

**Rapid Response Service** 

# HIV Services in Rural and Remote Communities

# Questions

- 1. What are the challenges and barriers to providing HIV/AIDS services in rural and remote AIDS service organizations in Canada?
- 2. What are some of the best practices for serving rural and remote populations?

# Key Take-Home Messages

- People with or at risk of HIV who live in rural communities face complex challenges accessing services, including stigma, lack of services, transportation issues and some population-specific barriers.(1-11)
- The lack of skilled HIV services physicians, infectious disease specialists and mental health professionals in rural communities is a barrier to good care and information.(1;5;10;12-14)
- Each rural area has its own challenges, needs and resources so there is no "one size fits all" practice for administering HIV services.(15)
- Best practices include interventions that address stigma, reduce social isolation, build skills and improve access to services.(1-4;9-13;15-18)
- Technology-based interventions including telemedicine, internet-based support programs and telephone-based therapeutic intervention can help overcome barriers to care in rural settings, including stigma, concerns about confidentiality, transportation costs and lack of services.(2;4;14-17;19-25)
- Collaboration among agencies/services within rural communities to form networks of cooperation that can reduce duplication of efforts, integrate services, influence policies, and address community health holistically. (5;15;23;26)

# The Issue and Why It's Important

In 2006, approximately 6 million Canadians lived in small towns and rural regions.(10) The number of people living with HIV in these regions is not known, (10) and there is little Canadian data on the spread of HIV in rural areas or the experience of people with HIV living in these regions.(27) There is, however, evidence that people with or at risk of HIV who live in rural areas experience



### **EVIDENCE INTO ACTION**

The OHTN Rapid Response Service offers HIV/AIDS programs and services in Ontario quick access to research evidence to help inform decision making, service delivery and advocacy. In response to a question from the field, the Rapid Response Team reviews the scientific and grey literature, consults with experts, and prepares a brief fact sheet summarizing the current evidence and its implications for policy and practice.

#### Suggested Citation:

Rapid Response Service. *Rapid Response: HIV Services in Rural and Remote Communities.* Toronto, ON: Ontario HIV Treatment Network; September 2013.

Prepared by:

Joanna Kapusta Laura Schoffel David Gogolishvili Jason Globerman

Program Leads / Editors:

Jean Bacon Sean B. Rourke, PhD

Contact:

rapidresponse@ohtn.on.ca

### References

- 1. AIDS Coalition of Cape Breton. The Natural Helper Model. A Rural Remedy: A Guide to Reaching Rural Injection Drug Users. Sydney, NS: Sharp Advice Needle Exchange; 2000.
- Gonzalez A, Miller CT, Solomon SE, Bunn JY, Cassidy DG. Size matters: Community size, HIV stigma, & gender differences. AIDS Behavior 2009;13(6):1205-12.
- Groft JN, Robinson VA. Seeking serenity: Living with HIV/AIDS in rural Western Canada. Rural Remote Health 2007;7(2):677.
- Heckman TG, Somlai AM, Peters J, Walker J, Otto-Salaj L, Galdabini CA et al. Barriers to care among persons living with HIV/AIDS in urban and rural areas. AIDS Care 1998;10(3):365-75.
- Preston DB, D'Augelli AR, Kassab CD, Cain RE, Schulze FW, Starks MT. The influence of stigma on the sexual risk behavior of rural men who have sex with men. AIDS Education and Prevention 2004;16 (4):291-303.
- Reif S, Golin CE, Smith SR. Barriers to accessing HIV/AIDS care in North Carolina: Rural and urban differences. AIDS Care 2005;17 (5):558-65.
- Reif S, Whetten K, Ostermann J, Raper JL. Characteristics of HIVinfected adults in the Deep South and their utilization of mental health services: A rural vs. urban comparison. AIDS Care 2006;18 (1):S10-S17.
- Sutton M, Anthony MN, Vila C, Lellan-Lemal E, Weidle PJ. HIV testing and HIV/AIDS treatment services in rural counties in 10 southern states: Service provider perspectives. Journal of Rural Health 2010;26(3):240-7.
- Vyavaharkar M, Moneyham L, Corwin S, Tavakoli A, Saunders R, Annang L. HIV-disclosure, social support, and depression among HIV-infected African American women living in the rural southeastern United States. AIDS Education and Prevention 2011;23(1):78-90.
- 10. Veinot, T, Harris, R, Bella, L, and Challacombe, L. Improving Access to HIV Information in Rural Canada. Toronto, ON: CATIE; 2010.

