

## Implementation of the sōna Coccidioides Antibody Lateral Flow Assay in the Clinical Laboratory Proves to Reduce Cost and Decrease Turnaround Time When Compared to Send out Immunodiffusion and Complement Fixation Testing

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### ABSTRACT

### BACKGROUND

Coccidioidomycosis (Valley fever) is an airborne, invasive fungal infection endemic to Arizona, California, Mexico, and Central and South America. The dominant method of diagnosis is serology, which includes complement fixation (CF), immunodiffusion (ID), and enzyme immunoassay (EIA). These serological assays require highly trained personnel and are time consuming, with turnaround times (TAT) that range anywhere from 5 days to 2+ weeks. Due to costs of send outs and long TAT, Valley fever presents a diagnostic challenge to physicians and laboratorians. IMMY developed the sōna Coccidioides Antibody Lateral Flow Assay (LFA), a rapid and simple diagnostic assay that detects anti-Coccidioides antibodies in patient serum in 30 minutes.

### **METHODS**

We tested the sōna Coccidioides Antibody LFA using 315 patient specimens and compared cost-analysis and TAT to a send out reference lab's ID and CF assays.

Reference Lab

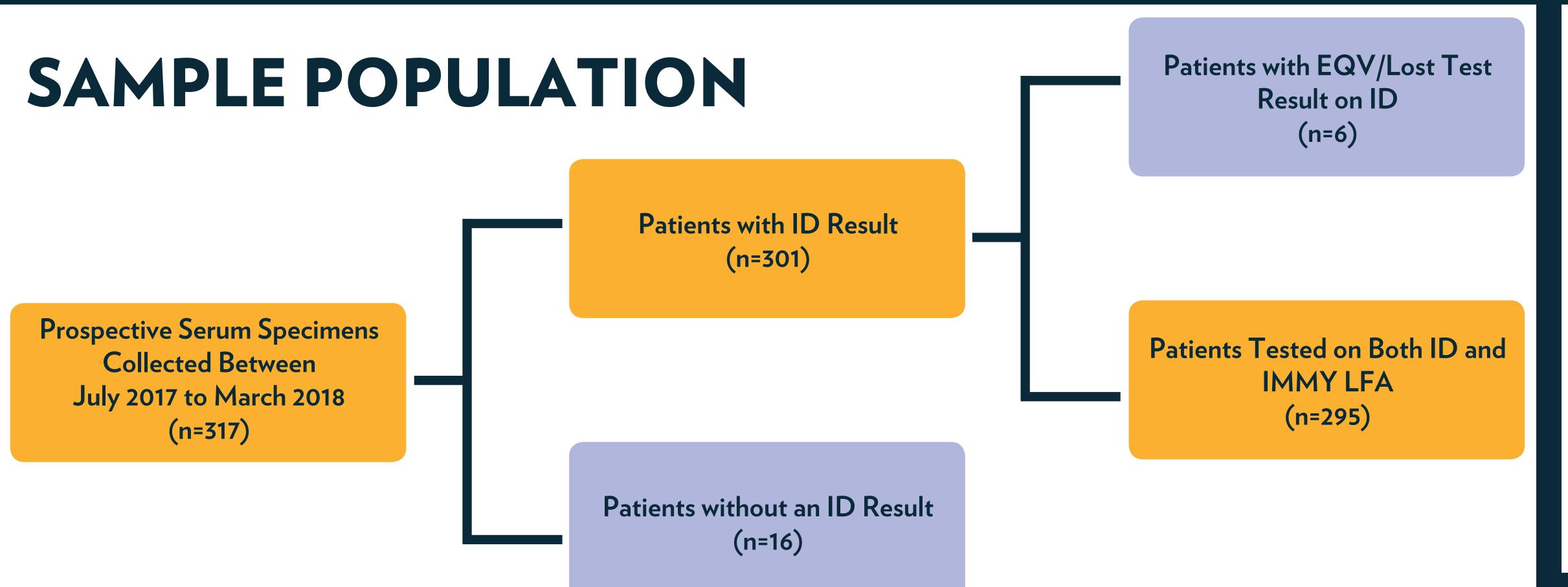
IMMY LFA

### RESULTS

In this study, we found that after implementing the sona Coccidioides Antibody LFA as a screening test, the cost of send-outs reduced by 84%, and the cost of all testing reduced by 68%. The TAT for send out testing averaged 5-10 days, whereas the sōna Coccidioides Antibody LFA averaged a total TAT of < 24 hours.

