

## **Characterizing the Social Networks of Women and Men in Ottawa who Inject Drugs: Implications for Prevention Programming**

Funding: Ontario HIV Treatment Network

Ottawa continues to experience unacceptably high levels of HIV and Hepatitis C virus (HCV) incidence and prevalence among men and women who inject drugs. A number of studies examining the determinants of HIV and HCV transmission among this group have pointed to the need to investigate and characterize the social networks of injection drug users in Ottawa. This research project seeks to identify and characterize social networks of people who use injection drugs living in Ottawa. The ultimate goal of the project is to identify distinct structural and relational characteristics of injection drug using networks that may contribute to the design of enhanced prevention programs for people in Ottawa who use injection drugs. In addition, molecular epidemiology of HIV and HCV may be used to provide a foundation for secondary prevention initiatives.

### **Overall Objective**

- To provide evidence to drive the development of enhanced modes of service delivery for women and men in Ottawa who inject drugs to reduce the harm associated with injection drug use.

### **Specific Objectives**

- To identify and subsequently characterize the social networks of Ottawa IDUs with the ultimate goal of designing, implementing and evaluating enhanced multi-faceted prevention programs responding to the structural and relational risks identified in existing social networks. For example, if indicated by the data, to design, implement and evaluate a peer outreach program in which the peer outreach workers will have been identified by their possession of characteristics corresponding to those identified in existing social networks, and
- To use molecular epidemiology of the human immunodeficiency virus (HIV) and the hepatitis C virus (HCV) to: detect infection clusters among Ottawa IDUs; to confirm the social network data; and provide a basis for secondary prevention interventions.

### **Methods**

Respondent Driven Sampling (RDS) was employed to recruit injection drug users to participate in a structured interview. RDS is a unique methodology through which there are a set number of “seed” participants who are selected for their perceived connection within the target population. RDS is based on the assumption that peers are the most appropriate people to locate and recruit members of a hidden population. It is particularly suited to research with groups that are small relative to the general population; for which no exhaustive list of population members is available; and for groups which may be marginalized due to participation in illegal activities. Community health agencies assisted with recruitment of seven seed participants who, upon completion of a structured interview themselves, received three recruitment cards to distribute to three members of their drug injecting community or network. Participants also gave their consent to provide a dried blood spot sample to be tested for HIV and HCV antibodies. Genotyping (strain testing) was performed on all positive HIV and HCV blood samples. These data will be compared with data emerging from the completed structured interviews to further characterize the social network information. Participants were compensated \$50 for their time spent completing the interview and providing dried blood spots.

### **Results**

Between September and December 2007, 407 active injection drug users (injected drugs in the past six months) participated in a structured interview and provided dried blood spot samples for HIV and HCV testing. For further detail about study findings, please refer to dissemination activities below.

### **More info**

For more information contact:

- Dr. Lynne Leonard, Principal Investigator, at 613-562-5800 ext. 8286 or [lleonard@uottawa.ca](mailto:lleonard@uottawa.ca)
- Aideen Reynolds, Coordinator, at 613-562-5800 ext. 8277 or [areynold@uottawa.ca](mailto:areynold@uottawa.ca)

## Dissemination and Knowledge Transfer

Richard Pilon<sup>6</sup>, Lynne Leonard<sup>1</sup>, John Kim<sup>6</sup>, Dominic Vallee<sup>6</sup>, Emily De Rubeis<sup>1</sup>, Ann M Jolly<sup>2-4</sup>, John Wylie<sup>3</sup>, Linda Pelude<sup>3</sup> & Paul Sandstrom<sup>6</sup> (2011). *Transmission Patterns of HIV and Hepatitis C Virus among Networks of People Who Inject Drugs Recruited through Respondent-Driven Sampling*. [Manuscript submitted to PLoS ONE.]

