

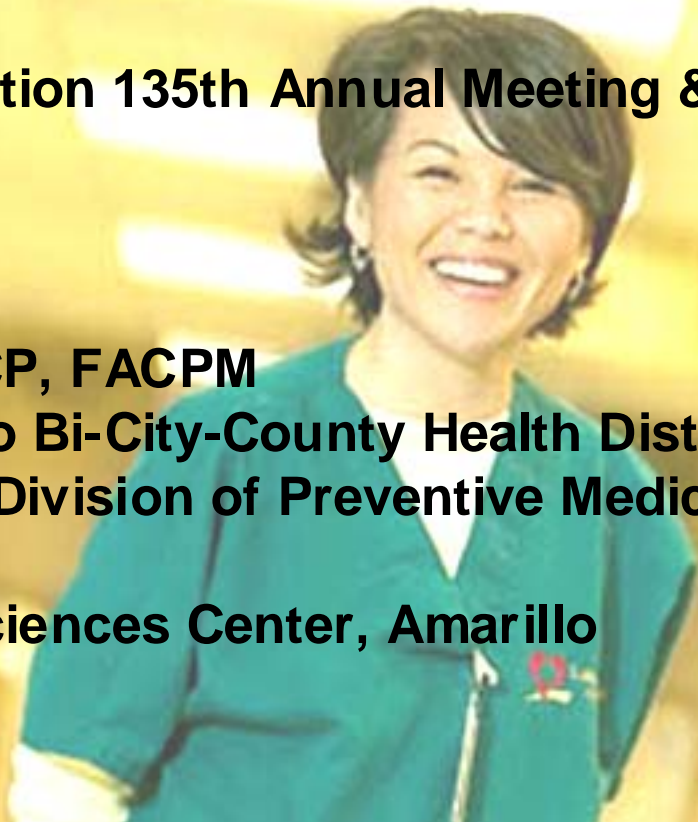


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Retrospective study of community-acquired methicillin-resistant *Staphylococcus aureus* (CA-MRSA) infections in a west Texas community, 2004

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Source: CDC Public Health Image Library (<http://phil.cdc.gov/phil/details.asp>)

Traditional (HA- MRSA)

- **Assoc. with recent hospital, surgery, etc.**
- **Older, poor**
- **Skin/soft tissue = 37%**
- **Punier than usual**
- **Acquire in hospitals due to antibiotic use**

- **Multi-drug resistant**

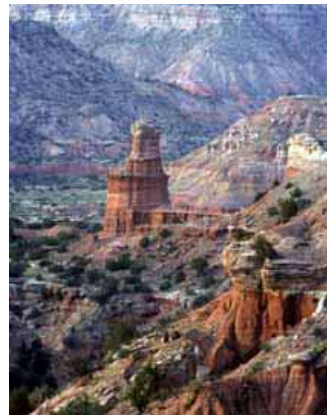
Comm Acquired (CA-MRSA)

- **Healthy community-dwelling**
- **Younger, poorer**
- **Skin/soft tissue = 95%**
- **Very aggressive (PVL)**
- **Acquire from another person, can occur in clusters**

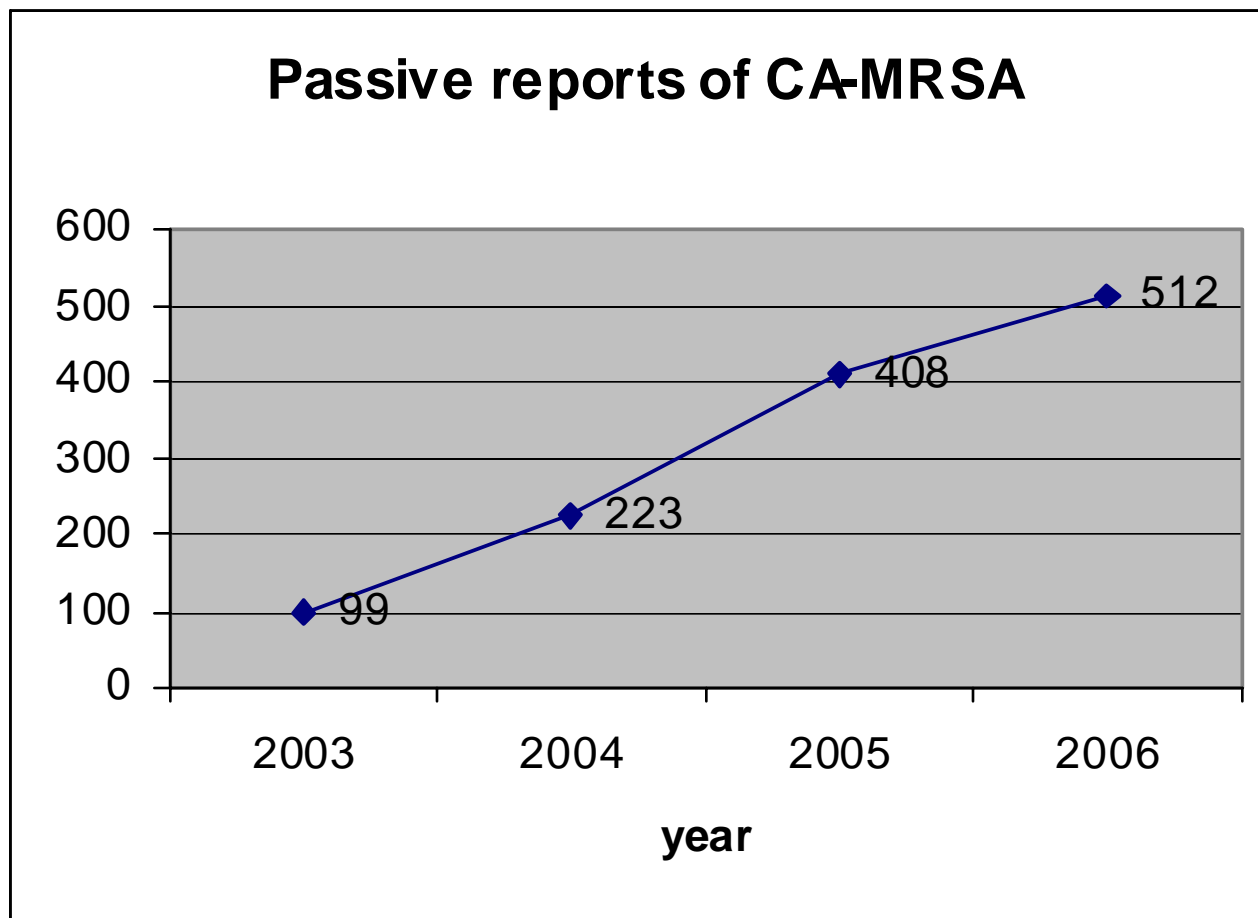
- **Often sensitive to clinda, TPM-SMX, TCN**

