CONTROL FLU DATA INSIGHTS

Report 1 of 3

Estimating county-wide pediatric influenza immunization uptake

disease control unit
Joe Brew

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joseph.brew@flhealth.gov

Context

This is the first in a three-part program evaluation of the "Control Flu"program using a combination of Alachua County Public Schools, Florida Shots, and Census data. This report deals with county-wide pediatric immunization rates from 2011-12 to 2013-14. The second report (mid-December 2014) will cover immunization uptake among Alachua's public school students, with a focus on assessing likelihood to immunize by sociodemographic traits (so as to assist with program targeting and identification of groups at greatest risk). The final report (January 2015) will cover the program's impact on absenteeism.

Summary

School-specific immunization rates are helpful in determining "Control Flu" program performance, and for tracking changes over time. However, school-specific rates (and changes over time) do not necessarily reflect community-wide immunization, since many families choose to get immunized outside of the "Control Flu" program. Additionally, given that (a) a number of schools do not participate in the "Control Flu" program and (b) a number of Alachua county youth residents are not enrolled in traditional schools (ie, homeschooled, institutionalized, etc.), a broader view is needed to fully understand pediatric immunization over time.

In order to provide this broader view, immunization was analyzed using Florida Shots data (instead of only "Control Flu" records). Though we have some data going through the beginning of the 2014-15 season, these are incomplete (and therefore not included in this analysis).

Details

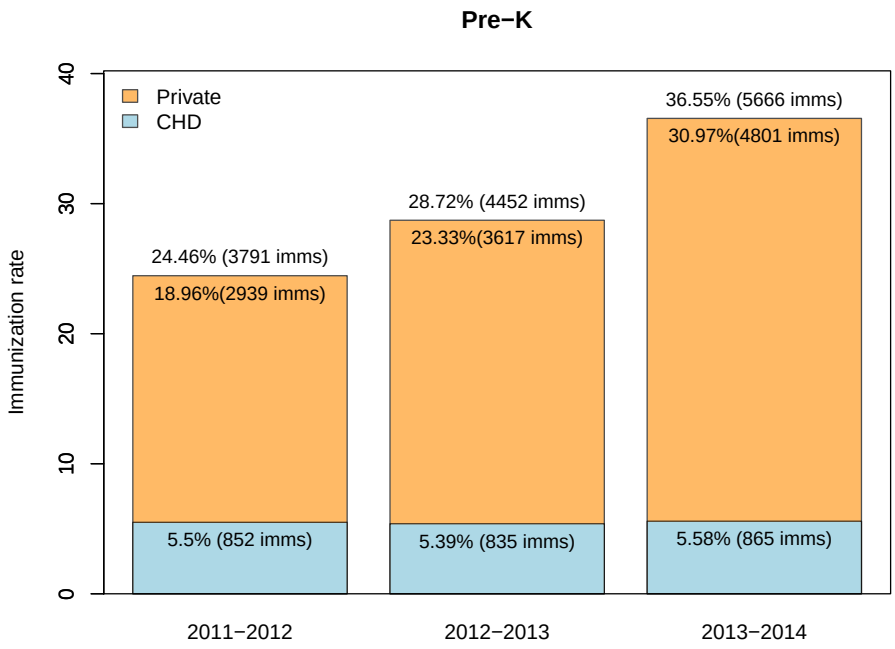
Census data was used to provide a "denominator" by which yearly county-wide immunization rates could be calculated. This has the advantage of including young people who do not attend schools which participate in the "Control Flu" program. However, age groups ("Pre-K", "Elementary", "Middle", or "High") were *estimated* based on a child's age at the date of immunization, and are therefore not exact. For example, "Pre-K" includes all children younger than age 5 (which partially explains the very low rates).

