

Probability + Public Policy: Medical Testing

Probability for positive COVID-19 cases in Forsyth county NC was 0.0226 (10/26/20). Suppose we tested 10,000 people there using the Siemens Healthcare Diagnostics Inc. Chemiluminescent immunoassay (CLIA) test developed in the US, which correctly tests positive for 97.5% of those who have the disease, and has a false negative of 2.5%. It correctly tests negative for 99.82% of those who do not have the disease, and has a false positive of 0.18%. Show work for the decision matrix:

	Test +	Test -
Person is +		
Person is -		
Total		

Then, approximately what percentage of people who test positive is actually COVID-19 +? Pros and cons of testing?