National Microbiology Reference Laboratory

Combating Antimicrobial Resistance (AMR) through AMR Detection and Confirmation of local infections & epidemics at National Microbiology reference laboratory (NMRL)

Dr.NAJJUKA GRACE

ROLES OF NMRL

- The National Microbiology Reference laboratory (NMRL) is a public health facility established with the mandate to offer reference testing and to oversee quality assurance programs in microbiology.
- **Key functions that are being implemented**

✓ Laboratory based surveillance of diseases and AMR

✓ The laboratory is currently the hub for anti-microbial resistance (AMR) where it is involved in quality control for antimicrobial susceptibility testing

✓ Training and mentorship of peripheral laboratories in microbiology techniques

✓ Assist in responding to disease outbreaks

✓ Support supervision

✓ Quality assurance including confirmation of clinical pathogens

✓ Disease outbreak investigations

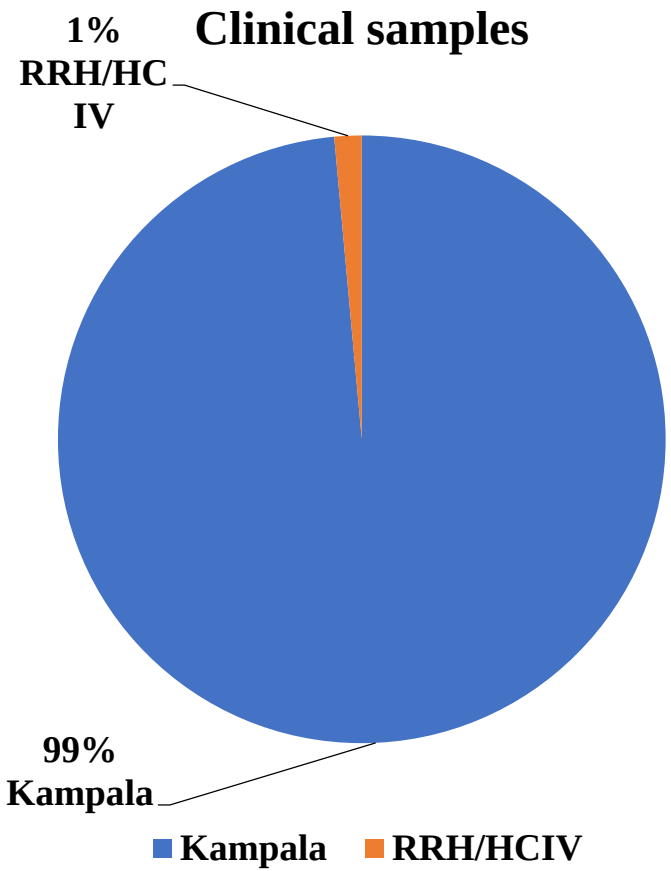
✓ Specialized diagnostic testing

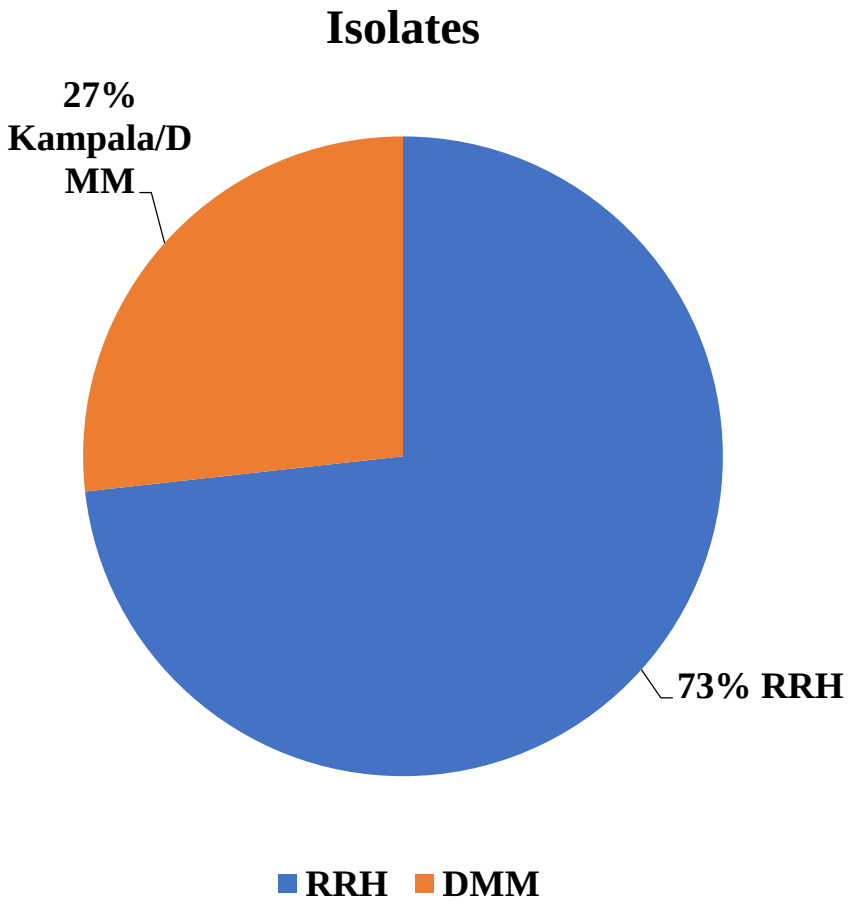
✓ Inter laboratory networking

AMR Surveillance in Uganda

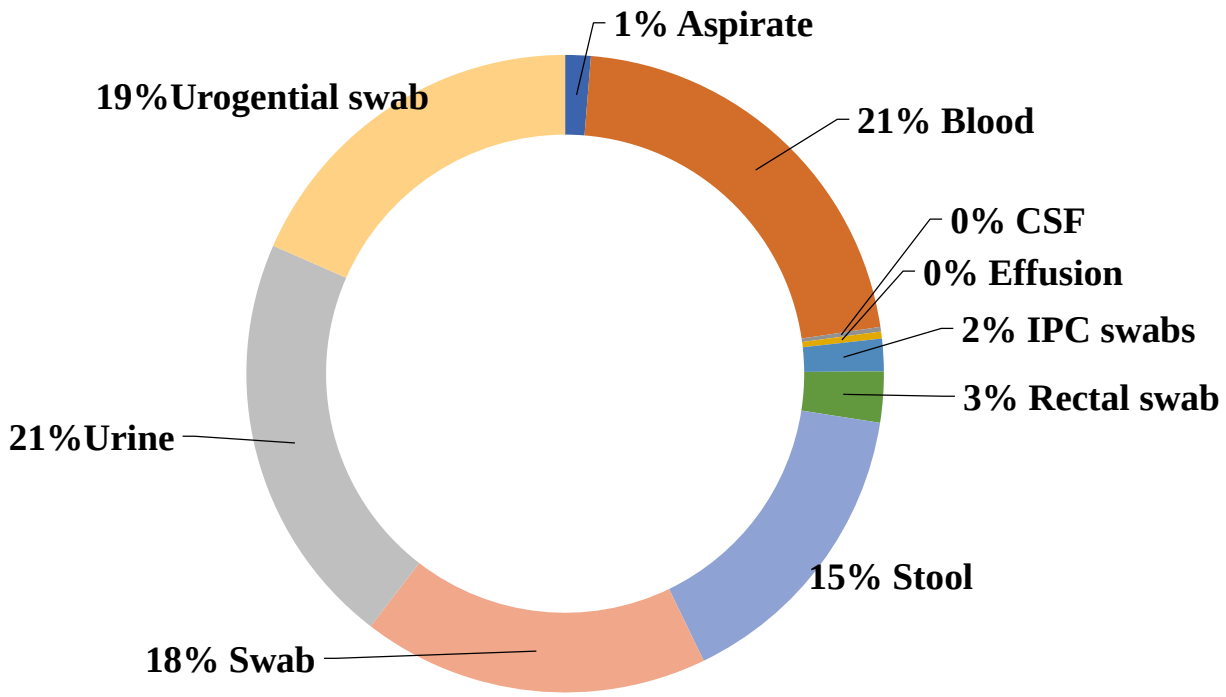
- To give an understanding into the extent of AMR in the Ugandan communities, a presentation of a summary of laboratory data collected at the National microbiology reference laboratory (NMRL) in the year 2018 from three specific sources is as follows:
- Clinical specimens from selected health facilities in Kampala
- Isolates from regional referral hospitals (RRH) and Kampala sites
- Samples received during disease outbreaks.