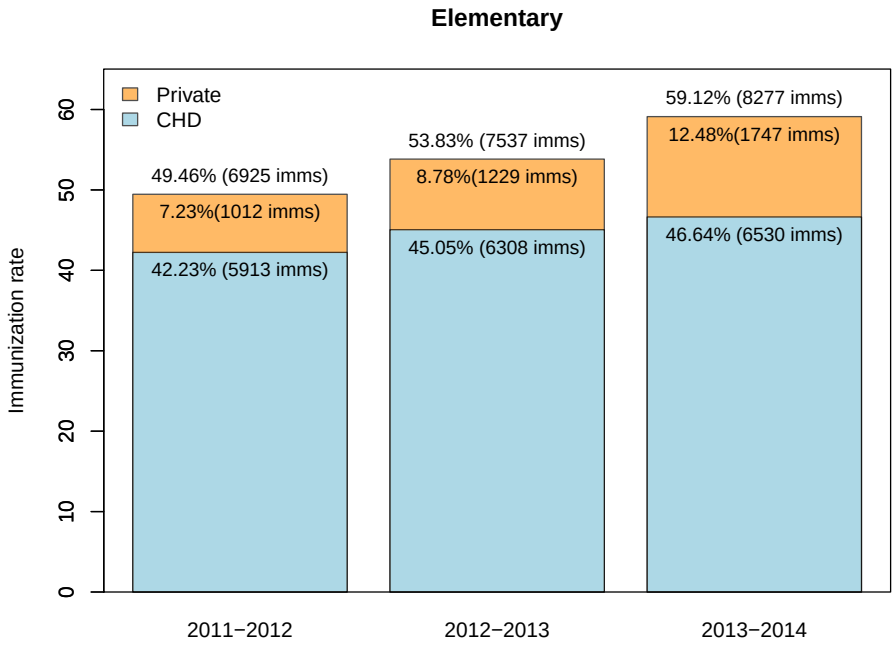
Understanding the charts

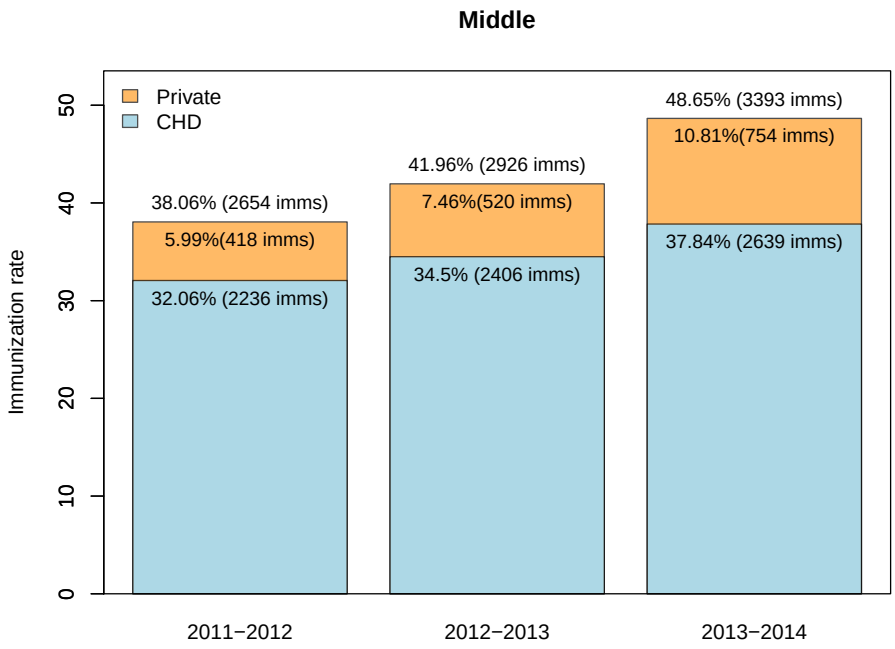
The charts on pages 3 and 4 show (a) the overall age-specific immunization rates and numbers (top of bar), (b) the number and percentage of immunizations administered by the County Health Department (CHD, blue), and (c) the number and percentage of immunizations administered by private practitioners (orange).

