



Barriers and Practical Solutions to Medical Event Reporting

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Contents

| | |
|---|----|
| Introduction | 2 |
| Providers Do Not Report..... | 3 |
| CHCS Ad Hoc/Spool Reports Do Not Catch Everything | 5 |
| Laboratory Tests Sent Out for Testing (Mail Outs)..... | 5 |
| Staff Turnover | 6 |
| Does My Reporting Need to be Improved..... | 9 |
| Getting a DRSi Account Is Too Hard..... | 10 |
| Lack of Command Leadership Support | 11 |
| Points of Contact – How to Get Help..... | 12 |

Introduction

Preventive Medicine Technicians, Environmental Health Officers and other medical support staff supporting Preventive Medicine (PM) duties can face a number of barriers in carrying out reportable medical event activities. Many of these barriers are well known and experienced in civilian as well as military public health environments alike. Some barriers, however, are unique to the military environment. Understanding these barriers, along with the solutions that have been adopted by various military Medical Treatment Facilities (MTFs) to overcome the barriers, is an important step in improving disease reporting throughout Navy Medicine and can help ensure continuity over time at the local, regional, and higher headquarters level.

There are four resources that every MTF Preventive Medicine Department (PMD) should be aware of to effectively address barriers: local instruction and standard operating procedures (SOPs), CHCS (Composite HealthCare System) ad hocs (also known as spool reports), the DRSi (Disease Reporting System internet) Case Finding (CF) module, and the DOD ESSENCE (Electronic Surveillance System for the Early Notification of Community-Based Epidemics) Reportable Medical Events (RME) module. All MTFs should have a local instruction (implementing BUMED INST 6220.12C) describing the roles and responsibilities involved in carrying out an effective command reportable medical events program. A well written instruction will include the laboratory, clinician offices, as well as the PMD. This instruction might be an overarching PM programmatic instruction or it might focus specifically on disease reporting and surveillance. What is important is that the instruction discusses disease reporting and the duties of each department to support that program. Along with the local instruction, the PMD should have SOPs describing in detail how the PMD carries out its role as described in the instruction. More than one SOP is likely needed and a well written SOP is one in which a new staff member can use as a step-by-step guide in carrying out reporting duties.

Many MTFs query CHCS for a list of potentially reportable events. These queries allow PMDs to run reports on emergency room visits, patient admissions, infection control laboratory organisms, and other laboratory test results. These are referred to as CHCS quick keys, ad hocs, or spool reports. The queries search on laboratory test names and/or ICD-9/10 codes. PMDs run these reports regularly to identify potentially reportable events. These reports often provide very timely access to potentially reportable events.

NMCPHC receives CHCS laboratory results data from all MTFs daily. These laboratory results are searched for tests that may indicate a reportable event, similar to a CHCS ad hoc/spool report, and then inputted into DRSi as a case finding record for local PMD use. Methods are



reviewed and updated regularly to identify new laboratory test names used by local MTFs. However, case finding records do not capture all potential reportable events. First, not all reportable events have laboratory results associated with them (e.g. heat injuries). Second, some laboratory results are more definitive than others (e.g. chronic hepatitis B versus Chlamydia). When using the DRSi CF module, know that there is a delay of 2-3 days compared to local CHCS ad hoc/spool reports.

DOD ESSENCE is designed to alert local MTF PMDs to a possible outbreak. The system also has an RME module that assists PMDs with finding potentially reportable cases. Within this module, users can view ICD-10 coded records and associated laboratory results that may represent a reportable event. Sometimes, providers use incorrect ICD-10 codes (e.g. incorrectly code a measles vaccine visit for a measles diagnosis). Sometimes, a diagnosis is not easily determined in the first visit without laboratory testing so a generic ICD-10 code is used (e.g. fever instead of influenza). It can be useful, however, in identifying certain diagnoses. When using ESSENCE, know the limitations of the data and focus on the strengths of the system.