Sources of non outbreak (Clinical)samples

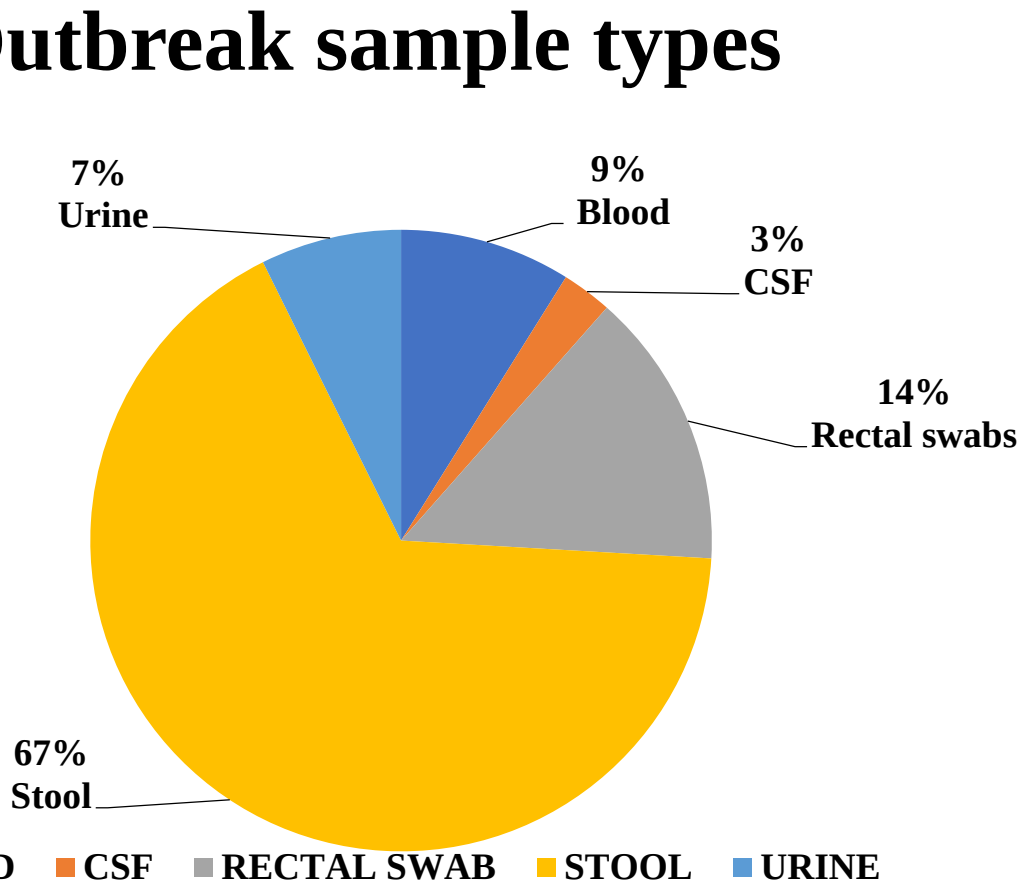




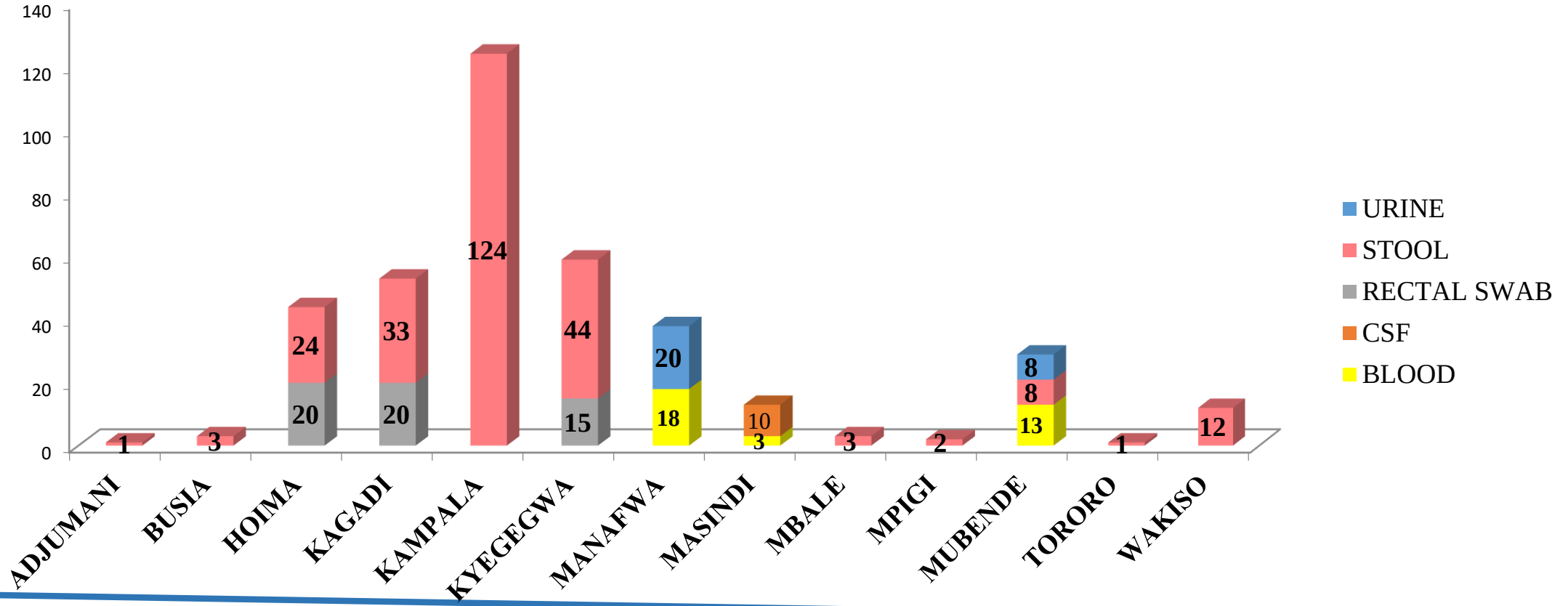
Non outbreak(Clinical) sample volumes



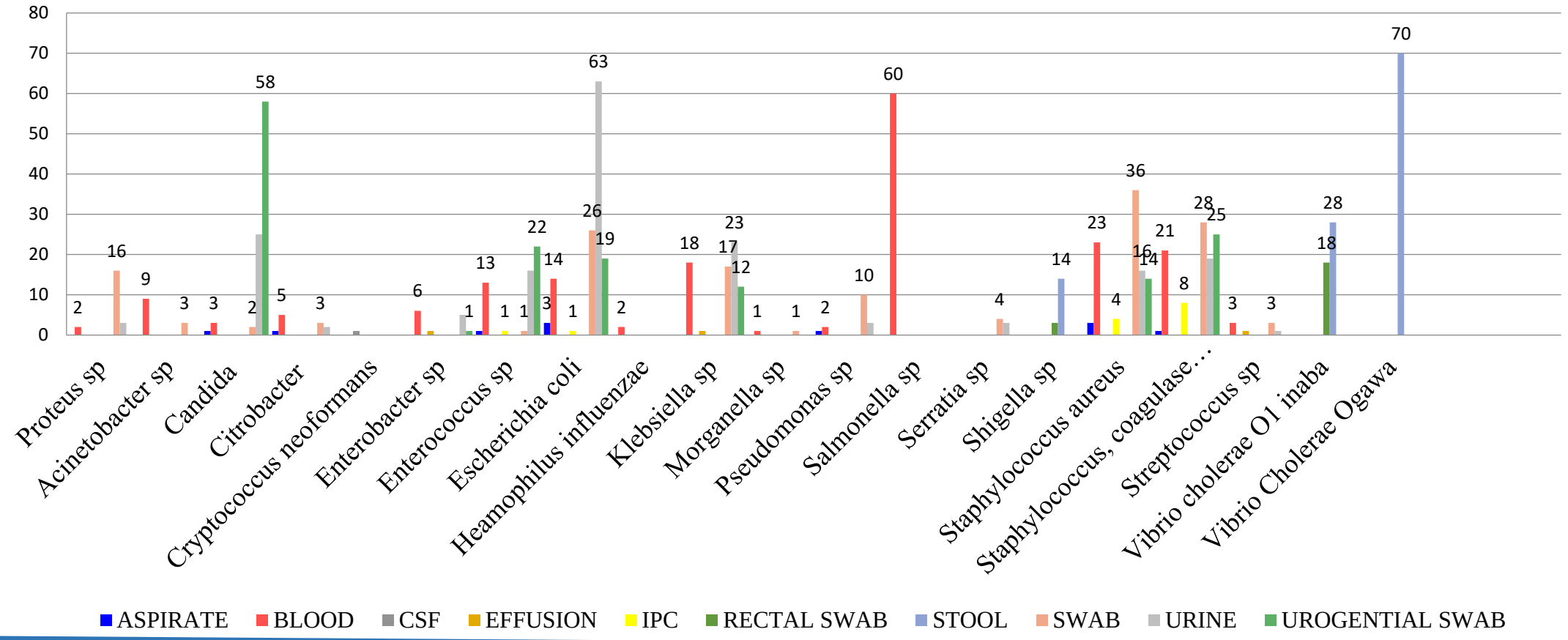
Outbreak samples