### CONCLUSION

The sōna Coccidioides Antibody LFA offers a rapid, simple, and inexpensive method for accurately detecting antibodies against Coccidioides spp. in patient serum



DECREASING TURN

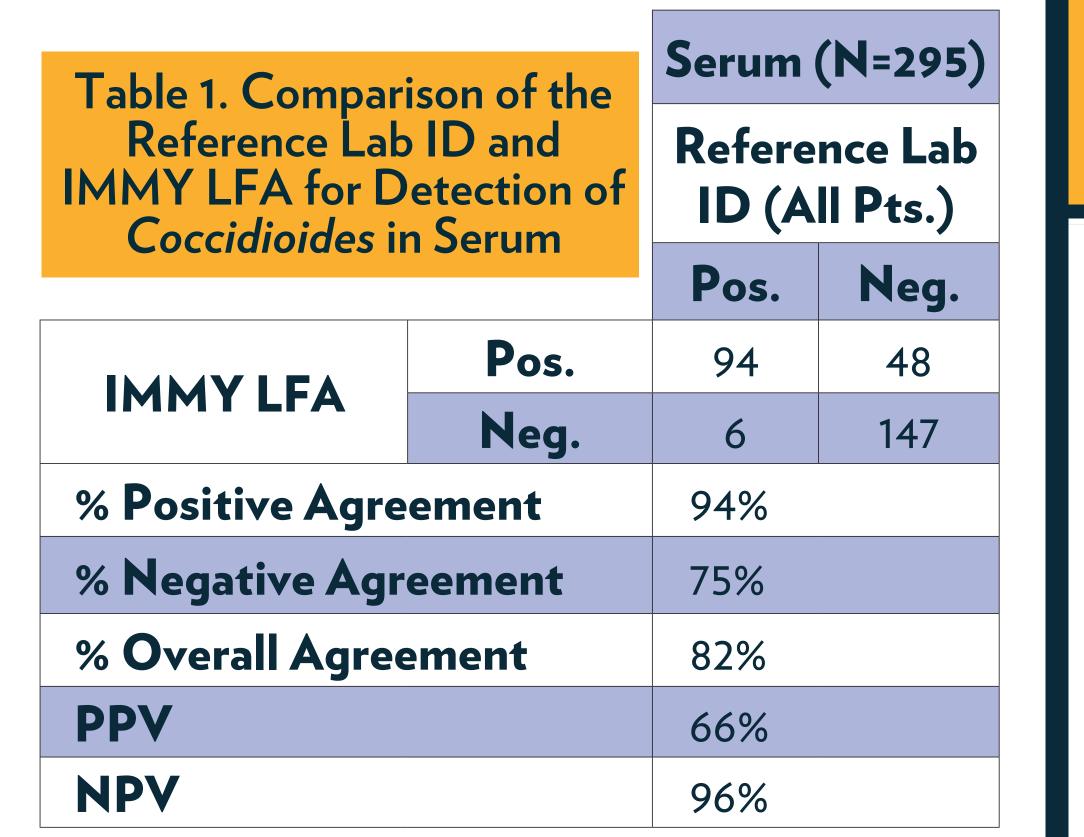
Average TAT (days)

AROUND TIME?

