

ESSENCE Occupational query updates

**Occupational Surveillance
Methods Workgroup Call**

Nadia Saif (NIOSH)

4/24/24

ESSENCE Occupational Query

Author: Laurel Harduar-Morano (MI)

Minor edits made – should work now

at work^,OR,^ at work^,OR,^work injury^,OR,^work rela^,OR,^work acci^,OR,^work comp^,OR,^works comp^,OR,^injury work^,OR,^from work^,OR,^during work^,OR,^accident work^,OR,^sent by work^,OR,^work incident^,OR,at job^,OR,^ at job^,OR,^job injury^,OR,^job rela^,OR,^job acci^,OR,^job exposure^,OR,on job^,OR,^ on job^,OR,^WORKER COMP^,OR,^WORKERS COMP^,OR,^WORKER S COMP^,OR,^WORKER MANS COMP^,OR,^WORKER MAN S COMP^,OR,^WORKER ON DUTY^,OR,^AT WORKED^,OR,^ AT WORKED^,OR,^COWORKER^,OR,^employee exposure^,OR,^employee acci^,OR,^employee injury^,OR,^employee complains of^,OR,^employee rela^,OR,^employee health^,OR,^exposure employee^,OR,^injury employee^,OR,^ is an employee^,OR,^ is employee^,OR,^employee,OR,(,^employee^,AND,(,^needle^,OR,^bodily fluid^,OR,^body fluid^,OR,^ on duty^,OR,on duty^,)),OR,(,^while working^,ANDNOT,(,^working out^,OR,^working at home^,OR,^working yard^,OR,^working garden^,OR,^working on^,OR,^working with^,OR,^working his yard^,OR,^working her yard^,OR,^working my yard^,OR,^working his garden^,OR,^working her^,OR,^working my garden^,)),or,WCOMP ^,or,^ WCOMP,or, ^ WCOMP ^,or,OJI ^,or,^ OJI,or, ^ OJI ^,or,OTJ ^,or,^ OTJ,or, ^ OTJ ^,or,OCCUPATIONAL EXPOSURE ^,or,^ OCCUPATIONAL EXPOSURE,or, ^OCCUPATIONAL EXPOSURE^,or,OCCUPATIONAL INJURY ^,or,^ OCCUPATIONAL INJURY,or,^OCCUPATIONAL INJURY^,or,OCCUPATIONAL HEALTH ^,or,^ OCCUPATIONAL HEALTH,or, ^OCCUPATIONAL HEALTH^,or, WRK INJURY ^,or,^ WRK INJURY,or,^ WRK INJURY ^,or,WRK ACCI^,or,^ WRK ACCI^,or,WRK REL^,or, ^ WRK REL^,or,WRK COMP^,or,^ WRK COMP^,or,^workplace^,or,WORKM[AE]N CO^,or,^ WORKM[AE]N CO^,or,WORKM[AE]NS CO^,or,^ WORKM[AE]NS CO^,or,WORKM[AE]N S CO^,or,^ WORKM[AE]N S CO^,or,(WC ^,or,^ WC,or, ^ WC ^,),andnot,(,^follow up^,or,^recheck^,),or,(,^ from wc^, or,^ by wc^, or,^ in wc^, or,^ to wc^, or,^ via wc^, or,^ of wc^, or,^ his wc^, or,^ her wc^, or,^ own wc^, or,^ bib wc^, or,^power wc^, or,^motorized wc^, or,^ into wc^, or,^ per wc^, or,^ or wc^, or,^ and wc^,),or,(,from wc^, or,by wc^, or,in wc^, or,to wc^, or,via wc^, or,of wc^, or,his wc^, or,her wc^, or,own wc^, or,bib wc^, or,^power wc^, or,^motorized wc^, or,into wc^, or,per wc^, or,or wc^, or,and wc^,)),or,^ _ work^,andnot,(,^[-.:.](\ a-z0-9] work^,or,[COMMA] work^,),or,^ _work^,andnot,(,^[-.:.](\ a-z0-9]work^,or,[COMMA]work^,),or,^ _ job^,andnot,(,^[-.:.](\ a-z0-9] job^,or,[COMMA] job^,),or,^ _job^,andnot,(,^[-.:.](\ a-z0-9]job^,or,[COMMA]job^,),or,^ _ wrk^,andnot,(,^[-.:.](\ a-z0-9] wrk^,or,[COMMA] wrk^,),or,^ _wrk^,andnot,(,^[-.:.](\ a-z0-9]wrk^,or,[COMMA]wrk^,),or,^(work)^,or,^(job)^,or,^(employee)^,or,(W/C ^,or,^ W/C,or, ^ W/C ^,),andnot,(,^follow up^,or,^follow-up^,or,^recheck^,or,^f/u^,),or,(,^ MRI ^,or,^ CT ^,or,^ CTA ^,),or,(,^ from w/c^,or,^ by w/c^, or,^ in w/c^, or,^ to w/c^, or,^ via w/c^, or,^ of w/c^, or,^ his w/c^,or,^ her w/c^,or,^ own w/c^, or,^ bib w/c^, or,^power w/c^, or,^motorized w/c^,or,^ into w/c^, or,^ per w/c^,or,^ or w/c^, or,^ and w/c^,),or,(,from w/c^,or,by w/c^, or,in w/c^,or,to w/c^, or,via w/c^,or,of w/c^, or,his w/c^, or,her w/c^, or,own w/c^, or,bib w/c^, or,^power w/c^,or,^motorized w/c^,or,into w/c^, or,per w/c^, or,or w/c^, or,and w/c^,),)

