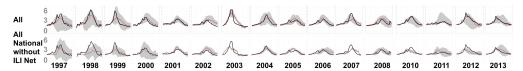


## 1 Forecast comparison



S1 Fig. Historical flu forecasts from 1997-1998 through 2013-2014 (excluding 2009-2010) from two of the optimized five-source systems. The 'All' system was optimized from all candidate data sources; the 'All national without ILINet' system was optimized from all national-scale data sources except ILINet. These correspond to the third and fifth systems listed in Table 1, respectively. Plots show the actual (black) and forecasted (red) time series with 95% credible intervals (gray). Across all 16 out-of-sample forecasts, we calculated the proportion of weeks in which the forecasted 95% credible interval contains the historical ILINet value, and found that the 'All' and 'All national without ILINet' systems achieved 87% and 66% accuracy, respectively.

PLOS 1/??