Amarillo, Texas

- MSA 2006 estimated population = 236,113
- Three hospitals
- Health Department serves citizens in two counties
- 70% White, 22% Hispanic, 6% African American



Community Acquired MRSA in Amarillo



Origin of Community Investigation

- Passive surveillance and reports from practitioners noted marked rise in CA-MRSA in 2004
- Requests to Health Dept from schools, LTCF's and hospitals for recommendations
- MRSA Advisory Committee appointed April, 2005 and recommended investigation of 2004 cases

Strategy of Community Investigation of CA-MRSA

- 1. Get list of MRSA isolates from hospital labs
- 2. Review hospital and outpatient records to exclude hospital-associated MRSA
- 3. Call remainder
 - Exclude hospital-associated MRSA
 - Inquire about risk factors and other items
 - Get risk factors on another household member who did not have CA-MRSA

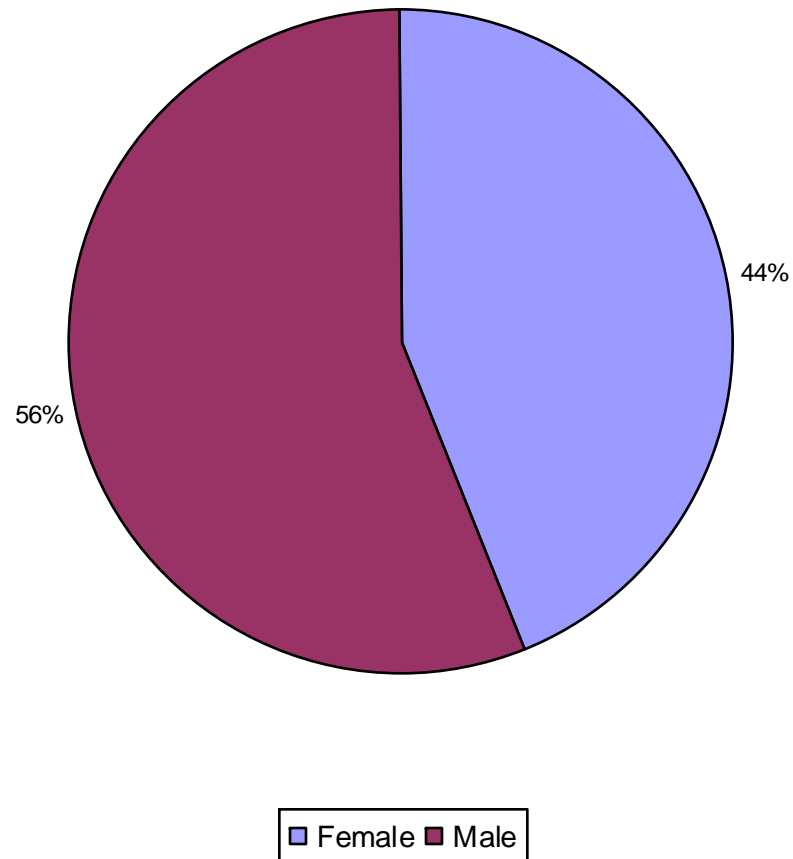
Amarillo CA-MRSA Investigation – Exclusion criteria

- **Any hospitalization in the year before the culture**
- **Any surgery during in the year before the culture**
- **Any dialysis in the year before the culture**
- **Any stay in a long-term care facility in the year before the culture**
- **Presence of any of the following at the time of culture: tracheotomy, gastrostomy, urinary catheter, intravenous catheter**

