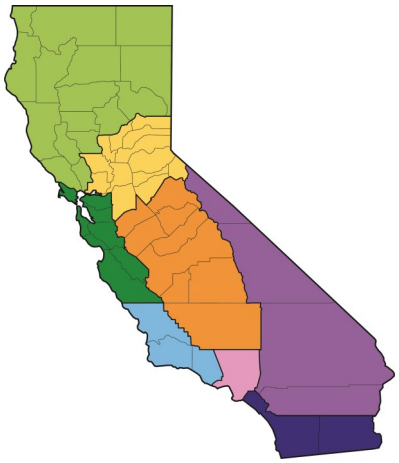
CCR INNOVATIONS

Welcome to our first edition!

Welcome to the first edition of the California Cancer Registry (CCR) **Innovations**, which is being published by the Production Automation and Quality Control (PAQC) Unit.

As you may be aware, a new five-year grant for the operation of the statewide cancer reporting system was awarded to the University of California, Davis (UCD), Institute for Population Health Improvement (IPHI) for the period of 2012 - 2017. Eight regional registries received grants for the operation of their respective regional registries as follows:



Region 1/8: The Cancer Prevention Institute of California (CPIC)
Region 9: The University of Southern California (USC)
Regions 3, 4, 7/10: Public Health Institute (PHI)
Regions 2 & 6: PHI in collaboration with the California Health Collaborative (CHC)
Region 5: PHI in collaboration with Loma Linda University (LLU)

The shift in responsibility for managing and operating the statewide reporting system over to UCD has not impacted cancer data collection or cancer reporting activities. Cancer registrars and reporting facilities continue to abstract and transmit cancer cases as usual. The change in management does, however, mean that UCD assumes responsibility for communicating all CCR activities involved with cancer registrars and reporting facilities. The CCR will routinely communicate topics related to updates on data standards, data changes and other cancer reporting information. Additionally, the CCR will be performing audits to ensure the collection of high quality data as well as providing education and training to statewide registrars.

Under the new organization with UCD, responsibility for these activities has been assumed by the new PAQC Unit managed by Cheryl Moody, BA, CTR. Memoranda, Data Alerts, and other communications previously

(Cont. Pg 2)

Inside this issue

Searching for Causes & Cures
KEN MADDY
CCR
CALIFORNIA CANCER REGISTRY
CALIFORNIA DEPARTMENT OF PUBLIC HEALTH

issued by the Data Standards and Quality Control (DSQC) Unit are now being issued by the PAQC Unit.

All of the above collaborating partners are dedicated to the continued excellence of the CCR. Our commitment is to maintain the CCR as one of the leading cancer registries in the world. This level of performance is only feasible through the talent and dedication of cancer registrars as well as other professionals throughout the state who ensure that cancer cases are collected and reported in an accurate and timely manner.

Thank you for all the work that you do that enables this to be possible.

Cheryl Moody, BA, CTR
Production Automation & Quality Control Manager

Data and Statistics

The CCR's Surveillance and Data Use unit, formally known as the Research and Surveillance Program unit (RASP), has maintained the same core functions throughout the transition to the UCD Health System. The unit continues to focus its efforts on using CCR data to monitor and report on the cancer burden in California. We accomplish this by doing the following:

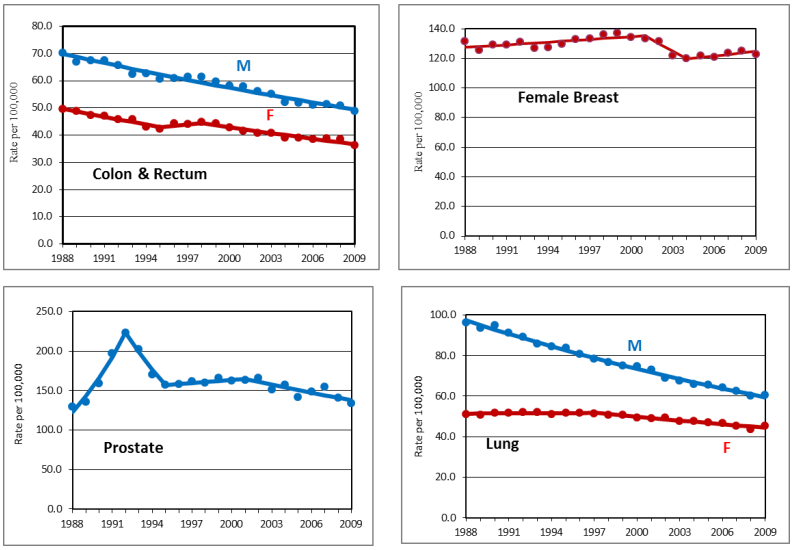
- Producing annual incidence and mortality reports, special topics reports, and other informational spotlights, posters, and brochures.
- Producing the annual "California Cancer Facts & Figures" on behalf of the American Cancer Society.
- Conducting surveillance and epidemiologic studies using cancer registry data.
- Maintaining the CCR website content and capacity for public access to selected cancer data.
- Responding to public inquiries and requests for information about cancer.
- Responding to public concerns about cancer clusters in their community.
- Promoting and supporting the use of CCR data for studies conducted by qualified researchers.
- Creating datasets in SAS and Seer*Stat for surveillance and epidemiologic studies.
- Enhancing CCR data by performing linkages with other databases such as hospital discharge data.
- Collaborating and providing support to federal, state, and local cancer control agencies (e.g., Every Woman Counts and California's Comprehensive Cancer Control Program) as well as to other cancer organizations and stakeholders.

