



Mini Grants for Targeted Screening and Testing for Tuberculosis in Livestock Workers in Wisconsin

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Background

Tuberculosis (TB), caused by bacteria in the *Mycobacterium tuberculosis* complex, has the zoonotic potential to infect humans, domestic livestock, and wildlife. Today, about 35% of Wisconsin farm workers are immigrants from Mexico and Central or South America, where the prevalence of TB greatly exceeds that of the United States. Because farm-related TB exposures could threaten Wisconsin livestock workers and the dairy and beef industries, it is critical to initiate programs to offer targeted TB screening and testing for livestock workers. We describe the creation and expansion of health clinics for livestock workers in three counties in Wisconsin using mini grants, results of the clinics, and successes and challenges of the projects.

Methods

Through a competitive process, three Wisconsin local health departments were awarded mini grants for targeted TB screening and testing of livestock workers. Mini grants were funded using CDC Cooperative Agreement carryover money and administered by the Wisconsin TB Program. Two jurisdictions (Public Health Madison and Dane County and St. Croix County) needed to lay initial groundwork before clinics were implemented. Buffalo County was already performing health screenings on farms through the Partners in Health and Safety cooperative; they proposed to expand clinics to more farms and create additional educational materials.

To schedule clinics, letters and educational materials were sent to large dairy or livestock farms within each jurisdiction. Meetings or phone calls were also used to explain clinic programs and answer questions from farm owners. Prior to clinics, farms were often visited to assess the logistics of clinic implementation, and educational sessions were offered for the livestock workers. Clinics were staffed by public health nurses, University of Wisconsin staff and students, and Spanish language interpreters.

Table 1. TB Screening and Testing Results

Health Department	Number of Clinics	Number of Livestock Workers		
		Participated in Clinics	Screened or Tested for TB Infection	Positive or Borderline T-SPOT® Results
Buffalo County	21	130	24	1
Madison/Dane County	5	60	58	4
St. Croix County	1	15	15	3
TOTAL	27	205	97	8



Table 2. Clinic Services Offered

• TB education	• Farm safety education
• TB risk assessment	• Healthy lifestyle education
• TB testing by T-SPOT®	• Human papillomavirus vaccine
• Blood glucose	• Influenza vaccine
• Blood pressure	• Measles mumps rubella vaccine
• Body Mass Index (BMI)	• Pneumococcal vaccine
• Cholesterol	• Tetanus vaccine (Tdap, Td)
• Hemoglobin A1C	• Varicella Vaccine

Results

During 2018, mini grants supported 27 health clinics on 21 farms. Clinics offered health assessments and screenings; health education, including farm safety instruction; vaccinations and TB screening and testing (Tables 1 & 2).

- Of the 205 total individuals that participated in the clinics, 97 were identified as having risk for TB infection; these individuals received T-SPOT® blood tests.
- Of the 97 individuals tested with T-SPOT®, four had positive and four had borderline results.
- Three individuals with positive T-SPOT® results were treated using the 12-week isoniazid and rifapentine (3HP) regimen.
- Four individuals (one positive T-SPOT®, three borderline) require further follow-up. Individuals with borderline results will be re-tested.
- One individual with a borderline T-SPOT® result was lost to follow-up.

Successes

- Health screening, services, and education were provided for 205 individuals who wouldn't normally have received this type of medical care.
- Eight individuals with abnormal T-SPOT® results were evaluated for TB; three were successfully treated with 3HP.
- Farm owners were very supportive of their employees participating in health screenings.
- Educational materials were created for farm owners and livestock workers.
- Positive relationships were built between public health departments, the University of Wisconsin, dairy producers, and the farming community.

Challenges

- The transitory nature of livestock work makes medical care and follow-up difficult.
- Some livestock workers are hesitant to seek medical care from public health entities.
- Sustainable funding for these clinics does not currently exist.



Future Directions

- Expand livestock worker testing to more farms in more jurisdictions.
- Gain support from Wisconsin dairy and beef industries for sustainable funding.