

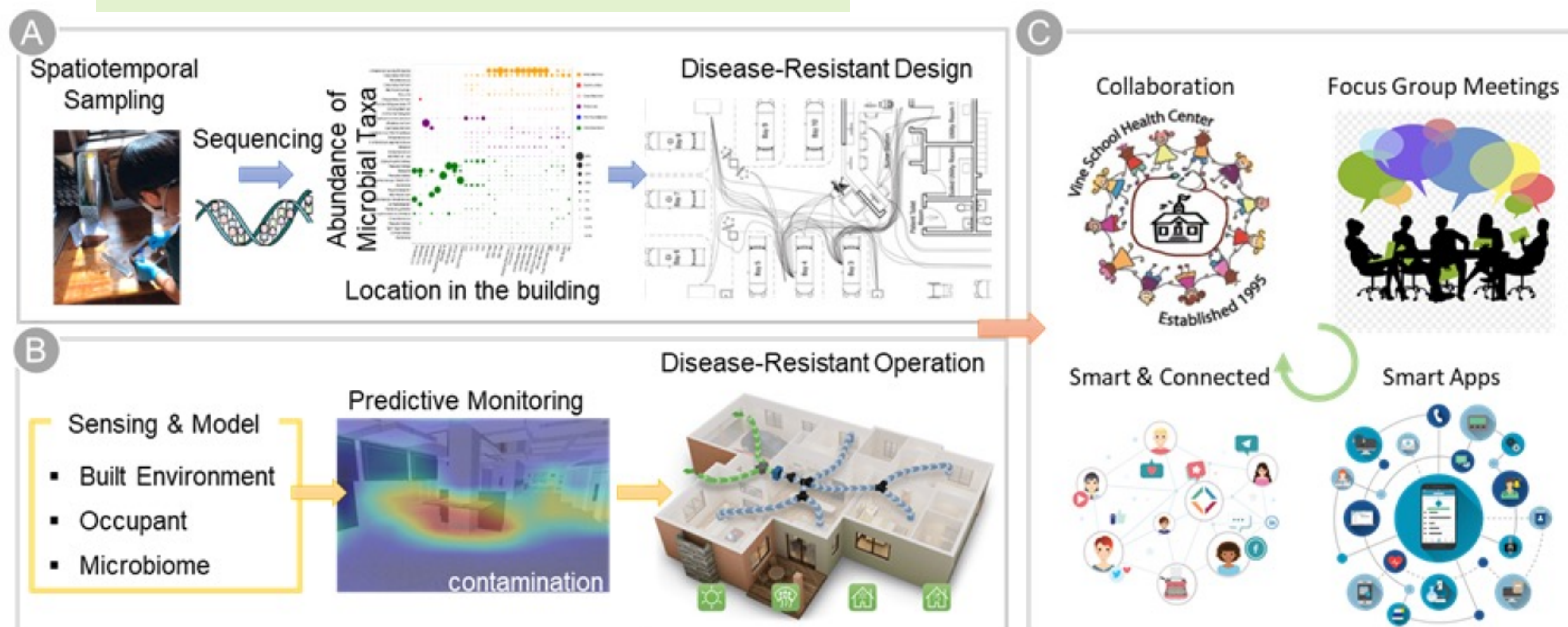
# Toward Disease-Resistant School Communities by Reinventing the Interfaces among Built Environments, Occupants, and Microbiomes

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## Introduction

- Unhealthy school environments could expose 60 million children and 7 million adults to pathogens, pollutants, and poor classroom conditions in 130,000 schools in the U.S.
- This project aims to engage schools and community stakeholders to co-develop a transformative paradigm to customize school designs, adapt school operations, and recommend social practices to improve school health.