People browsing through the CCR website will find many surveillance-related resources, including CCR FAQs (Frequently Asked Questions), current cancer statistics, and all CCR cancer reports published to date. We also support another popular feature on the CCR website, the "Data and Mapping Tool." This user-friendly interactive tool allows users to generate maps and tables of California incidence or mortality rates and counts for each cancer site by sex, race/ethnicity, year, and county.

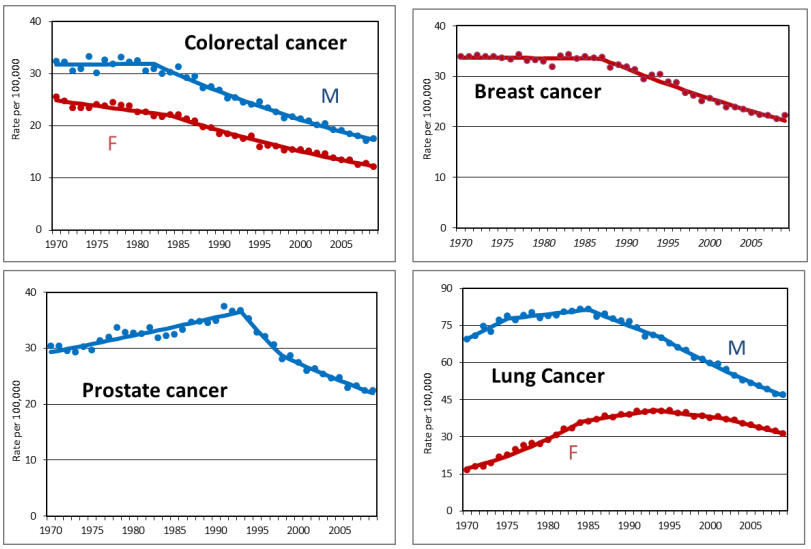
One of the most common questions asked of the CCR's Surveillance and Data Use unit by the public is whether we are in the midst of a cancer epidemic in California. Because the CCR monitors the number of newly diagnosed cancers and the cancer deaths occurring in California, we can say that this is definitively a misconception. The graphs on the next page depict the decreasing incidence and mortality rates for the four most common cancers in California and are an excellent example of the type of work conducted by this unit.

Cyllene Morris, DVM, PhD
Research Program Director

Incidence rates for the four most common cancers: *California, 1988—2009*



Mortality rates for the four most common cancers: *California, 1970—2009*



Reports and Factsheets

The California Cancer Registry (CCR) has released a new report this Fall entitled “Cancer Stage at Diagnosis.” This report presents information collected by the CCR stage at diagnosis and five-year survival for some of the most commonly diagnosed cancers among Californians age 20 and older. Information obtained through the California Behavioral Risk Factors Survey (BRFS) about screening for breast, cervical, and colorectal cancers is also presented to show the State’s progress towards reaching the Healthy People 2010 goals. By monitoring cancer occurrence over time, the CCR helps assess California’s progress in cancer prevention and early detection. A link to this report is now available on our website at: ***http://ccrcal.org.***

Sara Cook, MPH, CHES
Health Educator IV

How To:
Your Volume I

Volume I is the "go to" place for California registrars when it comes to abstracting. We have all had a question in the middle of abstracting a case and had to refer to it quite often thinking: "I know it's in here, why can't I find it?" To help registrars streamline getting information in a timely manner, we have made some refreshing enhancements to Volume I.