Lynne Leonard<sup>1</sup>, Emily Medd<sup>1</sup>, Susan McWilliam<sup>1</sup>, Emily DeRubeis<sup>1</sup>, Andree Germain<sup>1</sup>, Aideen Reynolds<sup>1</sup>, Ann Jolly<sup>2-4</sup>, Linda Pelude<sup>3</sup> & John Wylie<sup>3</sup> (2011). *Women in Ottawa Who Smoke Crack Engage in Riskier Smoking Practices Compared to Ottawa Men Who Smoke Crack*. 20<sup>th</sup> Annual Canadian Conference on HIV/AIDS Research, Toronto, Ontario, April 14-17.

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Lynne Leonard<sup>1</sup>, Emily Medd<sup>1</sup>, Susan McWilliam<sup>1</sup>, Emily DeRubeis<sup>1</sup>, Andree Germain<sup>1</sup>, Aideen Reynolds<sup>1</sup>, Ann Jolly<sup>2-4</sup>, Linda Pelude<sup>3</sup> & John Wylie<sup>3</sup> (2011). *A Need for Gender-specific Harm Reduction Services in Ottawa: Women IDUs Report More Bingeing on Injection Drugs and Using Previously-used Injection Equipment Compared to Men*. 20<sup>th</sup> Annual Canadian Conference on HIV/AIDS Research, Toronto, Ontario, April 14-17.

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Richard Pilon<sup>6</sup>, Lynne Leonard<sup>1</sup>, John Kim<sup>6</sup>, Dominic Vallee<sup>6</sup>, Emily De Rubeis<sup>1</sup>, Ann M Jolly<sup>2-4</sup>, John Wylie<sup>3</sup>, Linda Pelude<sup>3</sup> & Paul Sandstrom<sup>6</sup> (2009). *Combining Respondent-Driven Sampling and Phylogenetics to Characterize HIV and HCV Transmission Patterns within IDU Social Networks*. 16<sup>th</sup> Conference on Retroviruses and Opportunistic Infections, Montreal, Quebec, February 8-11.

Richard Pilon<sup>6</sup>, Lynne Leonard<sup>1</sup>, John Kim<sup>6</sup>, Dominic Vallee<sup>6</sup>, Emily De Rubeis<sup>1</sup>, Ann M Jolly<sup>2-4</sup>, John Wylie<sup>3</sup>, Linda Pelude<sup>3</sup> & Paul Sandstrom<sup>6</sup> (2008). *Molecular Epidemiology of HIV & HCV within Ottawa IDU Social Networks*. Ontario HIV Treatment Network Conference, Toronto, Ontario, November 13-14.

Lynne Leonard<sup>1</sup>, Susan McWilliam<sup>1</sup>, Emily DeRubeis<sup>1</sup> & Aideen Reynolds<sup>1</sup> (2008). *Implementing Respondent Driven Sampling: Advantages and Challenges*. 17<sup>th</sup> Annual Canadian Conference on HIV/AIDS Research, Montreal, Quebec, April 24-27.

Abstract published in: Canadian Journal of Infectious Diseases & Medical Microbiology (2008), Vol 19, Suppl A.

Susan McWilliam<sup>1</sup>, Lynne Leonard<sup>1</sup>, Emily DeRubeis<sup>1</sup> & Aideen Reynolds<sup>1</sup> (2008). *Using Respondent Driven Sampling to Recruit Injection Drug users: Logistical Issues*. International AIDS Conference, Mexico City, Mexico, August 3-8.

<sup>1</sup> HIV and Hepatitis C Prevention Team, Department of Epidemiology and Community Medicine, University of Ottawa; <sup>2</sup> Department of Epidemiology and Community Medicine, University of Ottawa; <sup>3</sup> Canadian Nosocomial Infection Surveillance Program, Public Health Agency of Canada; <sup>4</sup> Queen's University; <sup>5</sup> Medical Microbiology and Community Health Sciences, University of Manitoba and Cadham Provincial Laboratory, Manitoba Health, <sup>6</sup> Centre for Communicable Diseases and Infection Control, Public Health Agency of Canada