

Data Quality: The 5 Ws and an H

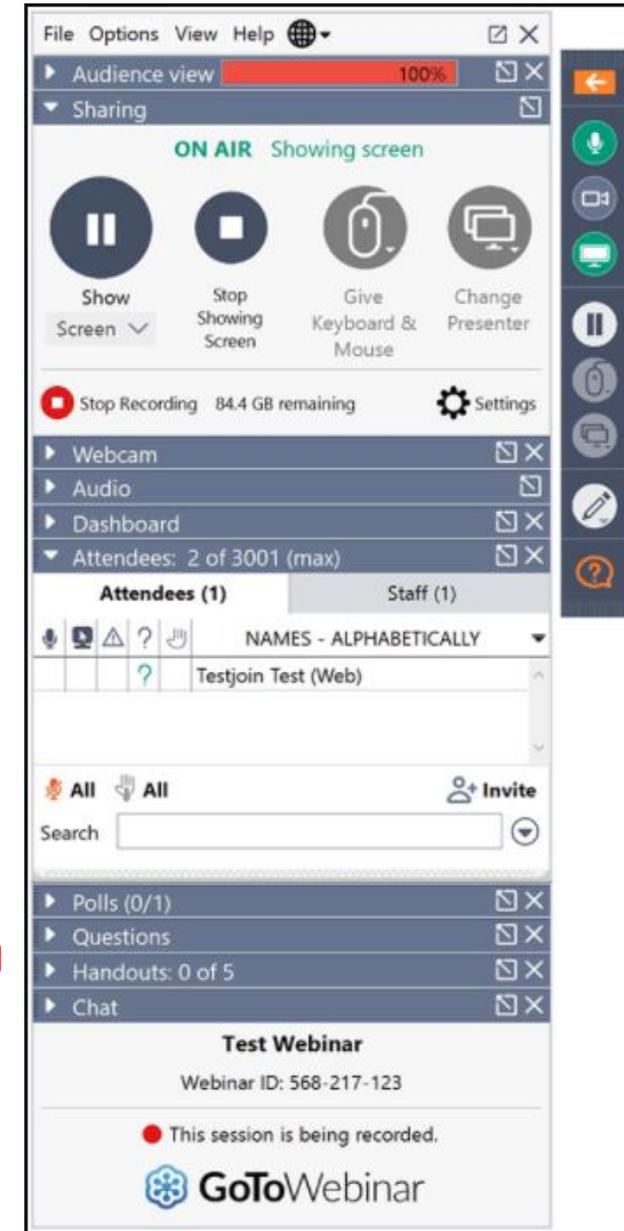


Housekeeping

- If you have trouble hearing the presentation and are listening through your computer, please check and adjust your volume settings. If this does not work, please try dialing in on your phone.
- The webinar will be approximately 1 hour in length
- CE Certificates will be sent to attendees later this week via the email address provided during registration for this webinar
- A recording of this webinar, along with handouts and the Q&A document will be made available to attendees via our Resource Page in the coming days

Navigating GTW

- Download handouts and ask questions from the GTW Control panel.
- Ask questions! If we don't get to your question during the presentation, we will include it in a follow-up Q&A document.



Objectives

1. Discuss the importance of quality data to the registry
2. Explore who should provide quality review of registry data
3. Discuss best practices for quality review, including methods and timing



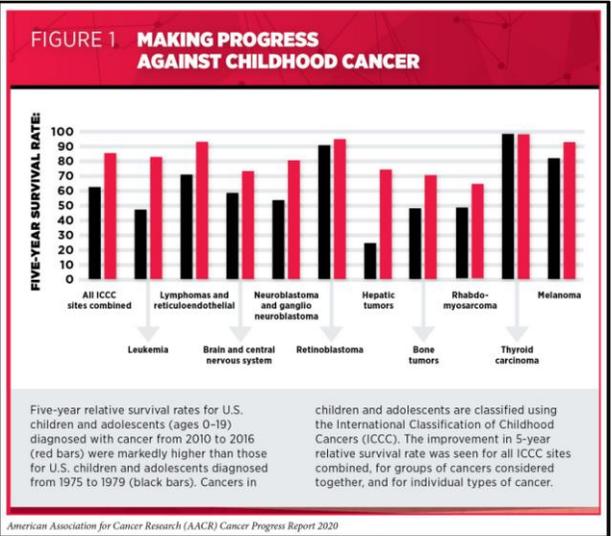
WHAT is data quality

“A measure of the condition of data based on factors such as accuracy, completeness, consistency, reliability and whether it’s up to date” ~ [techtarget.com](https://www.techtarget.com)