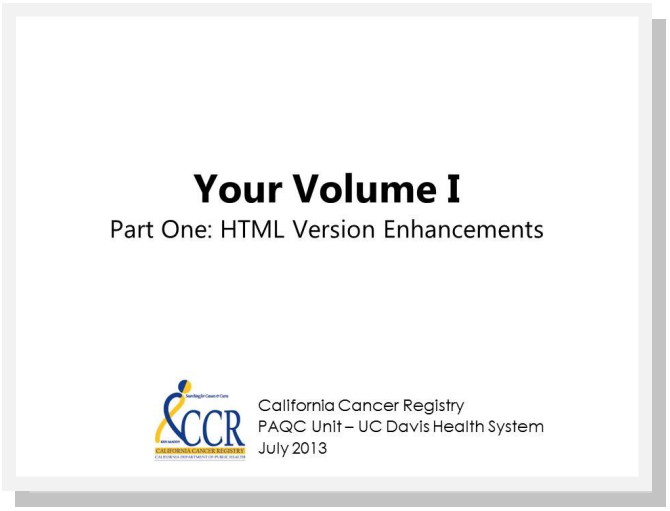
Our first update is an addition of a Glossary. This feature eases the location of a data item or field by allowing you to search by topic rather than number. Users can simply click on a letter to find a term or field of interest. The list for that letter will come up in alphabetic order and each topic includes a brief description followed by collapsible headings for guidelines, codes, notes, and examples when appropriate. Another exciting thing is that each topic heading includes a hyperlinked section number that will take you directly to that page in Volume I.

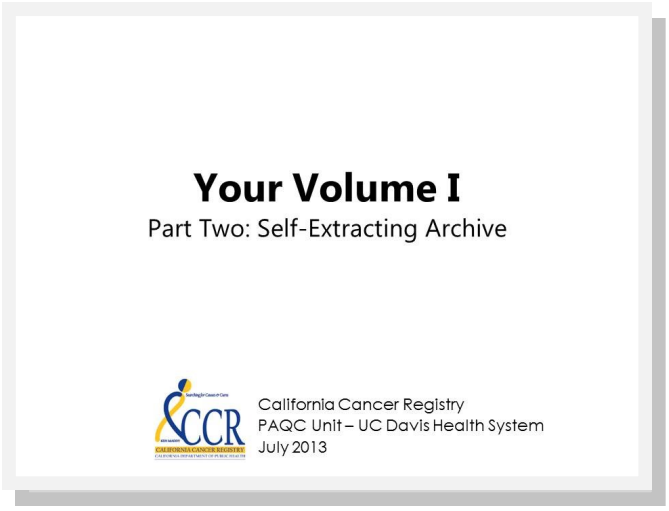
The Index tab is another highly valuable resource to the registrar because it is the easiest way to locate information in Volume I. The Index includes keywords that we commonly look for when searching for topics and terms. There is now a search bar in the Index that will help you find your topic quickly. You just type the topic or term in the search field and the Index goes to the terms that have the word you are searching for. The difference between this and the Search tab is that in the search tab you are looking for that term throughout the entire Volume rather than just in the topics and headings.

Finally, a few other adjustments have been made throughout the entire Volume I. The numbering convention was retained and can still be reviewed in the left column, but it now is collapsible, making it more visually appealing. Each chapter now has a table of contents that has hyperlinks to its specific topics. At the end of each page we have also added "next" and "previous" links that take you forward and backward by page in the Volume. Duplicate topics were identified and consolidated in this newer version and we have made some style changes for content and tables to become more consistent throughout Volume I.

In addition to our HTML version of Volume I, we have created a Self-Extracting version that can easily be downloaded to any desktop or laptop. This is a fantastic feature because you do not need to have the internet to use it and it looks and functions exactly like the HTML version. This Self-Extracting version will be replacing the PDF version in 2014.

We have put together two Webinars to help showcase all of these enhancements and we welcome you to take some time to view them:





When you search in Volume I now you shouldn't have that "I can't find it!" feeling anymore. You should be surprised at all of the enhancements made as well as relieved that it will not take you so long to find the great information that has always been there. The enhancements were made to help streamline usability and help you get to where you need to be faster. After all, it is your Volume I!

If you have any questions or concerns regarding Volume I, please contact me by email and I will be happy to look into it:

Mary Brant, BA, CTR - mbrant@ccr.ca.gov

Mary Brant, BA, CTR
Business Analyst IV

Did you know?
Eureka User Guide

The Eureka User Guide is a great resource for Central and Regional Registrars when it comes to learning about the functionality of Eureka, especially when you have been assigned a new task or just need to brush up on current processes. The User Guide was recently updated in March of this year and we would like to take a moment and highlight some of the great features of this resource. To access the User Guide you first must be logged into Eureka. It's easy to locate on the Help tab and just navigate to the Eureka User Guide option. If you take a look around, you will notice that within the Guide there are not only purposes and theories included for the functions, but also definitions, flow diagrams and step-by-step instructions for each process.

The Eureka User Guide has the overall same format as Volume I. It is important to point out the functionality of the Index mirrors that of the recently updated Volume I. As a user you are able to utilize the search field to quickly locate topics within the document. And the standard Contents and Search tabs are also available.

A distinct function of the Eureka User Guide is the Glossary tab. Key terms used throughout the guide are listed alphabetically here. Simply scroll through the toolbar and locate the term you need a definition on and when you click on it, the definition will appear at the bottom. While you are searching in this toolbar, the primary page you are on within the Guide will remain the same. This is great because you can use the Glossary as an additional tool while reading through the Guide.