These and other resources/activities can assist local PMDs when facing barriers and challenges to carrying out disease reporting duties. Below are commonly reported barriers experienced by Navy MTFs along with potential solutions to breaking down these barriers. If you have other barriers and solutions to share, please contact the DRSi HelpDesk and let us incorporate them into this report so that other MTFs may learn from your experiences.

Providers Do Not Report

One of the biggest challenges in public health is trying to get providers to report. This is a problem that is described in detail in the published literature and is faced by almost all civilian health departments and military PMDs. Military PMDs, though, have the added benefit of being embedded in the MTF. This allows preventive medicine staff to access resources that can be relied upon in addition to provider reporting including CHCS ad hoc/spool reports, laboratory reports, sick call logs, and the DRSi CF and DOD ESSENCE RME modules.

Even when carrying out these supplemental activities, provider reporting is critical to a well-run local surveillance program especially since some diseases are not captured through the above tools and other diseases are reportable as suspect cases, even before lab confirmation can be obtained. In these cases, the diagnosing provider is the best source of that case report. It is important, therefore, that the roles and responsibilities of providers to report are clearly written in the command reportable events program instruction. If you do not have a command



reporting instruction, refer to the “Introduction” section above and the “Lack of Command Leadership Support” section below to begin drafting one.

An ongoing provider education strategy is also key to success in provider reporting. Implement a strategy that incorporates provider education one-on-one as well as in a group setting. CHCS ad hoc/spool reports, the DRSi CF module, and ESSENCE RME module can be used to identify breakdowns in provider reporting and target individual one providers who may need one-on-one education. Some PMDs host regular brown bag lunches for their MTF providers and hand out reportable events lists to hang up on office walls. NMCPHC’s brochure listing the reportable events is available for your use and can be downloaded from:

<http://www.med.navy.mil/sites/nmcphc/Documents/program-and-policy-support/DRSi-Reportable-Disease-List-brochure.pdf>. Routine lunches are helpful since providers come and go with continuous changes in duty stations. Some MTFs incorporate PM into their new provider in-briefs, allowing PMDs the opportunity to provide one-on-one education on a variety of topics including disease reporting. It is also useful for PMDs to target medical interns and residents. The key to a successful provider education strategy is ongoing education.

Some providers only like to talk with another provider and will often notify the Public Health Emergency Officer (PHEO) of an important event. Constant communication between the PMD and the PHEO can help close the reporting gap.

What can I do when providers don’t report?

- ◆ Use CHCS ad hoc/spool reports regularly
- ◆ Encourage your lab to report
- ◆ Review sick call logs and lab chits
- ◆ Ensure the responsibility of provider reporting is written in the command disease reporting instruction
- ◆ Use the DRSi Case Finding module and the ESSENCE RME module
- ◆ Develop a targeted provider outreach and education strategy including one-on-one and group outreach
- ◆ Hang up list of reportable events in provider offices
- ◆ Communicate with your PHEO to ensure two-way dialogue



CHCS Ad Hoc/Spool Reports Do Not Catch Everything

Many MTFs use CHCS ad hoc/spool reports to find their potential cases of reportable events. Some PMDs, however, have found key cases missing from these reports. CHCS ad hoc/spool reports were created a long time ago and may not have been updated to search for new laboratory test names or ICD-9/10 codes that have been added to CHCS since the creation of the ad hoc. A few MTFs, particularly Medical Centers, have CHCS coders that can update the ad hoc/spool reports. For the vast majority of MTFs, though, updating these ad hoc/spool reports can be a challenge since CHCS coders are not easily found. These MTFs can contact regional Naval Medical Centers for consultation. Sometimes Medical Center CHCS coders can assist MTFs in updating their ad hoc/spool reports. Other times, Medical Center Information Technology (IT) departments can assist MTFs in importing already updated ad hoc/spool reports available at the Medical Center. Note, however, that laboratory test names differ between MTFs and an updated ad hoc/spool report querying laboratory results in one MTF may not suffice for another MTF. Sometimes an MTF's IT department is unable or unwilling to communicate with colleagues in another MTF. PMD staff, then, should communicate with their Naval Medical Center PM counterparts to facilitate the IT communication.

