

# Climate change expected to increase risk of rain-related disease in Wisconsin

Impending hydrological changes due to climate change combined with vulnerabilities due to failing infrastructure pose a public health threat.

More frequent, more intense precipitation and leaky pipes promote waterborne diseases that hit children hardest.

## The problem

### **More storms expected for warmer Wisconsin**

*Weather “dice” loaded to increase odds of intense storms*

### **Improving sewer infrastructure should reduce rain-related disease risk**

*Extreme rainfall leads to waterborne disease*

### **Kids most vulnerable to rain-related disease**

*Acute diarrhea is greatest concern for both urban and rural kids*

### **Well water vulnerable to rain-related disease**

*Waterborne disease risks expected for non-disinfected drinking water systems*

### **Water main breaks expose public to waterborne disease risk**

*Distribution systems contaminated after treatment*

### **Wisconsin climate to feel more southerly**

*Planners must anticipate local climate change to reassess their assumptions*

## Policy solutions

### **Stormwater risks could rival sewage overflows**

*More research needed to characterize health risks of stormwater vs. overflows*

### **Long-term epidemiological studies needed to better assess rain-related disease risks**

*Sharing data should give a better sense of waterborne disease incidence*

### **Incentives for residential lateral replacement can improve health**

*Pipe systems less vulnerable to rain-related disease risk also provide long-term returns*

### **Proactive surveillance and alert systems can mitigate rain-related disease risks**

*Pathogen tracking and public communication recommended*