Below are the response from our State Epidemiology team to your questions:

I have questions about the 2012 surveillance report issued this month on the CDPHE website. I am not sure who to send them to and have also copied Diana Herrero and Rachel Herlihy in this email in hopes that one of you forward this request to the appropriate person for these answers. My questions are below.

- What is the vaccination status for those infected by varicella? It was not included in the 2012 report, but has been provided in previous surveillance reports. Why was this information omitted in 2012? The 2011 report broke down vaccination status by severity of disease. **Severity of disease is not felt to be accurate, so we did not include this table in the most recent report, but we can provide an immunization rate for the total number of varicella cases. Of the 479 cases of varicella reported during 2012, 227 (47%) had 1 or more doses of varicella vaccine. 161 cases (34%) were unvaccinated. Vaccination status was unknown for 91 (19%) cases.**

- What is the breakdown on vaccination status for pertussis by age in terms of those appropriately vaccinated? This information has been included in previous reports, but the graph furnished in the 2012 report is no longer accompanied by this information. Why was this information omitted in the 2012 report? **This requires looking at each case individually, which wasn't possible with our large number of cases. Even when looking at each case, it isn't always possible to tell if they are 'appropriate'. Instead, we report the number of doses by age, which is more easily determined and accurate.**

- What was the vaccination status (appropriately vaccinated) for children hospitalized or who required medical treatment and what are the associated costs? We have previously requested this information and were told it was unavailable. Is it unavailable or unknown? **CDPHE does collect data about hospitalization status, but not cost.**

- For the vaccine targeted diseases in the 2012 report where vaccine strain match is necessary (meningococcal, Hib and invasive pneumococcal) please provide a breakdown on vaccination status according to strain and age. Previous reports sometimes indicate vaccination status, but not necessarily whether individuals were appropriately vaccinated and whether or not the person infected had a vaccine strain match. Please provide this information in terms of appropriately vaccinated when providing vaccination status. If this information cannot be provided, please indicate whether it is unavailable or unknown.

  **Mening:** 2 cases had a vaccine-preventable serogroup but were not in an age group targeted for vaccination (1 cases was <2 years of age and 1 was >50 years of age).
Hib: Of the 5 cases < 5 years of age since 2006, 3 were unimmunized or underimmunized, one infant had 1 dose, and 1 had an unknown vaccination status. There were no cases < 5 in 2012, and neither of the cases >5 were vaccinated (both 2012 cases of Hib were >50 years of age and not candidates for vaccination.)
Pneumo: We only collect serotype information on cases of IPD <5 years of age in the Denver Metro area. None of the 3 cases with a vaccine serotype reported during 2012 were vaccinated; 2 of these were too young to be vaccinated.

• What is the impact of personal belief exemption on vaccine targeted diseases for 2012? We have requested this information previously to be provided by age and were told it was unavailable. Is it unavailable, or unknown? **We don't collect this information.**
• What is the number of people, broken down by age and disease, who were impacted by vaccine targeted disease but for whom it was not appropriate to receive a vaccine (age, medical condition/underlying condition, etc.)? We have requested this information previously and were told it was unavailable. Is it unavailable, or unknown? **We don't have this data.**

Thank you in advance for making sure this reaches the appropriate person for response. We would appreciate an expedited response due to the compelling public interest this information represents with the introduction of HB 14-1288 yesterday.

Best,

Theresa Wrangham, Executive Director
National Vaccine Information Center - [www.NVIC.org](http://www.NVIC.org)

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Public Health Programs Director
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80246-1530

**From: "Herrero - CDPHE, Diana"**
**Subject: Fwd: Follow-Up: Colorado's PBE Stakeholder process**
**Date: July 15, 2013 10:13:40 AM MDT**
**To: Theresa Wrangham (NVIC), Rachel Herlihy (CDPHE)**

Hi Theresa -

Please see the attached documents from our Communicable Disease Section in response to your data request. It appears that they have some additional data available but not all that you requested.

