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Language barriers impact prehospital care Methods and preliminary results

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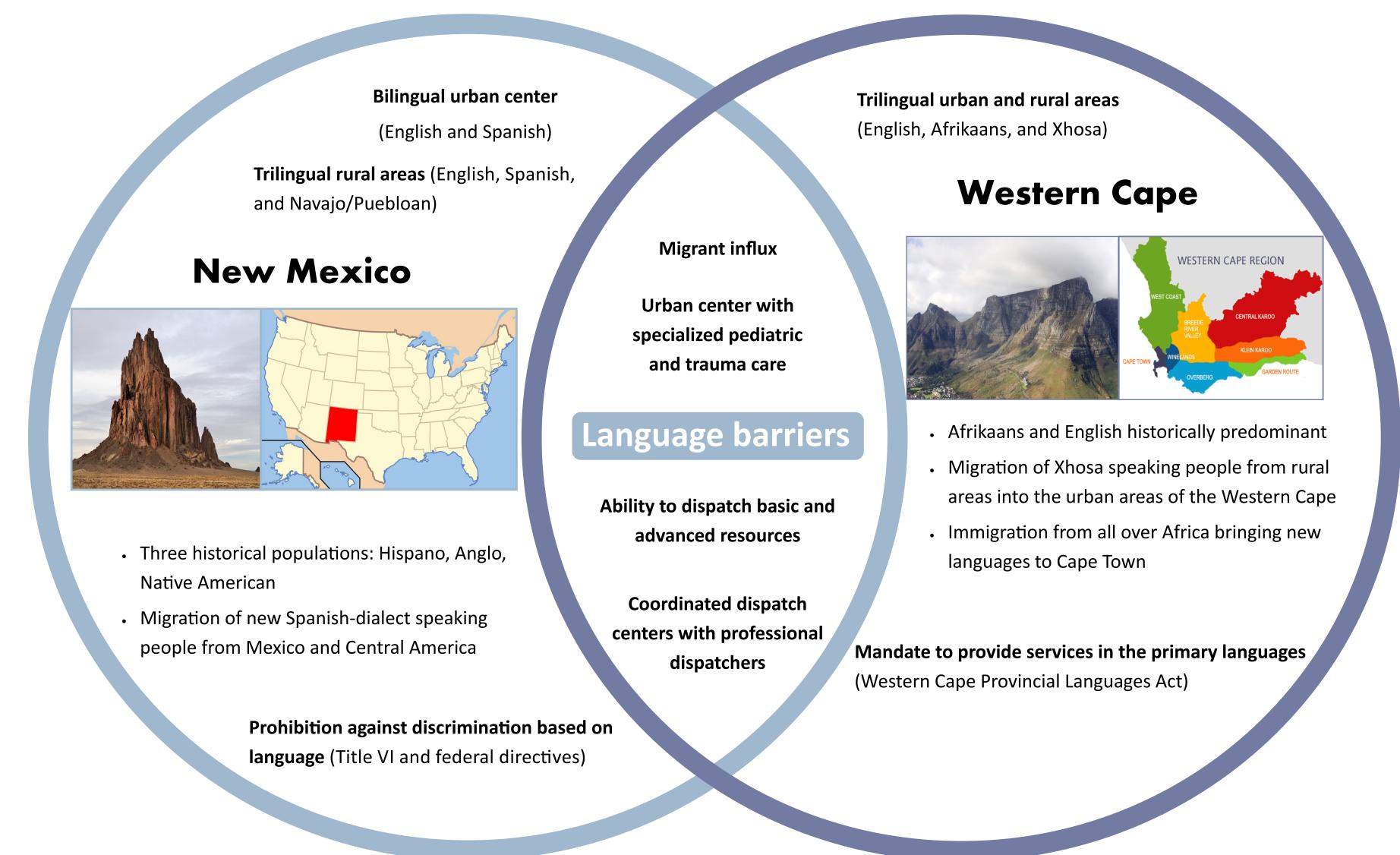
Introduction

Emergency medical services (EMS) providers rely on accurate and efficient communication. Language barriers impact the spectrum of EMS: call-taking → dispatch → field care. Prior studies in the US show that language barriers:

- Are stressful for EMS providers and patients,
- Impact triage decisions (e.g., basic vs. advanced life support),
- Result in more resource-intensive care on arrival to the hospital despite lower patient acuity.

Multicultural, multilingual communities in the American state of New Mexico and the South African province of Western Cape offer complementary settings for an exploratory study of the impact of language barriers across the spectrum of EMS care. This mixed methods study consists of a survey of EMS telecommunicators combined with semi-structured qualitative interviews of EMS field providers.

We hypothesize that EMS systems in a variety of settings frequently face language barriers and that these language barriers impact care.

