Aims: To investigate Crude methanol extracts of 13 medicinal plants obtained through an ethnobotanical survey against 4 strains of mycobacteria (Mycobacterium tuberculosis, M. kansasii, M. fortuitum and M. smegmatis), Salmonella typhi, Staphylococcus aureus, Pseudomonas aeruginosa, Escherichia coli, Klebsiella pneumonia and Candida albicans.

Materials and Methods: Antimycobacterial susceptibility tests were carried out using BACTEC MGIT 960 system. Evaluation of antibacterial, antifungal and phytochemical properties was done using standard procedures.

Results and Discussion: All the plant extracts inhibited mycobacterial growth at 2.0 mg/mL. Carissa edulis and Vernonia amygdalina were the most potent against M. smegmatis and M. fortuitum, completely inhibiting their growth (Zero GUs) at all concentrations used. Toddalia asiatica had high inhibitory activity (Zero GUs) against M. tuberculosis and M. kansasii at all concentrations used. There was a significant difference on general antibacterial results of the extracts at P≤0.05 against other test cultures. The most potent antibacterial extract was from Toddalia asiatica with an MIC and MBC of 9.375 mg/mL. Carissa edulis and Momordica charantia both produced MICs and MBCs of 37.5 mg/mL against S. typhi and S. aureus. Lantana camara produced MICs and MBCs of 37.5 mg/mL against both S. aureus and P. aeruginosa. Preliminary phytochemistry identified six phytochemicals with flavonoids being found in all extracts.

Conclusion: The data suggests that methanolic extracts of some of the plant species can be used against several microbial agents. Further work on them is underway.