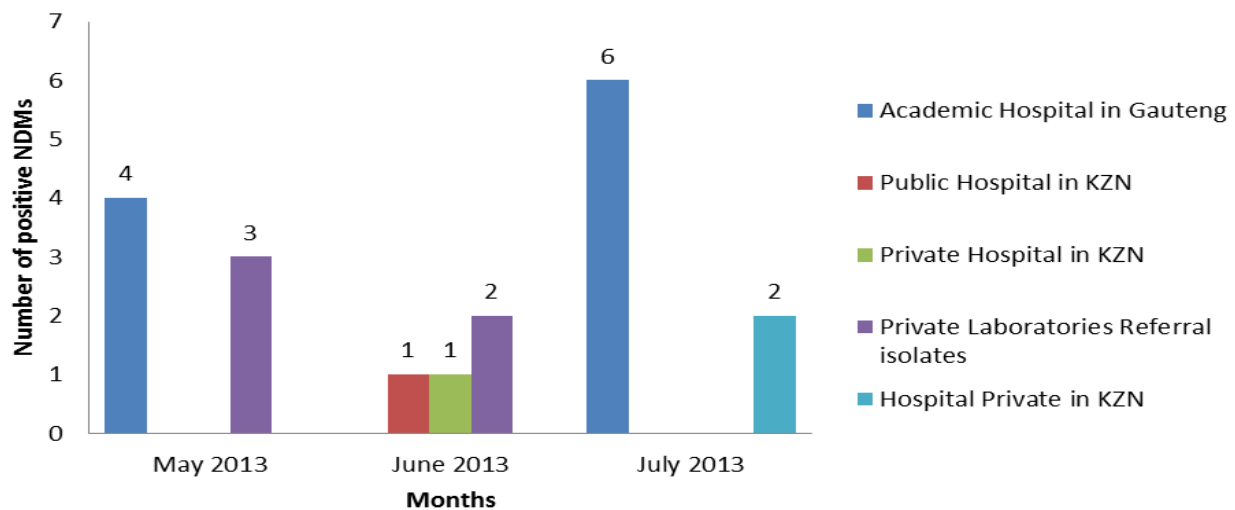


## Update on carbapenemase-producing Enterobacteriaceae

Since 2011, the Antimicrobial Resistance Reference Laboratory (AMRRL) of the Centre for Opportunistic, Tropical and Hospital Infections (COTHI) at NICD-NHLS has been testing referred isolates of suspected carbapenemase-producing Enterobacteriaceae (CPE) for the presence of selected carbapenemase genes. Testing methodology employs real-time polymerase chain reaction using the Light Cycler 480 instrument (Roche Applied Science, Germany), with US-CDC recommended primers and probes.

Seventy CPE isolates (referred from both NHLS and private laboratory groups) were tested during May 2013 to July 2013; NDM-1 (New Delhi metallo- $\beta$ -lactamase 1) was detected in 27% (19/70) of these. Most isolates testing NDM-1 positive were from patients hospitalised in Gauteng and KwaZulu-Natal provinces, in both public and private healthcare sectors (Figure 2).



**Figure 2. Laboratory-confirmed NDM-1 producing CPE identified amongst referred isolates at AMRRL (NICD-NHLS), South Africa, May-July 2013**

It is important to note that this represents the proverbial tip-of-the-iceberg in terms of the current burden of CPE including NDM-1 producing Enterobacteriaceae in South Africa. Given that CPE-infections are currently not reportable or notifiable in South Africa, there is no platform for appropriate surveillance and hence 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 CPE in South Africa will require concerted efforts in both the public and pri-

vate healthcare sectors going forward.

NHLS and private laboratories are encouraged to submit suspected CPE isolates 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.

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