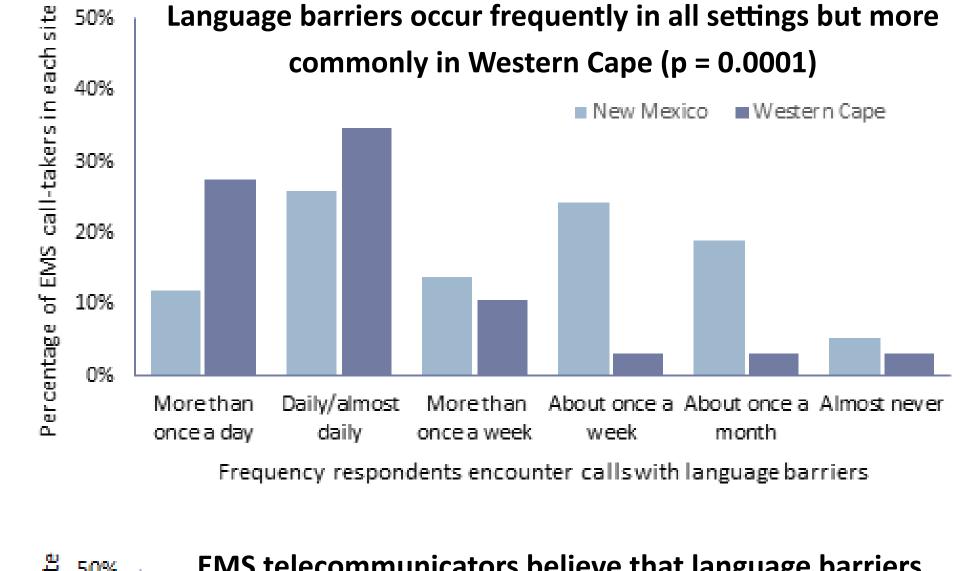


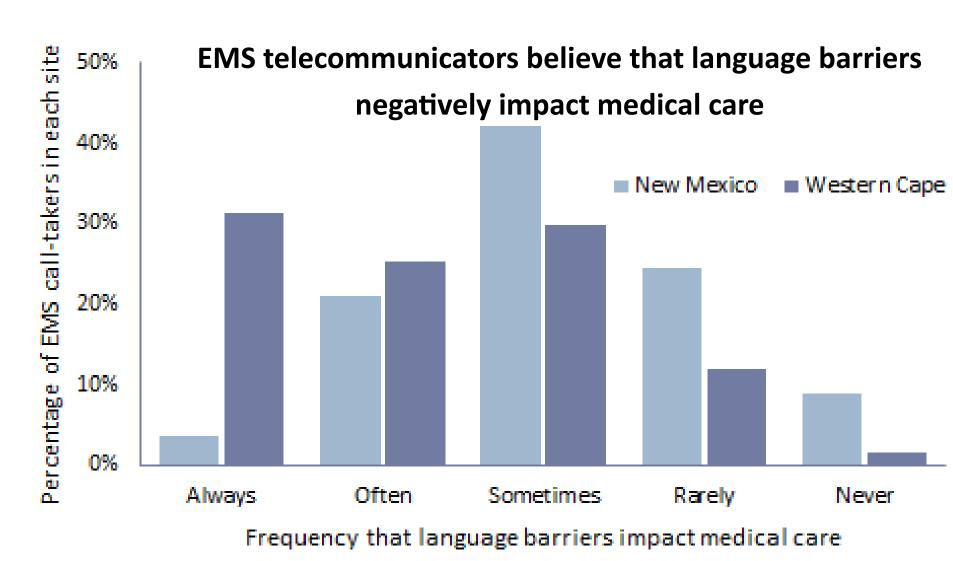
Study methods Quantitative data **Survey of EMS** Demographics Language proficiency Language barriers **Call-Takers** Types of strategies used Impaired care Stress and difficulty Impaired assistance Preparation and training Combined analysis Qualitative data Training and preparation Impact on triage/transport Interviews with Language proficiency Impact on care delivery **EMS Field Crew** Experiences of language barriers Suggestions for field tools Challenges of language barriers Types of strategies used

Many different strategies are used to overcome language barriers Rephrasing Bystander interpreter Telephonic interpreter Louder speech Repetition Slower speech 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100% Percentage of EMS call-takers

Preliminary survey results

- 125 telecommunicators were surveyed in August 2013 (overall 84.5 % response rate).
- The New Mexico sample of 58 (46%) included respondents from 3 EMS services: Albuquerque Fire Department, Bernalillo County, and San Juan County with 34% rural and 66% urban/peri-urban.
- The Western Cape sample of 67 (54%) included 4 major regions in the province: Cape Town, Karoo, Winelands, Eden with 49% from urban center and 51% peri-urban/rural.





- The frequency of language barriers varies significantly among locations within New Mexico (p = 0.0001) and within Western Cape (p = 0.01).
- 72% of all respondents find calls with language barriers "Somewhat more," "More," or "Much more" difficult or stressful. There is no difference in the perception of increased stress and difficulty with language barriers between Western Cape and New Mexico (p = 0.24).
- Telecommunicators reported using multiple strategies to overcome language barriers. The "single most effective" strategies were — telephonic interpreter (27%), bystander interpreter (12%), or repetition (10%).

Conclusions

Preliminary quantitative data from this study suggests that EMS telecommunicators in New Mexico and Western Cape frequently encounter language barriers, find calls with language barriers especially stressful and difficult, and believe that language barriers negatively impact the assistance that patients receive.

Future analyses of qualitative data from both the survey and upcoming semistructured interviews of field providers will seek to:

- Describe mechanisms for how language barriers negatively impact care,
- Explore how language barriers encountered by telecommunicators affect field providers,
- Characterize field provider decision-making when faced with language barriers, and
- Identify future areas for language-based interventions.

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