What can I do when CHCS ad hoc/spool reports do not capture everything or if I am not allowed access to them?

- ◆ Contact your supporting regional Naval Medical Center for consultation on updating the ad hoc
- ◆ Use DRSi Case Finding module
- ◆ Use ESSENCE RME module

Updating CHCS ad hoc/spool reports takes time. The DRSi CF module and the ESSENCE RME module can supplement MTF case finding efforts temporarily while ad hoc/spool reports are being updated. Be aware, though, that data from these two sources are slightly delayed (up to 2-3 days) compared to local CHCS ad hoc/spool reports. The DRSi CF and ESSENCE RME modules are also good tools to use for those MTF PMDs that do not have access to the keys to run CHCS ad hoc/spool reports.

Laboratory Tests Sent Out for Testing (Mail Outs)

At times, MTF laboratories send specimens as mail-outs to be performed by outside laboratories. These could be contract laboratories or laboratories located in referral military



MTFs. Laboratory testing may be done outside of the MTF for uncommon reportable events tests like Lyme disease Western Blots. It can also occur with common reportable events like chlamydia and gonorrhea, particularly for some OCONUS branch health clinics. Laboratory results in these cases could take days to weeks to receive back from the outside lab. This can complicate case investigations as PM staff is often unable to contact the case patient after such a long period of time following the clinic visit. Additionally, these laboratory results may not appear in your CHCS ad hoc/spool report, DRSi case finding module or ESSENCE RME module depending on how your MTF enters such laboratory results into CHCS.

Visit your laboratory and learn what specimens are mailed out, to whom they are mailed, how long it takes for results to return, and how those results are recorded in your MTF's CHCS. Work with the laboratory to ensure the laboratory results are entered into CHCS such that you can see them in your CHCS ad hoc/spool report, DRSi CF module, or ESSENCE RME module. If

What can I do when lab tests are sent out as mail-outs?

- ◆ Visit your lab and know what is tested in-house and what is sent out
- ◆ Work with your lab to ensure return test results are seen in CHCS ad hoc/spool reports and DRSi case finding module
- ◆ Use AHLTA to gather information for the MER

you cannot see the lab results; it is possible the diagnosing provider cannot see them as well causing a further breakdown in clinical care. An MTF's responsibility to report begins when the patient is diagnosed. Furthermore, even though you may not be able to interview the patient given the passage of time, an AHLTA review usually provides sufficient information to determine if the case is reportable or not. If the case is reportable, enter as much information as possible in the MER (Medical Event Report).

Staff Turnover

MTF reporting almost always suffers when there is a turnover in staff, especially when multiple staff members in the PMD are changing duty stations at once. Every MTF is different so new staff, whether experienced or not, have some things to learn about the new environment. When you are new to an MTF learn how the local laboratory accessions and mails out laboratory specimens, how and from where patients may be referred for clinical care, and how healthcare is managed for operational units, shore units, and their families. When there is turnover, knowledge of these practices and established communication pathways often leaves with them despite attempts to create Standard Operating Procedures (SOPs). One of the most effective things you can do is contact previous staff members and interview them. Such



networking can save you a significant amount of time and can lead you to the SOPs that have been generated. If this is not possible, starting from the beginning may be the only solution.

Visit the laboratory to understand how laboratory tests of potentially reportable events are conducted. As described above in the “Laboratory Tests Sent Out for Testing” section, specimens could be mailed out for testing. Know which tests are sent outside the MTF for testing as well as to whom they are mailed for testing. If they are mailed out to another military MTF, know that these may not appear in your CHCS ad hoc/spool reports depending on how your MTF enters such lab results into CHCS. Work with the preventive medicine staff of the MTF performing the lab test to ensure it is clear who will take responsibility for reporting the case. If both MTFs are taking responsibility, arrangements can be made to provide you with DRSi access to both MTFs; contact the DRSi HelpDesk for more information.