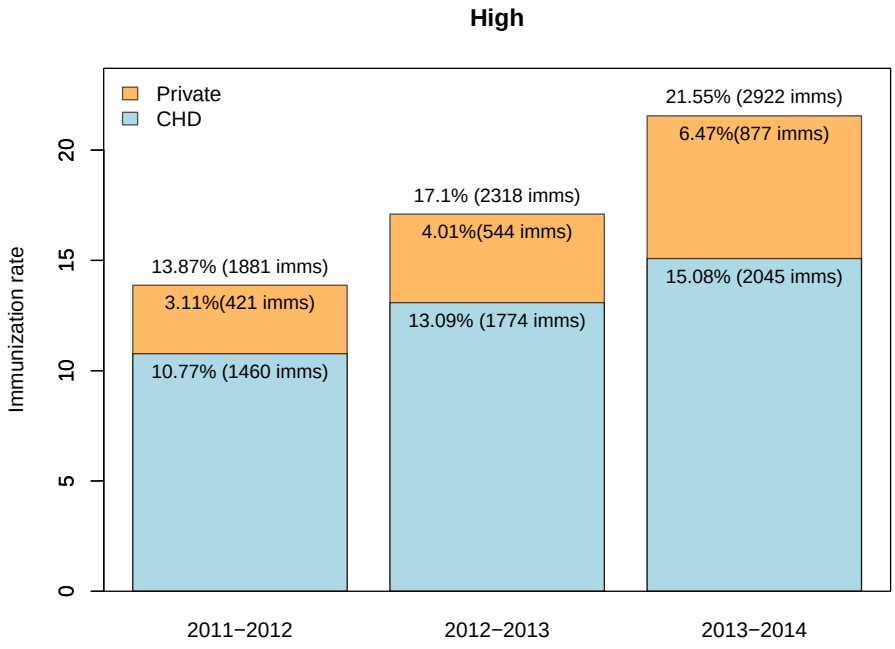
Trends and patterns

With the exception of the Pre-K age group (for whom the data are least reliable, given the age cut-offs), all age groups have seen both absolute and relative growth in immunization in the last 3 years. Of particular note is a slightly greater than expected jump in privately-administered vaccinations in the 2013-14 school year. The reasons for this are unknown, but could be related to local media attention paid to the severity of the flu season in Decmeber 2013 and January 2014.


Pre−K
Private
CHD
Immunization rate
0
10
20
30
40
24.46% (3791 imms)
18.96%(2939 imms)
5.5% (852 imms)
28.72% (4452 imms)
23.33%(3617 imms)
5.39% (835 imms)
36.55% (5666 imms)
30.97%(4801 imms)
5.58% (865 imms)
2011−2012
2012−2013
2013−2014


Elementary
Private
CHD
Immunization rate
0
10
20
30
40
50
60
49.46% (6925 imms)
7.23%(1012 imms)
42.23% (5913 imms)
53.83% (7537 imms)
8.78%(1229 imms)
45.05% (6308 imms)
59.12% (8277 imms)
12.48%(1747 imms)
46.64% (6530 imms)
2011−2012
2012−2013
2013−2014


Middle
Private
CHD
Immunization rate
0
10
20
30
40
50
38.06% (2654 imms)
5.99%(418 imms)
32.06% (2236 imms)
41.96% (2926 imms)
7.46%(520 imms)
34.5% (2406 imms)
48.65% (3393 imms)
10.81%(754 imms)
37.84% (2639 imms)
2011−2012
2012−2013
2013−2014


High
Private
CHD
Immunization rate
0
5
10
15
20
13.87% (1881 imms)
3.11%(421 imms)
10.77% (1460 imms)
17.1% (2318 imms)
4.01%(544 imms)
13.09% (1774 imms)
21.55% (2922 imms)
6.47%(877 imms)
15.08% (2045 imms)
2011−2012
2012−2013
2013−2014