Within the instructions of the Eureka User Guide, you may notice hyperlinked terms that build upon the topic currently being discussed. If you click on the hyperlink you will view a pop-up that is actually referencing another page within the guide. This way if you have a question right then about a related topic, you can simply click the link versus attempting to find its section within the guide.

Lastly, it is important to note for those of you who like to have paper version of their references, there is the option to print the entire Eureka User Guide right at the top of the toolbar. That way you have option to keep a document right on your desk as a quick reference!

Jenna Mazreku, CTR
Business Analyst IV

Kyle's Corner: Audits

As the Auditor for California Cancer Registry (CCR), I coordinate and conduct a variety of audits throughout the year. The results of each audit prioritize guidelines and clarify rules that you use daily to abstract your cases. They also offer a great opportunity to identify educational needs. Therefore, I look forward to working with all of you as I disseminate the results of the upcoming Audits through a variety of formats including, webinars and email announcements.

Late last year, the CCR was audited by the National Program of Cancer Registries (NPCR). The NPCR is the Cancer Division of the Centers for Disease Control and Prevention (CDC). We received the final results of the NPCR audit in May. I was able to analyze and write a detailed report on their findings this July. Our overall result was an accuracy rate of 98.7%. The CCR had one of the best results of all 50 states! I will be presenting the results in other training events over the next year, or you may be hearing of some of these results from your regional trainers.

I want to bring to your attention two major points identified through this audit process:

- Text Documentation
- Coding Treatment

The audit process followed by the NPCR auditors was outlined in the final report. Text was a major factor in the NPCR auditor's ability to code the data variables. Interestingly enough, one of the leading reasons for the identified audit errors was the lack of text documentation in the abstract:

> *"The evaluator reviewed every data element related to the evaluation and its associated text for each abstract-level case associated with each of the CCR unique patient identifiers/merged cases. If the text did not support the data element code, the evaluator recoded the data element based on the text provided and then provided a reason for recode to explain the new coded value. If the text was missing entirely, the evaluator recoded the data element to "unknown" (9, 99, or 999) and provided that explanation in the Reason for Recode field."*

During the reconciliation process, my role was to provide a rationale for data field codes. Without text documentation, I had no option then to agree with their recode as 99's. This was hard for me because I know that good data could have been lost. I had to remember that if I cannot verify it, how do I know the code is the correct code? Section I.1.6.2 of Volume I does state that text is a required element of the abstract.

I understand we have a lot of data variables to complete. However, I encourage all abstractors to consciously enter as much text as you can to cover all of the codes in the abstract, specifically, treatment information, staging information, lymph node information, etc.

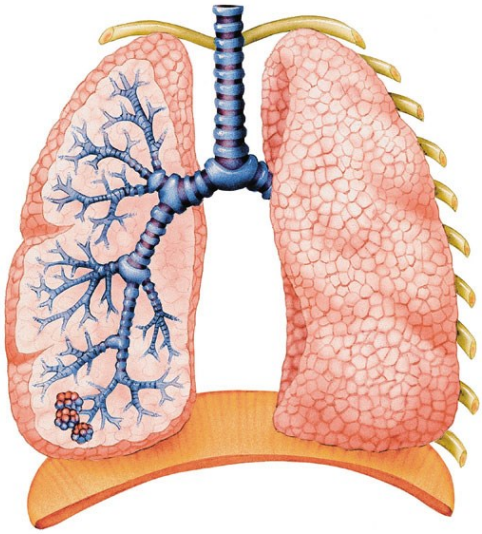
The other major point identified during the NPCR audit process was that over half of the errors were identified in treatment fields. The radiation treatment modality field lead the data elements in the number of errors, followed by surgery and chemotherapy summary. This is concerning because treatment related data variables are one of the most commonly requested data variables by researchers.

I have found over the years, that in audits including treatment variables, those variables are commonly in the top five data variables with errors. Therefore, I have begun developing training modules to address coding treatment in an attempt to help resolve some of these coding issues. You can look for the first of these modules during the coming months.

In the next issue, I will be discussing the results of the audit we are currently completing on Non-Small Cell Lung Cancer.

Kyle Ziegler, CTR
Quality Control Data Analyst

Quick Tips:
Lung Abstracting



Lung CS Mets at DX

<u>Code 24</u>: Pleural tumor foci or nodules on the ipsilateral lung separate from direct invasion

Remember this code is only meant for **pleural tumor foci** OR **pleural nodules**. Don't confuse the use of the "on" statement. It is not meant to include the "nodules" in the ispilateral lung. This specifically refers to nodules located "on" the Ipsilateral lung on the plural surface or in the plural space. Separate tumor nodules "in" the ipsilateral lung are only coded in SSF 1.