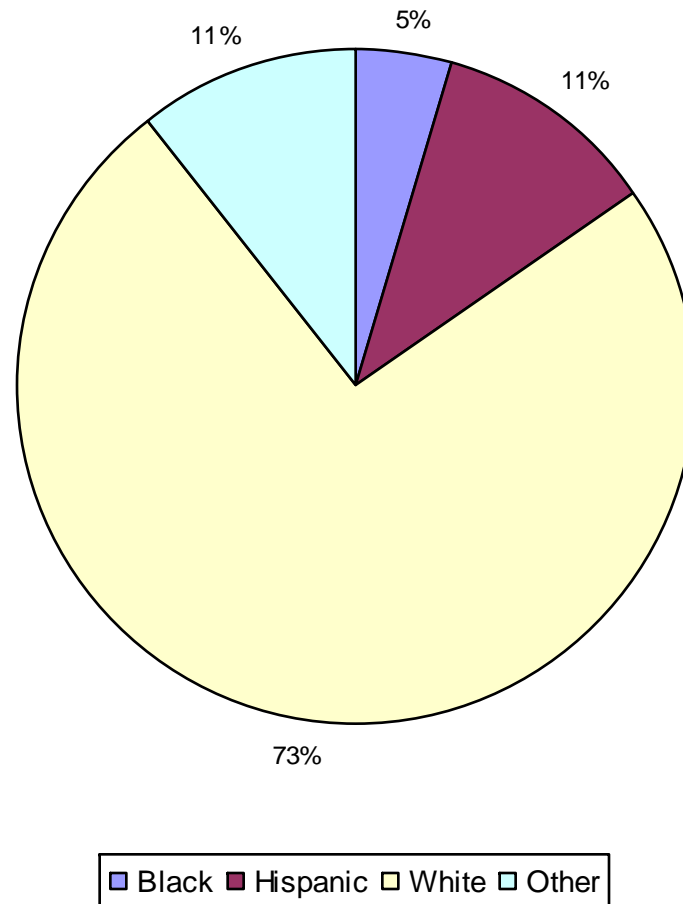
Amarillo CA-MRSA Investigation - Results

- **Over 1100 ED and outpatient charts reviewed; 299 met criteria for CA-MRSA**
- **At least 2 phone calls and mail request**
- **35 no contact info, 3 dead, 8 declined survey, 110 not reached and did not respond to mail request = 143 included in investigation (48% response rate)**
- **Of 143 included, 10 (7%) had exclusion criteria after interview**