ESSENCE Occupational Query

Author: Brittany Yarnell (NE), cleaned/revised version of Laurel's query

!WCOMP!,or,!OJI!,or,!OTJ!,or,!at job!,or,!at work!,or,!on job!,or,^accident work^,or,^accident at work^,or,^coworker^,or,^during work^,or,^employee exposure^,or,

^employee acc^,or,^employee injury^,or,^employee complain^,or,^employee rel^,or,^employee health^,or,^employee,or,^exposure employee^,or,^from work^,or,^injury employee^,or,^injury work^,or,^is an employee^,or,^ is employee^,or,^job inj^,or,^job rela^,or,^job acc^,or,^job expo^,or,^sent by work^,or,^work inj^,or,^work rela^,or,^work acci^,or,^work comp^,or,^works comp^,or,^workers comp^,or,^worker comp^,or,^worker_s comp^,or,^worker mans comp^,or,^worker_man_s comp^,or,^work incident^,or,^worker on duty^,or,^Occupational exp^,or,^occupational inj^,or,^occupational health^,or,^ wrk inj^,or,!wrk injury!,or,^ wrk acci^,or,work acci^,or,^ wrk rela^,or,work rela^,or,^ wrk comp^,or,work comp^,or,^workplace^,or,^workm[ae]n co^,or,^workm[ae]ns co^,or, ^workm[ae]n_s co^,or,(,^employee^,and,(,^needle^,or,^bodily fluid^,or,^body fluid^,or,^ on duty^,or,on duty^,)),or,

(,^while working^,andnot,(,^working out^,or,^working at home^,or,^working

yard^,or,^working garden^,or,^working on^,or,^working with^,or,^working his yard^,or,^working her yard^,or,^working my

yard^,or,^working his garden^,or,^working her ^,or,^working my garden^,)),or,(,!WC!,andnot,(,^follow up^,or,^recheck^,or,^from wc^,or,^by wc^,or,^in wc^,or,^to wc^,or,^via wc^,or,^of wc^,or,his wc^,or,^ his wc^,or,her wc^,or,^ her wc^,or,^own wc^,or,^bib

wc^,or,^power wc^,or,^motorized wc^,or,^into wc^,or,^per wc^,or,or wc^,or,^ or wc^,or,^and wc^,)),or,(,^work^,or,^job^,),andnot,(,follow_up^,or,^recheck^,or,^f_u^,)),or,

(,!W/C!,andnot,(,^follow up^,or,^recheck^,or,^from w/c^,or,^by w/c^,or,^in w/c^,or,^to w/c^,or,^via w/c^,or,^of w/c^,or,his w/c^,or,^ his w/c^,or,her w/c^,or,^ her w/c^,or,^own w/c^,or,^bib

w/c^,or,^power w/c^,or,^motorized w/c^,or,^into w/c^,or,^per w/c^,or,or w/c^,or,^ or w/c^,or,^and w/c^,)),

Testing (cleaned/revised version)

1 year (week 12 2023- week 12 2024): 504,545 visits

% Probable between 47%-50%

Common issues



**Blood work,
lab work**



Not working,
don't work,
aren't working
(meds,
procedures,
etc.)



