Introduction

This is the latest issue in a series of newsletters providing communication updates from organizations within the cancer surveillance community to share with their members and other constituents. It addresses the processes and ongoing efforts to coordinate and effectively transition from the Collaborative Staging v2 system to the AJCC TNM staging standard, beginning with the 2016 incidence data. This includes continued collection of information regarding related biomarkers and prognostic factors.

Shortly after the decision was made to transition from Collaborative Stage, a CS Transition Group was formed as an information sharing and planning forum. This group brings together the four data collection agencies/organizations (Statistics Canada/Canadian Council of Cancer Registries, CDC/NPCR, NCI/SEER, and American College of Surgeons CoC), the agency responsible for staging rules (AJCC), the cancer surveillance umbrella organization (NAACCR), the organization representing cancer registry professionals (NCRA), and the American Cancer Society. The CS Transition Group provides a collaborative opportunity to identify issues involved in the transition and to share the tasks involved in developing best practices for both the overall surveillance community and the individual agencies/organizations to address this change.

The agencies and organizations participating in this communication recognize that the transition away from CS is a major change and are committed to working with stakeholders to develop appropriate implementation plans and processes. This transition continues to be a work in progress and the partners are working hard to answer the many questions that have yet to be fully addressed. As answers become available, they will be shared and communicated to the surveillance community through the updates provided in subsequent sections. In addition, all of the partners continue to provide opportunities for members to identify issues and concerns. If you have ideas that you think are important for the partners and/or the CS Transition Group to consider, please email them to Trish Murphy (Murphy, Patricia (NIH/NCI)), who will collate and disseminate them.

As a reminder, the initial change in 2016 for CDC and NCI registries will be focused on the transition to directly assigned TNM stage, but will not eliminate all of the variables collected under CS. In particular, most Site Specific Factors (SSFs) will continue to be required as they are either: a) a critical component of stage assignment; or b) essential to understanding the cancer (predictive or prognostic factors). Thus the initial transition will focus on assignment of T, N, M, and the AJCC TNM stage group. As the coordinating bodies, we will clarify which additional variables and which SSFs will continue to be required based on their importance and feasibility.
to be collected by registrars. The methods, studies, and processes that will be used to make these determinations are described below. It is worth noting Item 4 in the NCI project list (NCI coordinating with NPCR and NAACCR to assess needs for changes in algorithms, and other IT needs related to the transition). One important aspect of the move to AJCC TNM stage and the maintenance of the SSFs is that the data warehouse and the Application Program Interface (API) that is being developed will eliminate obsolete variables and values, simplifying what registrars must consider in their abstraction.

Each participating entity continues to perform specific and coordinated tasks focused on assessing needs for the transition, projecting its impact, and coordinating the logistical components to implement the changes. Updates to these activities are described below along with the organization and task leader responsible for that activity.

Recently it has come to our attention that there is still some confusion about the continued collection of site specific factors (SSFs). All of the standard setting organizations have agreed to continue to collect biomarkers and prognostic factors through the SSFs as they are currently collected for the foreseeable future. Our previous newsletters have stated (emphasis added):

On June 17, 2014 the CS Transition Group agreed to continue collecting Site Specific Factors using the current NAACCR data layout and definitions at least through 2016.

It is anticipated that we will continue to use the data and variable definitions for SSFs used in Collaborative Stage until there has been a thorough review of the biomarkers and prognostic factors to determine which are clinically relevant, available to be collected by cancer registrars, and the best NAACCR data structure for collection of the SSFs has been established.

The 8th Edition of the AJCC staging manual is scheduled to be released in 2016, and will take effect for cases diagnosed as of January 1, 2017. We anticipate that there will be changes in the collection of SSFs at that time (effective date of AJCC 8th edition) to accommodate any changes in the modified staging system, as well as any changes in requirements that may be proposed by others (CDC, NCI, Canada).