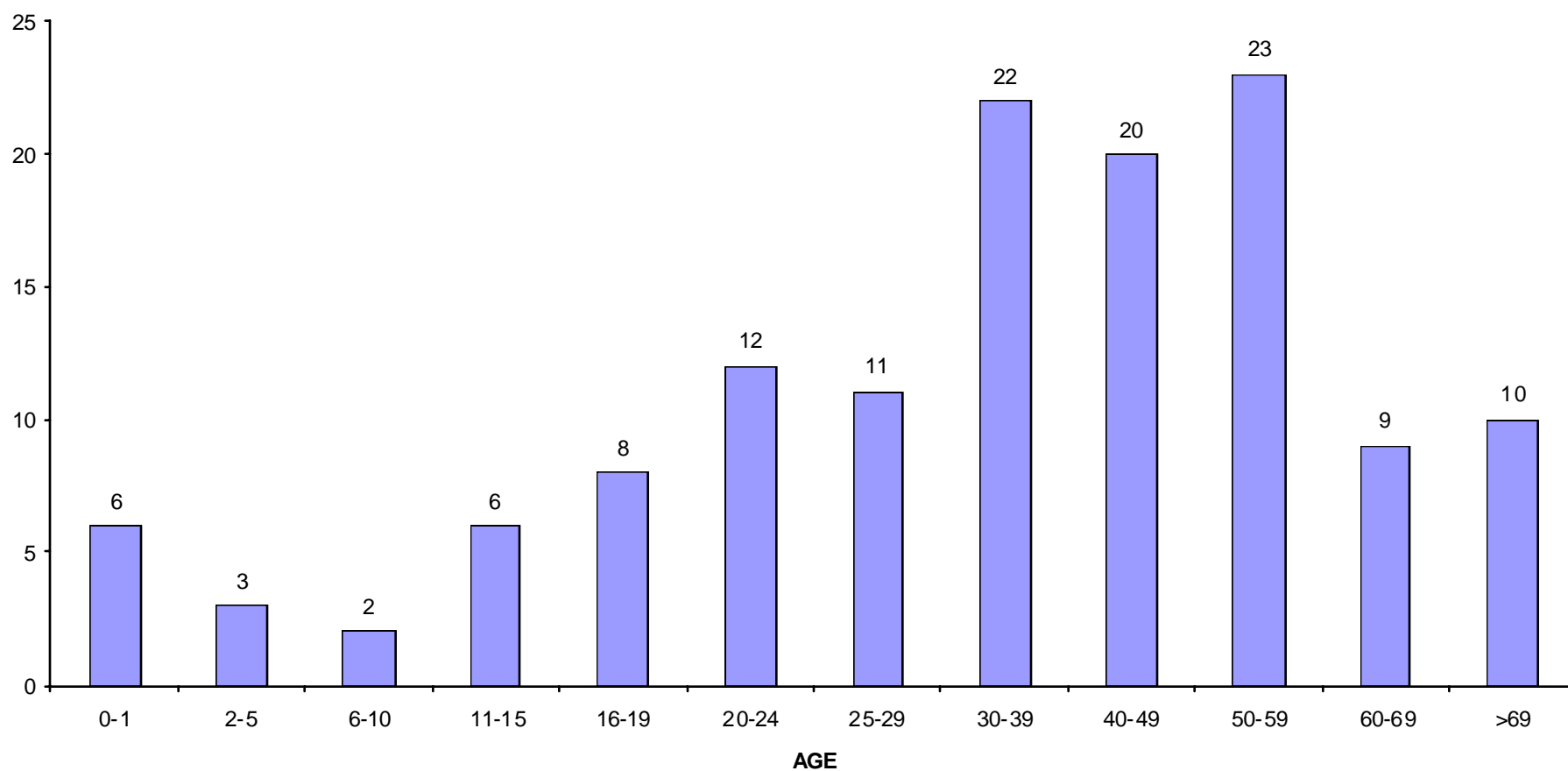
Amarillo CA-MRSA Investigation - gender



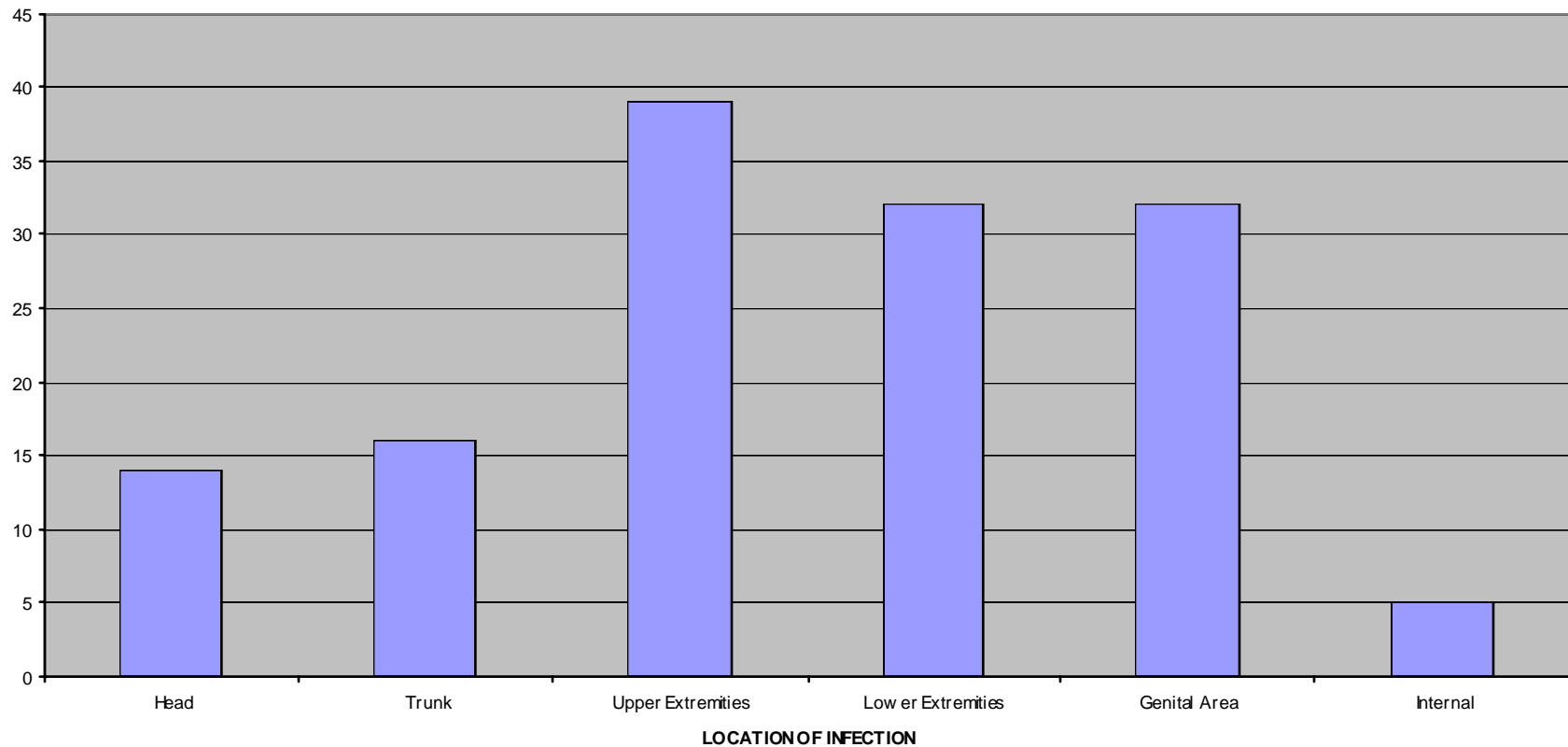
Amarillo CA-MRSA Investigation - ethnicity



