	1999	0	0	0	0	0	0	0	3601	3601	
	2000	0	0	0	0	0	0	0	3970	3970	
	2001	151	1651	245	363	164	66	986	335	3961	
	2002	181	1686	262	370	154	74	1067	327	4121	
	2003	176	1607	296	362	170	78	1121	328	4138	
	2004	208	1624	314	330	193	53	1194	223	4139	
	2005	172	1764	300	320	195	58	1239	240	4288	
	2006	187	1879	292	382	186	47	1291	261	4525	
	2007	196	2011	288	390	159	67	1380	270	4761	
	2008	217	1960	276	375	192	65	1397	258	4740	
47		-1/	1900	2/0	575	192	33	1397	200	4,40	



\*\*\* STEP 8 - WRITE THE 10 DATA FILES FOR EACH REGISTRY TO SUBMIT TO CONCORD-2 \*\*\*;



#### **Questions?**

Please type your questions into the Q&A panel



## Considerations for Canadian Registries

Ron Dewar
Cancer Care Nova Scotia, Halifax, NS

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#### **Considerations for Canadian Registries**

- Planned analysis by SES for most recent years' data
- Date of last complete death linkage

last National death linkage included deaths to 2008 evaluate completeness of Provincial death linkage

Submission of staging variables

evaluate completeness of staging data for your registry 'advanced' tab of GenEdits to include edit on derived SS2000

- Requirements to support SES analysis:
  - Postal code at diagnosis in NAACCR file layout (N12\_100)
  - Diagnosis years 2004 forward
  - PCCF+ (version 5) for SES quintiles, urban/rural indicator
  - Postal codes will NOT be sent to Concord
- SES-specific life tables being created by Statistics Canada



#### Use of PCCF+

- Callable as a SAS %include file (eg, geores5j.sas)
- Calling program supplies 'hlthdat0' dataset with ID, Pcode, FSA, LDU
- PCCF+ program must make all other file assignments
- PCCF+ returns 'hlthout' dataset with ID, SACTYPE, QAIPPE
- Conversion program codes Concord 'Region' (VAR7), or defaults to '99999'
- All display output from PCCF+ has been suppressed by default.

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#### **Macro for Canadian registries**

- Split data into pre-2004, 2004 + datasets
- Run PCCF+ on postal codes from 2004+
- Code SES variables for 2004+ data using SACTYPE and QAIPPE from PCCF+
  - 'Urban' (1): SACTYPE = 1 (Census Metropolitan Area)
  - 'Urban' (2): SACTYPE = 2,3 (Census Agglomeration)
  - 'Rural' (3): SACTYPE = 4-9 (residual, outside CMA/CA)
  - SES from QAIPPE (Quintile of neighbourhood income per person equivalent): values 1 5 or 9 (missing)
- Combine pre-2004, 2004+ data into 'Concord' dataset
  - Check total record count before and after %ses can call
- Report availability of postal code and SES variables
  - Postal code completeness is required for CCR



```
* this string points to the location of your PCCF+ program library. This version points to a 5J version (the most recent that uses 2006 census definitions) the program that will be run is geores5j.sas, modified by each registry to point to all the correct PCCF+ resource files;

%let pccf = S:\S & E Unit - System files\system files\pccf\5J\programs;
...
ods html exclude all;
* PCCF will still try to write html output - turn it off;
ods listing close;
* OPTIONAL: turn off voluminous output from PCCF+;

%include "&pccf.\geores5j.sas";
ods listing;
* turn listing output back on;
ods html select all;
* resume capture of html output;
...
```

TRANSI	_ATING N	NAACCR V1	22 FILE TO	CONC	CORD-2	FORMA	Т			
Region (VAR7)										
	Cumulative Cumulative									
	VAR7	Frequency	Percent	Frequ	iency	Percent				
	99911	1776	7.49	1776	7.49	)				
	99912	1757	7.41	3533	14.90	)				
	99913	1615	6.81	5148	21.71	L				
	99914	1591	6.71	6739	28.42	2				
	99915	1542	6.50	8281	34.92	2				
	99921	1158	4.88	9439	39.80	)				
	99922	1285	5.42	10724	45.22	2				
	99923	1236	5.21	11960	50.43	3				
	99924	1291	5.44	13251	55.88	3				
	99925	1108	4.67	14359	60.55	5				
	99931	1958	8.26	16317	68.80	)				
	99932	1965	8.29	18282	77.09	9				
	99933	1951	8.23	20233	85.32	2				
	99934	1769	7.46	22002	92.78	3				
	99935	1682	7.09	23684	99.87	7				
57	99999	31	0.13	23715	100.0	0			NAACCR <sup>®</sup>	

#### **Questions?**

Please type your questions into the Q&A panel



#### **Thank You!**

- A document with all of the questions and answers will be posted along with a recording of todays webinar to the NAACCR Website
- Questions can be directed to
  - Hannah Weir <a href="https://hbw4@cdc.gov">hbw4@cdc.gov</a>
  - Chris Johnson cjohnson@teamiha.org
  - Ron Dewar <u>ron.dewar@ccns.nshealth.ca</u>