Given the inherent uncertainties and the complexity of the issues involved with coordinating various agencies and priorities, and the evolution of scientific knowledge, it is difficult to pinpoint the timing of any changes. However, for the foreseeable future, central cancer registries should continue to collect SSFs as they have in the past and in compliance with program guidelines. We will continue to work together to ensure that central cancer registries will have adequate time to prepare for any changes.
Agency Updates

Following are summaries, written by the respective agency/organization, that report on the status of each activity being undertaken by the organization. We intend to continue providing regular updates on these activities. In some cases you will note that agencies are working independently on specific issues, while in other cases shared project work is underway.

We have identified several common questions and provided responses from NCI/SEER, CDC/NPCR, and the CoC. These are available in previous newsletters and on the web at http://seer.cancer.gov/registrars/cs-tnm/.

Current and planned activities by the partner organization in relation to the CS Transition:

A. American Cancer Society
   No new updates

B. AJCC

7/31/15 Update

The CDC Cooperative Agreement has provided support for AJCC to develop the education product, “AJCC Curriculum for Registrars,” for cancer registrars and the surveillance community. It has been met with much success. This education from AJCC as the authoritative source will assist registrars with the transition to directly assigning AJCC TNM stage.

It has been identified through this education that the difference between coding stage and assigning stage is not a matter of semantics. It is a philosophical difference and the reason for some incorrect interpretations of AJCC staging rules.

The lessons for all of the Modules, I through IV, are available on the AJCC website under Cancer Staging Education – Registrar, which includes two presentations that were posted in September 2014 on the AJCC Chapter 1 cancer staging rules and Explaining Blanks and X, and other issues. The recorded webinars are available along with the pre-education quiz, webinar quiz, and post-education quiz for those who were unable to attend the live broadcast, providing them the same opportunities to measure their self-learning and understanding of the six lessons in each of the Modules. These will remain on our website through the life of the AJCC 7th edition.

Modules II, III, and IV live and recorded webinars each provide 2.0 CE hours of FREE continuing education credit. Module I was basic and did not meet the NCRA criteria for credit.
<table>
<thead>
<tr>
<th>PARTICIPATION as of 7/31/15</th>
<th>Live Webinar</th>
<th>Recorded Webinar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module I – February 24</td>
<td>906</td>
<td>1,612</td>
</tr>
<tr>
<td>Module II – April 21</td>
<td>1,000</td>
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<tr>
<td>Module III – June 23</td>
<td>992</td>
<td>531</td>
</tr>
<tr>
<td>Module IV – August 25</td>
<td>Registration is open</td>
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Module IV was posted on July 15, 2015, allowing over 5 weeks for the pre-education quiz in the registration packet, and then self-study of the Module IV Advanced overview, along with Lessons 22 through 27. This will prepare registrants for the quiz and lessons recap in the live webinar Lesson 28 on August 25, 2015 from 1:00pm – 3:00pm CDT and allow them to earn 2.0 CE hours for **FREE**.

Information regarding the Module and Lesson Approach, Module Content, and Schedule are available on the Curriculum page.

**Summary**

Questions may be submitted to the [CAnswer Forum](#). AJCC Curriculum subforums have been added to the AJCC forum explicitly for these modules.

The intent is to provide accurate detailed information to guide the registrars in learning or refreshing their knowledge of AJCC TNM staging. AJCC, as the authoritative source for our staging system, is seeking to meet the needs of cancer registrars and the surveillance community in using AJCC TNM staging.

Visit the [AJCC Curriculum for Registrars](#) Web page now to further your knowledge.

**C. Statistics Canada and the Canadian Council of Cancer Registries**

**Definition of TNM Variables for Canada Draft 4-June 26, 2015**

Another review was held on June 26, 2015 via teleconference of the proposed Canadian data variables to be collected for cases diagnosed January 1, 2017. There are still some decisions to be made, however we are waiting for the other standard setting groups to finalize their decisions before finalizing the Canadian recommendations. It is planned to have a final decision later this year.

**Readiness Assessment**

The Canadian Cancer Staging Working Group has prepared a survey for the Provincial/Territorial Cancer Registries (PTCRs). This assessment will allow the Working
Group to begin understanding the technical and operational challenges that will be faced by PTCRs when implementing the 8th edition of the TNM data collection standards. It is hoped to have the survey results by the end of July. The results will be summarized and shared with the PTCRs.

