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| <b>DATE:</b>           | January 10, 2019   |
| <b>TO:</b>             | Health Alert Network   |
| <b>FROM:</b>           | Rachel Levine, MD, Secretary of Health                       |
| <b>SUBJECT:</b>        | <b>Raw Milk Associated with <i>Brucella abortus</i> RB51</b> |
| <b>DISTRIBUTION:</b>   | Statewide  |
| <b>LOCATION:</b>       | Statewide  |
| <b>STREET ADDRESS:</b> | Statewide  |
| <b>COUNTY:</b>         | Statewide  |
| <b>MUNICIPALITY:</b>   | Statewide  |
| <b>ZIP CODE:</b>       | Statewide  |

This transmission is a “Health Advisory” provides important information for a specific incident or situation; may not require immediate action.

**HOSPITALS:** PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, INFECTION CONTROL, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL

**EMS COUNCILS:** PLEASE DISTRIBUTE AS APPROPRIATE

**FQHCs:** PLEASE DISTRIBUTE AS APPROPRIATE

**LOCAL HEALTH JURISDICTIONS:** PLEASE DISTRIBUTE AS APPROPRIATE

**PROFESSIONAL ORGANIZATIONS:** PLEASE DISTRIBUTE TO YOUR MEMBERSHIP

Summary:

- The Pennsylvania Department of Health (DOH) is working with the Pennsylvania Department of Agriculture and federal partners to investigate the contamination of raw milk and raw milk products with *Brucella abortus* RB51 from Miller’s Biodiversity Farm.
- People who have consumed raw milk and raw milk products from Miller’s Biodiversity Farm since January 2016 should schedule an appointment with their primary care doctor to discuss symptoms of brucellosis.
- People who have consumed raw milk and milk products from Miller’s Biodiversity Farm since July 1, 2018 should be treated with antibiotics **even if they do not have symptoms** as the infection can become chronic and life-threatening.

In late October 2018, a New York resident became ill after drinking raw milk originating from Miller's Biodiversity Farm in Quarryville, PA. The Centers for Disease Control and Prevention (CDC) confirmed the illness was due to *Brucella abortus* RB51, a live attenuated strain of *Brucella* used in veterinary vaccines, in late December. The New York patient is the third known domestically acquired illness caused by *Brucella abortus* RB51 in raw milk in the United States since 2017. The other two patients occurred in two unrelated outbreaks in 2017 in Texas and New Jersey.

People who consumed raw milk from Miller's Biodiversity Farm could be infected with a rare, but potentially serious, germ called *Brucella abortus* RB51. CDC scientists have been collaborating with state health officials on the investigation. The U.S. Department of Agriculture and the U.S. Food and Drug Administration are working with state health and agriculture officials to trace the source of the contaminated raw milk and raw milk products.

### **People Who Drank Miller's Biodiversity Farm Raw Milk Need to Seek Health Care.**

All people who consumed raw milk and raw milk products since January 2016 who have had symptoms of brucellosis, including fever, headaches, backaches, joint pain, fatigue, muscle pain, sweating, or loss of appetite should seek healthcare and start prophylactic antibiotics.

Regardless of symptoms, all people who consumed raw milk and raw milk products from Miller's Biodiversity Farm in the past six months should make an appointment with their primary care doctor and start prophylactic antibiotics to prevent disease from RB51.

Some, but not all people, with a brucellosis infection will experience symptoms one to six months after exposure to *Brucella*. Symptoms include fever, muscle pain, lasting fatigue, arthritis, depression, and swelling of the testicles. However, not all people will have symptoms. RB51 can cause severe illness in people with weakened immune systems and miscarriages in pregnant women.

It can be difficult to determine if someone has been infected with *Brucella* RB51. **Therefore, all people, regardless of symptoms, who consumed raw milk or raw milk products from Miller's Biodiversity farm since July 1, 2018, should receive prophylactic antibiotics. Untreated *Brucella* RB51 infection can result in long-term health problems like arthritis; heart problems; enlargement of the spleen or liver; and, in rare cases, nervous system problems like meningitis.**

**The *Brucella* RB51 strain is resistant to some antibiotics that would normally be used to prevent or treat brucellosis. Additionally, normal serologic tests will not detect the *Brucella* RB51 strain.**

Therefore, people who consumed raw milk from Miller's Biodiversity Farm since January 2016 should tell their doctor that they may have been exposed to this particular *Brucella* strain. Doctors can learn more about testing patients for RB51 and which antibiotics to prevent or cure infection at

<https://www.cdc.gov/brucellosis/clinicians/rb51-raw-milk.html>.

### **Background on *Brucella***

RB51 is a weakened strain of *Brucella abortus* bacteria used to vaccinate young female cattle. Intensive vaccination campaigns have nearly eradicated *Brucella abortus*, which can cause abortions in cattle. The bovine vaccine reduces the risk of people contracting brucellosis from infected cows. However, in rare cases, vaccinated cows can shed RB51 in their milk. The only way to avoid this potential exposure to RB51 is to drink pasteurized milk. The heat of pasteurization kills RB51, other types of *Brucella*, and a variety of other disease-causing pathogens.

Human brucellosis cases in the United States have fallen from about 3,000 per year in the 1950s to 100–150 per year in recent years. Most cases of brucellosis in the U.S. are caused by strains other than *Brucella abortus* and occur in people who traveled to countries where *Brucella* is more common and who drank contaminated milk or had contact with infected animals. Among cases who acquired brucellosis in the U.S., infections occur from contact with feral swine or, more rarely, dogs, or because of accidental exposures among lab workers testing samples from ill people.

All suspect and confirmed cases of brucellosis must be immediately reported by calling 1-877-PA-HEALTH or your local health department.

Categories of Health Alert messages:

**Health Alert:** conveys the highest level of importance; warrants immediate action or attention.

**Health Advisory:** provides important information for a specific incident or situation; may not require immediate action.

**Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action.

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| This information is current as of January 10, 2019 but may be modified in the future. |
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