greater difficulties accessing services,(3) increased stress related to life decisions (e.g. treatment, lifestyle, relationships), less satisfaction with life, more maladaptive coping strategies, and less social support.(9;17) Understanding the barriers and challenges to HIV services in rural communities and identifying best practices can help improve care, support and health outcomes.

# What We Found

### Challenges and Barriers to Services in Rural and Remote Areas

People with or at risk of HIV who live in rural communities face complex challenges, including lack of awareness of HIV as an issue, conservative values that increase stigma, concerns about privacy and confidentiality, lack of services, transportation issues and population-specific barriers.(1;3;6;13;24;28)

#### Lack of awareness

In many rural areas, religious conservatism and lack of knowledge about HIV mean the disease is rarely discussed and can be "invisible".(10) More conservative values in rural areas may also contribute to people being less open to diverse populations.(2;5;11;14;29) The sense that HIV is something that happens to the "other" may lead rural residents to falsely conclude that HIV is not a problem in their region and remain indifferent to HIV prevention messages(8) and to the health needs of people living with HIV. This perception may be reinforced by the fact that there are few HIV campaigns in rural areas.(4)

### Stigma

HIV-related stigma is the most frequently mentioned obstacle to HIV prevention, detection and treatment services in rural areas.(1;13) People with HIV living in rural communities that may be intolerant of "non-traditional" lifestyles(14) may have increased fear of stigma, which may make them less likely to disclose their status and limit their opportunities to benefit from support groups.(9) People living with HIV are often reluctant to disclose positive status due to fear of discrimination and stigma which may lead to social withdrawal and isolation. (9;10) Stigma can also affect treatment adherence and health. In a US-study, 92% of rural-based case managers indicated that HIV-related stigma is a barrier to drug adherence, compared to 35% of urban-based case managers.(6) In one US study of people with HIV living in rural communities, participants reported routinely skipping doses of antiretroviral therapy when in public for fear of inadvertently disclosing their HIV status.(6)

#### Concerns about privacy and confidentiality

Privacy and confidentiality are major concerns for people with or at risk of HIV in rural areas.(27) People at risk may avoid HIV testing for fear of being recognized by someone in their social network or by health department staff.(8;11) This is especially true in areas that do not provide anonymous testing. To protect their confidentiality, rural residents may seek HIV testing in other communities or avoid testing completely.(30)

#### Lack of access to health services and information

In Canada, only 5% of primary care physicians provide care for people with advanced HIV, and most HIV specialists are situated in urban areas.(10) Because

of low population density, rural communities often have shortages of physicians, (14) infectious disease specialists and mental health professionals.(3;10;20) Providers in smaller communities often lack familiarity with HIV,(31) which means physicians may not recognize HIV as a possible diagnosis and may not suggest HIV testing.(31) Late diagnosis leads to delays in people with HIV receiving proper medical care,(12) which can have serious implications for their long-term health. People with HIV in rural communities also face barriers accessing HIV information.(10;28) A recent study in rural communities in Canada found that, because rural clinicians have limited experience with HIV, they are unable to provide comprehensive information for their patients, leaving them to educate themselves as well as their doctors.(10)

#### Transportation issues

Transportation can be a barrier to accessing HIV-related services in rural areas. (11;29) For example, many rural residents do not get tested because of difficulties getting to testing centres.(12) Due to a scarce number of health care providers in rural and remote areas,(4;14) people living with HIV may need to travel long distances to access HIV-related services.(7;8;27) Residents who lack accessible transportation are less able to participate in face-to-face support groups or access the medical care they need.(4;8;29) In a 2005 study in North Carolina, 58% of rural-based case managers identified lack of transportation as a "major problem" compared to 30% of urban-based case managers.(15) This finding has also been identified through the Ontario Community HIV and AIDS Reporting Tool (OCHART) as a significant issue in rural and remote communities in Ontario.(32)