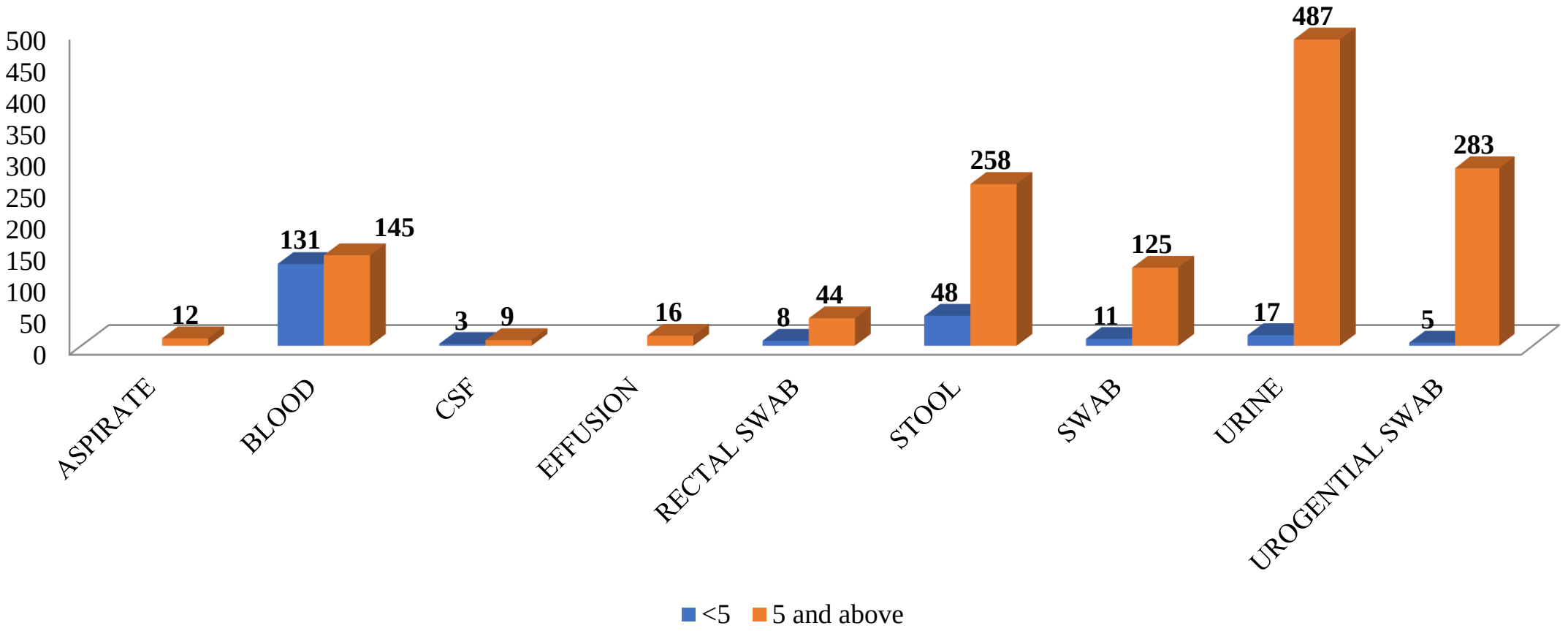
Out break sample types per district



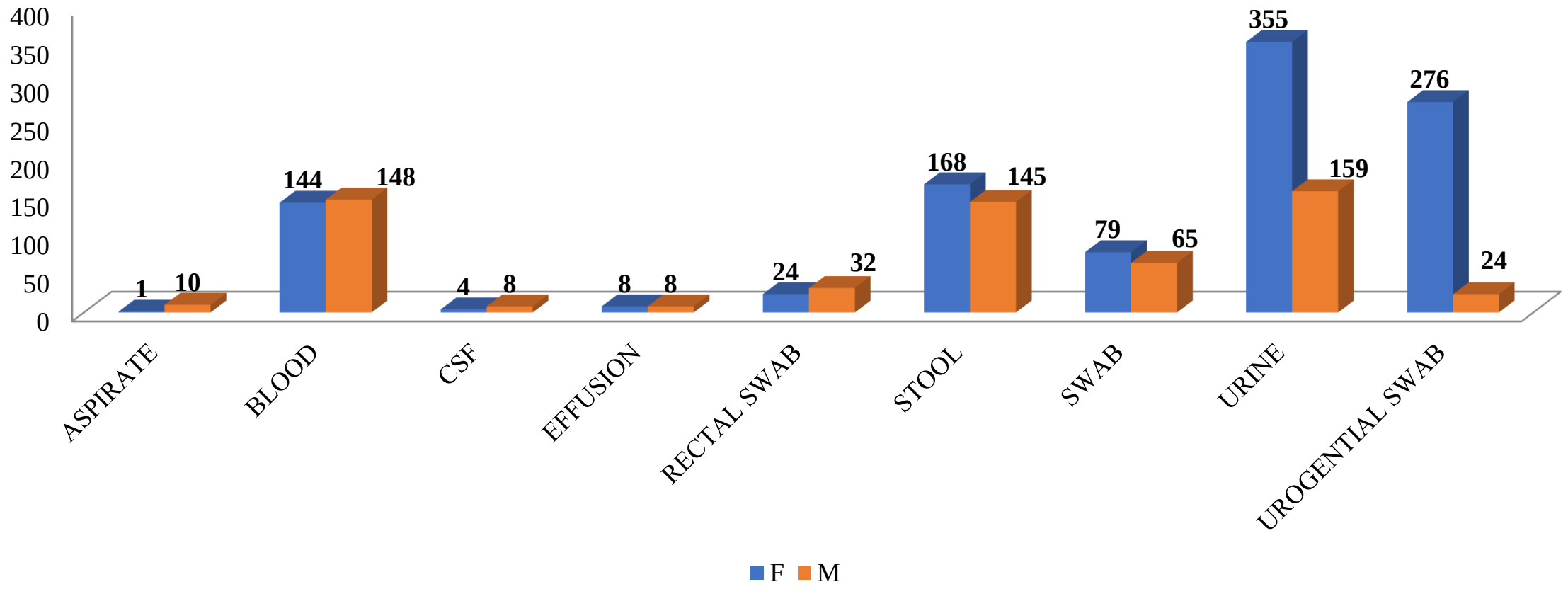
Organisms by sample type



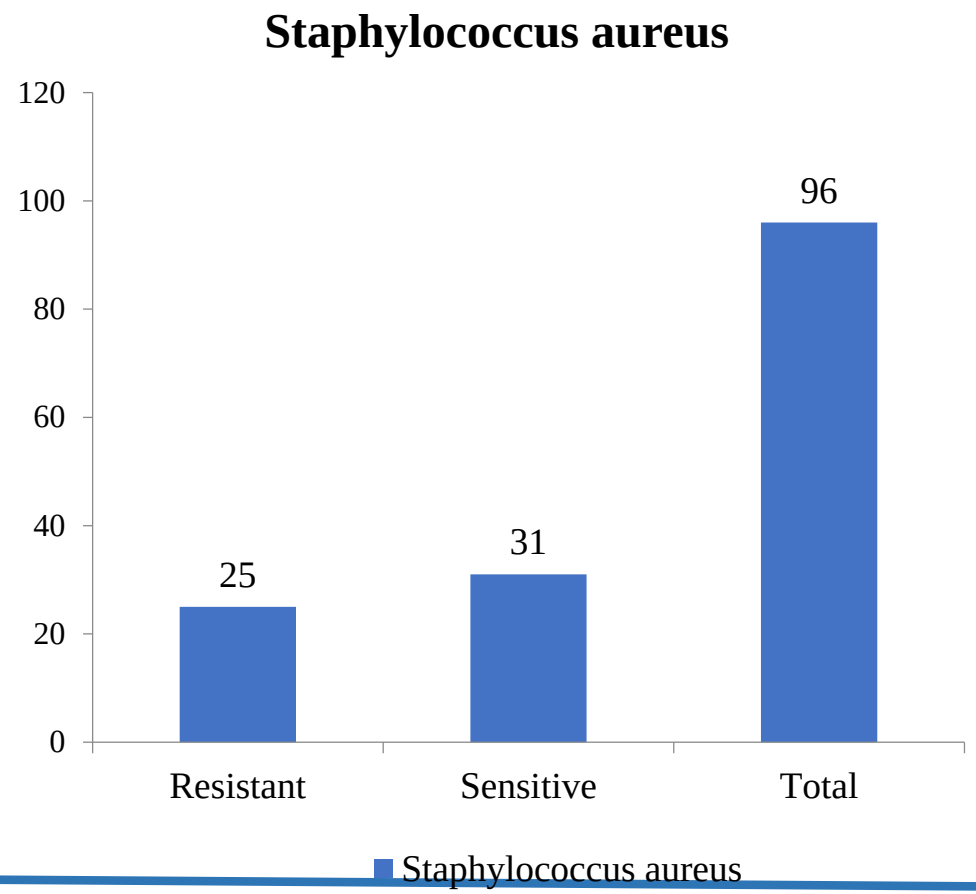
Organisms by age

