Influenza was detected in 54 of 700 visited students; and influenza B in 51 of the visited students between January 2015 and June 2017 (absenteeism counts, school influenza cases, and MAI pictured in Figure 1).

Influenza A or B was significantly associated with meeting aILI status (OR = 4.74; 95%CI: 2.78—8.18; P<0.001).

Of MAI patients, 371 had influenza A and 143 had influenza B.

a-ILI was significantly correlated with MAI in the community (Figure 2 and 3: r = 0.480; P<0.001) with a 1-day lead time.

a-ILI was significantly correlated with MAI in the community (Figure 2: r = 0.472; P<0.001) with a 15-day lead time.

a-TOT performed poorly, and followed MAI by 9 days (Figure 2: r = 0.278; P<0.001).

Figure 2. Poisson general additive log linear regression models of daily counts of medically attended influenza in the community (MAI: top row), absenteeism due to influenza-like illness (a-ILI: 2nd row), absenteeism due to illness (a-1: 3rd row), a-ILI in kindergarten through 4th grade (a-ILI K-4: 4th row), and total absenteeism (a-TOT: bottom row). Daily school absenteeism within the Oregon School District, Oregon, WI, from September 2014 through June 2017.

Figure 3. Example showing correlations between a-ILI and MAI cases for varying lags, for the entire series (All Years) and for each school year. The correlations are Pearson (ordinary) correlations of the square-root-transformed counts. The dashed lines represent the critical values for a test of zero correlation.