#### Population-specific barriers for men who have sex with men

Some challenges in accessing HIV services in rural areas are specific to certain populations. For example, men who have sex with men and who live in rural areas often face the additional burden of homophobia.(29) Men who have sex with men are often victims of social hostility, stemming from the disapproval of homosexuality combined with social tolerance of violence towards them.(25) As a result, many men who have sex with men do not reveal their sexual orientation and, therefore, do not access prevention, testing or care services targeted to gay men and other men who have sex with men.(5;11;29) The lack of a definitive gay community in rural areas makes it difficult for HIV organizations to reach men who have sex with men with prevention interventions. Often, messages targeting men who have sex with men (which may oppose predominant cultural norms in their communities) must be placed in media targeting the general, heterosexual population, which may put men who have sex with men at increased risk of violence.(25)

#### Population-specific barriers for women with HIV

According to qualitative studies, women living with HIV experience more social rejection, shame, discrimination, violence and perceived stigma than their male counterparts.(2) These feelings may be heightened in rural areas, where there are fewer women living with HIV, more isolation and less socialization.(2) Women tend to experience more disclosure concerns than men,(2) which may be due to public perceptions of women with HIV as intravenous drug users, sex workers or having multiple partners.(2) Women's higher levels of concern about disclosure and what others think of them may increase their anxiety and depression,(9) which can lead to an increase in risk behaviours and social isolation, and make it more difficult to provide services for these women.(2)

- Dreisbach S, Corbett K, Ferraro A, Koester S. Policy to prevention: Challenges and opportunities for HIV/STD prevention in rural Colorado. The Health Education Monograph Series 2005;22(3):1-9.
- 12. Chu C, Selwyn PA. Current health disparities in HIV/AIDS. AIDS Reader 18(3):144-6, 152-8 2008.
- 13. Heckman BD, Catz SL, Heckman TG, Miller JG, Kalichman SC. Adherence to antiretroviral therapy in rural persons living with HIV disease in the United States. AIDS Care 2004;16(2):219-30.
- 14. Kilty, H. Rural Health: A Qualitative Research Approach to Understanding Best Practices for Rural Health Service Delivery in a Public Health Setting. Simcoe, ON: Haldimand-Norfolk Health Unit; 2007.
- 15. St Lawrence JS. Emerging behavioral strategies for the prevention of HIV in rural areas. Journal of Rural Health 1999;15(3):335-43.
- Cosio D, Heckman TG, Anderson T, Heckman BD, Garske J, McCarthy J. Telephone-administered motivational interviewing to reduce risky sexual behavior in HIV-infected rural persons: A pilot randomized clinical trial. Sexually Transmitted Diseases 2010;37(3):140-6.
- 17. Heckman TG, Somlai AM, Kalichman SC, Franzoi SL, Kelly JA. Psychosocial differences between urban and rural people living with HIV/AIDS. Journal of Rural Health 1998;14(2):138-45.
- Vyavaharkar M, Moneyham L, Murdaugh C, Tavakoli A. Factors associated with quality of life among rural women with HIV disease. AIDS Behavior 2012;16(2):295-303.
- 19. Bowen A, Williams M, Horvath K. Using the internet to recruit rural MSM for HIV risk assessment: Sampling issues. AIDS Behavior 2004;8(3):311-9.
- Bowen AM, Williams ML, Daniel CM, Clayton S. Internet based HIV prevention research targeting rural MSM: Feasibility, acceptability, and preliminary efficacy. Journal of Behavioral Medicine 2008;31 (6):463-77.
- 21. Heckman TG, Silverthorn M, Waltje A, Meyers M, Yarber W. HIV transmission risk practices in rural persons living with HIV disease. Sex

Transmitted Diseases 2003;30 (2):134-6.

