1163-92-394 Miranda Ijang Teboh-Ewungkem\* (mit703@lehigh.edu), Chandler Ullman Hall, Department of Mathematics, Lehigh University, Bethlehem, PA 18015, and Gideon Akumah Ngwa (akumhed@yahoo.com), Department of Mathematics, Buea. A long term mathematical model used to investigate the roles of masks, social distancing, self-quarantining and human behaviors in impeding the spread of the SARS-CoV-2 virus. Preliminary report.

The use of face masks and adherence to general social distancing, protocols, are methods that have been pushed to curb the spread of the SARS-Cov-2 virus. These intervention methods can also potentially reduce the severity of a new infection, especially if the viral particles a healthy individual comes in contact with is minimal. Additionally, A well enacted contact tracing procedure can also help identify potential new cases which, in the event that the identified individuals adhere to the social distancing and mask wearing intervention strategies, and self-quarantine could potentially reduce or eliminate the SARS-Cov-2 viral spread to healthy individuals. Here, we present a long-term mathematical model, used to understand how the combinations of the aforementioned intervention methods-contact tracing, mask wearing, self-quarantining can impact the long term dynamics of SARS-CoV-2 spread. (Received September 04, 2020)