Lung CS SSF 2

<u>Code 998</u>: No histologic examination of pleura to assess pleural layer invasion.

VS

<u>Code 999</u>: Unknown if PL present; PL/elastic layer cannot be assessed;

Not documented in patient record

The source for SSF 2 is the pathology report. This means information from imaging cannot be used to code this field. Use the 998 code when there is no histologic exam of the pleura or an FNA is the only histologic specimen available. So for cases where no surgery is performed, code 988.

The 999 code will only be used if pleural/elastic layer invasion is not mentioned or there is a statement it cannot be assessed on the pathology report, or it is unknown if any surgery was performed as treatment.

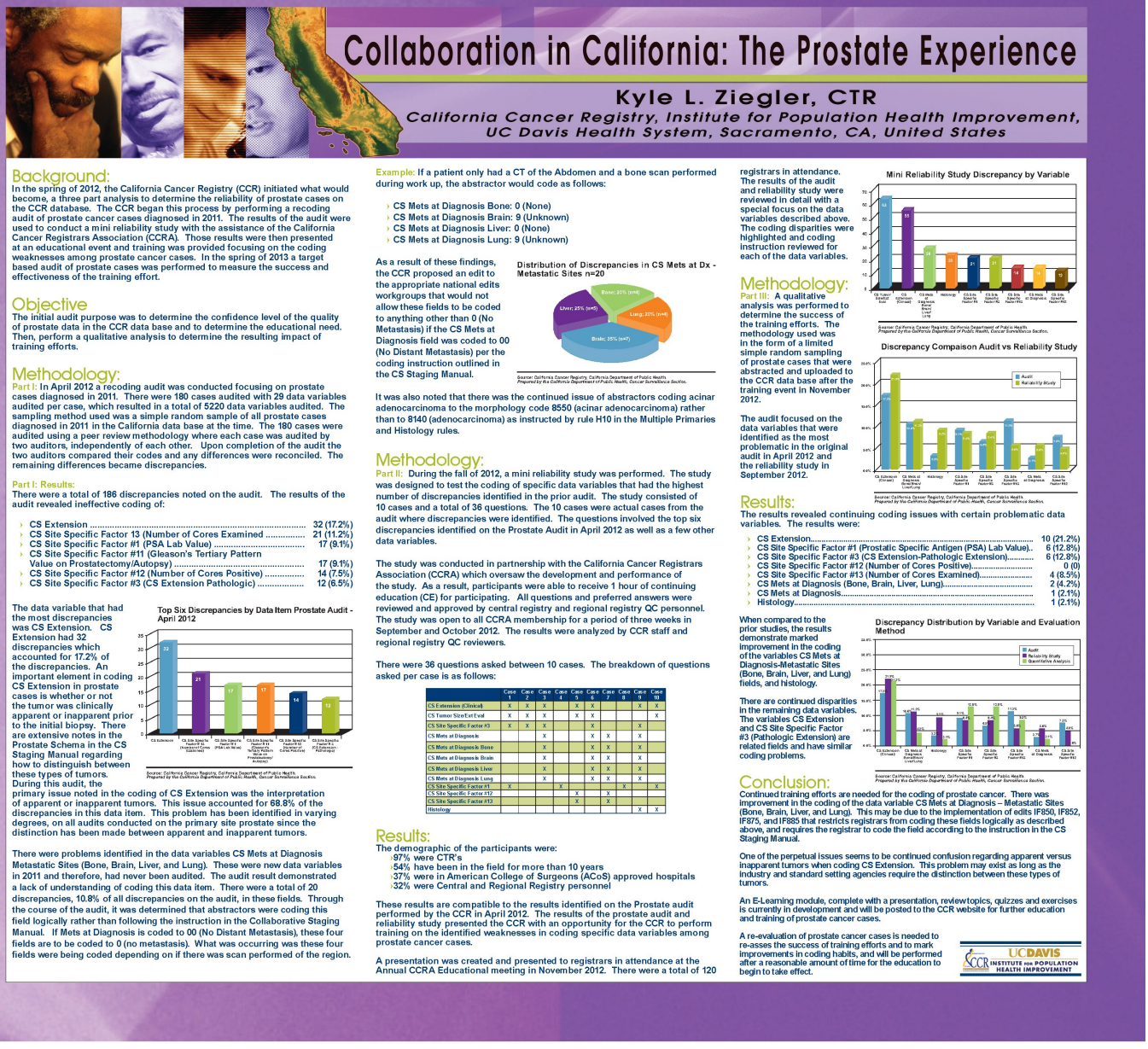
CCR News

NAACCR Conference

The NAACCR Annual Conference was held in Austin, Texas on June 8-14, 2013. This year the CCR had three staff members, Kyle Ziegler, CTR, Jennifer Rico, MA, and Cyllene Morris, DVM, PhD, participate in the Poster Presentations portion of the conference. The posters are divided into two categories: Registry Operations and Data Use, and this year both categories were judged and awarded first through third place ribbons. We are proud and pleased to announce that our PAQC Unit staff member, Kyle Ziegler, CTR, won the first place ribbon in the category Registry Operations! Congratulations, Kyle!