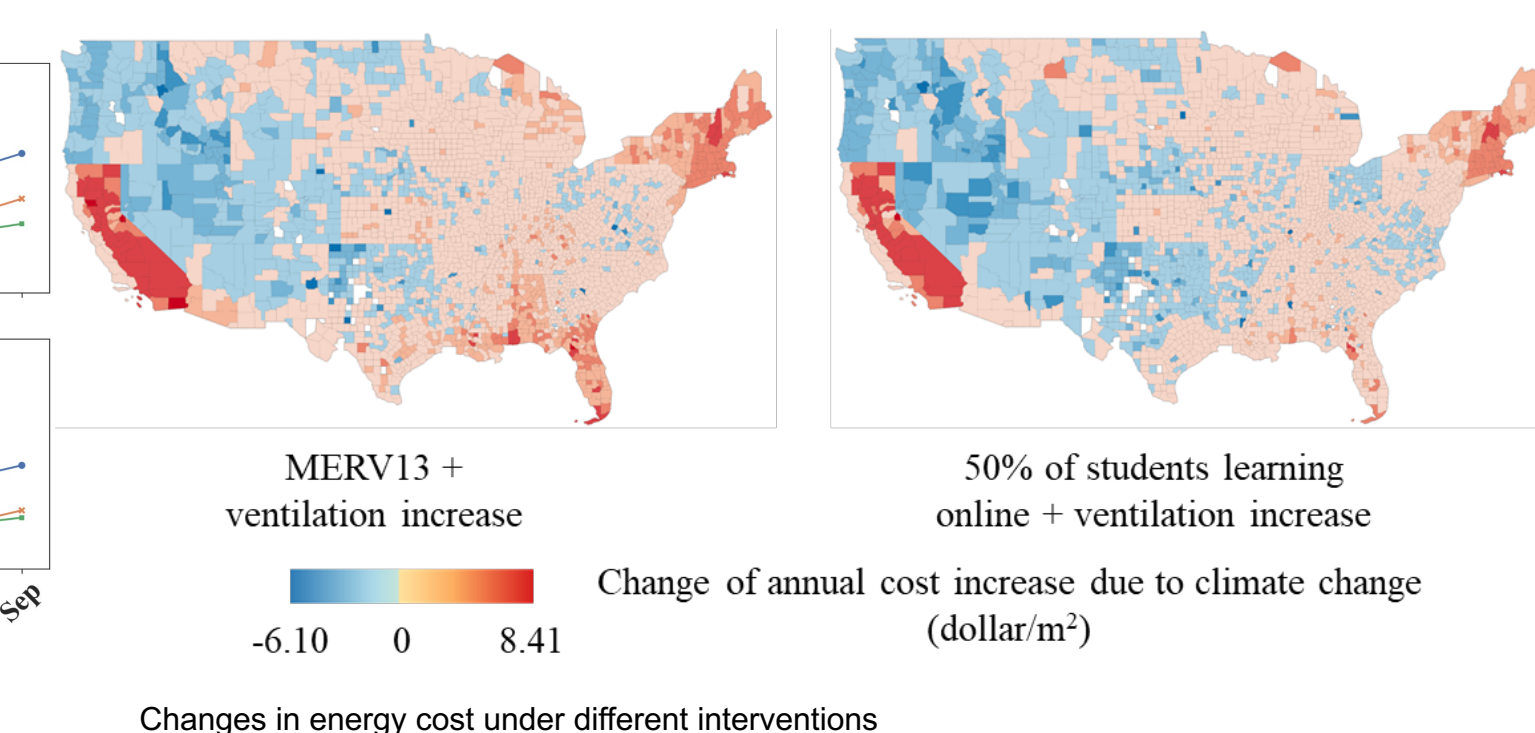
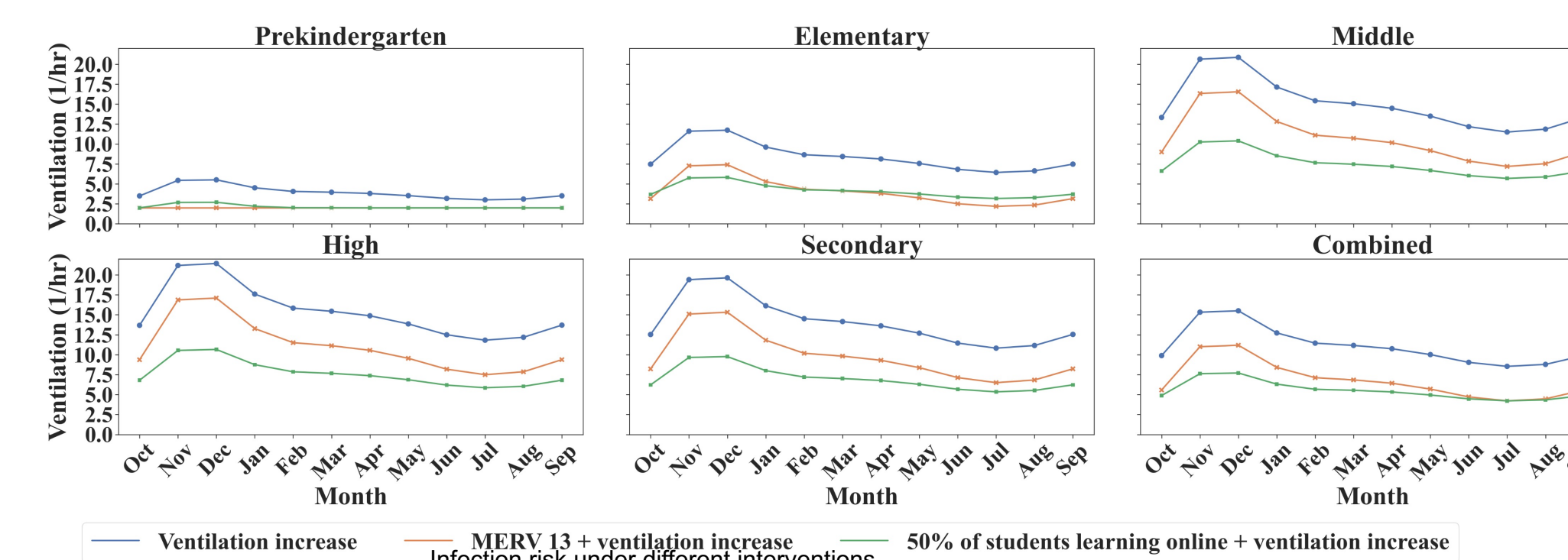
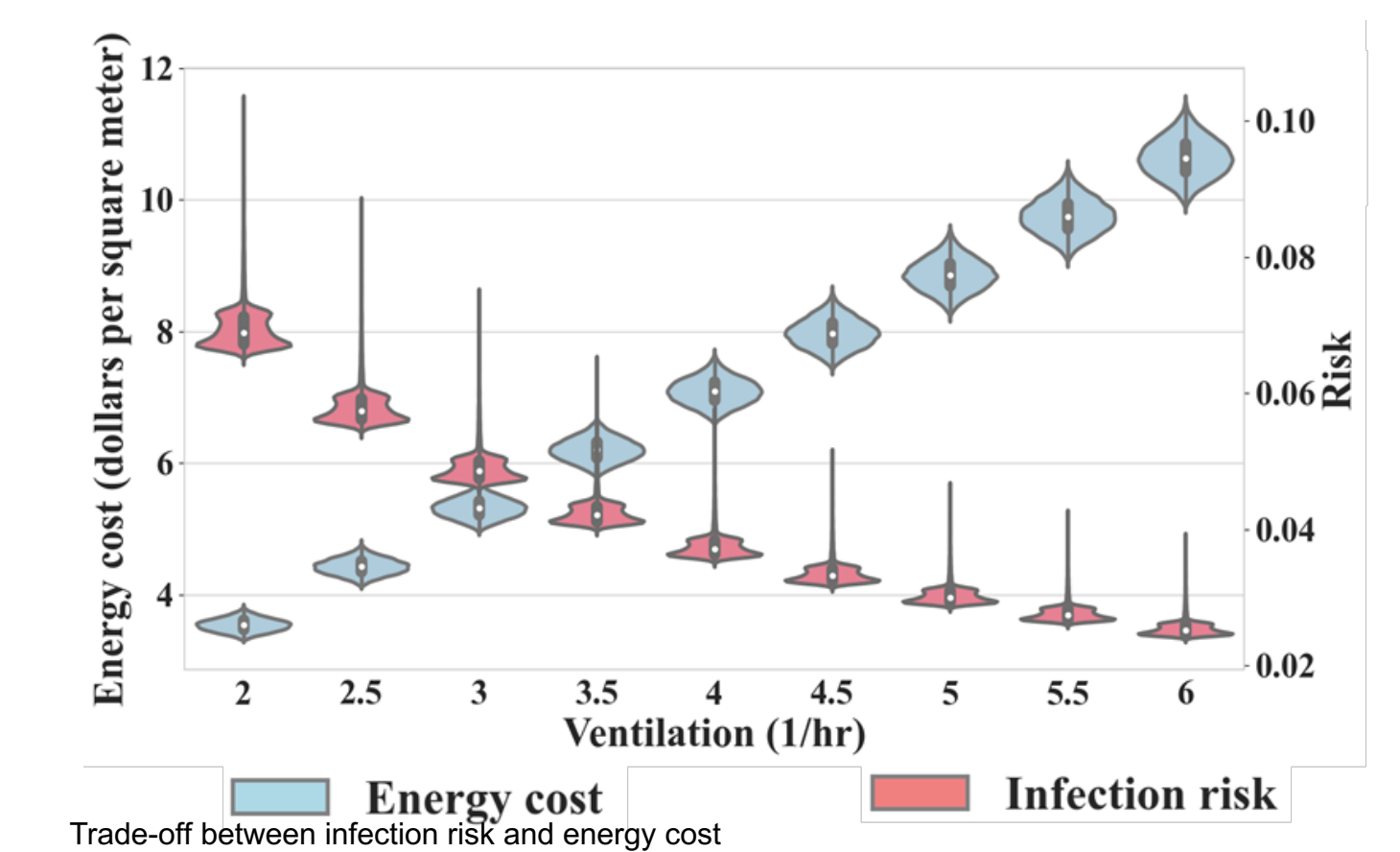
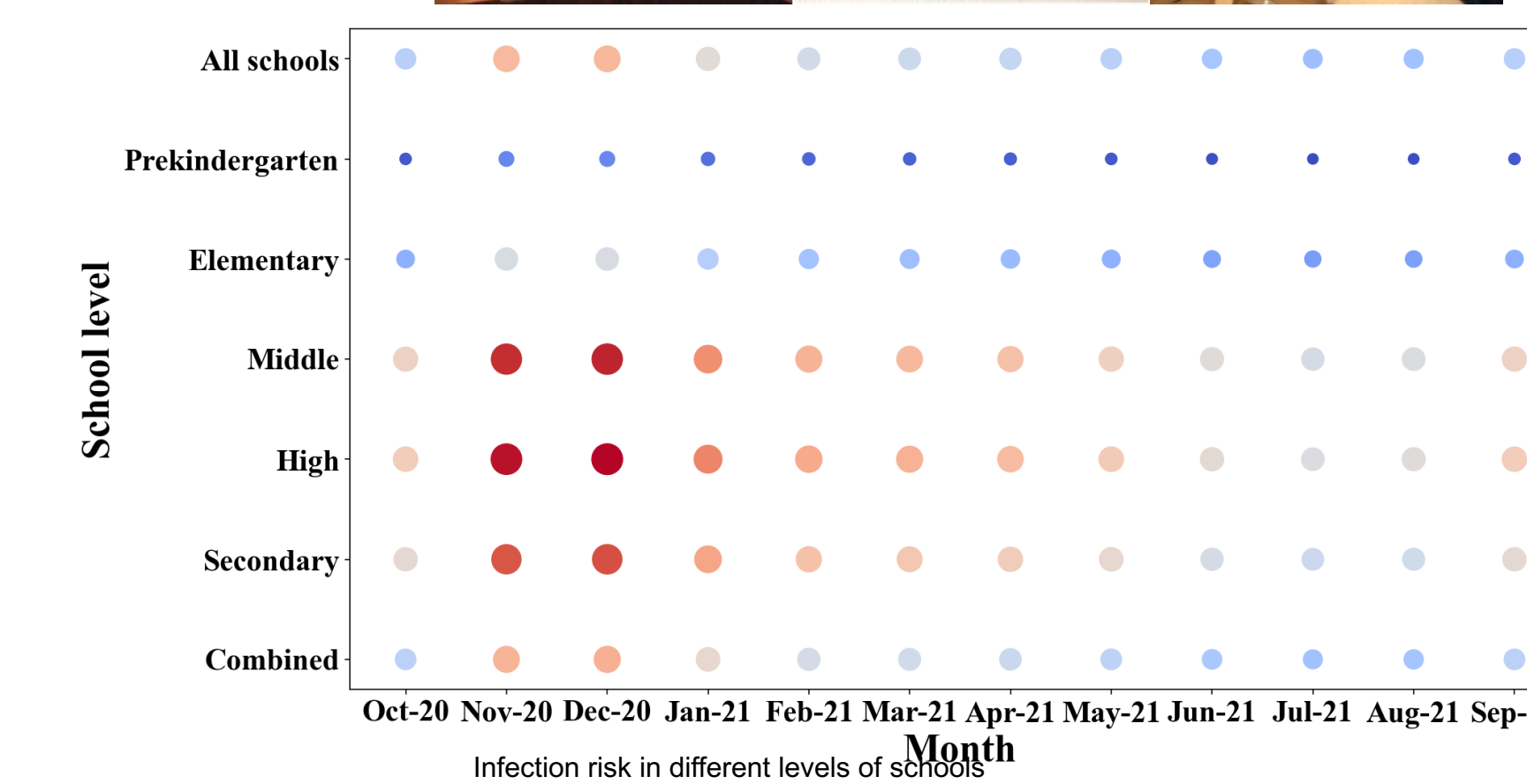
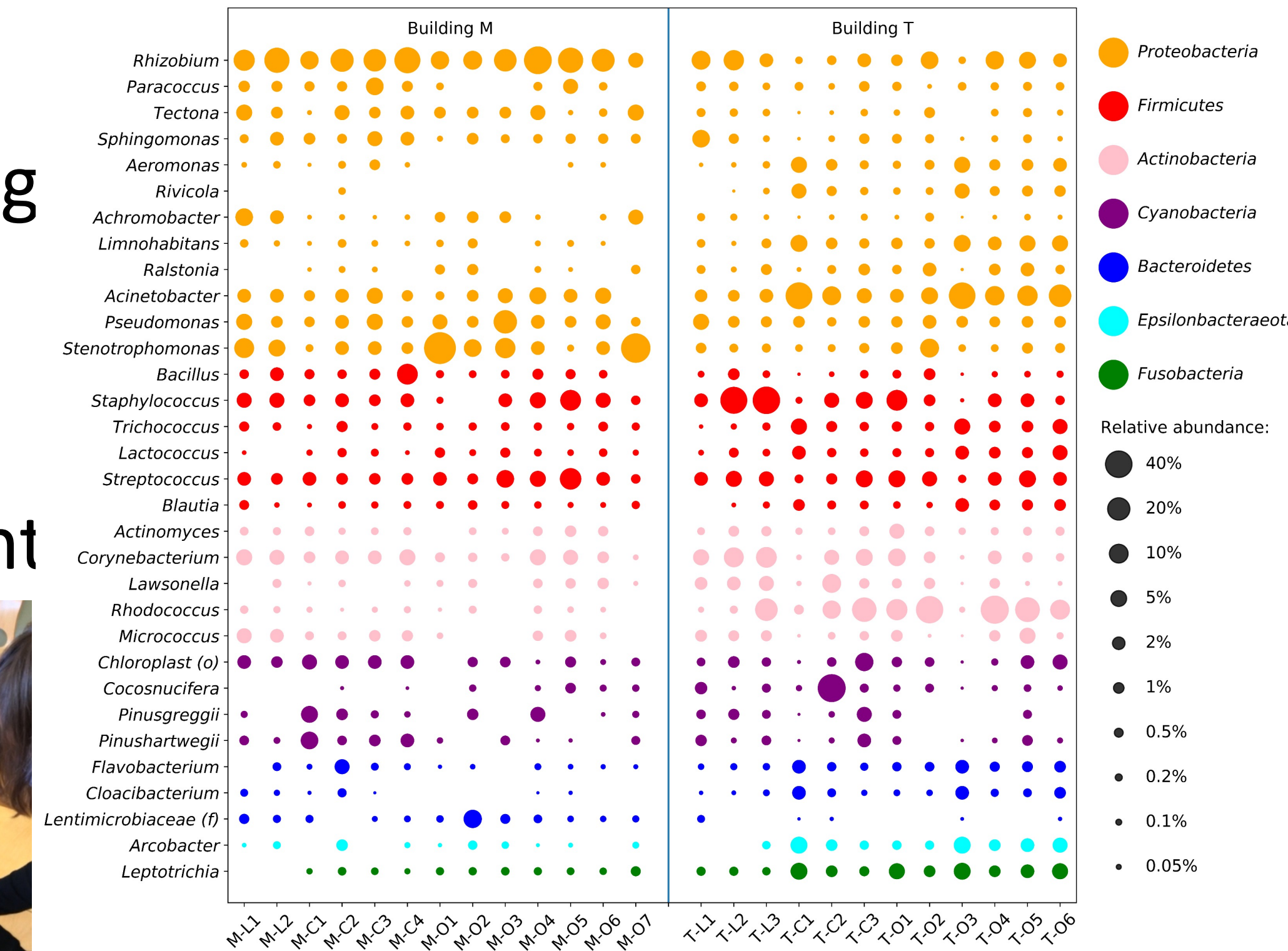
## Solution and Intellectual Merit



- Health-promoting school design and operation co-developed with communities.
- Smart platform for connected decisions and actions to improve school environmental health and sustainability.
- Citizen-centric living laboratory for community engagement, data collection, and solution evaluation.

## Project Activities

- Community Engagement
- School pathogen monitoring
- Exposure risk modeling
- Intervention development
- Operational cost assessment



## Broader Impacts

- Healthier and more sustainable school environments for education and community well-being.