

# INCREASING IMMUNIZATION COMPLIANCE AMONG SCHOOLS AND DAYCARE CENTERS IN D.C.

*Using Tableau to design school-specific immunization compliance reports*



## Target a Priority Outcome

The District of Columbia Department of Health (DC Health) Immunization Program sought to identify a cost-effective strategy to increase rates of vaccine compliance among District schools and daycares.



## Translate Evidence-Based Insights

Evidence suggests that report cards providing comparative information can be successful in increasing immunization rates: for example, healthcare providers who received feedback that compared their performance to top physicians increased flu vaccinations from 40 to 58 percent.<sup>1</sup> OES and DC Health used Tableau data visualization software to design an immunization compliance report card for school leaders that highlights the school's immunization compliance rates compared to schools in their category (e.g., day care, elementary, middle, high, etc.). The comparison rates were calculated based on category averages, the top 10%, and the district target of 98% compliance. DC Health mailed up-to-date report cards to school leaders once each semester.



**Embed Tests** Our sample included 304 schools and 396 Licensed Child Development Centers (LCDC). All education sites were randomly assigned to either the control

condition (status quo with no report card) or the report card treatment condition.



## Analyze Using Existing Data

DC Health uses the District of Columbia Immunization Information Registry System (DOCIIS) to centrally store immunization records for children and adults in the District, track immunization compliance and provide immunization data and reports, and provide online access to trainings to immunization histories. We used DOCIIS data to populate report cards for each school.



**Reanalyzed Results** The results suggest that there was no significant difference in compliance rates between treatment and control schools six

<sup>1</sup> Kiefe, Catarina I., et al. "Improving quality improvement using achievable benchmarks for physician feedback: a randomized controlled trial." *Jama* 285.22 (2001): 2871-2879.

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months post-report card treatment. Immunization compliance was 76.3% among schools that received the report cards and 76.2% among school that did not ( $p = 0.836$ , 95% CI[-2.30, 2.84]). The same null results hold among day care, elementary, middle, and high schools, and for each vaccine type.



**Build Evidence** This study illustrates how state immunization information systems (IIS) can provide school-level data on immunization rates to school

leaders as well as comparative immunization rates across a set of peer schools. Additionally, we have demonstrated that state, district, and educational policymakers could use an IIS to automate the creation of personalized non-academic report cards.