If you haven't had a chance to see their posters, make sure to check them out below:

Kyle Ziegler: *"Collaboration in California: The Prostate Experience"*



Collaboration in California: The Prostate Experience

Kyle L. Ziegler, CTR

California Cancer Registry, Institute for Population Health Improvement, UC Davis Health System, Sacramento, CA, United States

Background:

In the spring of 2012, the California Cancer Registry (CCR) initiated what would become, a three part analysis to determine the reliability of prostate cases on the CCR database. The CCR began this process by performing a recoding audit of prostate cancer cases diagnosed in 2011. The results of the audit were used to conduct a mini reliability study with the assistance of the California Cancer Registrars Association (CCRA). Those results were then presented at an educational event and training was provided focusing on the coding weaknesses among prostate cancer cases. In the spring of 2013 a target based audit of prostate cases was performed to measure the success and effectiveness of the training effort.

Objective

The initial audit purpose was to determine the confidence level of the quality of prostate data in the CCR data base and to determine the educational need. Then, perform a qualitative analysis to determine the resulting impact of training efforts.

Methodology:

Part I: In April 2012 a recoding audit was conducted focusing on prostate cases diagnosed in 2011. There were 180 cases audited with 29 data variables audited per case, which resulted in a total of 5220 data variables audited. The sampling method used was a simple random sample of all prostate cases diagnosed in 2011 in the California data base at the time. The 180 cases were audited using a peer review methodology where each case was audited by two auditors, independently of each other. Upon completion of the audit the two auditors compared their codes and any differences were reconciled. The remaining differences became discrepancies.

Part I: Results:

There were a total of 186 discrepancies noted on the audit. The results of the audit revealed ineffective coding of:

- CS Extension 32 (17.2%)
- CS Site Specific Factor 13 (Number of Cores Examined 21 (11.2%)
- CS Site Specific Factor #1 (PSA Lab Value) 17 (9.1%)
- CS Site Specific Factor #11 (Gleason's Tertiary Pattern Value on Prostatectomy/Autopsy) 17 (9.1%)
- CS Site Specific Factor #12 (Number of Cores Positive) 14 (7.5%)
- CS Site Specific Factor #3 (CS Extension Pathologic) 12 (6.5%)

The data variable that had the most discrepancies was CS Extension. CS Extension had 32 discrepancies which accounted for 17.2% of the discrepancies. An important element in coding CS Extension in prostate cases is whether or not the tumor was clinically apparent or inapparent prior to the initial biopsy. There are extensive notes in the Prostate Schema in the CS Staging Manual regarding how to distinguish between these types of tumors. During this audit, the primary issue noted in the coding of CS Extension was the interpretation of apparent or inapparent tumors. This issue accounted for 68.8% of the discrepancies in this data item. This problem has been identified in varying degrees, on all audits conducted on the primary site prostate since the distinction has been made between apparent and inapparent tumors.

Top Six Discrepancies by Data Item Prostate Audit - April 2012

Source: California Cancer Registry, California Department of Public Health
Prepared by the California Department of Public Health, Cancer Surveillance Section.

There were problems identified in the data variables CS Mets at Diagnosis Metastatic Sites (Bone, Brain, Liver, and Lung). These were new data variables in 2011 and therefore, had never been audited. The audit result demonstrated a lack of understanding of coding this data item. There were a total of 20 discrepancies, 10.8% of all discrepancies on the audit, in these fields. Through the course of the audit, it was determined that abstractors were coding this field logically rather than following the instruction in the Collaborative Staging Manual. If Mets at Diagnosis is coded to 00 (No Distant Metastasis), these four fields are to be coded to 0 (no metastasis). What was occurring was these four fields were being coded depending on if there was scan performed of the region.

Example: If a patient only had a CT of the Abdomen and a bone scan performed during work up, the abstractor would code as follows:

- CS Mets at Diagnosis Bone: 0 (None)
- CS Mets at Diagnosis Brain: 9 (Unknown)
- CS Mets at Diagnosis Liver: 0 (None)
- CS Mets at Diagnosis Lung: 9 (Unknown)

As a result of these findings, the CCR proposed an edit to the appropriate national edits workgroups that would not allow these fields to be coded to anything other than 0 (No Metastasis) if the CS Mets at Diagnosis field was coded to 00 (No Distant Metastasis) per the coding instruction outlined in the CS Staging Manual.

Distribution of Discrepancies in CS Mets at Dx - Metastatic Sites n=20

Source: California Cancer Registry, California Department of Public Health
Prepared by the California Department of Public Health, Cancer Surveillance Section.