“A measurement of how fit a data set is to serve the specific needs of an organization. High quality data is required for trusted decisions” ~ [precisely.com](https://www.precisely.com)



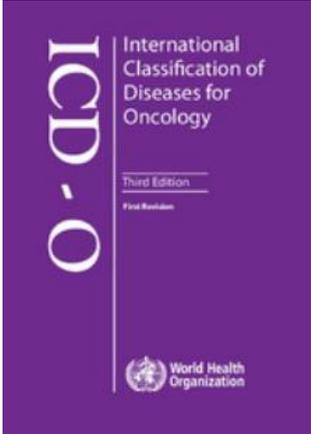
WHY is it important?



WHY CoC Standard 6.1

- Casefinding
- Abstracts
 - Class of Case
 - Primary Site
 - Histology
 - Grade
 - AJCC or other Staging
 - First Course of Treatment
 - Follow-up information
 - Date of first recurrence
 - Type of first recurrence
 - Cancer status
 - Date of last cancer status

WHO are the key players



WHERE



ERS Hospital

We're going to use the same hospital throughout this presentation.

ERS Hospital accessions 1500 cases annually and is CoC Accredited

Types

Re-Abstraction

Data Report
Review
(Site Specific)

Unknown
Review

Blank Review

Casefinding

WHEN

- Weekly, Monthly, Quarterly or Annually?
- Weekly/Monthly – Re-abstraction
- Monthly/Quarterly – Data Reports (Site Specific)
- Annually – Unknown, Blanks, Casefinding



ERS Hospital Example

ERS Hospital Review Policy is:

- Re-abstract Cases weekly
 - 1500 cases/yr = 125/month, so 13 cases a month would need to be reviewed. Breaking this down to 3-4 a week will make the work more evenly distributed
- Site Specific QC Review Quarterly
- Annually review cases for blanks and unknown fields

HOW – The Basics

- Choose who will perform
 - Lead CTR/Manager
 - Peer
 - Physician
 - Partnering Hospital
- Keep PHI in mind
- Determine your cadence of reviews
- Schedule time for review



