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Addressing Tuberculosis in Persons Experiencing Homelessness in Anchorage

Background

In 2015, 68 cases of active tuberculosis (TB) were reported to the Section of Epidemiology (SOE), resulting in the highest rate of TB in the nation at 9.2 per 100,000 persons.¹ Nine (13%) of these cases were in persons experiencing homelessness (PEH), a term denoting the complexity and potential fluidity of housing status. Six cases among PEH resided in the Municipality of Anchorage (MOA); five cases occurred among Alaska Native people and one occurred in a white person.² PEH are at increased risk for TB exposure and development of active TB.^{3,4}

In 2017, SOE initiated an assessment with the Centers for Disease Control and Prevention (CDC) to evaluate:

- current practices regarding screening for TB and latent TB infection (LTBI) among MOA PEH;
- infection control measures to limit transmission within MOA homeless shelters and kitchens; and
- gaps in and barriers to assuring that the PEH population receives appropriate screening and treatment.

Methods

During January–February 2017, knowledge, attitudes, and practices surveys were administered to a convenience sample of persons representing five groups, listed below.

- MOA PEH
- Homeless shelter staff from Anchorage Gospel Rescue Mission, Brother Francis Shelter, and Beans Café
- Alaska Department of Corrections (DOC) staff
- MOA Department of Health and Human Services (DHHS) and Alaska Division of Public Health staff
- Clinical staff from the Alaska Native Medical Center, Alaska Regional Hospital, Southcentral Foundation, and the Anchorage Neighborhood Health Center

Selected Survey Results and Observations

PEH (N=49)

- Most (39, 80%) identified hemoptysis *and* cough as common symptoms of active TB.
- Most (41, 83%) were aware that TB is transmitted via the airborne mode, but other modes of transmission not associated with TB (e.g., sexual contact, handshakes) were also reported by 42 (86%) of respondents.
- About half (26, 54%) were unaware that TB could be cured.
- Nearly all (47, 96%) supported requiring annual TB screening in order to stay in a homeless shelter.

Homeless Shelter Staff (N=9)

- Six (67%) supported requiring that clients complete annual TB screening in order to stay in a shelter.
- Noted barriers to limiting TB transmission included lack of administrative and environmental controls at shelters (e.g., screening policy, written TB infection control plan, electronic bed map, system to monitor cough, HEPA filters, UV lights), and insufficient space to isolate suspected ill persons.

DOC Medical Staff (N=4)

- All felt that TB was a problem in the community.
- Noted barriers to limiting TB transmission included lack of TB knowledge among staff and clients as a challenge to effectively implementing screening, and lack of an integrated electronic system to track TB screening results across correctional facilities.

Health Department Staff (N=17)

- Strong outreach and case management along with good relationships within the community were cited as strengths of the current approach to TB control.
- Noted barriers to TB control included comorbidities among patients (e.g., substance abuse, chronic diseases, and mental illness), the lack of consistent on-site health care and wrap-around services (e.g., substance abuse and mental health treatment, and long-term housing), and the limited housing options for PEH with TB.

Health Care Providers and Facility Managers (N=11)

- Most health care providers surveyed reported that they generally preferred to refer patients with LTBI or TB to MOA DHHS or SOE rather than treating on their own.

Recommendations

The CDC staff recommended creating a workgroup consisting of key community stakeholders to develop and implement a plan to address TB among PEH in MOA. The plan should include memoranda of understanding between agencies to formalize relationships, improve communication, and delineate roles and responsibilities. The plan should seek to foster greater involvement of tribal partners in TB control efforts. The workgroup should explore opportunities for collaboration that extend and strengthen current TB screening and treatment for PEH in MOA. Suggested goals to consider are listed below.

- Establish a formal routine TB screening program for homeless shelter clients and staff.
- Implement screening and treatment practices at shelters and DOC facilities that include diagnosis and directly observed treatment (DOT) for persons with LTBI.
- Establish in-shelter medical services to provide screening, diagnosis, and DOT for active and latent TB.
- Assure integrated wrap-around services for TB patients with substance abuse or mental health issues.
- Offer consistent long-term access to quality housing for TB patients undergoing treatment for active TB.
- Perform regular TB-related educational outreach for PEH, health care providers, and social service providers.
- Build partnerships to reduce burden of treatment services currently borne largely by MOA DHHS (e.g., work with shelter staff to provide DOT to PEH with TB).
- Develop communication plans and data management systems to more effectively collect and share information among stakeholders.

Summary

Controlling TB poses great challenges, especially when addressing the unique needs of PEH. This assessment provided a helpful framework to better address TB in Alaska's PEH population. SOE and MOA DHHS staff are assembling a workgroup to address a wide range of TB control efforts in Alaska, including issues specific to the PEH population.

Acknowledgments

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References

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