

**Results.** The network included 18 researchers (epidemiologists, infectious diseases experts, statisticians, and modelers) from various backgrounds, including ecology, geography, physics, and mathematics. The criteria for joining the network were having a communication channel with public health decision-makers and being involved in generating evidence for public policy. During a 24-month period, the following sub-projects were established: (i) development of a susceptible-exposed-infected-recovered-like, individual-based meta-population and Markov chain model; (ii) projection of COVID-19 transmission and impact over time with respect to cases, hospitalizations, and deaths; (iii) assessment of the impact of non-pharmacological interventions for COVID-19; (iv) evaluation of the impact of reopening schools; and (v) determining optimal strategies for COVID-19 vaccination. In addition, we mapped existing COVID-19 modeling groups nationwide and conducted a systematic review of relevant published research literature from Brazil.

**Conclusions.** Infectious disease modeling for guiding public health policy requires interaction between epidemiologists, public health specialists, and modelers. Communicating modeling results in a non-academic format is an additional challenge, so close interaction with policy makers is essential to ensure that the information is useful. Establishing a network of modeling groups will be useful for future disease outbreaks.

## PP26 Cost Utility Of Vaccination Against COVID-19 In Brazil

Ricardo Fernandes, Marisa Santos,  
Carlos Alberto Magliano ([carlosincnats@gmail.com](mailto:carlosincnats@gmail.com)),  
Bernardo Thura, Luana Macedo, Matheus Padila,  
Ana Claudia França and Andressa Braga

**Introduction.** The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), which causes coronavirus disease 2019 (COVID-19), is a single-strand ribonucleic acid virus that was first identified in January 2020 in patients with viral pneumonia in Wuhan, China. The virus has since spread rapidly around the world, leading the World Health Organization to declare it a pandemic on 11 March 2020. In Brazil there have been 21.8 million cases of SARS-CoV-2 infection and 608,500 deaths. The objective of this study was to evaluate the cost utility of the Oxford, CoronaVac, and Janssen vaccines from the perspective of the Brazilian public health system.

**Methods.** Three microsimulation models were constructed using individual data. The simulations contained seven transition states related to the natural history of COVID-19. The model with a daily cycle had a time horizon of one year and used data from 289 days of the pandemic. The analysis considered direct medical costs from the Brazilian health system perspective. Outpatient, hospital, and mortality databases were used for the model inputs and patient data were stratified by age. Effective vaccines reduced the likelihood of patients becoming ill. Information on the quality of life of patients receiving treatment in the outpatient or hospital setting and disease sequelae

were extracted from the published literature. The main outcome of the analysis was quality-adjusted life-years (QALYs).

**Results.** The vaccines had incremental cost-utility ratios ranging from USD 4,121 (Oxford) to USD 3,160 per QALY (CoronaVac). The older the population, the lower the incremental cost-utility ratio. Given a willingness-to-pay threshold of BRL 3,129 per QALY, all the vaccines were considered cost effective in the probabilistic sensitivity analysis. The incremental cost-effectiveness ratio stratified by age ranged from USD 6,327 per QALY in patients older than 75 years (Janssen) to USD 20,993 per QALY in patients younger than 59 years (CoronaVac).

**Conclusions.** The results of this analysis, stratified by patient age, can help in the preparation of a vaccination prioritization plan.

## PP27 Reusing And Adapting Health Technology Assessments (HTAs): An Example From The COVID-19 Time

Maria-Jose Faraldo-Valles ([maria.jose.faraldo.valles@sergas.es](mailto:maria.jose.faraldo.valles@sergas.es)), Alba Regueira-Castro and Yolanda Triñanes

**Introduction.** Health technology assessment (HTA) reports are complex technical documents that address multiple aspects of the incorporation of a technology into the health care system applying complicated methodologies coming from different disciplines. The purpose of HTA is to support decision-makers and these should have an adequate level of training to fully understand these assessments. However, most HTA education programs and courses are intended for HTA doers and there is a lack of practical guidance training aimed at preparing health managers or policy makers in HTA. The objective is to describe an HTA training program developed for decision-makers of the three levels (health care administration, hospital management and clinical practice).

**Methods.** Rolling Collaborative Review (RCR) 01 of convalescent plasma was identified and selected because it complied with our Population Intervention Comparator Outcome Design Question. The EUnetHTA HTA adaptation Toolkit was used to check the relevance (about research question); reliability (quality of the report) and transferability (application of information to the target setting). Additional considerations regarding the local context were examined. A panel of four professionals and one patient was formed to rate the importance of the outcomes and to carry out the external review

**Results.** According to the toolkit, information on RCR01 Convalescent Plasma could be adopted for the safety and effectiveness domains. The technical characteristics and current use domains were adapted and extended. It was considered of interest to include the domains of organization and ethics. The organizational aspects were answered through the information retrieved in a search for systematic reviews and guides, and with the collaboration of experts.