

# CONTAGIOUS COMMENTS

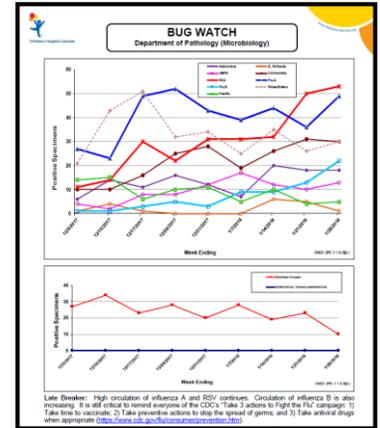
## Department of Epidemiology

### New “Bug Watch 2.0” Rolls-Out

Kelly Pearce, Christine Robinson, PhD, and James K. Todd, MD

In 2002, we published an evaluation of a surveillance system using laboratory isolate data on a weekly basis to better predict the incidence of infectious diseases in the community and their impact on hospitalizations and office practice. We concluded that: “An Internet-based surveillance network linking a hospital with community physicians is beneficial to the hospital in predicting waves of severe cases requiring admission and reciprocally provides useful information to physicians in daily practice regarding the incidence and cause of seasonal disease in the community.”<sup>1</sup>

Ever since then, under the editorial supervision of Chris Nyquist, Chris Robinson, and Carolyn Brock, we have published **Bug Watch** (sample on right) on a weekly basis with wide dissemination within the hospital and community. An added bonus, has been the **Bug Watch** “Late Breaker” that we edit every Tuesday at our Epidemiology Executive Committee meeting. Through it, we strive to keep everyone up-to-date on the latest treatment and prevention advice relevant to diseases and organisms that are currently going through the community.



**Good Morning Carolyn:**

**In case we never tell you, this BUG WATCH is SOOOO helpful to my office staff whenever you publish it! I print it each week, and have available (in color) for our triage nurses in the office; our patients' parents really like to know "what's going around", plus very helpful in triaging symptoms over the phone.**

**So, a special thanks for all this information each week, it is VERY appreciated.**

**Jody Mathie, M.D.  
Cherry Creek Pediatrics**

Many community physicians have found that knowing the prevalent organisms going around at the time gives them confidence in their clinical diagnosis and, more importantly, gives families confidence that it actually is “just a virus” and explains why antibiotics might not really be necessary. It has been so gratifying to see a print-out of the latest weekly edition of **Bug Watch** pinned to many bulletin boards in hospital staff rooms and community practices throughout Colorado.

With each subsequent year, **Bug Watch** has become more comprehensive, as new respiratory and enteric pathogens have been identified. At present, our Clinical Microbiology Laboratory has GI, respiratory and meningitis/encephalitis PCR panels that detect dozens of common pathogens and even some rare ones. The robust nature of this technology and its real-time results paint a much more timely and diverse

picture of what’s raging through the community – a far cry from the old ‘RSV and influenza virus’ only days.

Now with major enhancements by Kelly Pearce and Chris Robinson, we have a new version that we call **Bug Watch 2.0**. Fear not, we will retain the traditional format and weekly Email and internet distribution schedule, but going forward, for those who are interested, Kelly and Chris have created tools that will allow deep dives into the diseases and organisms that invade our community over time. For now, this enhanced version will be available only to those who have CHCO intranet access but every now and then we will include some of these enhanced graphs whenever we think you might find it useful.

<sup>1</sup> Hammond, Lucinda; Papadopoulos, Spyridon; Johnson, Candice F.; MaWhinney, Samantha; Nelson, Bernard; Todd, James K. (2002): Use of an Internet-based community surveillance network to predict seasonal communicable disease morbidity. In *Pediatrics* 109 (3), pp. 414–418.

Here are a few screen shots of what it can do.

Figure 1 shows a customizable area chart that quantitates the numbers of various respiratory viruses that circulate through the community on an ongoing basis. The timeframe and hospital unit(s) can be selected dynamically. This one shows the dramatic differences between summer and winter respiratory virus illness and a large number of different pathogens that play a role in childhood illness.

