MADISON COUNTY PUBLIC HEALTH
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Prevent. Promote. Protect.

Public Information Release
Types of Testing for COVID-19

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Last week Governor DeWine announced that he tested positive for COVID-19 during routine testing before a Presidential visit. He later announced that the first test was a "false positive" and two follow-up tests were negative. To understand how this can happen, it is critical to understand the types of testing that are currently available and the research behind them. The first test the Governor had, which provided a false positive, was an antigen test. Governor DeWine's two follow-up tests were both real-time reverse transcription polymerase chain reaction tests, more commonly called a "PCR" test.

1) **Molecular Test (PCR)**: This test is like using a microscope to look closely at the genetic material of the virus. Molecular tests are the most accurate and are considered the gold standard for testing. Nearly all Ohioans who have been tested received a PCR test. In Ohio, a case can only be reported as confirmed after receiving a positive result from a PCR test.

2) **Antigen Test**: This test looks at proteins on the surface of the virus. It works more like binoculars than a microscope. This test helps us detect the virus but not as well as a PCR test. This newer style of testing was created to provide results quickly and can infrequently produce a false result. Here in Ohio public health experts have carefully decided that a positive antigen test can only be reported as a probable case if the person has been in close contact with a confirmed case or has very specific symptoms.

3) **Antibody Test**: This test looks for antibodies that your immune system may have created as a result of a COVID-19 infection. It does not detect the virus itself. Currently scientists do not know if the presence of antibodies provides immunity to COVID-19 for any extended length of time. Reporting positive antibody tests follows the same guidelines as the antigen test; a positive antibody test will only be reported as a probable case if the person has been in close contact with a confirmed case or has very specific symptoms.

Neither antigen nor antibody tests are reported as confirmed cases. If a person tests positive for antigens or antibodies and meets specific criteria, they may be considered a probable case.

An antigen or antibody test followed by a PCR test is like how a routine cancer screening might lead to a biopsy. The routine screening may first discover a possible health issue; a biopsy is used to confirm the problem. Currently, all tests performed in Madison County are PCR tests. It is important to remember that tests are a snapshot in time. If you test negative for COVID-19 that means you are negative on that one day. Guidance and information surrounding COVID-19 changes frequently as research continues to be conducted worldwide to help public health experts further understand this virus.

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