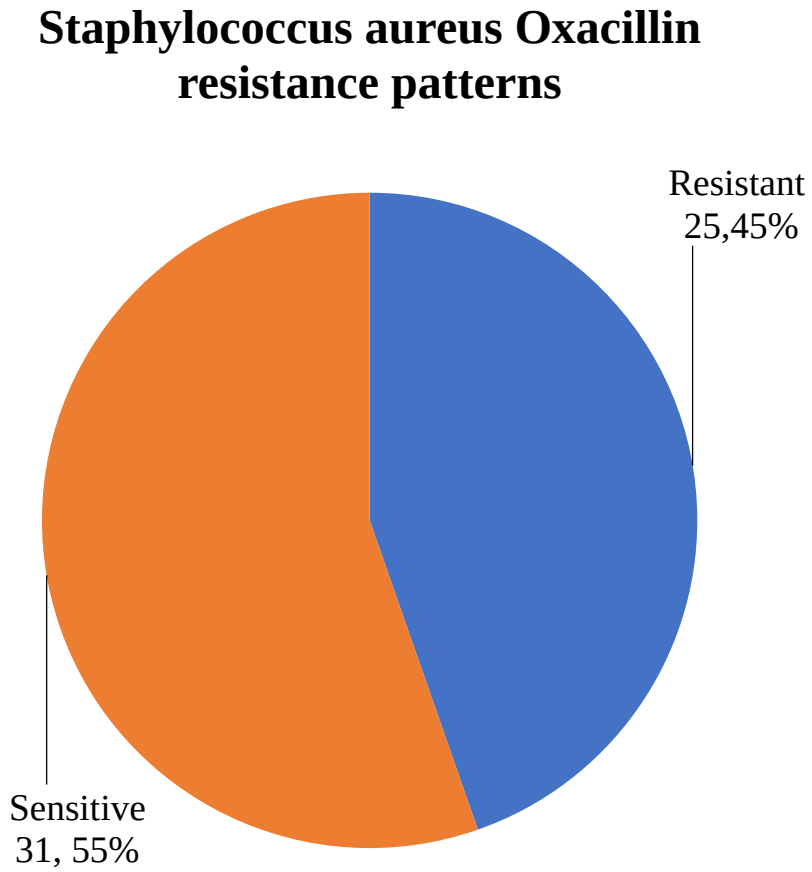


Organism Source by Gender

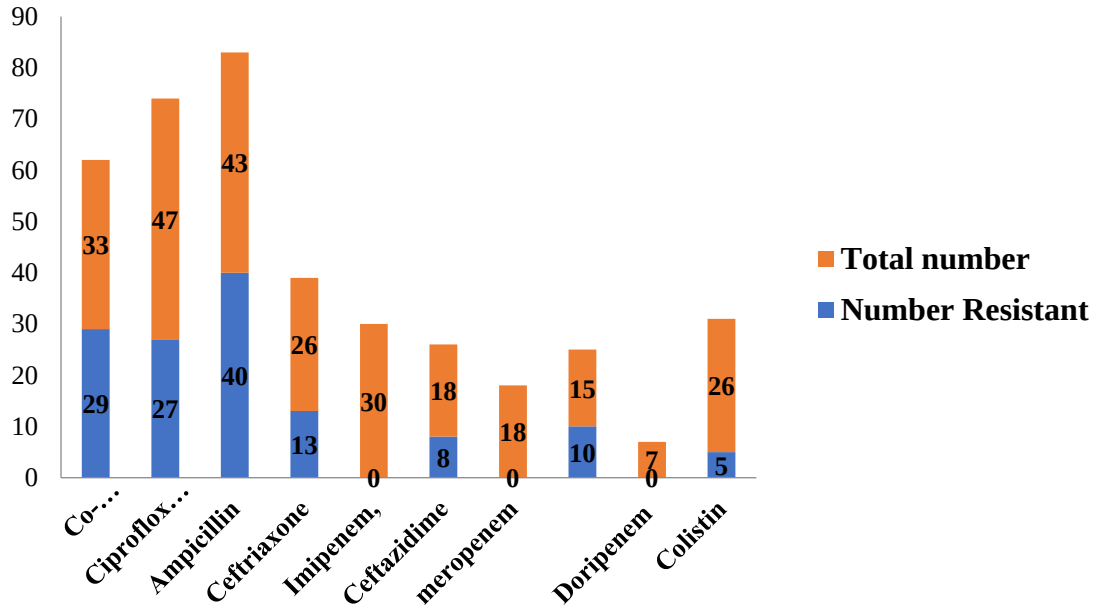


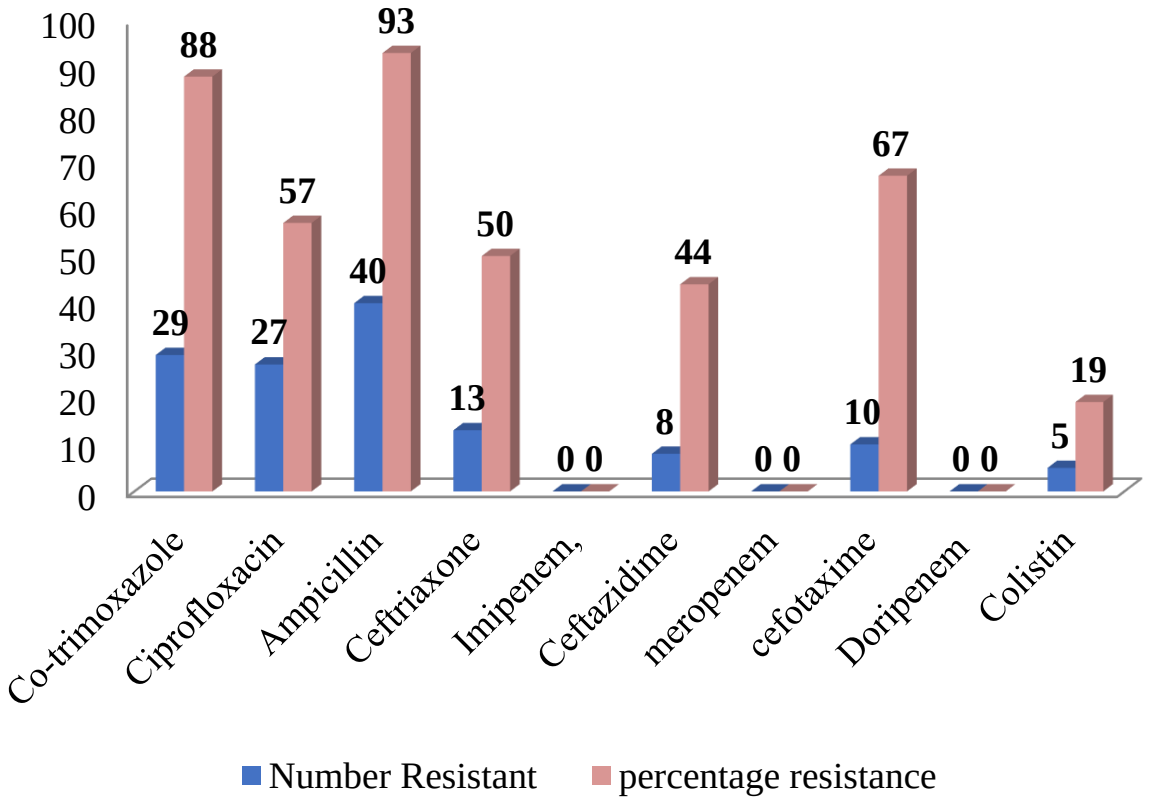
Staph. aureus Antibiotic Susceptibility



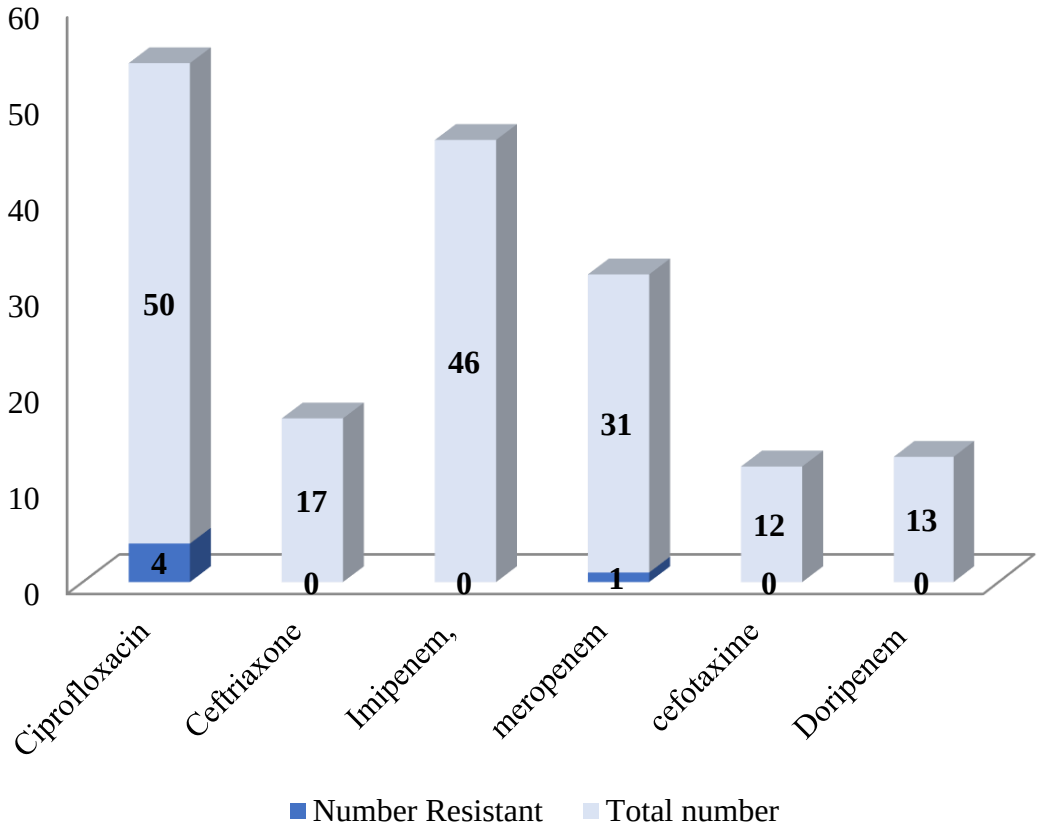