**Figure 1: New area chart for respiratory (also GI) pathogens (customizable by unit and timeframe)**

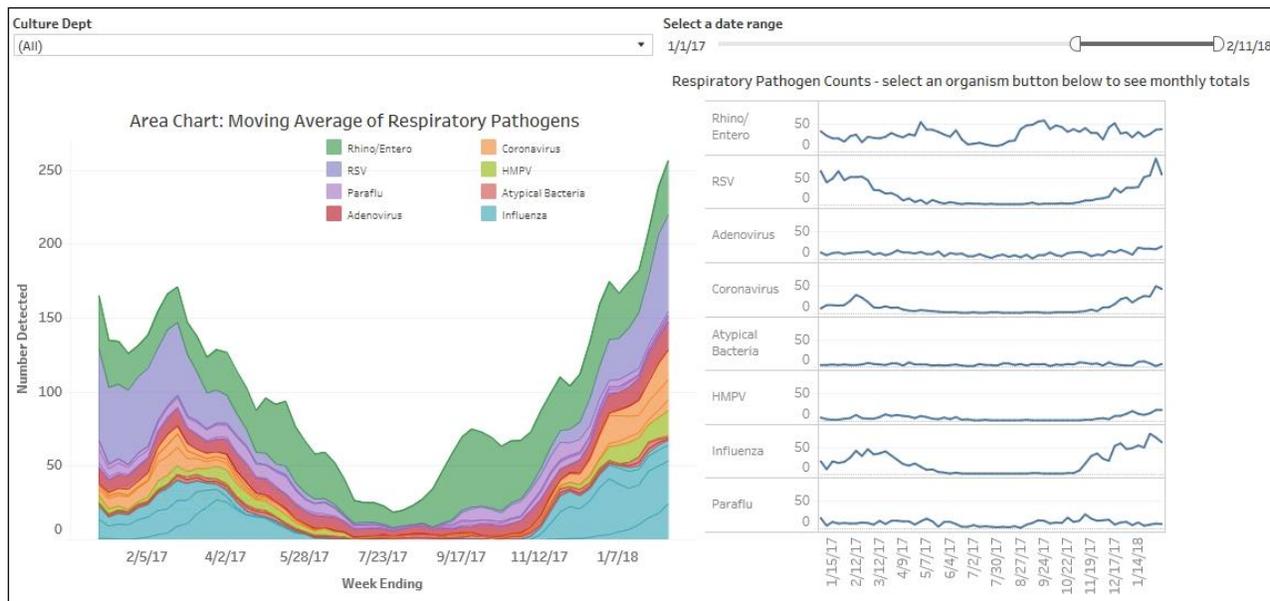
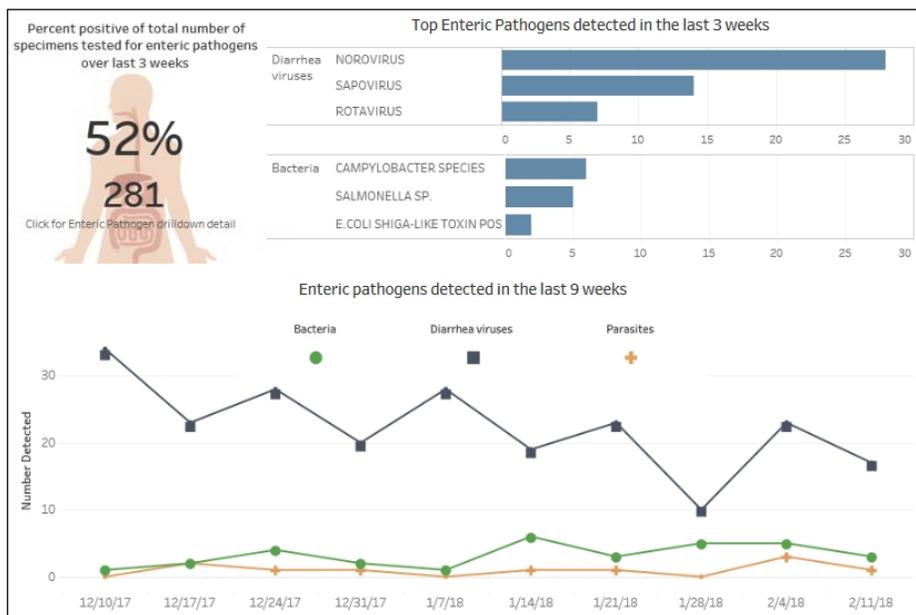


Figure 2 illustrates a different way of looking at the data, this time using G.I. pathogens as the example (a respiratory pathogen version is also available). Here, it shows the contribution of bacterial, viral and parasitic organisms in children with gastroenteritis with a breakdown of the top organisms in each category over the most recent three and nine weeks. Using these and other new tools, now included in **Bug Watch 2.0**, clinicians and investigators will have access to historical and real-time data that improve their ability to care for current patients and predict future resource demand.

**Figure 2: New summary of common GI (also respiratory) pathogens over time.**



How to get and use **Bug Watch**:

1. If you already are getting Bug Watch by Email or the Web: Nothing changes, you'll keep getting it.
2. If you would like to start getting it: Email Carolyn Brock at – [carolyn.brock@childrenscolorado.org](mailto:carolyn.brock@childrenscolorado.org)
3. If you want access to the enhanced version of Bug Watch 2.0, and have access to CHCO intranet:
  - a. Click on this [Bug Watch 2.0](#) link. If any issues accessing Bug Watch 2.0 please contact Kelly Pearce at [kelly.pearce@childrenscolorado.org](mailto:kelly.pearce@childrenscolorado.org) to ensure access privileges are in place.
  - b. As mentioned, 2.0 is not yet available to the public, however the traditional Bug Watch version is available via email. Please contact Carolyn Brock to be added to the weekly distribution list.

Let us know what you think of **Bug Watch 2.0**. We hope you like it.

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If you wish to receive this publication, please provide us with your E-mail address below.

Name: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Both the Contagious Comments and Bug Watch publications are always posted on Children's Hospital Colorado website at:  
<https://www.childrenscolorado.org/health-professionals/publications/>

Please return your E-mail address to: Carolyn Brock, Children's Hospital Colorado, Epidemiology – Box B276, 13123 E. 16<sup>th</sup> Avenue, Aurora, CO 80045 or  
E-mail address: [carolyn.brock@childrenscolorado.org](mailto:carolyn.brock@childrenscolorado.org).

Thank you for your interest in our publication.

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**Department of Epidemiology©**

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\*\* We Recycle! \*\*