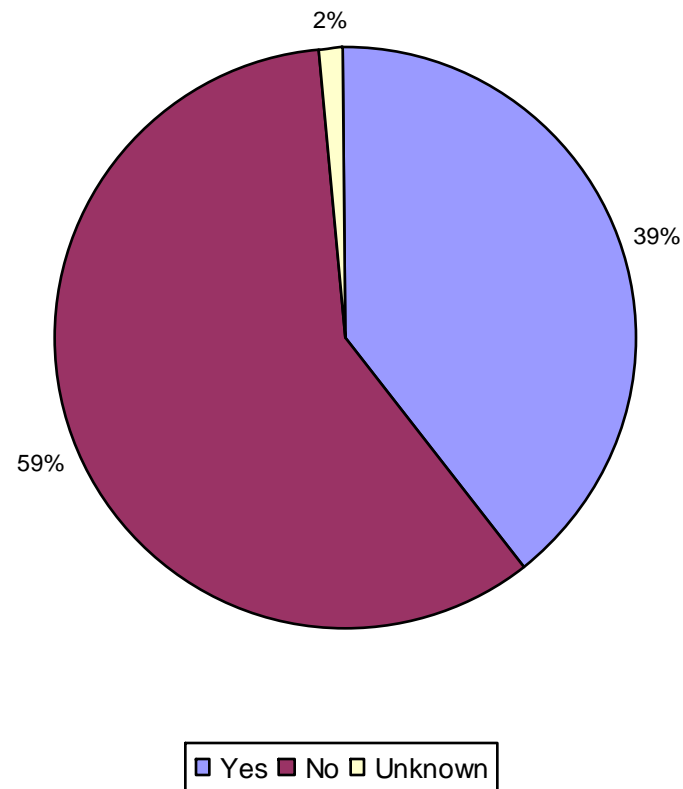
Amarillo CA-MRSA Investigation - age



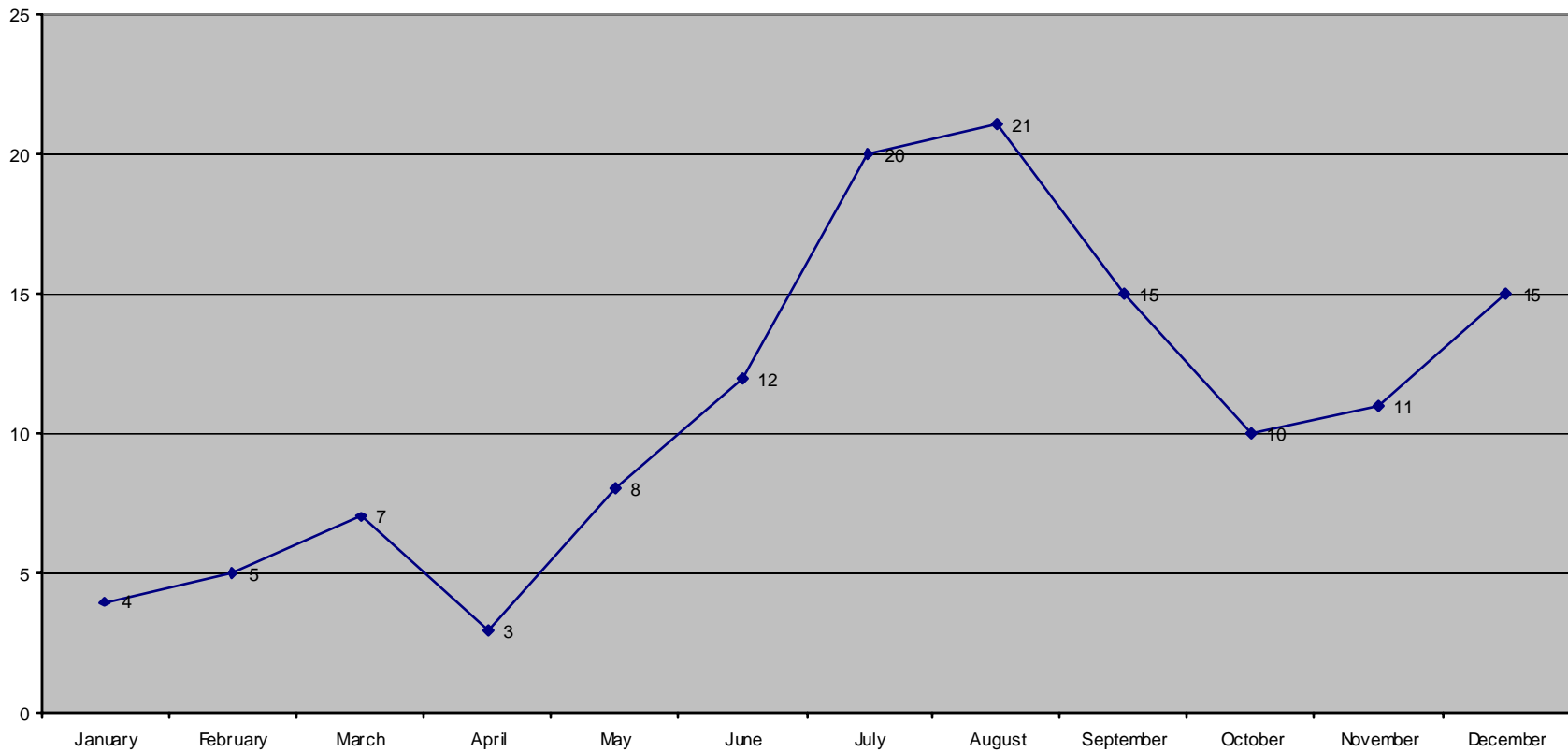
Amarillo CA-MRSA Investigation – location of infection



