diversity varies according to maternal, placental and umbilical cord blood. Age, gravidity and doses of preventive treatment based on sulfadoxine-pyrimethamine do not interfere with the multiplicity of infections.

**Background**

The transition from paper-based to online submission of health research protocols using the RHinmO Ethics (RE) platform has been shown to improve efficiency and quality of ethics reviews. However, despite these documented benefits, there are only a total of 40 installations in 12 out of the 54 countries in Africa. We analysed facilitators and barriers to adoption of RE by Research Ethics Committees.

**Methods**

We used a retrospective analysis to identify determinants of adoption or rejection of RE by grouping feedback from users into key emerging themes identified through three stages of RE adoption: 1) contractual 2) trial 3) full implementation.

**Results**

A total of 3947 protocols have been managed through RE by March 2018. Of those reached, 25 per cent adopted and continue to use RE. Of those that rejected, 14 per cent rejected after the trial. At the contractual stage, the key determinants of adoption were the guarantee of sustainable funding, pre-existing good IT infrastructure, and the assurance of technical assistance from the providers. The key determinants of rejection were concerns of cyber security, limited control and ownership by Research Ethics Committees and cost of the annual subscription. At the trial stage, the determinants of continued adoption and use were continued IT support from providers and a proven comparative advantage over the paper-based system. The key determinant of rejection was limited support from organisation leadership. Those who have continued through the implementation stage emphasised financial sustainability and continuous improvement of the RE as key determinants.

**Conclusion**

Accelerated adoption of RE will require increased adaptability of the platform, decrease in cost of annual subscription, improved confidence in security and ownership of data. Developers, Research Ethics Committees and sponsors of RE need to develop a cost-effective funding strategy to increase efficiency, economies of scale and benefits related to harmonised and standardised digital platforms.