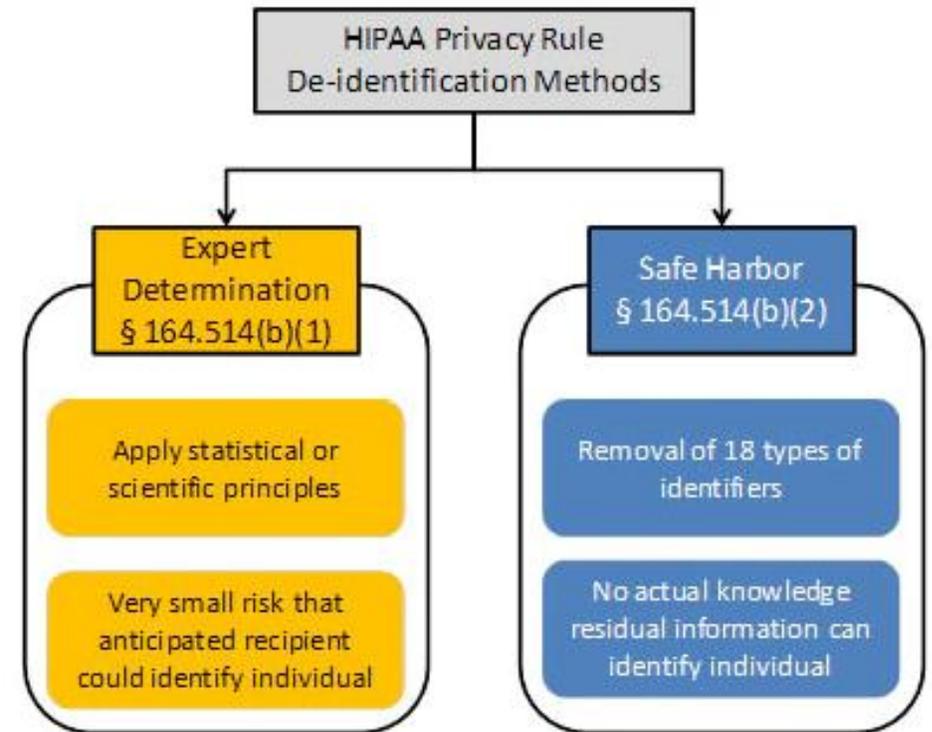
HOW – PHI

- De-identification Standard

<https://www.hhs.gov/hipaa/for-professionals/privacy/special-topics/de-identification/index.html>

- Identifiers:

- Names, Geographic subdivisions smaller than state, Dates (except year), Telephone numbers, Email addresses, social security numbers, MRN
- Re-identification codes



HOW – Re-Abstraction

- Determine which cases to review.
 - Create a list of patients from the registry software of cases abstracted between the date of your last review and the current day
 - Choose cases – Recommend 10%
These cases as well as the others reviewed can count for the CoC required review
- Review EMR
 - Look at pathology, imaging, physician notes, lab reports, treatment, etc.
 - Compare these documents to the text
 - Review coded values against the manuals

HOW – Re-Abstraction (con't)

- Text Documentation – State should be able to abstract from this documentation
 - Should support coded fields
 - Abbreviations should be NAACCR approved
 - Complete dates MM/DD/YYYY
 - Physical exam – date of physical exam, age of patient at time of exam, race, sex, brief descriptions of symptoms
 - X-ray/Scans/Scopes – date, type of exam/procedure, findings that pertain to cancer
 - Lab – SSDI results – date, location, test type, general/specific results
 - Example: 1/1/2022 – Main Hospital – PSA – 10.4(H)

HOW – Re-Abstraction (con't)



- Text Documentation – (con't)
 - Operative Text – date, where procedure performed, name of physician performing, type of exam/procedure, findings/observations pertinent to cancer
 - Pathology – date, where procedure performed, specimen number, type of specimen, histology, behavior, grade, tumor size, extent of disease, lymph node involvement, margin status, LVI, other pertinent cancer information
 - Treatment – date, where treatment was performed, name of physician, type of treatment including details pertinent to that treatment (drug name, surgery type, radiation modality, dose, etc.)
 - Staging – clinical and pathologic T, N, M and Grp, physician who staged if applicable with date of documentation and where in the chart, justification for stage

ERS Hospital Example

ERS Hospital Re-abstraction Review:

- Patient Population:

Example: Monday 7/25/2022 manager runs a report for all cases where Date Abstracted is \geq 7/18/2022 and \leq 7/24/2022

- Create a Report that lists: Accession numbers, Last name, First Name, Date of Birth, Primary Site, Class of Case, Date Abstracted and Abstractor initials
- Once final report is created the reviewer will choose 3-5 cases at random (*remember we need 13/month reviewed*) for review
- Feedback is summarized and provided to individual CTR for case correction

HOW – Data Report

- Only Analytic cases
- Choose the primary site you will focus your review towards
- Create a report from the cancer registry database with all cases abstracted since the last data report was created
 - Data fields to include accession number, race, sex, abstracted by, MRN, last name, first name, sequence number, topography, morphology, date of dx, date of 1st contact, class of case, referred to, referred from, diagnostic fields, all staging fields, all treatment fields, outcome fields, date case completed (if CoC)

HOW – Data Report (con't)