Training Plans

The need for a coordinated, national level approach for training has been identified. A group of representatives from across Canada met face to face on May 4, 2015 to develop a training framework. The framework is now being used to brief key stakeholders around resources and funding. Key components of the Canadian framework include the need for central coordination and leveraging training being developed by the various standard setters and agencies.

Dialogue with NCI

We continue to have an active dialogue with NCI in regards to the development of their API tool. We are planning a site visit to NCI over the summer to determine how the API tool might be used to support the collection of 8th edition of TNM in Canada. The results of our readiness assessment will also help in determining the best approach.

Dialogue with AJCC

A teleconference was held with AJCC leadership in May to address key questions related to the Canadian adoption of 8th edition of TNM. We are waiting to receive additional details on the licensing model and agreement made for access to AJCC TNM content/tools, which will help inform overall strategies and decisions for Canada.

D. Centers for Disease Control and Prevention

A “pre-conference” workshop for NPCR Education and Training Coordinators was held at NCRA in San Antonio, TX on May 20, 2015 by CDC. The topics included:

- Resources/Timeline for AJCC Stage and Summary Stage 2000
- Tips for Trainers
- SS 2000 Presentations from the Trainer’s Perspective
- AJCC Presentations from the Trainer’s Perspective
- Round Table Discussions – Ideas for QC to Address Staging Errors
- Round Table Discussions – Delivery Plans for Stage Related Trainings

The themes that were generated from the presentations were to “become the expert” and re-train yourself prior to presenting on AJCC Stage or SS 2000. We all need to refresh and re-read. Another theme was to try to keep the presentations moving and interesting (breaking them up with stretch breaks or creative exercises).
Many ideas came from the Round Table Discussions. Here are a few examples:

- Everyone is restricted with daily work to find time to study and prepare for the transition.
- A lack of text documentation on incoming abstracts is a problem that must be addressed.
- There is a need for electronic manuals.
- It would be helpful for trainers to network regarding available trainings to share with their state registrars.

Feedback from our participants was overwhelmingly positive, and everyone came away with a new sense of focus. We greatly appreciate the outstanding contributions from the registry staff who shared their ideas and experience.

E. **Commission on Cancer**

1. **NCDB Stage Data Submission Requirements for NAACCR Version 16.0**

   SEER Summary Stage [759]
   - Regional Nodes Positive [820]
   - Regional Nodes Examined [830]
   - TNM Path T [880]
   - TNM Path N [890]
   - TNM Path M [900]
   - TNM Path Stage Group [910]
   - TNM Path Descriptor [920]
   - TNM Path Staged By [930]
   - TNM Clin T [940]
   - TNM Clin N [950]
   - TNM Clin M [960]
   - TNM Clin Stage Group [970]
   - TNM Clin Descriptor [980]
   - TNM Clin Staged By [990]
   - TNM Edition Number [1060]
   - Prognostic Factors/Biomarkers

   **New Data Items (NAACCR data item numbers not yet assigned):**

   - Tumor Size Summary
   - Tumor Size Pathologic
   - Mets at Diagnosis - Distant
   - Lymph Nodes
   - Mets at Diagnosis – Bone
   - Mets at Diagnosis – Brain
   - Mets at Diagnosis – Liver
   - Mets at Diagnosis – Lung
   - Mets at Diagnosis – Other

2. **Clinical and Pathologic AJCC Stage Required**

    Beginning with cases diagnosed January 1, 2016 and later, both clinical and pathologic AJCC stage will be required for data submission to the NCDB. Requirement will be enforced via edits.

3. **No Submission of Derived Stage to the NCDB for Cases Diagnosed 2016 and Later**

   a. For cases diagnosed 2016 and later, no software-derived derived values should be submitted in the directly-assigned AJCC Stage data items [910,
c. Programs will receive a deficiency on Standard 5.6 if derived values are detected.