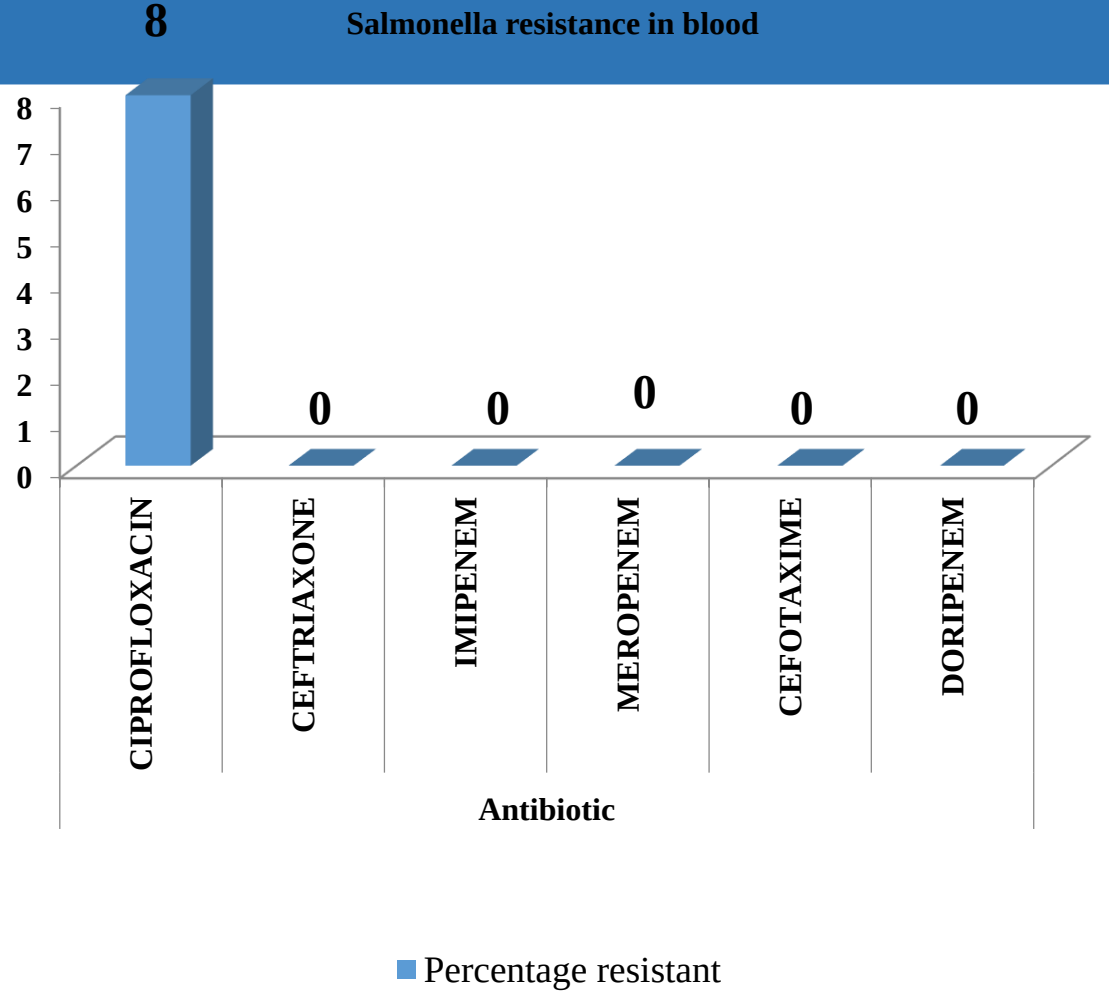
No. and Percentage resistance of *Escherichia coli* isolated from urine





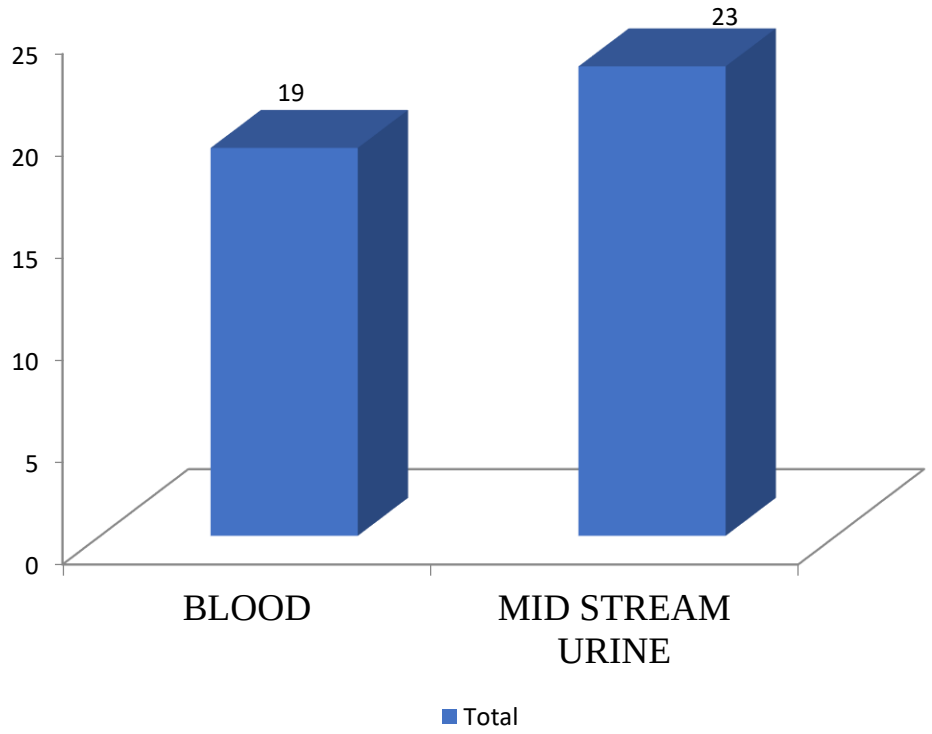
Resistance ofSalmonella isolates from blood