- Basic visual check – Regardless of site
 - Accession number and date of 1st contact
 - Year and accession number should match unless there is a previous seq in your database
 - Class of case and date of 1st contact/ diagnosis date
 - Class of case
 - 00, 10, 13, 14 should have date of 1st contact and dx date equal to each other
 - 20 and above should have a date of 1st contact after the dx date
 - 22 Date of 1st contact and 1st course of treatment should be the same
 - First name and sex
 - Social Security number complete
 - Facility referred to/from and class of case
 - Class of case 00, 13 and 14 should have a referred to facility
 - Class of cases in the 20s should have a referred from facility

HOW – Data Report (con't)

- Basic visual check – Regardless of site (con't)
 - Unknowns (9s) and Blanks – seq of primary, race 1
 - Staging:
 - Clinical M – if pM assigned and no surgical procedure was done then the pathologic stage should mirror the clinical stage
 - Example: Clinical: cT2 cM1 pM1 grp IV and cT2 cM1 pM1 grp IV
 - N – could an (f) or (sn) apply to the stage?
 - Other fields as defined by the facility



HOW – Data Report (con't)

- Site Specific Case review
 - Review all fields on previous slide
 - Diagnostic, Staging & Treatment – compare field values to text
 - Outcomes – Review of EMR for these values will be required unless text field has been created in your software to house text regarding these fields
- Correct abstract in the registry software and keep note of the corrections made
- Summarize corrections needed for education back to the team

ERS Hospital Example

ERS Data Report Review

- Patient Population:

Example: In July, manager runs a report for all cases where Date Abstracted is \geq 4/1/2022 and \leq 6/30/2022

- Choose Site to be reviewed: Prostate
- Create a Report that lists all data items from previous screen
- Perform visual check on ALL cases
- Filter report to just show prostate cases and perform detailed review of these cases (including SSDI, problem areas, etc.)
- Reviewer updated cancer registry database with corrections
- Summary of errors and education provided to abstractors

Cheat Sheet

- When doing a Data Report review make the system work for you
 - You can utilize formulas and conditional formatting to show you if one value is equal to, greater than or less than another value. This is helpful for comparing date of first contact and diagnosis date and/or treatment date
 - To determine if two dates are equal you will place the following formula in a blank column: `"=A2=B2"` (in this example we are compare the date in cell A2 and B2)
 - If you select the small green square in the bottom right corner of the cell where the formula was placed, hold down your mouse and drag down then it will copy this formula down your column

	A	B	C
	Date of Diagnosis	Date of 1st Contact	Dx and 1st Equal
1			
2	1/1/2021	1/1/2021	TRUE
3	1/5/2021	1/8/2021	
4	1/10/2021	1/10/2021	
5	5/1/2021	5/1/2021	
6	4/1/2021	3/1/2021	

Date of Diagnosis	Date of 1st Contact	Dx and 1st Equal
1/1/2021	1/1/2021	TRUE
1/5/2021	1/8/2021	FALSE
1/10/2021	1/10/2021	TRUE
5/1/2021	5/1/2021	TRUE
4/1/2021	3/1/2021	FALSE

Cheat Sheet (Con't)

- Similarly, you can compare to see if a value is greater than or less than another
 - Replace your “=A2=B2” Formula with “=A2>B2” and “=A2<B2”
 - Creating these 3 columns in your spreadsheet can save you time

	A	B	C	D	E	F
1	Class of Case	Date of Diagnosis	Date of 1st Contact	Dx and 1st equal	Dx >1st	Dx <1st
2	14	1/1/2021	1/1/2021	TRUE	FALSE	FALSE
3	22	1/5/2021	1/8/2021	FALSE	FALSE	TRUE
4	0	1/10/2021	1/10/2021	TRUE	FALSE	FALSE
5	14	5/1/2021	5/1/2021	TRUE	FALSE	FALSE
6	22	4/1/2021	3/1/2021	FALSE	TRUE	FALSE

