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Family and Community Medicine
Permian Basin

Restoring Dignity and Safety: A Community Partnership Model to End Persistent Household Infestations. From Individual Treatment to Systems Change.

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BACKGROUND

- Frequent infestations of scabies, lice, and bedbugs among residents of vulnerable population (RVP) in Midland, Texas led them to repeated emergency department (ED) visits with rashes of different patterns, primarily ED visits, and clinic visits repeatedly. The RVP suffered repeated infestations, prolonged symptoms, unsafe living conditions, and stressful conditions.
- Biannual exterminations were insufficient to break the infestation cycle, creating a preventable health equity gap.

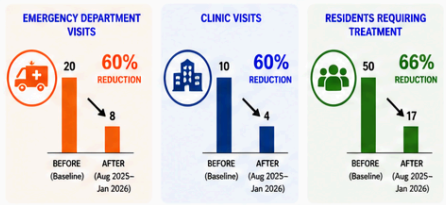
OBJECTIVE

To reduce infestation-related ED visits and clinic visits by 60–70% from August 2025 to January 2026 through coordinated interprofessional interventions, environmental remediation, and resident education.

METHODS

- Population health QI project using Community-Oriented Primary Care (COPC) and PDSA (Plan–Do–Study–Act) methodology.
- Interprofessional collaboration among public health, property management, extermination services, clinical providers, Adult Protective Services, and state sanitation program.
- Data from healthcare utilization and community reporting systems.
- COPC-guided engagement, care coordination, and long-term systems change.

RESULTS: SIGNIFICANT REDUCTIONS IN HEALTHCARE UTILIZATION



Extermination increased from every 6 months to every 3 weeks, with coordinated oversight ensuring adherence and improved environmental conditions.

CONCLUSION

- A multidisciplinary, community-based intervention reduced recurrent infestations and healthcare utilization in a vulnerable population.
- Interprofessional collaboration across healthcare, public health, housing, and environmental services is essential to break the reinfection loop.
- Advances health equity by protecting elderly, low-income residents in congregate housing from preventable, environment-driven illness.
- This PDSA-driven model is reproducible, scalable, and sustainable in similar high-risk communities.

PDSA FRAMEWORK: THREE CYCLES OF IMPROVEMENT

CYCLE 1

- **Formulate** a **Plan**: Uncover root cause analysis of persistent infestations.
- **Engage** multi-sector stakeholders across housing, health, and environmental services.

OUTCOMES MEASURED

- ED visits for infestation
- Clinic visits for infestation
- Residents requiring clinical treatment
- Frequency of infestation clusters
- Inspection findings & extermination compliance
- Resident-reported symptom burden & reinfection events



CYCLE 2

- Lead Implementation: Escalate extermination from every 6 months to every 3 weeks.
- Provide structured resident education on hygiene and reinfestation prevention.
- Conduct routine environmental and health inspections.

CYCLE 3

Engage: Develop a robust, long-lasting monitoring and response system that can be adapted and scaled to similar housing situations.

INTERPROFESSIONAL PARTNERSHIP: A COORDINATED SYSTEM OF CARE



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We recognize the importance of community voice in shaping solutions and commit to ongoing collaboration for sustainable change.

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