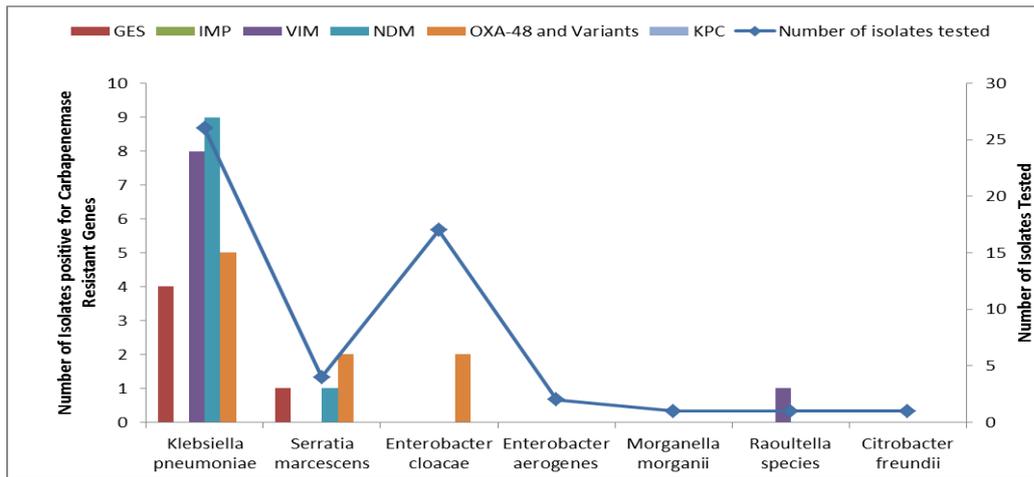


## 4 ANTIMICROBIAL RESISTANCE

### Update on carbapenemase-producing Enterobacteriaceae

The Johannesburg and Cape Town Antimicrobial Resistance Reference Laboratories (AMRRL) of the Centre for Opportunistic, Tropical and Hospital Infections (COTHI) at NICD/NHLS have been testing referred isolates of suspected carbapenemase-producing Enterobacteriaceae (CPE) for the

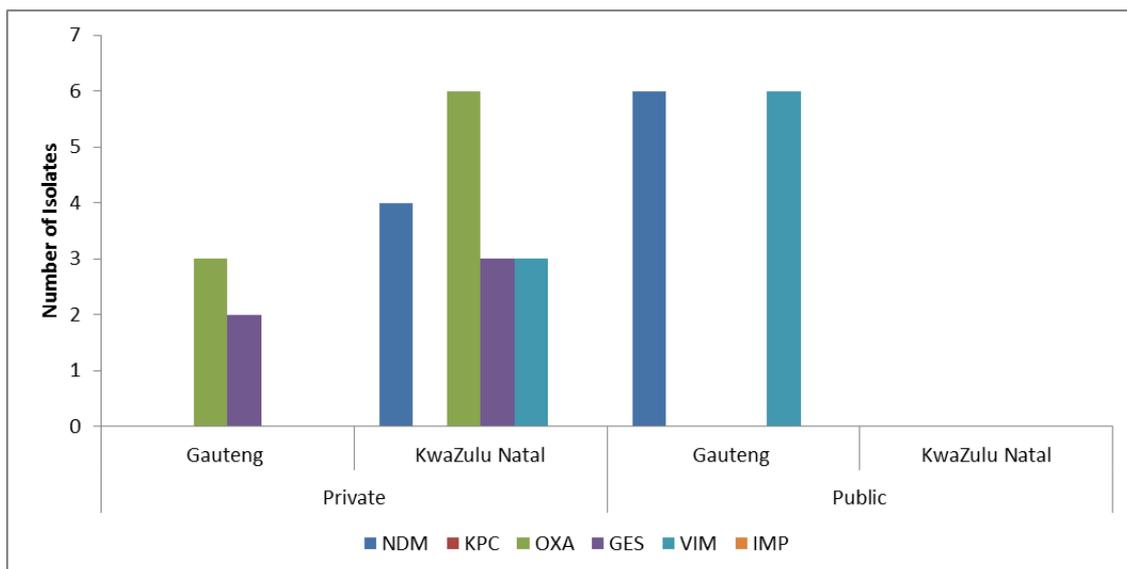
presence of selected carbapenemase genes. For October 2014, a total of 52 Enterobacteriaceae isolates was screened, 33 of which were CPE. Most isolates screened were *Klebsiella pneumoniae* (26) followed by *Enterobacter cloacae* (17) (Figure 2).



**Figure 2. Enterobacteriaceae isolates screened (n=52) and confirmed CPE (n=33) during October 2014 at AMRRL (NICD-NHLS)**

Ten NDM-positive isolates were identified (four from private hospitals in KwaZulu-Natal Province and six from public hospitals in Gauteng Province). Nine OXA-48-positive isolates were identified from private hospitals (six from KwaZulu-Natal Province and three from Gauteng Province). Nine VIM-

positive isolates were identified (three from the private sector in KwaZulu-Natal Province and six from the public sector in Gauteng Province). Five GES-positive isolates were identified from the private sector (two from Gauteng Province and three from KwaZulu-Natal Province) (Figure 3).



**Figure 3. Distribution by province of CPEs (n=33), October 2014**

It is important to note that these figures do not represent the current burden of CPEs in South Africa. Given that CPE infections are currently not reportable or notifiable in South Africa, there is no platform for appropriate surveillance reports and consequently no locally representative data is available. This is of major concern, since meaningful data can inform public health policy and highlight priorities for action. Controlling the spread and limiting the impact of CPEs in South Africa will require intensive efforts in both the public and private healthcare sectors going forward. NHLS and private laboratories are encouraged to submit

suspected CPE isolates based on antimicrobial susceptibility testing (AST) criteria to the AMRRL, NICD/NHLS. Please telephone (011) 555 0342/44 or email: [ashikas@nicd.ac.za](mailto:ashikas@nicd.ac.za); and [olgap@nicd.ac.za](mailto:olgap@nicd.ac.za); for queries or further information. In the Western Cape area, please email: [colleen.bamford@nhls.ac.za](mailto:colleen.bamford@nhls.ac.za).

**Source:** Centre for Opportunistic, Tropical and Hospital Infections, NICD-NHLS