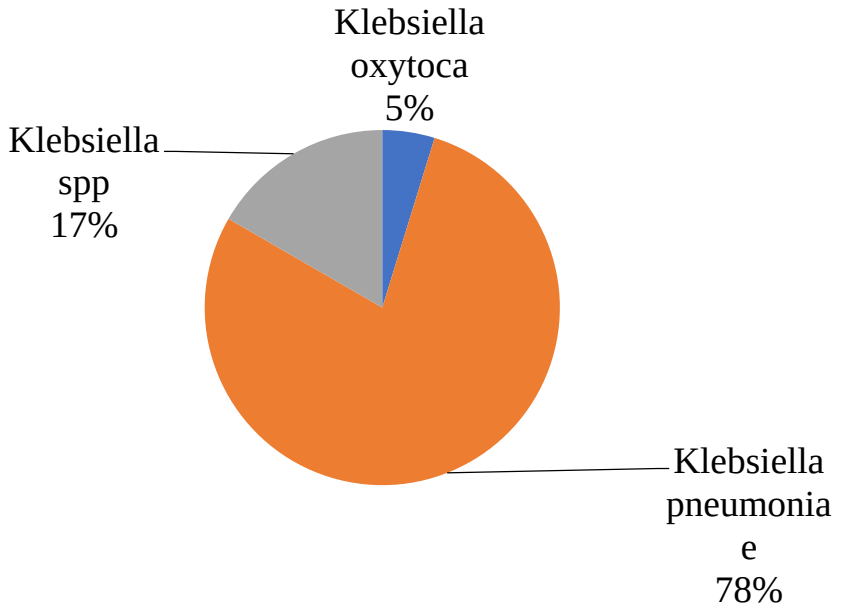


Klebsiella from urine and blood

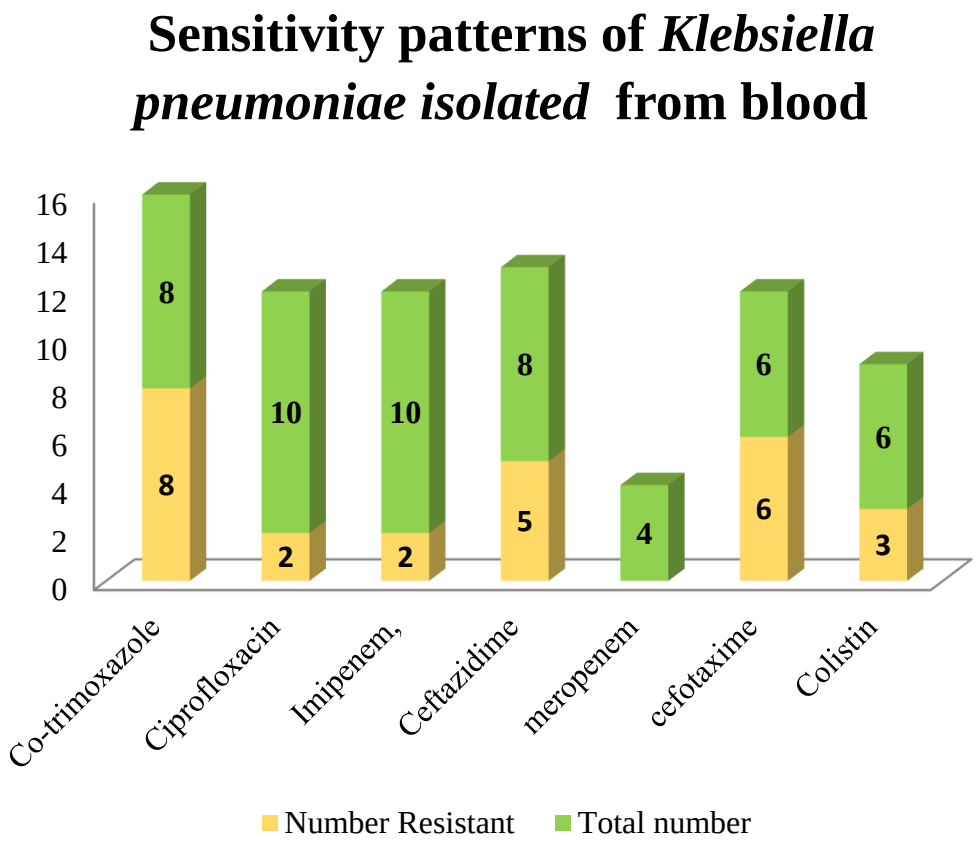
Klebsiella sample type

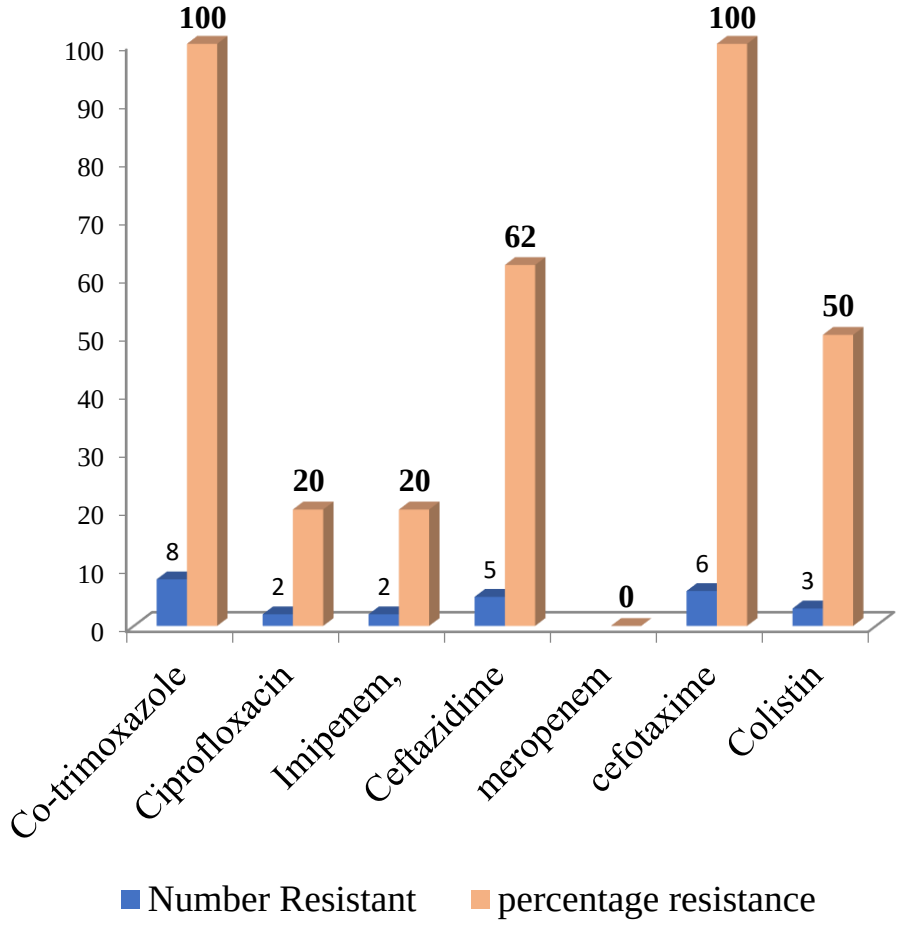


Klebsiella species



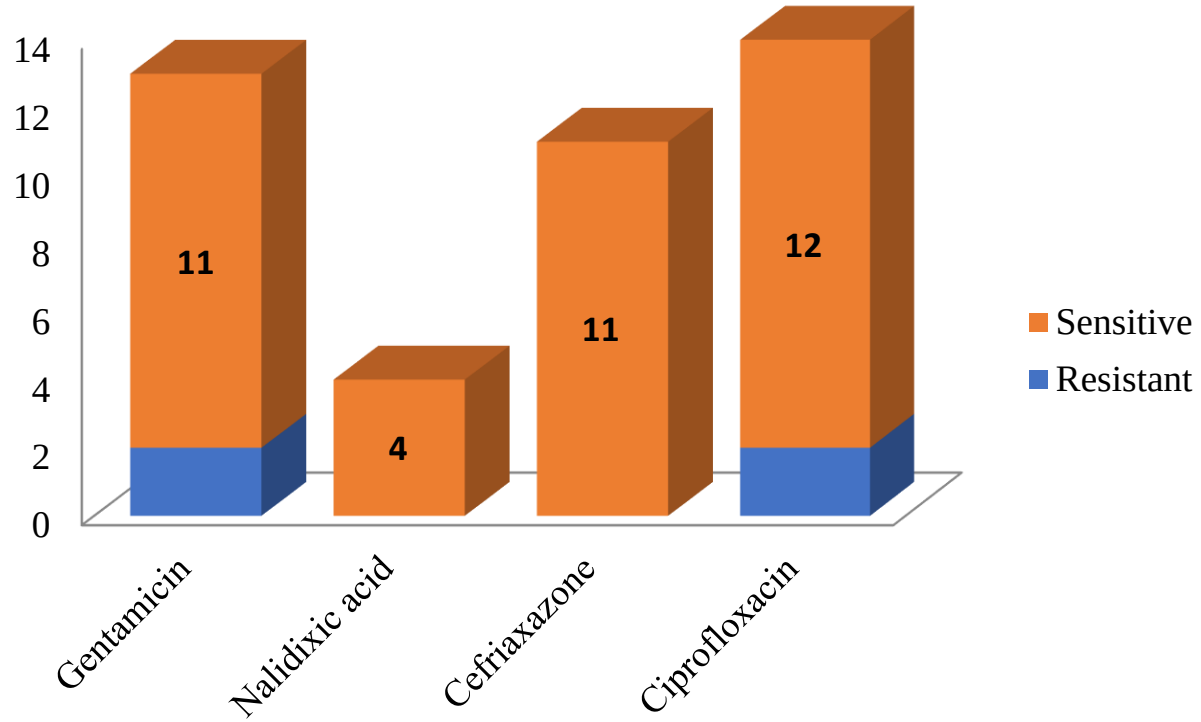
Percentage Resistance of the **Klebsiellae**