ACKNOWLEDGMENT

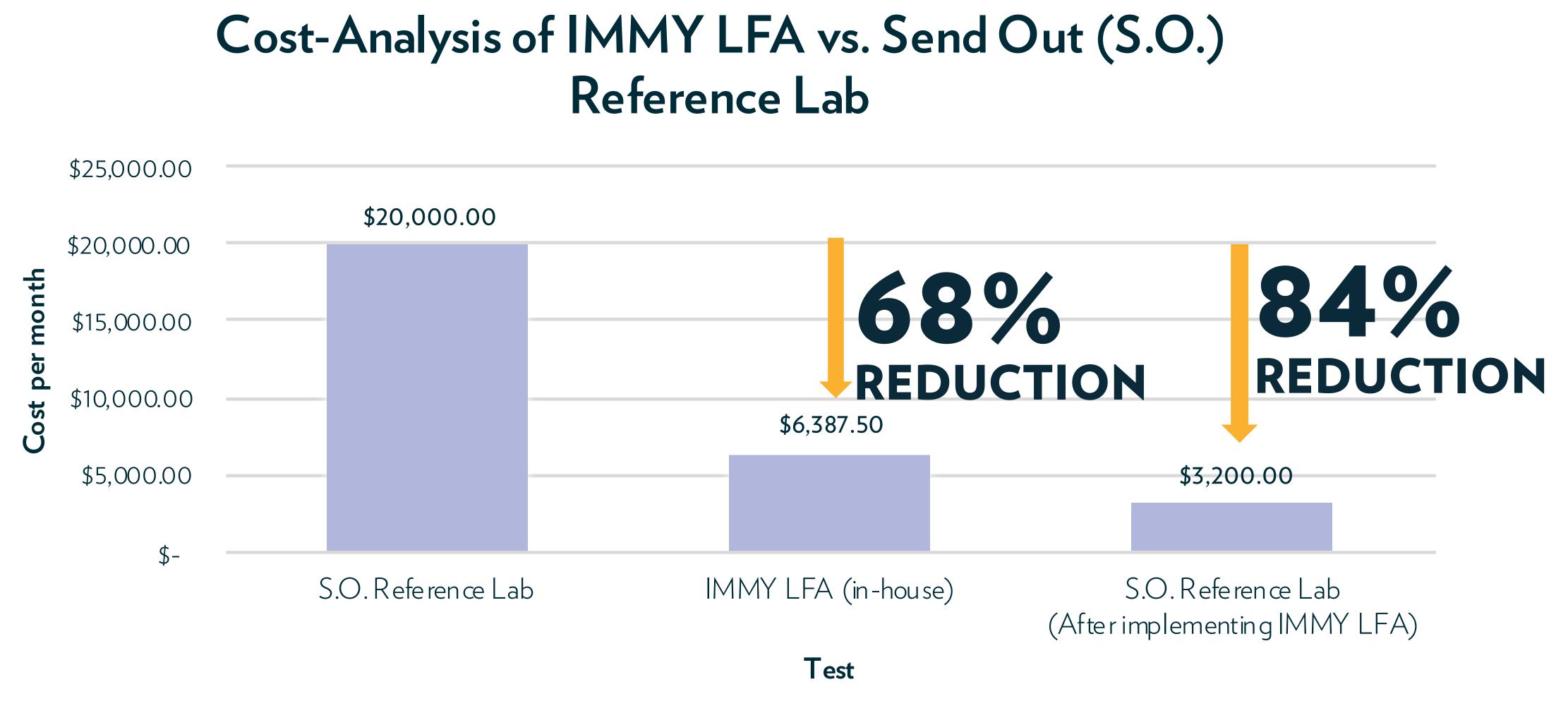
I would like to make an acknowledgement to the Microbiology department because it was

their hard work that made this poster possible



# Positive Negative

After implementing the sōna Coccidioides Antibody LFA as a screening test, the cost of send-outs reduced by 84%, and the cost of all Cocci testing reduced by 68%.



# CONCLUSIONS:

Rapid Coccidioides Antibody LFA offers a reliable screening approach for the detection of Coccidioides spp.

- High Positive Percent Agreement and Negative Predictive Values
- Improved Time-to-Results from Days to MINUTES
- Decreased Number of send-outs to Reference Labs
- Reduced Overall Costs of Coccidioides Testing

