

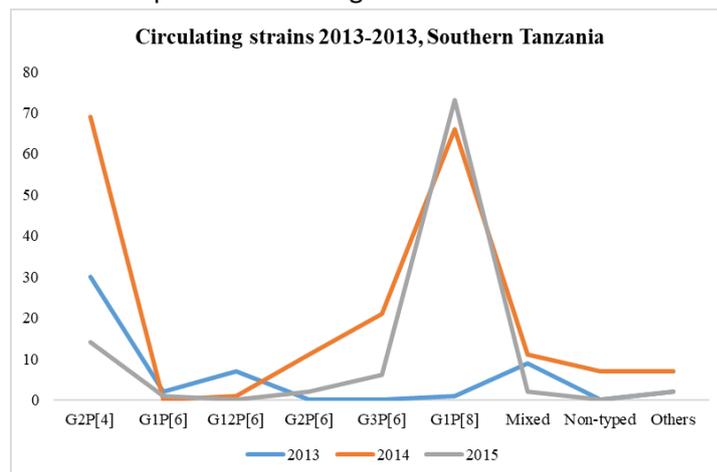
Circulating rotavirus strains after rotavirus vaccine introduction- three year data in Southern Tanzania, 2013–2015

Fausta M², Jani B³, Paul JM¹, Kalomo M², Fungo Y¹, Lyimo D², Kamugisha C³, Mujuni D², Katembo B⁴, Mwenda J³, Weldegebriel G³

¹Mbeya Zonal Referral Hospital- Tanzania, Ministry of Health Community Development, Gender, Elderly and Children-Tanzania, ²World Health Organization, ³National Health Laboratory - Tanzania

Globally, severe acute gastroenteritis caused by Rotavirus is most common cause of hospitalization among children below the age of 5 years. In the effort to reduce the burden of severe gastroenteritis, countries opted to introduce Rotavirus vaccines in the immunization programmes. Tanzania, introduced rotavirus vaccine (GSK Rotarix, which is derived from a single rotavirus human strain, G1P [8]) with the anticipated impact in reducing hospitalization related to rotavirus gastroenteritis. However, the existence of multiple rotavirus human strains caused a concern that the vaccine will cause epidemiological changes in rotavirus circulating strains. This paper, use the available data on rotavirus surveillance activities to understand the circulating strains in the Southern part of Tanzania.

Available genotyping data for 344 children under the age of 5 years hospitalized at Mbeya Zonal referral Hospital with acute gastroenteritis between 2013 -2015, were analysed. The serological test



for the stool samples were initially done at Mbeya Zonal referral hospital whereas the genotyping through PCR was done at Sefako Makgatho laboratory in South Africa.

Surprisingly, the 3-year data did indicate G1P [8] to remain the important circulating strain. In 2013, the year that vaccine was introduced the G1P [8] cases were few but it peaked in the subsequent years. G2P [4] was also noted to be the important strain causing rotavirus gastroenteritis

in all the three years.

The predominance of G1P [8] and G2P [4] as common causative of severe rotavirus gastroenteritis that require hospitalization warrant for sustaining surveillance activities to monitor the impact of the vaccine in reducing hospitalization related to rotavirus gastroenteritis.