It was also noted that there was the continued issue of abstractors coding acinar adenocarcinoma to the morphology code 8550 (acinar adenocarcinoma) rather than to 8140 (adenocarcinoma) as instructed by rule H10 in the Multiple Primaries and Histology rules.

Methodology:

Part II: During the fall of 2012, a mini reliability study was performed. The study was designed to test the coding of specific data variables that had the highest number of discrepancies identified in the prior audit. The study consisted of 10 cases and a total of 36 questions. The 10 cases were actual cases from the audit where discrepancies were identified. The questions involved the top six discrepancies identified on the Prostate Audit in April 2012 as well as a few other data variables.

The study was conducted in partnership with the California Cancer Registrars Association (CCRA) which oversaw the development and performance of the study. As a result, participants were able to receive 1 hour of continuing education (CE) for participating. All questions and preferred answers were reviewed and approved by central registry and regional registry QC personnel. The study was open to all CCRA membership for a period of three weeks in September and October 2012. The results were analyzed by CCR staff and regional registry QC reviewers.

There were 36 questions asked between 10 cases. The breakdown of questions asked per case is as follows:

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7	Case 8	Case 9	Case 10
CS Extension (Clinical)	X	X	X		X	X			X	X
CS Tumor Size/Ext Eval	X	X	X		X	X				X
CS Site Specific Factor #3	X	X	X			X			X	
CS Mets at Diagnosis			X			X	X		X	
CS Mets at Diagnosis Bone			X			X	X		X	
CS Mets at Diagnosis Brain			X			X	X		X	
CS Mets at Diagnosis Liver			X			X	X		X	
CS Mets at Diagnosis Lung			X			X	X		X	
CS Site Specific Factor #1	X			X				X		X
CS Site Specific Factor #12					X		X			
CS Site Specific Factor #13					X		X			
Histology									X	X

Results:

The demographic of the participants were:

- 97% were CTR's
- 54% have been in the field for more than 10 years
- 37% were in American College of Surgeons (ACoS) approved hospitals
- 32% were Central and Regional Registry personnel

These results are compatible to the results identified on the Prostate audit performed by the CCR in April 2012. The results of the prostate audit and reliability study presented the CCR with an opportunity for the CCR to perform training on the identified weaknesses in coding specific data variables among prostate cancer cases.

A presentation was created and presented to registrars in attendance at the Annual CCRA Educational meeting in November 2012. There were a total of 120 registrars in attendance. The results of the audit and reliability study were reviewed in detail with a special focus on the data variables described above. The coding disparities were highlighted and coding instruction reviewed for each of the data variables.

Mini Reliability Study Discrepancy by Variable

Source: California Cancer Registry, California Department of Public Health
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Methodology:

Part III: A qualitative analysis was performed to determine the success of the training efforts. The methodology used was in the form of a limited simple random sampling of prostate cases that were abstracted and uploaded to the CCR data base after the training event in November 2012.

The audit focused on the data variables that were identified as the most problematic in the original audit in April 2012 and the reliability study in September 2012.

Discrepancy Compaison Audit vs Reliability Study

Source: California Cancer Registry, California Department of Public Health
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Results:

The results revealed continuing coding issues with certain problematic data variables. The results were:

- CS Extension..... 10 (21.2%)
- CS Site Specific Factor #1 (Prostatic Specific Antigen (PSA) Lab Value).. 6 (12.8%)
- CS Site Specific Factor #3 (CS Extension-Pathologic Extension)..... 6 (12.8%)
- CS Site Specific Factor #12 (Number of Cores Positive)..... 0 (0)
- CS Site Specific Factor #13 (Number of Cores Examined)..... 4 (8.5%)
- CS Mets at Diagnosis (Bone, Brain, Liver, Lung)..... 2 (4.2%)
- CS Mets at Diagnosis..... 1 (2.1%)
- Histology..... 1 (2.1%)

When compared to the prior studies, the results demonstrate marked improvement in the coding of the variables CS Mets at Diagnosis-Metastatic Sites (Bone, Brain, Liver, and Lung) fields, and histology.

There are continued disparities in the remaining data variables. The variables CS Extension and CS Site Specific Factor #3 (Pathologic Extension) are related fields and have similar coding problems.

Discrepancy Distribution by Variable and Evaluation Method

Source: California Cancer Registry, California Department of Public Health
Prepared by the California Department of Public Health, Cancer Surveillance Section.

Conclusion:

Continued training efforts are needed for the coding of prostate cancer. There was improvement in the coding of the data variable CS Mets at Diagnosis – Metastatic Sites (Bone, Brain, Liver, and Lung). This may be due to the implementation of edits IF850, IF852, IF875, and IF985 that restricts registrars from coding these fields logically as described above, and requires the registrar to code the field according to the instruction in the CS Staging Manual.