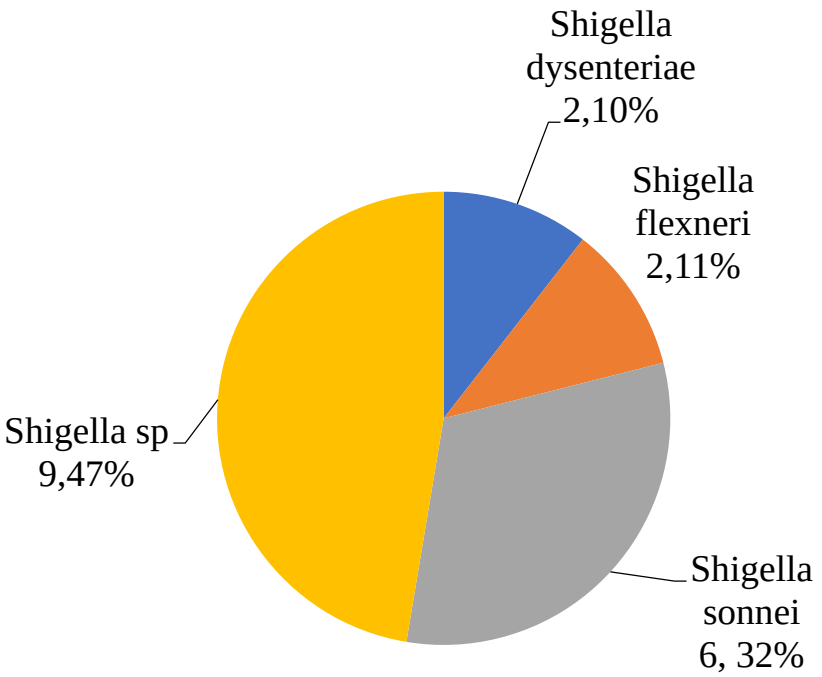


Susceptibility of Shigella Isolates

Shigella species sensitivity



Shigella species



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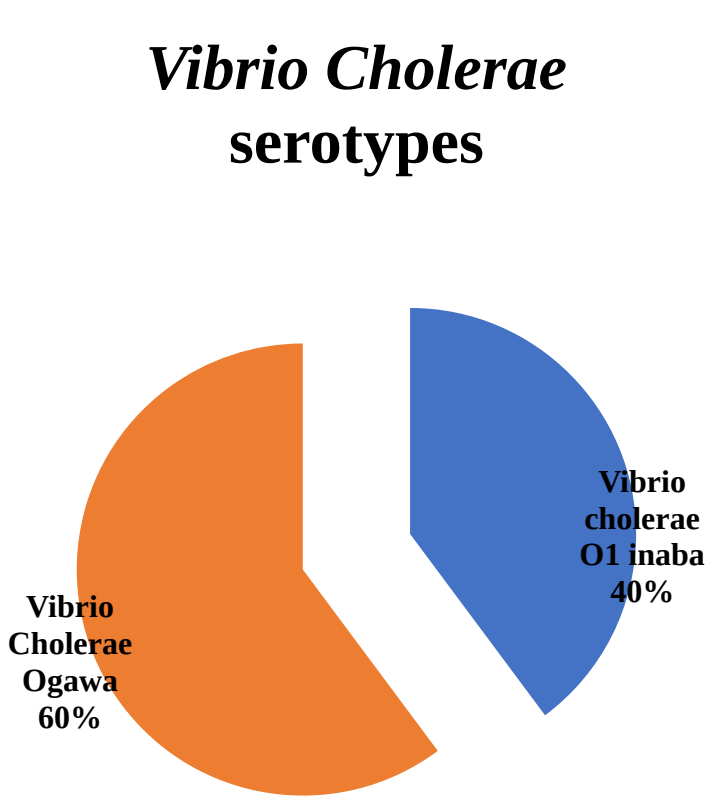
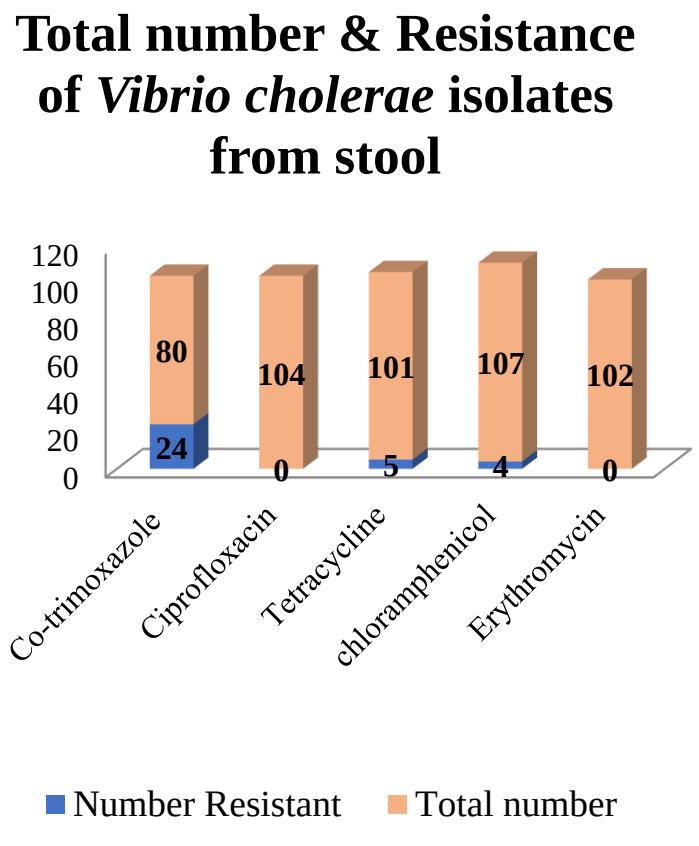
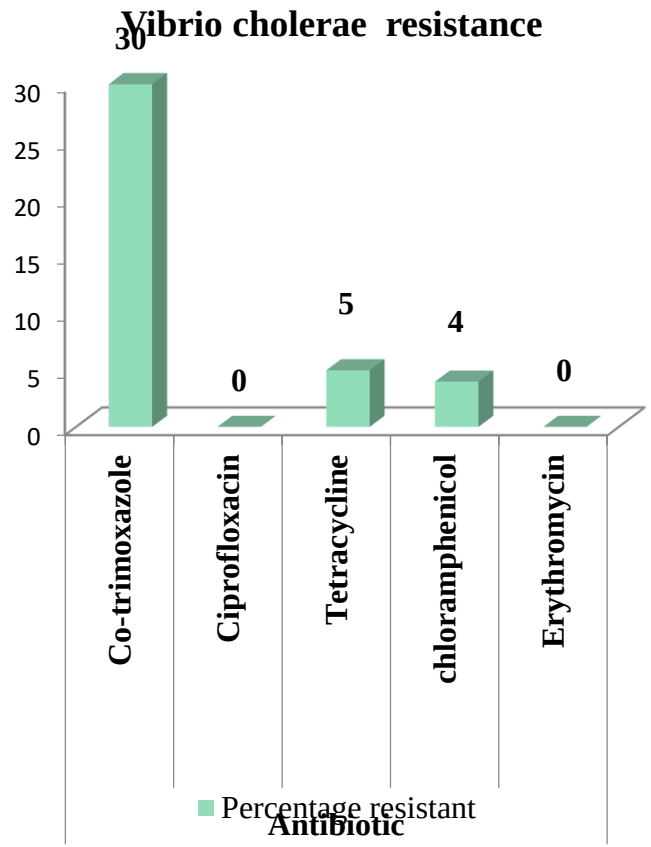
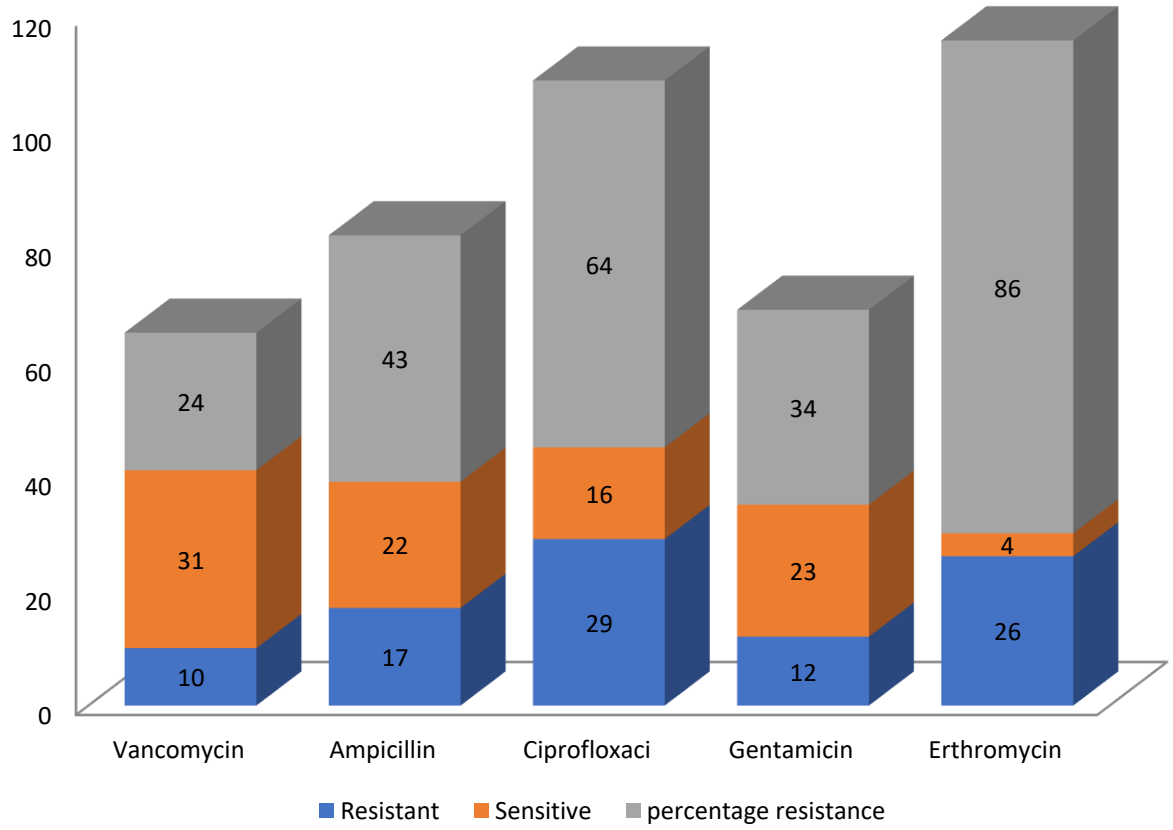
Resistance of Vibrio cholerae Isolates