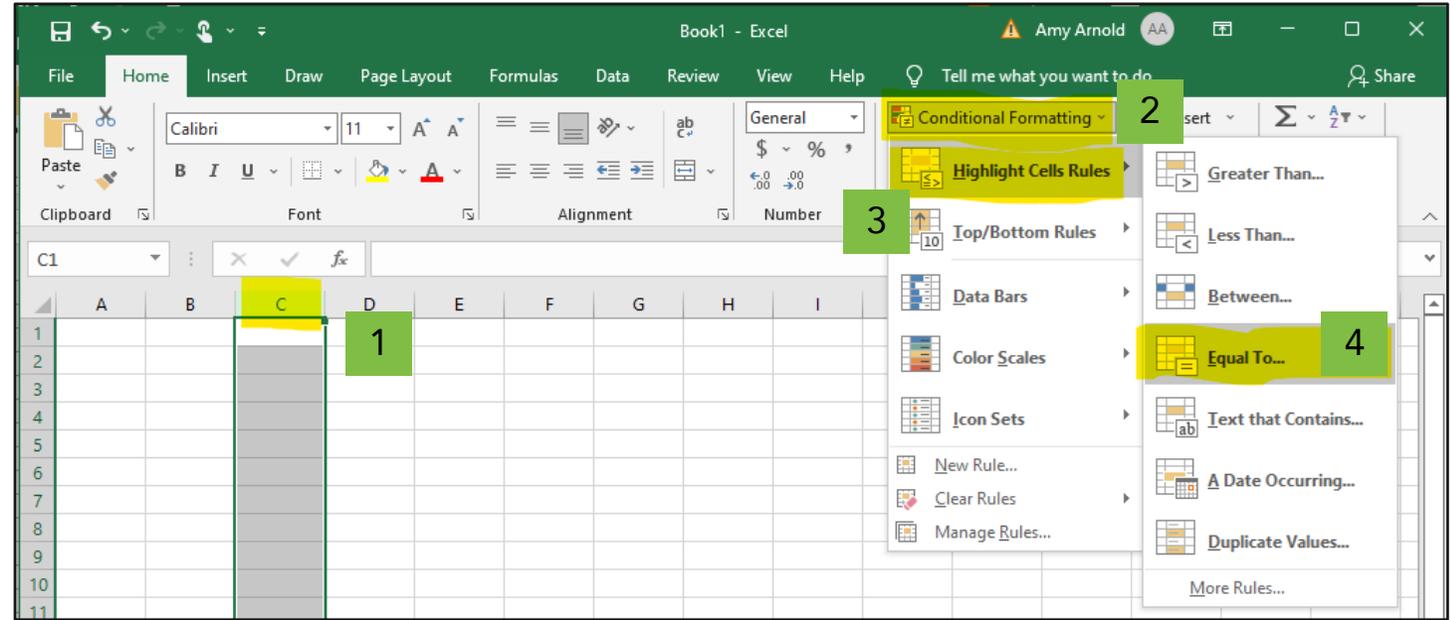
Cheat Sheet (Con't)

- Conditional Formatting
 - One more step can help make your values stand out even more

	A	B	C	D	E	F
1	Class of Case	Date of Diagnosis	Date of 1st Contact	Dx and 1st equal	Dx >1st	Dx <1st
2	14	1/1/2021	1/1/2021	TRUE	FALSE	FALSE
3	22	1/5/2021	1/8/2021	FALSE	FALSE	TRUE
4	0	1/10/2021	1/10/2021	TRUE	FALSE	FALSE
5	14	5/1/2021	5/1/2021	TRUE	FALSE	FALSE
6	22	4/1/2021	3/1/2021	FALSE	TRUE	FALSE

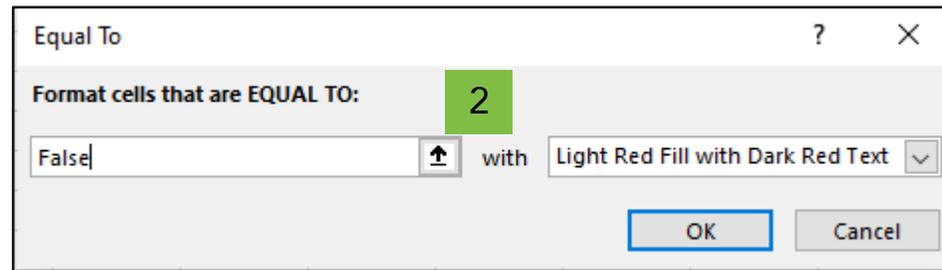
Cheat Sheet (Con't)