One of the perpetual issues seems to be continued confusion regarding apparent versus inapparent tumors when coding CS Extension. This problem may exist as long as the industry and standard setting agencies require the distinction between these types of tumors.

An E-Learning module, complete with a presentation, review topics, quizzes and exercises is currently in development and will be posted to the CCR website for further education and training of prostate cancer cases.

A re-evaluation of prostate cancer cases is needed to re-asses the success of training efforts and to mark improvements in coding habits, and will be performed after a reasonable amount of time for the education to begin to take effect.

UC DAVIS CCR INSTITUTE FOR POPULATION HEALTH IMPROVEMENT

Jennifer Rico and Cyllene Morris: *"Use of Hospital Discharge Data to Supplement Comorbidity Information in Cancer Registries: The California Experience"*

NAACCR Gold Certification

We are happy to announce that the California Cancer Registry received the NAACCR Gold Certification for our 2010 Incidence Data.

FAQ Section

What are the cancer sites with the highest incidence in California?

Table 1. Expected Numbers of New Cases, Deaths, and Existing Cases of Common Cancers in California, 2013

Male	New Cases		Deaths		Existing Cases	
Prostate	20,430	28%	3,085	11%	251,400	41%
Lung	8,680	12%	6,975	25%	17,900	3%
Colon & Rectum	7,270	10%	2,635	9%	59,600	10%
Leukemia & Lymphoma	6,415	9%	2,530	9%	52,900	9%
Urinary Bladder	4,990	7%	935	3%	40,600	7%
All Cancers Combined	73,535	100%	28,335	100%	607,800	100%
Female	**New Cases**		**Deaths**		**Existing Cases**	
Breast	22,850	32%	4,340	16%	306,500	42%
Lung	8,090	11%	6,070	22%	20,700	3%
Colon & Rectum	6,845	10%	2,500	9%	60,300	8%
Uterus & Cervix	6,250	9%	1,225	5%	95,700	13%
Leukemia & Lymphoma	5,005	7%	2,010	7%	46,100	6%
All Cancers Combined	71,275	100%	27,150	100%	734,400	100%

Source: California Cancer Registry, California Department of Public Health.
Excludes non-melanoma skin cancers and *in situ* cancers, except bladder.
Deaths include persons who may have been diagnosed in previous years.
These projections are offered as a rough guide, and should not be regarded as definitive.
For more information please visit the California Cancer Registry web site at http://www.ccrcal.org/

What are the leading causes of death in California?

Table 6. Leading Causes of Death in California, 2009

Cause	Deaths	Percent	Cause	Deaths	Percent
Heart Disease	58,801	25%	Diabetes	6,961	3%
Cancer	55,753	24%	Influenza and Pneumonia	6,350	3%
Cerebrovascular Disease	13,410	6%	Cirrhosis	4,256	2%
Chronic Lower Respiratory Disease	12,905	6%	Intentional Self-Harm	3,760	2%
Accidents	10,608	5%	All Deaths	231,764	100%
Alzheimer's Disease	9,882	4%			

Source: California Department of Public Health, Death Records; State of California, Department of Finance, Race and Ethnic Population with Age and Sex Detail, 2000-2050, Sacramento, CA, July 2007.

FAQ Section

What is the California Cancer Registry (CCR) and how do we differ from the Regional Registries?

The CCR is California's statewide population-based cancer surveillance system. CCR collects information about almost all cancers diagnosed in California. This information furthers our understanding of cancer and is used to develop strategies and policies for its prevention, treatment, and control. The availability of data on cancer in the state allows health researchers to analyze demographic and geographic factors that affect cancer risk, early detection, and effective treatment of cancer patients. The data also help determine where early detection, educational, and other cancer-related programs should be directed.

The CCR is recognized as one of the leading cancer registries in the world, and has been the cornerstone of a substantial amount of research on cancer in the California population. To date the CCR has collected detailed information on over 3.4 million cases of cancer among Californians diagnosed from 1988 forward, and more than 162,000 new cases are added annually.

California is divided into eight geographic regions with specific, identified counties. Each of these regions has a regional registry that is responsible for the data collection of their identified counties. All of the data collected by the regional registries is transmitted to the CCR where it is stored in Eureka, our data warehouse. The CCR de-identifies all data received and provides it to researchers as well as national funding agencies for inclusion in national cancer analyses.

Contact information:

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Call for Articles & Ideas

While reading through our first edition, did you think of a great idea for an article or an abstracting tip? We welcome you to send us your ideas and become part of CCR **Innovations**!

The deadline to have your idea submitted for consideration is **November 8th**. Please send your ideas in a Word document to our Managing Editor, Jenna Mazreku, CTR at ***jmazreku@ccr.ca.gov***

We look forward to hearing from you!