4. Documenting Clinical and Pathologic AJCC Stage
The hospital registrar will be responsible for recording the physician-assigned stage in the registry database.

a. If the stage assigned by the physician is not accurate, the registrar should assign the stage and record the registrar-assigned stage in the registry database. The registrar should verify the case information with the physician, as he or she may have additional information that would aid in the assignment of a stage. However, it is outside the realm of the responsibility of the registrar to educate the physician. The registrar should inform the registry physician advisor and refer identified coding issues to the Cancer Committee for quality improvement activities.

b. If no physician-assigned stage can be found in the medical record, the registrar should assign the stage and record it in the registry database. The registrar should inform the registry physician advisor and refer identified documentation issues to the Cancer Committee for quality improvement activities.

c. Program Standard 1.10, Clinical Educational Activity states that the required cancer-related educational activity offered to physicians, nurses, and other allied health professionals is to be focused on the use of AJCC (or other appropriate) staging. The cancer committee is encouraged to use AJCC-developed materials for this purpose.

F. NAACCR
Standards Volume II, Version 16 - Delayed Release:

The NAACCR Standards for Cancer Registries, Volume II Data Standards and Data Dictionary, Version 16 is tentatively scheduled for release October 1, 2015. There are new data items to accommodate CS transition; several of them are derived variables. In addition to the derived variables, there are several new data items to collect: Mets at DX (Bone, Brain, Distant Lymph Nodes, Liver, Lung, and Other), three new data items to collect Tumor Size (Clinical and Pathologic) and Tumor Size Summary, and three new SEER data items to collect information on the primary tumor, regional nodes, and mets.
1. Evaluation of the frequency of pTNM in the surgical pathology report
   No new updates

   Contact person: Carol Kosary/Annie Noone

2. Comparison of cases restaged with AJCC TNM

   Thanks to all 320 participants who have completed our SEER 2015 Assessment of the Building Blocks for Stage so far. We have extended the deadline through August 31, 2015, so there is still time to sign up and earn free CEUs. Participants will earn 5 CEUs for review and assignment of staging data elements to a set of 10 cases, with an option of earning an additional 5 CEUs for a second set of 10 cases.

   Please log into your account on the SEER Reliability Study software (https://reliability.seer.cancer.gov) to complete the study.

   Contact person: Carol Kosary/Annie Noone/Kevin Ward

3. Evaluation of Site Specific Factors (SSFs)

   One of the main objectives of the evaluation of the Site Specific Factors (SSFs) was to investigate the possibility for automated collection. SEER launched several pilots aiming to assess the feasibility and value of acquiring SSFs through direct lab linkages or through using Natural Language Processing (NLP)/machine learning technologies. We completed a linkage of Oncotype Dx for breast cancer cases diagnosed 2004-2012 and established a process for annual linkage thereafter to assure that we have this important biomarker on a population level. Preliminary evaluation suggested that the hospital based registrars are not capturing more than 1/3 of the tests. Linkages with other labs are underway.

   A second approach we have taken is to mine the reach information hidden in the pathology reports with the aim to extract biomarkers and other cancer information. We initiated several projects with NLP tools both commercially available and open sources developed in academic centers which are in different stages, with the first one ending in November of this year. All pilots will use the same set of de-identified pathology reports to extract information such as cancer site, histology, grade, pT, nodal involvement, presence of metastasis, and biomarkers for breast and lung cases. This will allow us to compare the tools and chose one or several that best fit cancer registry needs.

   Timeline for completion: November 2015
Contact person: Valentina Petkov

4. **NCI coordinating with NPCR and NAACCR to assess needs for changes in algorithms and other IT needs related to the transition**

**TNM Informatics**

NCI and IMS released the first version of the Subject Matter Expert data entry tool, called Helios, in mid-April. This tool is being used to edit all TNM metadata (TNM data items with their lists of permissible values, coding instructions for each data item, agency requirements, schema matching, as well as TNM and Combined staging) for release of version 1.0 of this TNM metadata. Over 40 Subject Matter Experts have accounts on Helios and are actively working to prepare the metadata for use by vendors and registrars when collection of TNM data begins.

Work continues on the Staging and Predictive and Prognostic (S&PP) Factors REST API. This S&PP API is used by Helios, as well as the upcoming public facing S&PP website. This same REST API can be used to access a copy of the CS 02.05.50 data in preparation for accessing a copy of the TNM metadata. An early look at technical documentation for using the API can be accessed at [https://api.seer.cancer.gov/api.do](https://api.seer.cancer.gov/api.do) under the API page, Staging Algorithms section.