- Conditional Formatting (con't)
 1. Select your column by clicking on the Alpha character
 2. Select Conditional formatting on the Home tab
 3. Choose Highlight Cells
 4. Equal To



Format cells that are EQUAL TO:

2. Type in either "True" or "False" (depending on which value you want to have highlighted)



Example

- Class of case review
 - Filters can be used to focus review
- Valid Class of Case
 - Analytic cases dx at your facility- "Equal" column should be "True"
 - Analytic cases dx elsewhere and Non-Analytic Cases – "< Than" column should be "True"
 - ">Than" column should always be false. Date of first contact cannot be older than the date of diagnosis

	A	B	C	D	E	F
1	Class of Case	Date of Diagnosis	Date of 1st Contact	Dx and 1st equal	Dx >1st	Dx <1st
2	14	1/1/2021	1/1/2021	TRUE	FALSE	FALSE
3	22	1/5/2021	1/8/2021	FALSE	FALSE	TRUE
4	0	1/10/2021	1/10/2021	TRUE	FALSE	FALSE
5	14	5/1/2021	5/1/2021	TRUE	FALSE	FALSE
6	22	4/1/2021	3/1/2021	FALSE	TRUE	FALSE

Common Errors

- Lung
 - Intrapulmonary metastasis
 - AJCC should be T3, T4 or M1 depending on where the metastasis is
 - T suffix should be blank
 - Multifocal/Ground Glass
 - AJCC-T value is dependent on the largest focus
 - AJCC-T must have (m) suffix

Common Errors

- Bladder
 - Site
 - C67.8
 - Invasive - SINGLE tumor overlapping subsites
 - In Situ – Single or discontinuous tumors only in bladder and one or both ureters involved
 - C67.9
 - Multiple non-contiguous tumors within bladder and subsite not documented
 - 68 – If multiple urinary sites are involved C68 codes should be used

HOW – Unknowns and Blanks

- Data report of all cases abstracted during the applicable time period
- Include all demographic, diagnostic, staging, treatment and outcomes fields
- Review for trends in unknowns and blanks
- Depending on volume
 - Review all unknown and blanks
 - Select unknown/blanks from patterns noted if volume is too high for review of all

ERS Hospital Example

ERS Annual Review of Blanks and Unknowns

- Patient Population:

Annually in November manager runs a report for all cases where Date Abstracted $\geq 11/1/2021$ and $\leq 10/31/2022$

