Implications of changes in the characteristics of homeless tuberculosis cases on tuberculosis prevention and control — California, 1994–2009

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BACKGROUND

- Homelessness is a risk factor for tuberculosis (TB).
- At least 8 TB outbreaks in California’s homeless population since 2005.
- Community encountered challenges to addressing TB in homeless persons include: 1,2
  - Substance use and mental illness
  - Limited access to care
  - Adherence to treatment for 6 to 9 months
  - Mobility and loss to follow-up
  - Lengthy infectious periods
  - Contact investigations (CIs) in shelter setting
- Case management and CI activities for homeless TB patients are labor intensive for local health departments (LHDs).

METHODS

- Data source: California TB surveillance registry.
- Homeless definition: homeless in the 12 months prior to TB diagnosis.
- Clinical (sputum smear status: positive, smear indicates greater infectiousness).
- Risk behavior (any substance use including alcohol, injection drug use, and/or non-injection drug use).
- Outcomes (directly observed therapy, treatment completion, death).

OBSERVATIONS

- The proportion of TB cases, but the infectiousness by working with homeless shelters and medical providers that serve homeless persons.
- Develop partnerships with organizations that serve homeless persons to address challenges like inadequate substance abuse that challenge LHD case management and contact investigation efforts.
- Expand evidence-base for effective methods to prevent and control TB in the homeless population and revise national guidelines with new evidence.

CONCLUSIONS

- Homeless cases represent a small and decreasing proportion of TB cases, but the homeless population is disproportionately impacted by TB.
- Despite significant challenges, LHDs have achieved significant improvements in directly observed therapy and completion of treatment for homeless patients, although recently foreign-born homeless TB cases have completed treatment less frequently.
- Since 1994, homeless TB cases are increasingly older, Hispanic, foreign-born, and sputum smear positive.
- Compared to non-homeless TB cases, homeless TB cases are more frequently male, US-born, substance users, and directly-observed therapy recipients.

LIMITATIONS

- Estimated California homeless counts only available since 2006 so cannot calculate incidence for all years or for subgroups.
- Varying interpretation of homelessness definition.

IMPLICATIONS

- Tailor case management activities to changing characteristics of homeless cases.
- Ensure earlier case detection to decrease infectiousness by working with homeless shelters and medical providers that serve homeless persons.
- Develop partnerships with organizations that serve homeless persons to address challenges like inadequate substance abuse that challenge LHD case management and contact investigation efforts.
- Expand evidence-base for effective methods to prevent and control TB in the homeless population and revise national guidelines with new evidence.

REFERENCES

2. Cunningham et al., Strategies used by local health departments to prevent and control TB in homeless persons, Conference poster (2011)

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