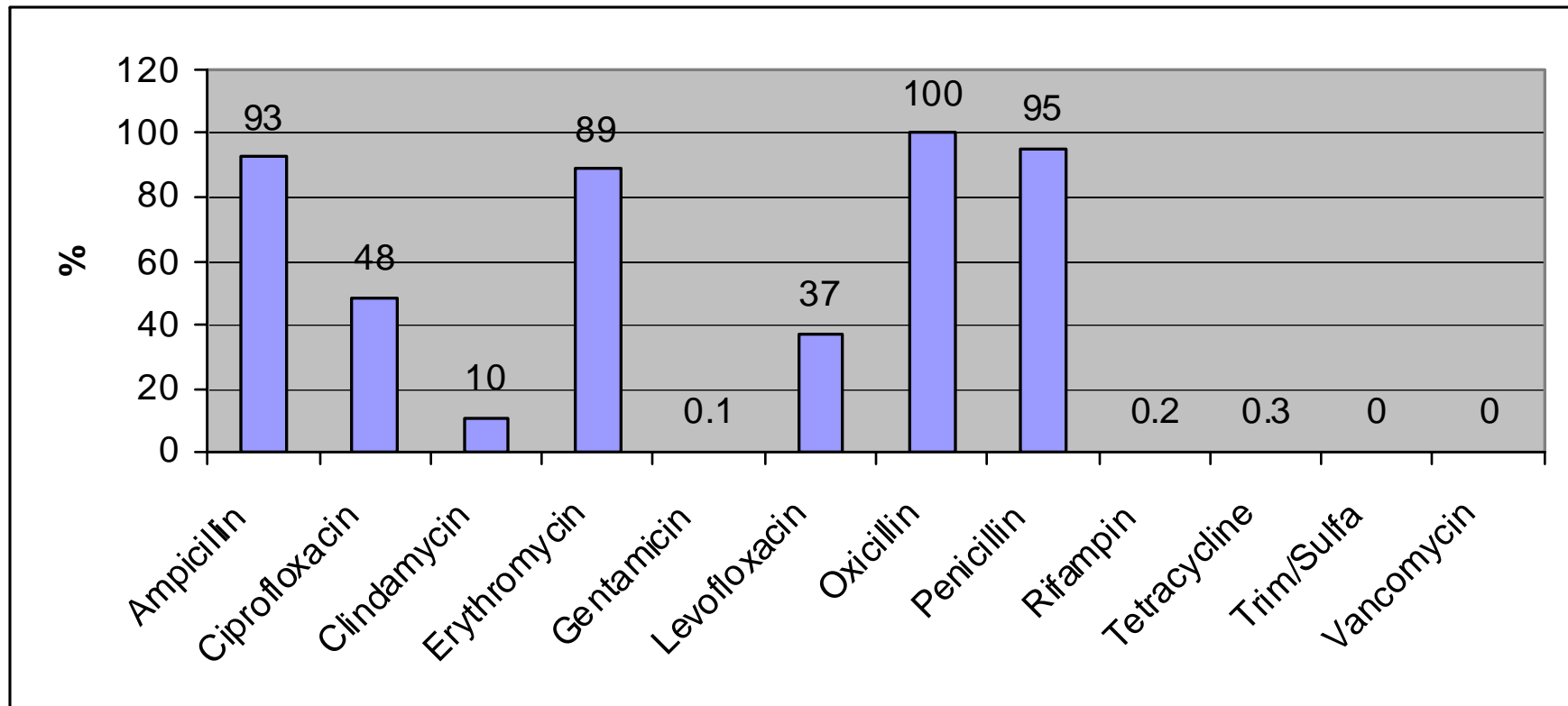
Mistaken for spider bite by either patient or physician



