

# WEBINAR 2 HIGHLIGHTS

## Lessons Learned from the Novavax Phase 3 Maternal Vaccination Trial

### SUMMARY

On November 20th, 2020, the 2nd webinar from the ReSViNET RSV Webinar Series was held by guest speaker, prof. Shabir Madhi; co-host, prof. dr. Jessie Groothuis; and moderator prof. dr. Louis Bont.

This webinar focused on the outcomes of the nanoparticle-based maternal vaccine trial examining the differential effect of vaccine efficacy in HICs versus LMICs and specifically focusing on the trial in South Africa.

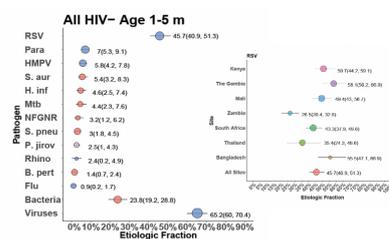
### INTRODUCTION

PERCH data showing that RSV is the most important cause of hospitalization for pneumonia.

RSV:  
45.7% (40.9 to 51.3)

Children 1-5 months age:

- 41% of all cases
- CFR of 10.6%
- 47% of all deaths



### SOUTH AFRICAN TRIAL DATA

- 4,636 mother-infant pairs
- Primary endpoint of the trial was medically-significant RSV LRTI
- About 50% of all participants were from South Africa allowing some robust conclusions
- >80% power to evaluate vaccine efficacy of >50% in South Africa

### VACCINE EFFICACY

- Missed its primary endpoint by a fraction with high efficacy in South Africa, in particular against most severe disease
- 74% (50-94%) reduction in severe RSV LRTI in South Africa
- Striking 28% reduction in all-cause LRTI admissions was observed, which persisted to day 180 after birth
- Remarkable as the antibody titers had gone down by about 80-85% at age 90 days

### ANTIBODY TITERS

- Antibody transfer from mother to foetus takes time and is an important element of efficacy
- Antibody titers in the baby at birth were clearly affected by the time interval between vaccination and birth with 88% of the South African women (but not in high income countries) being vaccinated at least 30 days before delivery

### CONCLUSION

- From a public health viewpoint, the vaccine had a number-needed to treat (NNT) of 25 to prevent one pneumonia admission, which is excellent for a maternal pneumonia vaccine
- Taken together, the results presented by dr. Mahdi urges to continue development of this vaccine in South Africa and other low and middle income countries where RSV-related mortality is still unacceptably high.

📅 NEXT WEBINAR: JANUARY 27, 2021

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