

ACES NEWSLETTER

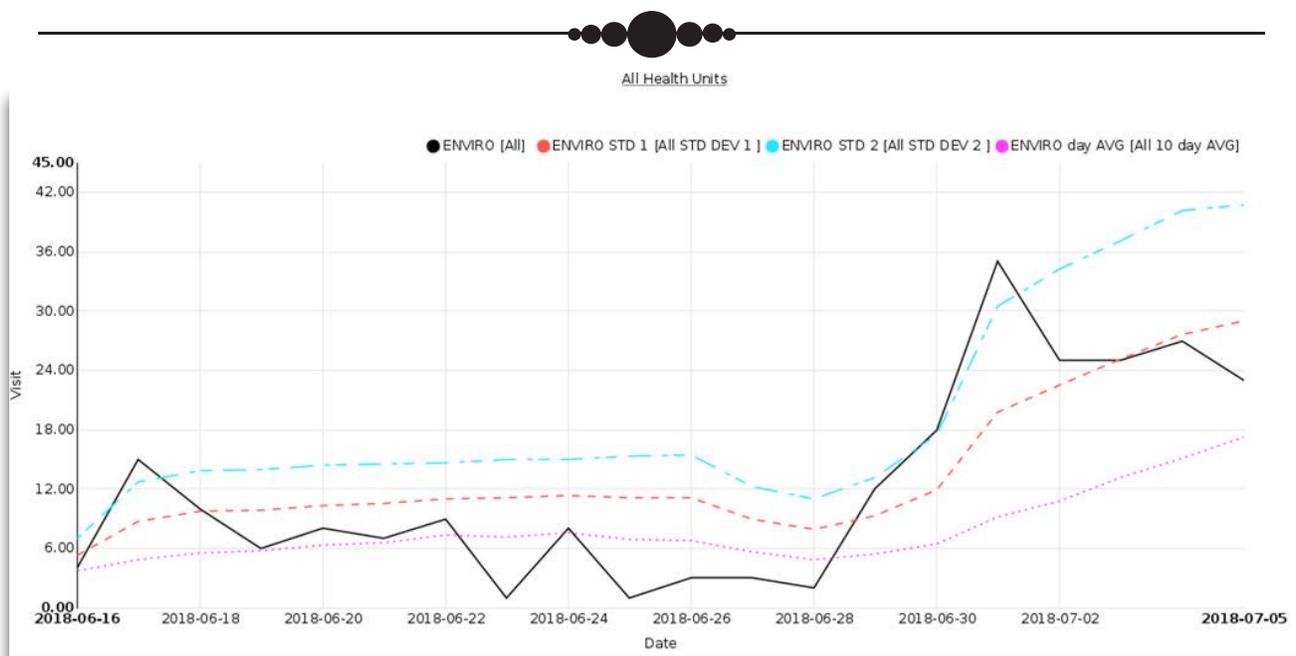
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RETRAINING THE CLASSIFIER

TOOLS FOR MONITORING HEAT-RELATED ILLNESS

“ACES has allowed us to develop relationships and open communication channels with our partners at our local hospitals.” - Celine Butler, Epidemiologist, Timiskaming Health Unit

EPI CORNER - ACES FOR MONITORING HEAT-RELATED ILLNESS



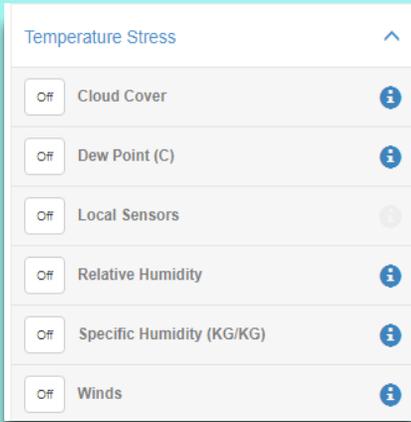
Within ACES there are a number of syndromes that are useful for tracking the effects of heat on health, the most pertinent being "ENVIRO". This syndrome captures complaints of heat exhaustion, heat stroke, hypothermia, sunburn, etc. The graph above shows the sharp upswing for this syndrome across the province during the first week of July. Extreme heat can also exacerbate pre-existing breathing ailments such as COPD and Asthma, both of which are syndromes in ACES ("COPD", "AST"). Lesser known syndromes such as "DEHY" (dehydration), "CHF" (congestive heart failure), "CV" (cardiovascular), "MH" (mental health issues) and "HEAD" (headaches) can also be monitored for increases as these can all be side effects of prolonged heat exposure. Keep in mind that some of these syndromes are very specific and counts may be very small, especially when drilling down to a health unit level. Syndromes such as "COPD", "CHF", and "CV" will likely be monitored best via inpatient admissions rather than ED visits, as the complaint fields for admissions are far more descriptive than ED triage complaints.



PHIMS FOR MONITORING HEAT-RELATED ILLNESS

Another tool that can be used in conjunction with ACES is the Public Health Information Management System (PHIMS). Within PHIMS, users can select the “Temperature Stress” drop down menu (top image) to see a variety of environmental data such as heat warnings, temperatures (along with radar forecasts) smog/particulate concentrations and wind speeds/directions. The bottom image shows the demographic layers available in PHIMS. The layers within this drop down menu define material and social deprivation indices, and layers to help you locate areas with a higher preponderance of elderly people or children under the age of four (both of these groups are more susceptible to extreme, prolonged heat events).

If you would like access to PHIMS, or want to learn more about it, please visit <http://phims.ca/auth/login>



UP AND COMING: NEW ACES CLASSIFIER

In 2014 ACES was re-branded, and the former seven-syndrome RODS system was replaced with over 80 syndromes hand classified by a random pull of almost 35,000 visit records. Machine learning drills were done on the system to train ACES’s current classifier, but as some of you may have noticed, some syndrome misclassifications did occur. The team was committed to ensuring optimal performance, however training a new classifier is a massive undertaking. Work began in 2017 to compile all known misclassifications and factor them into a new training

data set. The new classifier has been trained and all of the historic data within ACES has been reclassified using the new version. We are currently working on comparing the 2014 and 2018 classifiers so that when we release the new one, we’ll be able to tell you exactly what changes you can expect to see. The 2014 classifier will remain the default until users are comfortable with and confident in the 2018 version.

It came to our attention that the links provided in a previous newsletter for the Surge and Opioid Monitors had stopped working after updates were performed. The links provided below are stable and can be used henceforth:

<http://www.kflaphi.ca/ontario-acute-care-surge-monitor>
<http://www.kflaphi.ca/ontario-opioid-surveillance-monitor>

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