

Cost Analysis of Current Distribution and Redesigned Distribution Systems for Vaccines in Rwanda

Background

Immunization supply chain management is among the components of immunization program, making vaccines delivery possible to reach every child. Nevertheless, it has been found to be static with rapid changes linked to the introduction of new vaccines. The success of Rwanda immunization program with coverage of 94.3% was attributed to human resource and capital investment from both the Ministry of Health and its development partners. However, the current distribution system design does not contribute to self-financing of the program in the long-run considering the distribution mode and frequency applied. The cost analysis study has never been done before and is expected to address the issue of long-term sustainability of the program as it will inform the system re-design activities.

Objective

Assessing how much the program would save if the system is re-designed by changing distribution mode and frequency from the Central Vaccine Store to District Vaccine Stores.

Methods

Administrative and financial records were reviewed to determine the cost of the current vaccine distribution system to be compared to estimated cost of a proposed distribution system with reduced frequencies between Central Vaccine Store and District Vaccine Stores.

Results

By comparing the costs of the two systems, applying the proposed distribution model with less distribution frequencies reduced the current cost by 37%.

Conclusion

The findings confirm a huge opportunity of getting the current vaccine distribution costs reduced when the distribution system is redesigned, hence contributing to financial sustainability of the vaccination program.