- Heckman TG, Carlson B. A randomized clinical trial of two telephonedelivered, mental health interventions for HIV-infected persons in rural areas of the United States. AIDS Behavior 2007;11(1):5-14.
- 23. McKinney MM. Variations in rural AIDS epidemiology and service delivery models in the United States. Journal of Rural Health 2002;18(3):455-66.
- 24. Ransom D, Heckman TG, Anderson T, Garske J, Holroyd K, Basta T. Telephone-delivered, interpersonal psychotherapy for HIV-infected rural persons with depression: A pilot trial. Psychiatric Services 2008;59(8):871-7.
- Williams ML, Bowen AM, Horvath KJ. The social/sexual environment of gay men residing in a rural frontier state: Implications for the development of HIV prevention programs. Journal of Rural Health 2005;21(1):48-55.
- Thomas JC, Isler MR, Carter C, Torrone E. An interagency network perspective on HIV prevention. Sex Transmitted Diseases 2007;34 (2):71-5.
- 27. Berry DE. Rural acquired immunodeficiency syndrome in low and high prevalence areas. Southern Medical Journal 2000;93(1):36-43.
- Hall HI, Li J, McKenna MT. HIV in predominantly rural areas of the United States. Journal of Rural Health 2005;21(3):245-53.
- 29. Bowen, A. Rural MSM and HIV prevention. Centers for Disease Control and Prevention; 2013.
- Veinot T, Harris R. Rural women and HIV/AIDS information exchange in Canada. 9th World Congress on Health Information and Libraries. Salvador-Bahia, Brazil. http://www.icml9.org/program/ track6/public/documents/Tiffany% 20Veinot%20New-190940.pdf (accessed 10 August 2013). 2005.
- 31. Ohl M, Tate J, Duggal M, Skanderson M, Scotch M, Kaboli P et al. Rural residence is associated with delayed care entry and increased mortality among veterans with human immunodeficiency virus infection. Medical Care 2010;48 (12):1064-70.

### Best Practices in Serving Rural and Rural Areas

Best practices for serving rural and remote populations must address the barriers to services.(27;33) They must also recognize that rural areas are culturally diverse, with their own personality and needs.(15) For interventions to penetrate community cultural norms and reach residents, both those living with HIV and those at-risk, they must be tailored to the communities.(5;15) Educational programming must also be sensitive to individual risk factors in each community.(5;15) While interventions should be tailored to each community, there is evidence that the following best practices are effective.

#### Interventions that reduce fear and stigma

Effective interventions include educating rural communities to reduce stigma (e.g. anti-stigma campaigns), increasing the number of people involved in HIV information activities, and creating support programs for people living with HIV and their caregivers.(10) It may also be beneficial to initiate community activities and to collaborate with faith-based organizations to initiate discussions about HIV, as an attempt to decrease stigma.(11)

#### Interventions that reduce social isolation

Interventions that reduce fear and stigma can also reduce social isolation by fostering better connections among people living with HIV (as observed in larger urban centres) and expanding social support networks.(6;10) Being able to find peers and disclose one's HIV status helps to reduce psychological stress and risk of depression.(9) Reducing the stress and isolation associated with HIV may open the door to interventions that can then focus on helping people developing the skills to prevent HIV or to manage HIV and maintain their health.(3)

#### Interventions that build skills

People with HIV living in rural areas seem to favour Interventions that combine motivational interviewing with skills-building.(16) A telephone intervention administered to rural people living with HIV suggests that the participants most appreciated content focused on: how to disclose HIV-seropositive status to partners (35%), sexually assertive communication (19%), and misconceptions about HIV transmission (19%). Participants also identified the need to build skills related to: use of harm reduction alternatives (31%), sexual assertive communication (27%), and condom negotiation (17%).(16)

#### Interventions to protect privacy and confidentiality

Ensuring confidentiality can be nearly impossible in rural areas, due to overlapping relationships. Therefore it is essential to deal with the need for privacy among people living with HIV in rural areas.(3) Some rural areas try to increase confidentiality by providing testing and counseling services in community spaces that are not explicitly associated with HIV (e.g. job or college counseling centers, churches).(11)