Get access to MTF CHCS ad hoc/spool reports. Examine them to see if they are outdated or not (you can use the DRSi case finding module and the ESSENCE RME module for this as a gauge). If they are outdated, refer to the section above titled “CHCS Ad Hoc/Spool Reports Do Not Catch Everything”.

What can I do when there is staff turnover and everyone is new?

- ◆ **Contact previous staff members and interview them**
- ◆ **Visit your lab and know what is tested in house and what is sent out**
- ◆ **If labs are mailed out to another military MTF, work out who will take the responsibility for reporting**
- ◆ **Get access to CHCS ad hoc/spool reports and assess them**
- ◆ **Know your population and how they get their healthcare**
- ◆ **Work with operational units who have their own providers to identify who will take responsibility for reporting**
- ◆ **Assess how well you are finding your cases**
- ◆ **Establish SOPs that are cited by a command instruction**
- ◆ **Know the reporting requirements and processes, take advantage of NMCPHC training resources, and contact your NEPMU with any unanswered questions**

Knowing the population you serve is also important, particularly if you serve operational units and shore-based units. Operational units may have their own providers and preventive



medicine assets though they use clinic ancillary services like laboratory, pharmacy, and radiology. If they use the clinic laboratory, these patients may appear in your CHCS ad hoc/spool reports as well as DRSi CF and ESSENCE RME modules. In CHCS, these patients may even appear to be clinic patients depending on how the laboratory records the specimen in CHCS. Work with your counterparts in the operational units to ensure everyone is clear on who will take responsibility for reporting cases. In some geographic areas, this may be the MTF. In other areas, the embedded PMTs report their own cases and look to MTF PMTs for reach back assistance as needed. If operational units are reporting their own cases, work with them to ensure they have access to the same case finding resources that you have access to. Sometimes your MTF leadership will need to get involved, but this is an important issue to work out ahead of time before you face an emerging public health threat.

Establish a plan to assess how well you are finding your cases in the early months. Refer to the section below titled “Does my Reporting Need to be Improved” for details on how to do this.

Document your efforts in SOPs cited by a command reporting or PM instruction so they don't get lost. An alternative is to send your SOPs to the DRSi HelpDesk and we'll keep an archive of them in case your successors are looking for them.

If you are new to reporting not only do you want to learn how to navigate the waters in your MTF, but also the basics about disease reporting. Read up on your responsibilities and Navy Medicine's disease reporting strategy, become familiar with the key references you will need, access the training resources available, and keep your cognizant NEPMU's contact information handy (see “Point of Contact” section below) to fill your knowledge gaps. The NMCPHC Medical Event Reporting webpage (<http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/disease-surveillance/Pages/default.aspx>) can introduce you to some of the resources you need. First and foremost, become familiar with BUMED INST 6220.12C and NMCPHC-TM 6220.12. These outline the requirements and processes for disease reporting in the Navy and Marine Corps. The DRSi webpage (<http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/drsi/Pages/default.aspx>) provides access to training guides, videos, and PowerPoints. NMCPHC also hosts Monthly Disease Surveillance webinars designed to be refresher trainings for local PM personnel. They are hosted live at the end of every month from January to October and are also recorded and posted on the web for later viewing. More information can be found at: <http://www.med.navy.mil/sites/nmcphc/program-and-policy-support/drsi/monthly-disease-surveillance-training/Pages/default.aspx>. As you carry out your disease reporting duties, ask questions of staff who are more experienced than you. Finally, contact your supporting NEPMU



with any unanswered questions you have. They are standing by to assist.