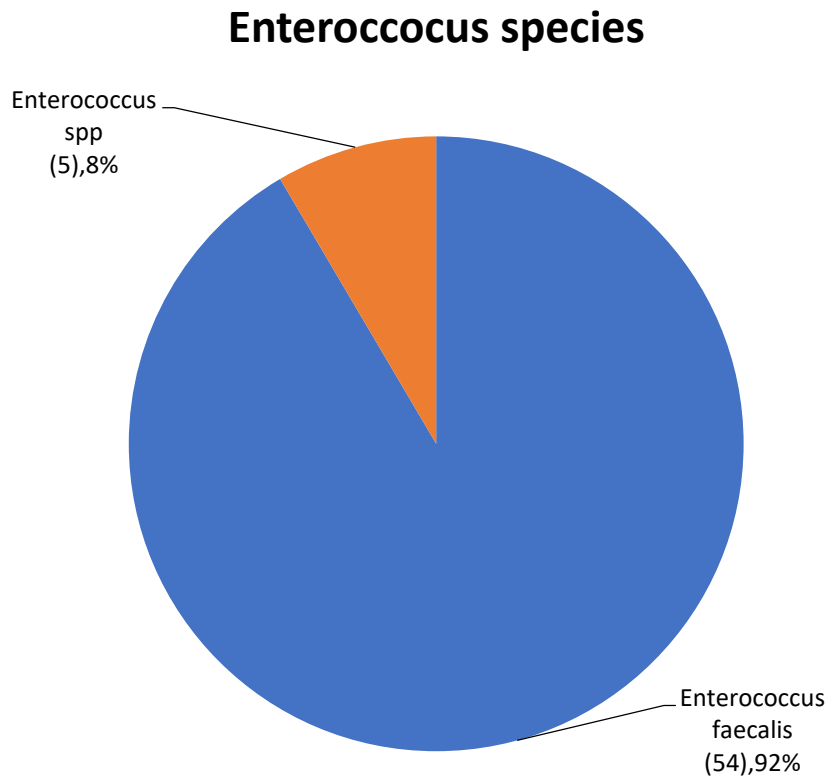




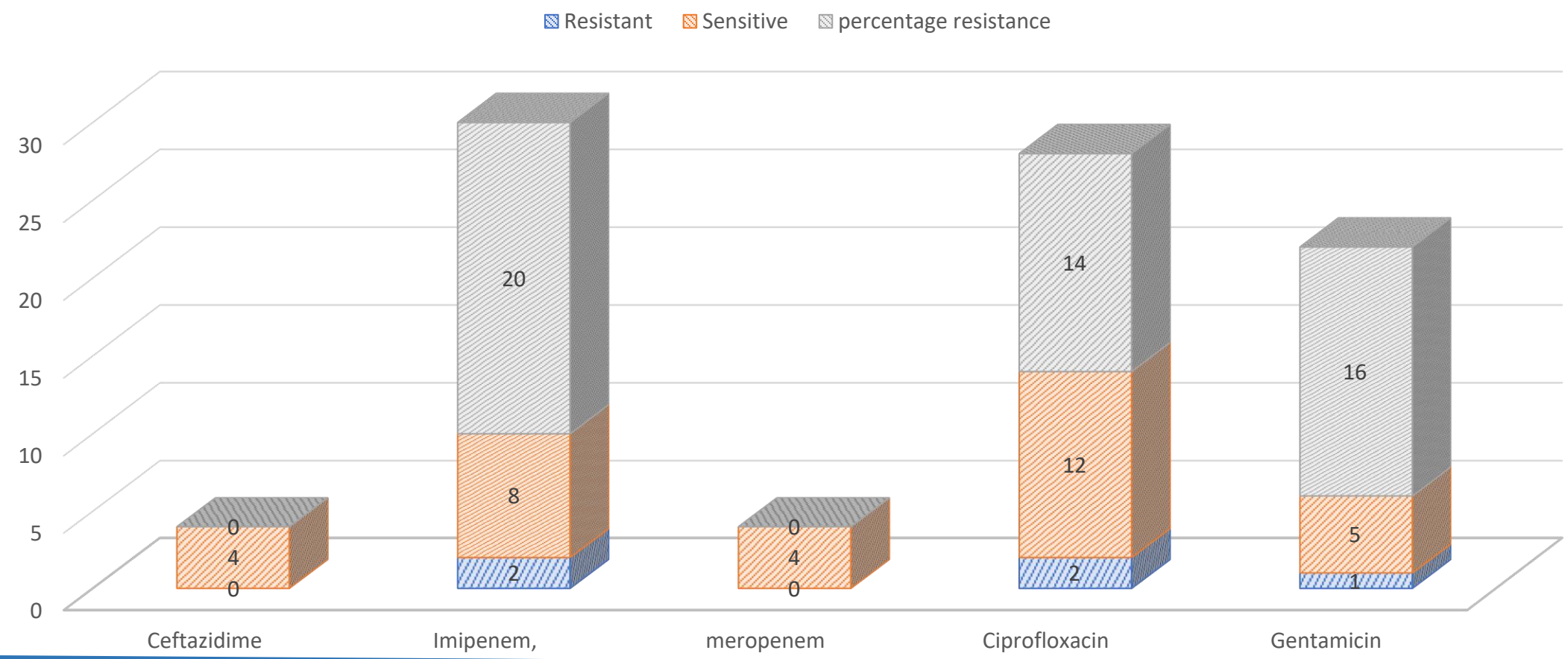


Percentage resistance of *Enterococcus feacalis*





Pseudomonas aeruginosa sensitivity patterns



Acknowledgement

- NMRL staff
- UNHLS Management Team
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- CDC Team

THANK YOU