Work has been completed to make the CS 02.05.50 data available via the S&PP REST API and to develop a Java library to access this same data. An early version of the Java library has been released and can be accessed on GitHub at [https://github.com/imsweb/staging-client-java](https://github.com/imsweb/staging-client-java). Technical documentation is available at [https://github.com/imsweb/staging-client-java/wiki](https://github.com/imsweb/staging-client-java/wiki). This initial release supports only the legacy CS version 02.05.50 data. TNM support will be added to this library when the TNM metadata is released. The setup used to access the CS data from the Java library or from the S&PP API is the same basic setup that will be used to access the TNM data. Work has begun to create a C++ DLL in addition to the Java library and the API.

NCI and IMS continue work on the public facing Staging and Predictive and Prognostic (S&PP) Factors website. This website will present users with access to the metadata that Subject Matter Experts are currently working on, once that metadata has been finalized and released. This website will allow users to view the TNM data items with their lists of permissible values and coding instructions, will have links to NAACCR documentation, will present visual representations of each staging algorithm for each schema, and will have a staging tool as well. This website will allow users to view the documentation for CS 02.05.50 and to switch between CS and TNM and all future versions of TNM metadata. This website will also provide links to documentation in the use of the S&PP REST API, and to download any available TNM and CS libraries.
5. **Use of UICC TNM staging tables in NCI API**

The licensing and use of the AJCC TNM tables, definitions, and additional notes for registrars as an integral component of the NCI-supported API for staging are still under discussion. The short timeline remaining for completion of the API to enable the release of this system for vendors to integrate it into their systems for the January 2016 deadline has required an alternative solution. That is the use of the UICC 7th edition as a component of the API. Because the UICC 7th edition represents the international approach to staging, and because the SEER data are combined with international surveillance data, the UICC 7th edition staging system will continue to be a component of the API system in the future. Once the use agreement has been finalized between AJCC and NCI, the AJCC staging tables will also be incorporated into the API.

6. **Development of training aids to help registrars assign TNM**
   
   *No new updates*

7. **Development of Summary Stage 2016**
   
   *No new updates - continued development and testing underway.*

H. NCRA

1. **Education**

   **Cancer Case Studies: A Workbook to Practice Assigning AJCC TNM Stage and Coding SEER Summary Stage**

   NCRA produced the *Cancer Case Studies: A Workbook to Practice Assigning AJCC TNM Stage and Coding SEER Summary Stage* to provide opportunities for registrars to practice using actual case studies. The 40 cases include the answers and corresponding rationales to aid registrars in their efforts to build skills and improve proficiencies. The workbook is available at [www.ncra-usa.org/casestudies](http://www.ncra-usa.org/casestudies).

   **Free for Viewing: NCRA’s 2015 Annual Conference Sessions on TNM and Summary Stage**

   NCRA will post for free the sessions on the AJCC TNM Stage and SEER Summary Stage transition from its 2015 annual conference on the Center for Cancer Registry Education website. NCRA will also post for free the sessions from SEER’s pre-conference workshop, *SEER: 2015 Advanced Topics for Registry Professionals*, and the CDC-NPCR *Training Workshop for its Education & Training Coordinators*. These pre-conference workshops focused on the TNM and Summary Stage transition. The
sessions will be posted in late July and will be available at www.CancerRegistryEducation.org/tnm-ss-resources.

Contact person: Peggy Meehan (pmeehan@ncra-usa.org)

2. Credentialing

The Council on Certification is actively monitoring the transition efforts and will post any CTR examination changes related to new content on its website: www.ctrexam.org

Contact person: Michael Hechter (mhechter@ncra-usa.org)

3. Social Media

A web page has been created on the NCRA website dedicated to “all things transition” with the purpose of being a one-stop shop for NCRA members as the transition moves forward: (http://www.ncrausa.org/i4a/pages/index.cfm?pageid=4132)

Contact person: Janice Ford (jford@ncra-usa.org)