Does My Reporting Need to be Improved

Many PMDs report in DRSi regularly and have processes in place to find cases and conduct investigations. These processes, however, could be outdated and without a regular objective assessment, you may not know there is a need for process improvement. Assessments do not have to be long involved studies or data analyses. Rather, you should conduct quick, periodic assessments to identify significant gaps. Several tools are available to help you quickly assess whether your MTF is capturing and reporting cases adequately including: the DRSi CF module, the ESSENCE RME module, and NMCPHC's quarterly MTF Case Finding report. Use these tools to identify reportable medical events that you haven't reported (i.e. that you did not find in your normal routine case finding processes).

The DRSi CF module can serve as an additional "CHCS ad hoc or spool report" for laboratory test results, though the data are delayed by 2-3 days. Any case finding record labelled as "positive" likely represents a reportable event. Case finding records that haven't been reported as yet can serve as a quick assessment for MTFs to help determine why that case wasn't captured through existing processes. In a similar manner, the ESSENCE MER module can also serve as an additional assessment vehicle for diseases not subject to poor ICD-10 coding. Within ESSENCE, a user can also access lab results for the ICD-10 coded recorded to quickly determine if the record represents a reportable event.

NMCPHC publishes a quarterly MTF Case Finding report. It is a process improvement metric report showing completeness of reporting by MTF. This has been a valuable tool for many MTFs to help gauge performance. MTFs showing below 70% completeness of reporting are likely not capturing many of their cases and could benefit from process improvement measures. You can request a listing of cases used in the report to conduct an internal assessment. If you are tracking your progress monthly, NMCPHC can also produce

How do I know when my reporting needs to be improved?

- ◆ Conduct quick periodic assessments of how well you are finding your cases
- ◆ Use tools like DRSi CF module to find reportable events that you missed in your routine daily activities
- ◆ Refer to the NMCPHC Quarterly MTF Case Finding Report for your % completeness of reporting
- ◆ Conduct a program assessment based on the command reporting instruction as part of the command assessment program



monthly CF reports for your MTF temporarily, ahead of the quarterly reports. Contact the DRSi HelpDesk for more information. NMCPHC and NEPMU SMEs are standing by to provide assistance.

In addition to the above mentioned tools, PMDs should take advantage of the command assessment program. Conduct a comprehensive review and assessment of the command reporting instruction and solicit the participation of non-PM staff to participate as they can provide objective opinions and inputs into the review. Do not forget that an important part of this review is to propose updates to the instruction; incorporate into the instruction what you believe should be assessed. This will enable a more effective assessment in the future.

Getting a DRSi Account Is Too Hard

DRSi contains personally identifiable information along with sensitive diagnoses attached to personal identifiers. In order to protect this information, a special System Account Access Request (SAAR) form is used to comply with security and information assurance regulations. To be able to access DRSi data and report MERs in the system, users must fill out the SAAR form and obtain the signature of a supervisor with by-direction authority. The supervisor signature ensures the requestor does in fact have a legitimate right to access the data. The SAAR form has one page of fillable information that should take no longer than five minutes to fill out. Supervisors can sign digitally using their CAC card. If this is done, an account request should take no more than 4 working hours to be granted once the DRSi HelpDesk receives the request. If the supervisor signs the SAAR form by hand, then the DRSi HelpDesk is required to verify the signature through a digitally signed email with that supervisor before granting the account. This process could take several days depending on the time it takes to receive supervisor response. Detailed instructions on how to fill out the SAAR form can be found at: http://www.med.navy.mil/sites/nmcphc/Documents/program-and-policy-support/DD-2875_NDRSi.pdf.

Sometimes, an account cannot be granted so easily. This may occur when an MTF is asking for access to the data reported by another Service's MTF, when account requests come from people other than an outpatient or inpatient unit, or when an account request reveals problems with underlying reporting units in DRSi that need to be fixed before an account is issued. Whenever an account request is delayed, requestors should still expect email or phone communication from the DRSi HelpDesk within 2 working days.