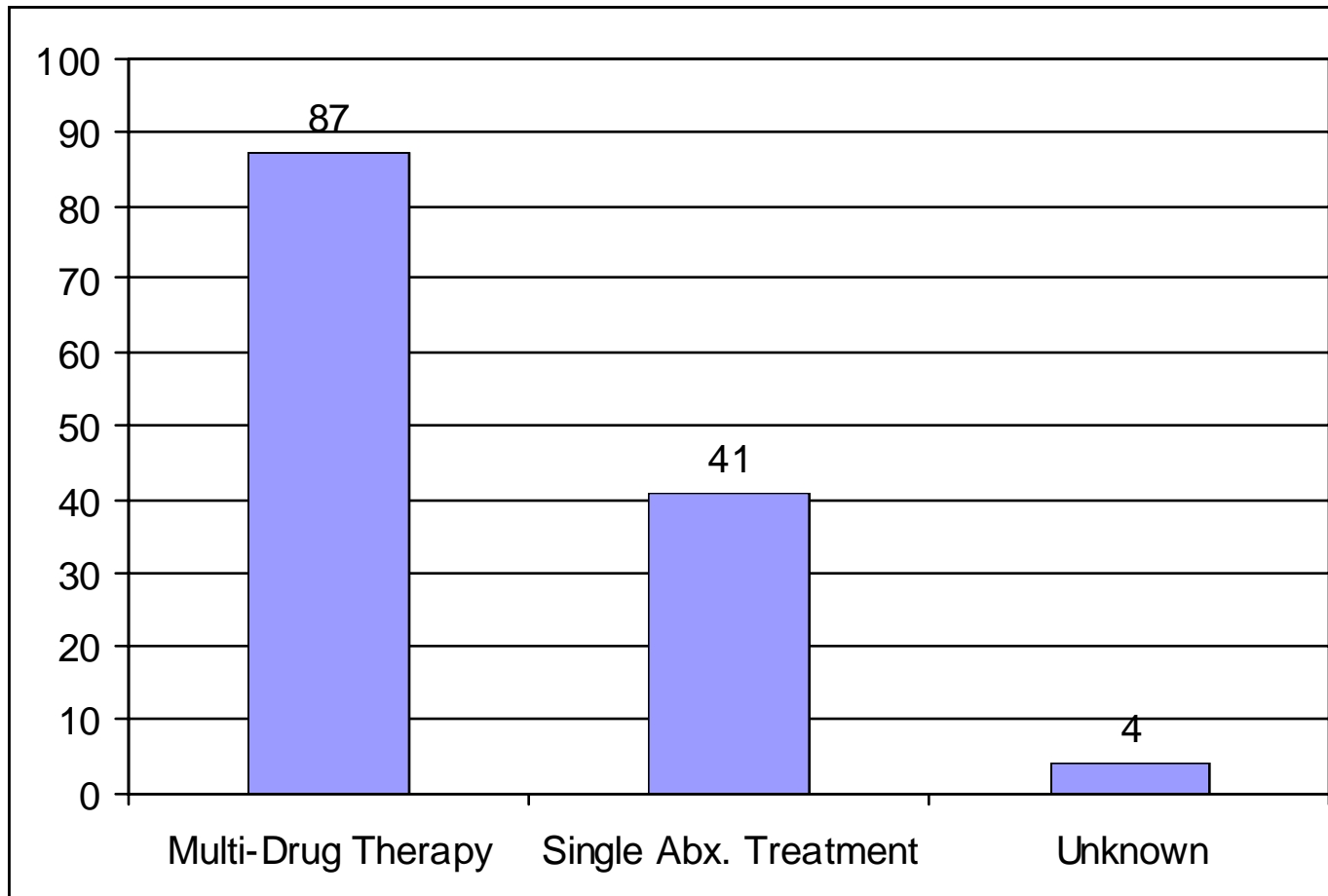
MRSA Infections by month of diagnosis



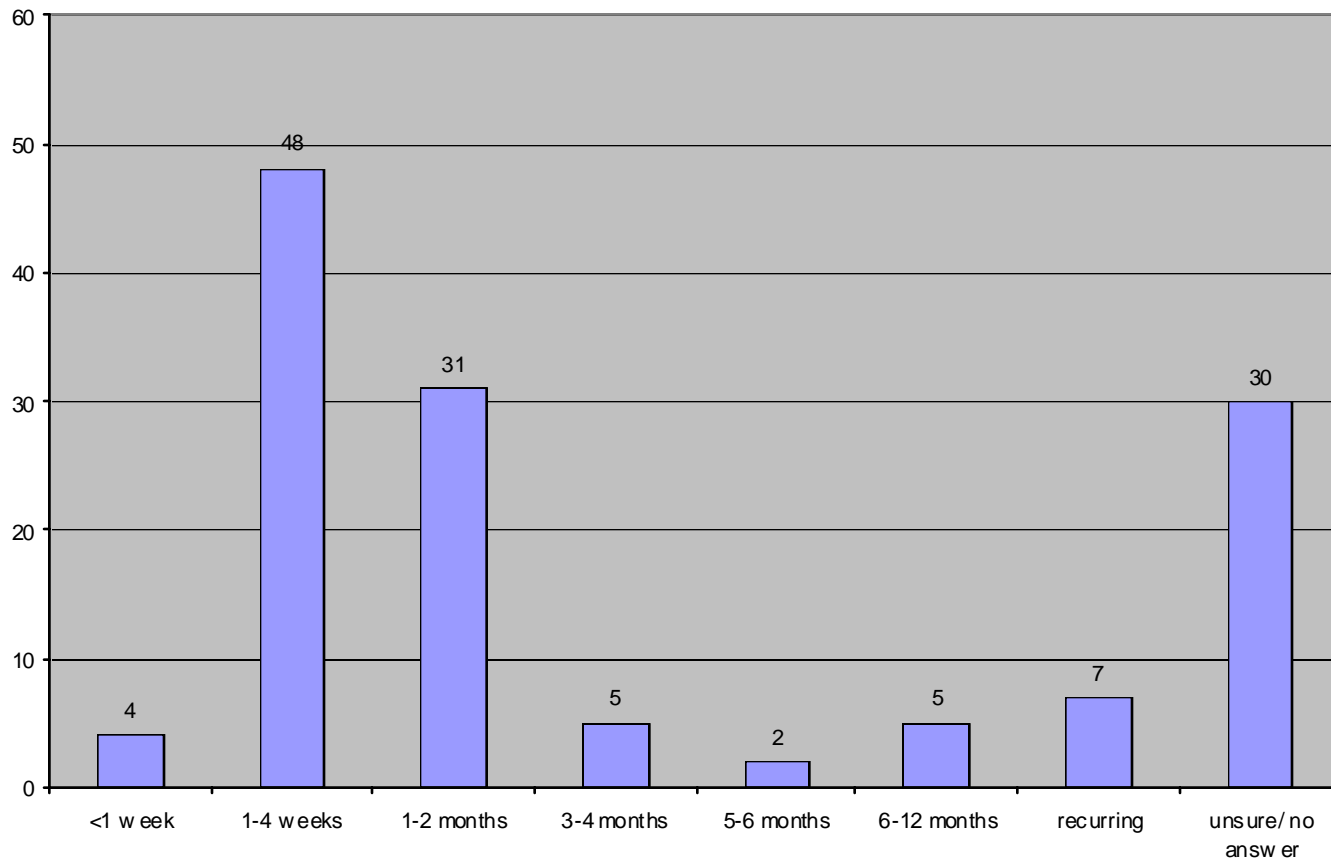
CA-MRSA Antibiotic Resistance



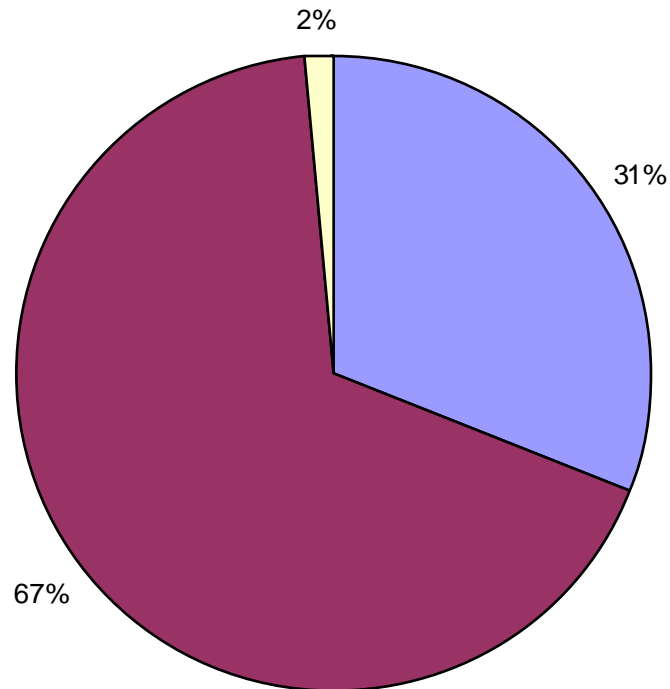
MRSA – Antibiotic treatment



CA-MRSA – time to healing

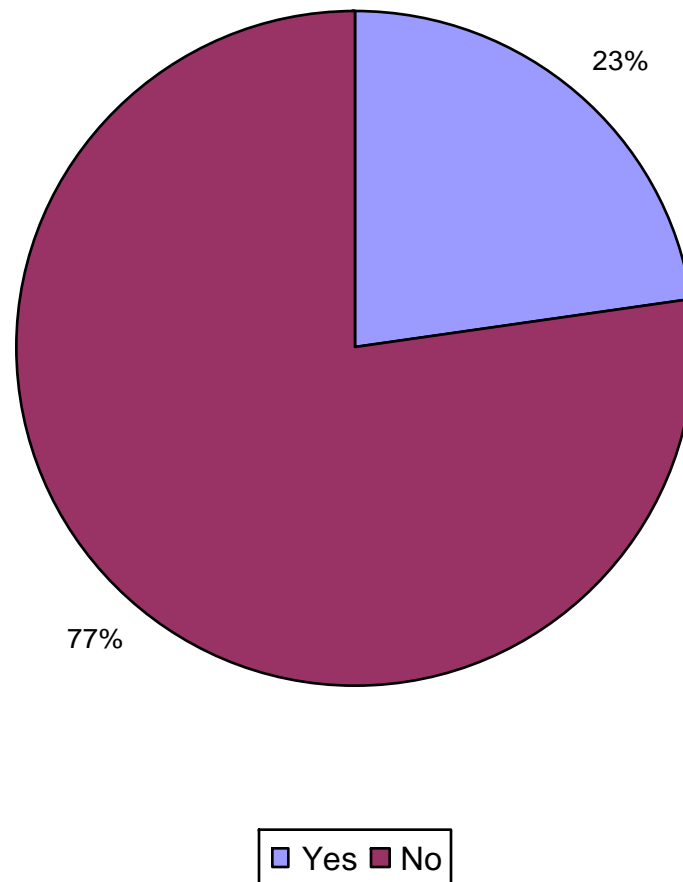


CA-MRSA – exposure



■ Previous Staph Exposure ■ No Previous Staph Exposure ■ Unknown

CA-MRSA – Are you familiar?



CA-MRSA Investigation Conclusions

- **CA-MRSA is common –est. incidence in 2004 = 106/100,000 population**
 - **Involves all ages, all ethnic groups and all areas of District**
 - **Frequently mistaken for spider bites**
 - **Most commonly skin and soft tissue infection**
 - **Some increase seen in summer**
 - **Almost always sensitive to rifampin, TCN, TMP-SMX, genta, vanc – 90% sens to clinda**
 - **Patients commonly (1/3) had contact with someone else that had MRSA**
 - **Most (3/4) patients not familiar with it**
-

CA-MRSA: Advice for local health Departments

- Recognize that it is a common problem
- Develop and make available to practitioners some material about diagnosis and treatment
- Develop and make available to agencies some advice about CA-MRSA
- Organize public campaign emphasizing
 - When to see the doctor
 - Hygiene at home

MRSA related activities in Amarillo

- Continued voluntary reporting
- Public and HCW education
- Population based surveillance cultures by investigators
- MRSA Advisory Group
 - Isolation guidelines for hospitals
 - Surveillance recommendations for hospitals
 - Share hospital data
 - Developed consensus guidelines for return to work policies for HCW's, decontamination, and perioperative antibiotic use, educational materials



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