**Work of
breathing**



**Work out,
workout**



Work up,
worked up,
workup



Work excuse,
work note,
letter for work

Common issues



**Blood work,
lab work**



**Not working,
don't work,
aren't working
(meds,
procedures,
etc.)**



**Work of
breathing**



**Work out,
workout**



Work up,
worked up,
workup



Work excuse,
work note,
letter for work

Need to reconcile cleaned/revised version with original query – it's possible that original version minimized these issues



Addition of ICD Codes

- **Broad work-related codes**
 - **Work status: Y99.0 (civilian activity done for income), Y99.1 (military activity), Y99.2 (volunteer)**
 - **Z57 occupational exposure to risk factors**
 - **Z56.9 unspecified problems related to employment**

NSSP Support – Next Steps

- New **CC and DD category** rather than subsyndrome
- Connect w/liaison for help testing and finalizing
- Testing Guide for states

The screenshot displays the 'Query Wizard' interface. At the top, there are five dropdown menus: 'Datasource:' (Patient Location (Full Details)), 'Time Resolution:' (Daily), 'Detector:' (Regression/EWMA 1.5), 'As Percent Query:' (No Percentage Query), and 'Start Date:' (19Jan24). Below these, the 'Available Query Fields' section on the left lists several options, with 'CC and DD Category' highlighted. To the right, the 'CC and DD Category' section shows a list of values: CDC Fentanyl Overdose v1, CDC Fentanyl Overdose v2 Parsed, CDC Firearm Injury V1, CDC Firearm Injury v2, CDC Food Poisoning v1, and CDC Hand Foot and Mouth v1. At the bottom, there are buttons for 'Table Builder', 'Time Series', 'Data Details', 'Text Analysis', 'Graph Builder', 'Overview', and 'Adv C'.

Query Wizard

Datasource: Patient Location (Full Details) Time Resolution: Daily Detector: Regression/EWMA 1.5 As Percent Query: No Percentage Query Start Date: 19Jan24

Available Query Fields

- Diagnosis Type
- CC and DD Category
- CC and DD
- CC and DD Category Free Text
- Syndrome Subsyndrome CCDD ...
- Syndrome Subsyndrome CCDD ...

Sorts/Filters/Processing

CC and DD Category

Select values for CC and DD Category:

- CDC Fentanyl Overdose v1
- CDC Fentanyl Overdose v2 Parsed
- CDC Firearm Injury V1
- CDC Firearm Injury v2
- CDC Food Poisoning v1
- CDC Hand Foot and Mouth v1

Table Builder Time Series Data Details Text Analysis Graph Builder Overview Adv C



Needlesticks Query

- Shared w/workgroup and presented at NSSP CoP
 - MA (Angela Laramie and team) to test
 - CDC Division of Viral Hepatitis interested on collaborating (injection drug use-related needlesticks)

Modular approach

**Occupational CC
and DD category**

+

**Specific injury/illness
event(s), industry, or
occupation of interest
(e.g. asthma; falls; heat-
related; violence)**

Idea for study – discharge diagnosis codes

- National Trauma Data Bank
 - Identify ICD codes used in confirmed work-related injury visits
 - Stratify by I/O, demographics

Occupational CC
and DD category

+

Specific injury/illness
event(s), industry, or
occupation of interest
(e.g. asthma; falls; heat-
related; violence)

Other Updates

- Efforts to incorporate I/O fields – PHIN Messaging Guide
 - Currently optional fields
 - Discussions with NSSP, CoP
 - Need to demonstrate support for this, provide feedback up the chain
 - *More to come*

Thank you!

Thoughts/Questions?