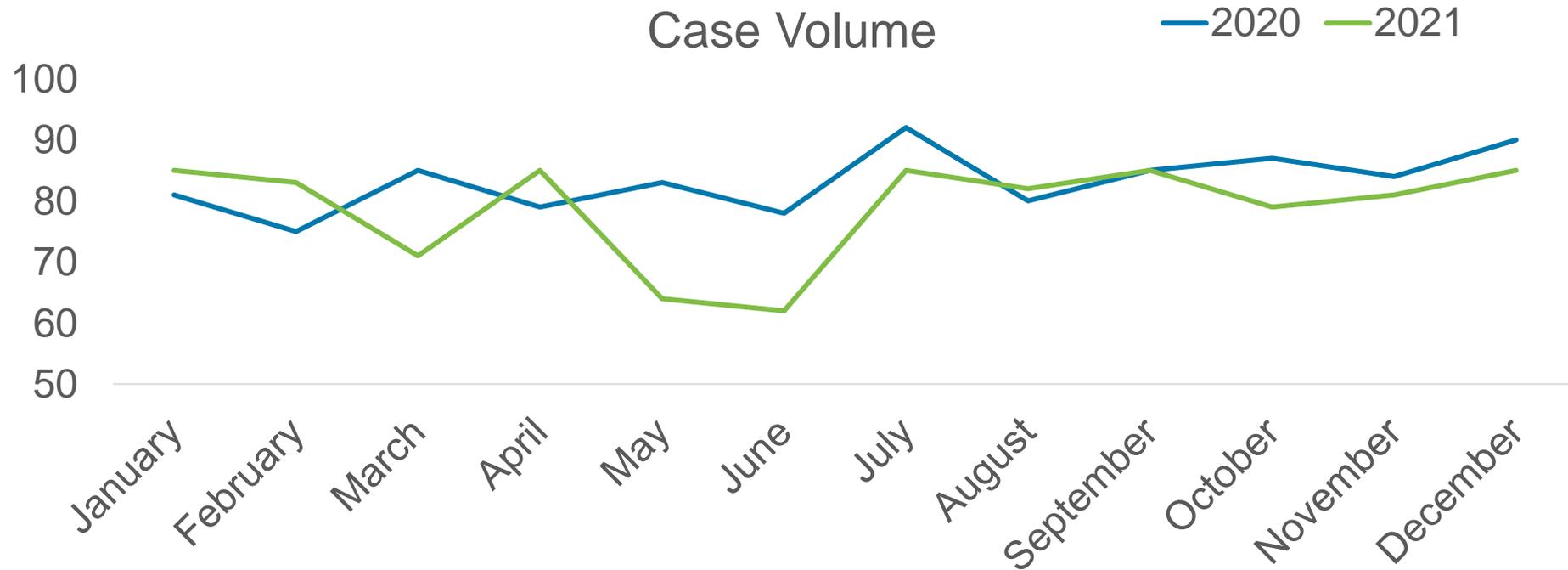
- Run the same report that is run for re-abstraction QC and review for trends in blanks/unknowns

- Questions to ask:

- Are there trends in fields coded to blank/unk - if so what could be causing this
 - Are there trends in CTRs utilizing blank/unk - if so what could be causing this

HOW – Casefinding

- What month to review
 - Review case volume compared to previous years



HOW – Casefinding (con't)

- Review your casefinding list from the chosen months
 - Review cases marked not reportable
 - Look at EMR

12		Last Name	First Name	Site	DOB
13	NR	Doe	Jane	Breast	1/1/1950
14	NR - no ca	Smith	Bob	prostate	1/1/1960
15	TBA	King	Fred	lung	1/1/1970
16	TBA	Jones	Tina	lung	1/1/1950
17	NR	White	Linda	thyroid	1/2/1952

- Pull a new list from Casefinding Source
 - Review random sampling to determine if cases are abstracted/in suspense
 - Look at EMR and Registry Software
 - Reportable cases – should be abstracted or in suspense

ERS Hospital Example



- Review your case volume for the past few years.
 - ERS Hospital noticed a significant decrease in May and June 2021 with no explained cause. So these months were chosen
- ERS maintains their CF lists
- Reviewer pulls May & June CF list, filters by NR (non-reportable). There are 1000 NR cases therefore 100 cases are chosen at random to review. Those deemed Reportable are sent to CTRs to abstract.
- Trends in individuals casefinding and/or types of cancer are noticed and education provided to the team.

Use your Resources

- Manuals should be utilized while reviewing
- Educational Webinars and Forums offer a wealth of information
 - Questions to ask yourself
 - Is this new to me? If it's new to you it's probably new to someone else
 - Have I been doing this correctly? If not, a data report can help you identify cases that may need correction

Use your Resources



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[Data Completeness Report QA](#)

[Field Index Numbers – Illustrated List](#)

[Field Index Numbers – Excel List](#)

California

[California State Screen Field Index Numbers](#)

[Exporting Cases to the State of California](#)

Colorado

[CO State Screen](#)

Florida

[FCDS Requirements for Coding Treatment](#)

[Recommended / Refused](#)

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Final notes

- Corrections should be made to all cases where errors are noted
- Summaries of corrections made should be provided back to CTRs and the team as education
- Educational webinars – great resource to choose primary site
- Formatting your spreadsheet can be a great help to review large quantities of cases quickly.
- Random reviews as needed are OKAY



Amy Arnold, BA, CTR
aarnold@mycrstar.com
910-430-4096