#### Interventions to improve access to care

Several strategies have been used successfully to improve access to HIV testing services for people in rural communities, including integrating HIV testing into other health services or programs,(8) providing transportation through community volunteers to take people to testing services,(4) and offering rapid HIV testing in rural hospitals.(34) To enhance the capacity of health care providers in rural areas (who tend to have less exposure to HIV than those in

urban areas),(28) AIDS service organizations can provide information about HIV, identifying people at high risk for HIV, and encouraging HIV testing.(4;28)

#### Technology-based interventions

Technology can be an effective way to deliver HIV services in rural areas. For example, telemedicine can be used to enable rural residents to consult with HIV specialists between visits,(23) thereby improving access, overcoming transportation barriers and reducing health care costs.(10)

The internet allows people to access HIV information while protecting their privacy and confidentiality,(20) and to communicate with peers conveniently.(4) The internet can also be used to provide HIV intervention programs for rural residents at minimal cost while overcoming some of the barriers associated with stigma and concerns about confidentiality.(19;20) The most common internet-based HIV prevention program provides one-on-one information in chat rooms, where employees of AIDS service organizations can provide health information and HIV testing referrals in real-time.(20) The internet may be especially useful in reaching men who have sex with men as many of these men are already using the internet to find sexual partners.(25) Advertisements posted on websites frequented by men who have sex with men can help link them to websites where they can access information and interventions, and still remain anonymous.(25)

Telephone-delivered interventions are effective because they can overcome geographic barriers(1) and be used to provide a range of services, from a conversation between two people living with HIV to formal therapeutic sessions facilitated by mental health professionals.(4) Telephone-delivered programs may even include teaching individuals how to identify stressors, enhance sense of control, develop active coping strategies, and seek other social supports.(17) In one study of people living with HIV in rural areas in the US, a telephone-delivered intervention successfully reduced depressive symptoms by 23% and psychiatric distress by 30%.(24) Telephone interventions – including support groups – can be delivered through toll-free phone numbers, which give rural residents access to urban-based AIDS service organizations, health care providers and national HIV organizations at no or low cost to service users.(10)

#### Collaborative efforts to reach at-risk populations

Reaching at risk populations in rural areas is particularly challenging due to lack of funding, low population density, fears of breached confidentiality, stigma, and lack of health care resources.(3;8;10;12;14;17;27) To overcome these barriers, AIDS service organizations and other agencies must use their funding judiciously and strategically and develop networks of cooperation that reduce duplication of efforts, integrate services, influence policies, and address community health holistically.(26)

## Factors That May Impact Local Applicability

All studies were conducted in North America. While some of the evidence presented comes from US-based studies, the barriers and recommendations provided are likely equally relevant to experiences of people living with HIV in rural Ontario and Canada. It is however important to note that the challenges and barriers faced by local AIDS service organizations may vary across geographic jurisdictions due to staffing and funding levels.

- 32. AIDS Bureau, Ontario Ministry of Health and Long-Term Care and Public Health Agency of Canada, Ontario and Nunavut Regional Office. OCHART View from the Frontlines: Annual Summary and Analysis of Data Provided by Community-based HIV/AIDS Services in Ontario. https://www.ochart.ca/ documents/2013/VFTFL-2012-WEB.pdf (accessed 30 August 2013). 2012.
- 33. Berry DE, McKinney MM, Marconi KM. A typological approach to the study of rural HIV service delivery networks. Journal of Rural Health 1997;13(3):216-25.
- 34. Lee BE, Plitt S, Fenton J, Preiksaitis JK, Singh AE. Rapid HIV tests in acute care settings in an area of low HIV prevalence in Canada. Journal of Virological Methods 2011;172(1-2):66-71.

### What We Did

We searched the Cochrane Library and www.healthevidence.org using keywords (HIV AND rural). In addition, we searched Medline using a combination of MeSH term (HIV) AND keywords (rural OR remote) and conducted a Google search using keywords (HIV AND rural). We also searched

www.effectiveinterventions.org using keyword (rural). Lastly, we consulted experts and conducted related citation searches for Heckman et al (2007)(22) and Cosio et al (2010)(16) in PubMed.