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High Prevalence of Methicillin-Resistant *Staphylococcus aureus* Nasal Colonization Among Inmates in a New Orleans County Jail, 2007–2008

Background: In August 2007, the American Civil Liberties Union contacted CDC regarding inmate complaints of widespread methicillin-resistant *Staphylococcus aureus* (MRSA) skin infections in a New Orleans County jail. MRSA can cause serious illness and is increasingly becoming a public health problem in the community. We initiated an investigation to determine prevalence and risk factors for MRSA nasal colonization among inmates.

Methods: During November, 2007–January, 2008, we conducted a nasal colonization survey among 302 inmates. Polymerase chain reaction for *mecA* was performed on nasal swabs and a subset (n=17) was sent to CDC for culture and isolate characterization. We calculated point prevalence rates for MRSA colonization, stratified by sex, race/ethnicity, and duration of incarceration. We conducted multivariate logistic regression analysis based on an a priori hypothesis of known risk factors for MRSA colonization.

Results: Overall MRSA colonization prevalence was 16.6% (95% Confidence Interval [CI]=12.3%–20.8%): 20.0% (95% CI=11.7%–28.3%) among females, 15.1% (95% CI=10.2%–19.9%) among males. MRSA colonization was higher among whites (30%)

than blacks (13%) ($P=0.01$). In our a priori model only black race was significantly associated with MRSA colonization prevalence (adjusted odds ratio 0.50, 95% CI=0.26–0.95, $P=0.04$). *S. aureus* was isolated from 12/17 inmates; 7/12 isolates were MRSA strains USA300 (n=6) and USA500 (n=1).

Conclusions: This study reports the highest prevalence of MRSA colonization documented in a correctional facility. To help reduce person-to-person transmission of MRSA, we developed educational programs for inmates and staff and made recommendations for improvements in infection control practices, access to health-care services, and treatment for MRSA skin infections.

Key words: methicillin-resistant *Staphylococcus aureus*, MRSA nasal colonization, prisoners