If you have not received a response from the HelpDesk within two working days of submitting



your request or question, please contact the DRSi HelpDesk again via email or phone. The lack of response could be indicative of an underlying email problem that needs to be addressed sooner rather than later. The HelpDesk is typically open from 0700 to 2100 ET, Monday through Friday except on holidays.

How can I get a DRSi account easily and quickly?

- ◆ Fill out the SAAR form (one-pager)
- ◆ Have your supervisor digitally sign the SAAR form
- ◆ Submit the form to the DRSi HelpDesk via email
- ◆ Most accounts are granted within hours if it's a working day
- ◆ If you do not get a response from the DRSi HelpDesk within two days, contact them

Some MTFs have expressed that the DRSi account request process is too complicated and cumbersome. Typically, this is due to confusion between the ESSENCE and DRSi account request process. ESSENCE is managed by the Defense Health Agency (DHA) and account requests go through a long arduous process. This process is not managed by NMCPHC though we do serve as advocates for Navy MTFs. If you have concerns regarding the DRSi account request process or if you are having problems with getting access to ESSENCE, please contact the DRSi HelpDesk.

Lack of Command Leadership Support

Sometimes, command leaders do not understand the value and importance of reportable medical events. This can lead to competing priorities and a disregard of the requirement to report. This may even lead to understaffing of the preventive medicine department, further undermining reporting activities. Reporting is not solely a military process. It is an effort underscored by state, national, and international health regulations due to the potential for disease spread as well as morbidity and mortality consequences. With the increased emphasis on biosurveillance readiness and the increased desire of our most senior leaders to maintain situational awareness, the requirement to report is receiving significant attention at the DOD level.

A command disease reporting instruction highlights the importance of the program. If your command does not have one, draft one or incorporate the program elements into an existing



overarching preventive medicine instruction. Having the program codified in this way ensures visibility, involvement, and buy-in by command leadership. Contact your colleagues at other commands and ask them for their instructions as go-bys. Example instructions are available by contacting your cognizant NEPMU or the DRSi HelpDesk. Refer to the “Introduction” section above for more information on what elements a good instruction includes.

For commands with an instruction in place, taking advantage of the command assessment program, JACHO inspections, or command lean six sigma efforts can be invaluable. These assessment processes receive attention by the command executive board. Involving non-PM staff in the assessment also provides relevance to the effort. These processes provide a formal method for reviewing your efforts, identifying your gaps, and monitoring the actions you put into place to improve the program. It is the monitoring piece that is done at the executive level.

NMCPHC’s quarterly MTF CF Report showing completeness of reporting by MTFs is sent to MTF commanders through the Navy Medical Regions in an effort to emphasize the importance of this activity. Command leadership may be willing to give disease reporting and surveillance more attention when they see this report. Furthermore, NEPMUs can advise and assist in breaking down the barriers of leadership indifference.

How can I get the support of my command leadership?

- ◆ Establish a command reporting instruction
- ◆ Utilize a formal process to conduct an assessment like JACHO, lean six sigma, or command assessment program
- ◆ Share the NMCPHC Quarterly MTF CF Report with your leaders
- ◆ Contact your NEPMU for advice and assistance

Points of Contact – How to Get Help

If you need assistance in breaking down your barriers to reporting, contact your cognizant NEPMU or the DRSi HelpDesk. We are standing by to assist.

Navy Environmental Preventive Medicine Unit Two

DSN: 377-6600 Comm: (757) 953-6600

E-mail: usn.hampton-roads.navhospporsva.list.nepmu2norfolk-threatassess@mail.mil

Web site: <http://www.med.navy.mil/sites/nmcphc/nepmu-2/Pages/default.aspx>

Navy Environmental Preventive Medicine Unit Five



DSN: 526-7070 Comm: (619) 556-7070

E-mail: usn.san-diego.navenpvntmedufive.list.nepmu5-health-surveillance@mail.mil

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