Comprehensive Early Warning & Response for COVID-19 & Contagious Illness



PROBLEM

We need an **early warning system** to get ahead of outbreaks.

SOLUTION

Kinsa's provides a **2-4 week leading indicator of COVID-19.**





OREGON

• Oregon State University • Oregon Health & Science University

NATIONALLY

- Missouri
- Louisiana
- Nebraska
- Colorado
- Connecticut

- New Orleans
- New York City
- Philadelphia
- U.S. Department of Health & Human Services
- Centers for Disease Control & Prevention

PRE-HEALTH CARE SYSTEM COMMUNICATION





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18-DAY ADVANCE WARNING IN NEW YORK CITY





... AND ACROSS THE U.S.



Credit: New York Times



... AND ACROSS THE U.S.



Credit: New York Times

OREGON SNAPSHOT





Kinsa's Rate of Transmission (Rt) measures the rate at which influenza-like illnesses, including COVID-19, are spreading in different parts of the country in real-time.

KEY TAKEAWAYS

- The rate of transmission (Rt) in Oregon has been below 1 for the last few weeks.
- However, recently Rt has increased steeply and is now slightly above 1.
- Oregon's current case count is low, but if Rt continues to rise, the downward trend in new cases may slow or reverse.

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AUGMENT OREGON'S TESTING EFFORTS



- Capture mildly
 symptomatic spread
- Focus on underserved families





Safely Open Schools

Real-time information for local and statewide decisions

Build the Network

Kinsa handles all logistics

Proven program: 6 years of evidence

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BETTER HEALTH

- → 27% decrease in illness-based absenteeism*
- → Families with flu symptoms see the doctor half a day earlier when guided
- → 65% of parents and school staff check health alerts weekly

SUPPORT UNDERSERVED COMMUNITIES

- → 85% of schools are Title I
- → 40% of families did not own a thermometer (but 75% had access to a smart phone with cellular service)

We can build this now, even **before schools reopen**.

Real-Time Data

Pictured: Kinsa FLUency[™] School Health Dashboard



WE DON'T HAVE FUNDING FOR OREGON SCHOOLS



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RECOMMENDATIONS

Use the Data

Empower decision makers with **real-time information**

Bolster the Network - 1

Utilize OHSU purchased smart thermometers not yet distributed (~43k)

Bolster the Network - 2

Deploy **80k more smart thermometers** statewide via Kinsa FLUency[™]



Thank You

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APPENDIX

Oregon State University is a research collaborator on breakthrough science for outbreak detection and forecasting:

- Real-time detection of COVID-19 epicenters within the United States using a network of smart thermometers; Chamberlain et al. Source: www.medrxiv.org/content/10.1101/2020.04.06.20039909v1
- Long-range local influenza forecasts via distributed syndromic monitoring: preliminary results; Dalziel et al. Source: www.medrxiv.org/content/10.1101/2020.06.07.20078956v1
- Accuracy of COVID-19 outbreak detection using a smart thermometer network. Chamberlain et al. (in preparation)