Diana Herrero, MS
Interim Immunization Section Director
NVIC NOTE: Below are the responses from the attachment referred to above. NVIC questions are in black, CDPHE responses are in red.

Breakdown by age for immunization status for each vaccine with any vaccine shortages noted that may account for those that are inappropriately immunized for each disease - some of this is in the 2011 report, but is not consistently reported.

This information is not available.

Breakdown of how many of those impacted by disease that took a PBE (by age group if possible) and for which vaccines.

This information is not available.

Breakdown of how many people were impacted by disease where it was not appropriate to receive a vaccine (too young, immunocompromised, etc.);

This information is not available.

Breakdown of those with underlying conditions impacted by disease;

This information is available for specific conditions in the Denver Metro Area though our Emerging Infections Program. Please see “Active Bacterial Core Monitoring Reports” on this page http://www.colorado.gov/cs/Satellite/CDPHE-DCEED/CBON/1251607755473 for underlying medical conditions associated with meningococcal disease, Invasive Pneumococcal Disease, H.influenzae, Group A Strep, and Group B Strep.

Confirmation - only 631 cases of confirmed flu (Table of circulating virus types and subtype); Is there a breakdown by age on ILI vs verified flu cases? Not sure I am pulling the right reports here.

In the 2012-2013 influenza season, there were 1530 hospitalized influenza cases; see age breakdown below. Influenza like illness (fever, cough, sore throat) is a more general measure of the impact of influenza on the population seeking outpatient care. These data are only reported as a percentage of all outpatient visits; no age breakdown is reported. There were 630 influenza viruses characterized by the lab; this number is only intended to be used to understand the influenza types and subtypes that are circulating in Colorado; it is not a measure of the number of cases of influenza.

### Influenza-Associated Hospitalizations by Age Group, Colorado 2012-13

<table>
<thead>
<tr>
<th>Age</th>
<th>No.*</th>
<th>%</th>
<th>CO population</th>
<th>Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;6 mo</td>
<td>47</td>
<td>3.1</td>
<td>33257</td>
<td>141.3</td>
</tr>
<tr>
<td>6-23mo</td>
<td>106</td>
<td>6.9</td>
<td>99744</td>
<td>106.3</td>
</tr>
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<td>2-4</td>
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</tr>
<tr>
<td>5-18</td>
<td>133</td>
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<td>968572</td>
<td>13.7</td>
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<tr>
<td>19-24</td>
<td>42</td>
<td>2.7</td>
<td>418412</td>
<td>10.0</td>
</tr>
</tbody>
</table>
Meningitis - what number of cases were Group B (2012/2013) and what was the vaccination status?

There were 11 cases of meningococcal disease reported in Colorado 1/1/2012 – 6/30/2013. Of those, 6 were serogroup B, 4 were serogroup Y, and 1 had an unknown serogroup. Of the 6 cases with serogroup B, 5 were unvaccinated and 1 was vaccinated against meningococcal disease. See also table 6 in our annual report: http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheadernames[0]=Content-Disposition&blobheadernames[1]=Content-Type&blobheadervalue1=inline%3B+filename%3D%22Vaccine+Preventable+Disease+Surveillance+Report%2C+2011.pdf%22&blobheadervalue2=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251840117554&ssbinary=true

Breakdown by disease/age of those impacted by disease that required hospitalization, outpatient and/or that died and their vaccination status.

We have some of this information available for specific diseases in our annual report (linked above). In particular, see figures 1 and 6 and tables 5, 11, and 13. See also attached table.

Where possible - serotype breakdown of disease incidents - e.g. which cases of disease were not preventable because of serogroup? Which cases were properly immunized and match serotype, but individual still contracted disease? Age breakdown here, if possible.

See tables 6 and 16 in our annual report and “Active Bacterial Core Monitoring Reports” on this page http://www.colorado.gov/cs/Satellite/CDPHE-DCEED/CBON/1251607755473