

# Correlating OTC Sales.



Using Nielsen's point-of-sale data for allergy and upper respiratory medication, Sickweather can predict activity of OTC sales.

## VENDOR INFORMATION

Nielsen is a leading provider of audience and point-of-sale measurement data.

## NIELSEN

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## CHALLENGE OUTLINED

Sickweather identified the challenge that many companies have in correlating sales data with available clinical data from the Centers for Disease Control and Prevention (CDC). Often these datasets do not correlate to each other due to the clinical nature of CDC's data. The hypothesis is that, while people who test positive for flu might purchase flu related products, people who have not been tested at all may also purchase these products whether or not they actually have flu; therefore, Sickweather's semantic analysis may provide a better correlation as those who self-identify as having flu (regardless of clinical evaluation) are counted.

Sickweather chose Nielsen as the data provider for point-of-sale (POS) data related to OTC sales of allergy and upper respiratory medication for children and adults.

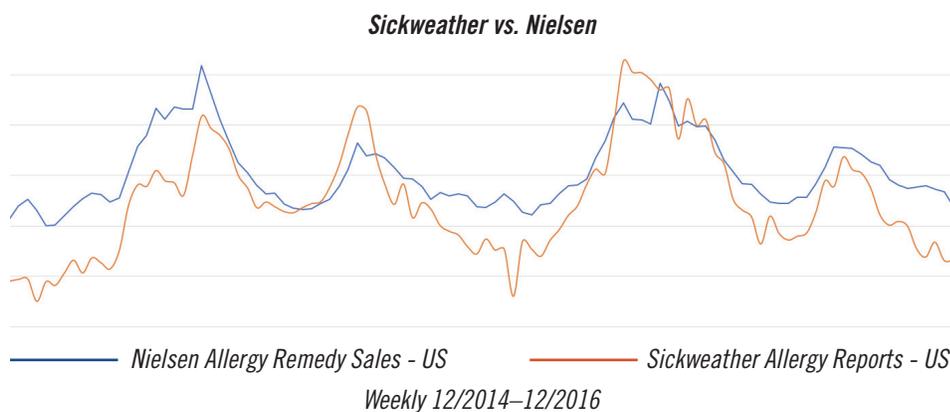
## MEASURED SUCCESS

Nielsen provides two indicators for allergy medication: (1) Allergy remedy adult; and (2) Allergy remedy children. This refers to the total number of unit sales in the U.S.

Compared to Sickweather's total counts of allergies, our count data correlates very well at the week level (the most granular data we acquired from Nielsen).

Sickweather's data achieved a Spearman correlation coefficient of 0.9 (out of a perfect 1.0) for adult allergy remedies, and 0.85 for child allergy remedies. (See comparison graph below)

Meanwhile, Sickweather's data for flu also correlated well to flu remedy purchases with a Spearman correlation coefficient of 0.8. Likewise, our sinus infection data correlated well to sinus remedies with a correlation coefficient of 0.67, which is still considered high.



Correlation coefficient of:

**0.9**

Out of a perfect 1.0