Viruses in Drinking Water Sources

CLEAN WATER FUND PROJECT

The Minnesota Department of Health (MDH) is conducting a study to better understand viruses in drinking water. The objective is to determine how often viruses are found in Minnesota groundwater drinking water sources and manage the risk to public health. The Minnesota Legislature requested the study and funded it through the Clean Water Fund. MDH completed the sampling in summer of 2016 and will release a final report in 2017.

Background

- National surveys estimate that 30% of drinking water wells may be contaminated with viruses.
- People who drink water contaminated with viruses may become sick with hepatitis A, gastroenteritis, or other illness that causes diarrhea and vomiting.
- Viruses can get into drinking water when feces from leaky sewer lines, septic systems, livestock operations, or wildlife are able to get into the groundwater or well usually under special circumstances such as above-average precipitation events.
- How many people get sick from viruses in drinking water is unknown.

Rationale

Information from the project will help determine if viruses in groundwater drinking water sources present a human health risk in Minnesota. MDH will use study data to identify critical factors that prevent water contamination and reduce the public health risk when viruses are present.

Project Description

The project includes two components, a monitoring study and a community illness study.

Monitoring Study

The monitoring component includes two phases. In Phase I, MDH sampled randomly selected non-disinfecting groundwater supplies to determine how often viruses are present. In Phase II, MDH sampled select sources to evaluate tools for predicting viruses. Analysis of results is not yet complete.

Community Illness Study

In combination with the monitoring study, MDH is conducting a study to evaluate the relationship between viruses in water and community illness. Participants in study communities kept a diary of symptoms and other information about their daily activities.

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