

A. RESEARCH

1. Determinants & Interventions:

i) Harm Reduction:

- Research into harm reduction practices and their utility in reducing Hepatitis C infections;
- Surveillance: Is there a reduction in HCV transmission as more and more Canadian centers are introducing safe inhalation kit programs?
- Research and Surveillance: HIV & HCV Risks Associated with Smoking Crack – Virologic evidence showing transmission risk with pipe/straw sharing and oral sex with oral sores;
- We need more virologic evidence of HCV transmission risks associated with crack use (mouth and injuries);
- Role of community mobilizers in influencing safe injection practices in GP clinics?
- More research on HCV infection via sexual activity.

ii) Social Determinants:

- How do drug users assess and negotiate/trade-off risks?
- Understanding transmission risk/dynamics from non-IDU drug use (e.g. shared pipes/straws) and high risk sexual practices;
- BC >50% of chronic HCV due to IDU. Research re: ways to maximize success and treatment for IDUs;
- Although not everyone needs treatment, only 1% of IDUs get treatment. What are the barriers to treatment (especially for IDUs) and how to address them?
- Are there “cultural rituals” that present modes of HCV transmission that we don’t ask about?
- Does/How does re-infection/relapse occur?
- What is the risk of contacting Hep C through sexual transmission? What specific behaviours?
- Risk factors: Need to better determine risk factors for newly identified HCV and collate information – not just acute e.g. start with <25;
- In Hemodialysis centre, what’s the role of Nosocomial transmission of viral Hep C infection?
- What is the impact of housing in reducing the transmission of HCV?
- How does HIV/HCV co-infection affect your quality of life;
- Assess effects of unstable housing on the HCV treatment uptake success (not homeless population);
- To determine risk factors of Hep C incident infections/cases;
- Gender specific research to identify risk factors leading to increased prevalence of Hep C in female IDUs reported;
- Risk factors for infection via household contact;
- How to collect consistent EPI info on risk populations (including Ethnocultural) by province?
- Risk and protective factors for the initiation of injection drug use (transitioning between different modes of usage).

2. Models of Care:

- Research: Health care required HCV infections;
- (Provincial) What mode of communication is most effective for physicians to learn about Hep C treatment?
- Research re: treatment access, treatment uptake; treatment consistency; treatment success in the high risk infected; To encourage practitioners to consider treating the marginalized;
- Research: Best practices on diagnosis, particularly the development of pre- and post-testing counseling guidelines;
- What models of care provide best clinical support for different vulnerable populations affected by HCV?
- Does case management by an RN improve consistency in care and patient outcomes in patients with Hep C (acute and chronic);
- What are the educational needs of patients/families with Hep C? What is the best time to deliver the education? Who is the best care provider to deliver education? Can volunteers deliver this information as effectively as health care providers?
- Interventions to reduce stigma (communication strategies);
- Will point of care testing improve HCV detection rates in clinics;
- Evaluate education levels of primary health care providers – knowledge of Hep C testing and treatment;
- How do public health professionals feel about implementation of the logic (algorhytra) framework to establish a criteria for best practices in surveillance;
- (Regional): What factors improve treatment compliance (peer/nurse/psychiatry/ community workers, etc.);
- How have social behavioural norms developed and changed among health care workers?

3. Evaluation:

- Evaluate the impact of medical tourism regarding CTO transplantation and HCV and in collaboration with European Member States;
- National: Economic burden of HCV infection – hospitalization; social services; lost productivity; etc;
- (Global): Collaboration of HCV research across countries, e.g. identify gaps and identify duplicate efforts;
- To test a vaccine against Hepatitis C;
- Evaluation of prevention interventions – what works;
- Are current HCV prevention campaigns effective at changing risk behaviours (National)?

4. Method Models:

- Models for involving 'civil society'/NGO organization working with ethnic, immigrant, refugee populations in influencing and educating;

- How do new graduating nursing students plan to access high quality research knowing that they will no longer have access to research databases?;
- Use of mobile phone technology in creating awareness for HCV in the general population;
- What social media strategies are effective to increase knowledge of Hep C in high risk populations? Will this knowledge change behaviours/outcomes?
- How can technology assist/benefit peer support interaction (on the big scale?);
- The role of peer outreach in HIV & HCV prevention among people who use drugs;
- Do peer support groups in a community setting make a difference in prevention of Hep C?
- What is the effect of involving peers in research projects?
- Social networks of at-risk groups to model spread of HCV/HIV;
- Efforts in data analysis to better inform interventions;
- Methodologically strong evaluations of peer to peer interventions;
- For the World; Utilize RAR model for countries that have the highest prevalence and include blood borne pathogen, HCV.

5. **IDUs:**

- How do we safely and ethically provide treatment to the active IDU population? Can we identify models (e.g. Holland) that have been successful and apply them globally?
- Studies and reports on effective ways to seek and engage IDUs who don't access harm reduction services;
- "You could have provided me with a million needles and I still would have got Hep C" – What do HCV+ IDU's think they needed to remain HCV-;
- What is the effectiveness of treating abuse and trauma on risk taking behavior and HCV infection?
- Surveillance local and global: Regular monitoring of detailed injecting and sexual risk behavior for public health policy.

6. **Migrants:**

- (Nationally) Surveillance: Stress importance of testing immigrants for Hep B and C for their own health knowledge;
- Research: Impact of migration/immigration and country of origin and relationship to infection rates of Hep C in Canada;
- (For Canada): Research related to the best methods to detect/test for Hep C among immigrants and overall immigrant health;
- Research: Identify ethnic/immigrant population – geographic – and health care/social care providers in the area.

7. **Inmates:**

- Discharge planning (addressing the need to reintegrate prisoners in society so that they don't resort to going back to prisons on purpose);

- Research incidence of HCV seroconversion in prisons, i.e. how many go into prison negative and come out positive?
- Surveillance: Rates of infection in repeat prisoners in provincial/territorial prison systems;
- Can we get more data pre-incarceration HCV infection in addition to post-incarceration data?
- What are the barriers and risks for prisoners in accessing MMT in prov/fed institutions?
- What do service providers in prisons feel are the barriers to provide better harm reduction strategy and program.

8. Special Populations:

- What does HCV (HCV and HIV co-infection) look like among different age groups?
- HCV and Aging research (currently a paucity);
- Barriers to screening and treatment among at risk populations;
- How do we develop strategies to engage high risk population groups into research and collaborate with research departments in hospitals and in the community so that research data reflects people from all demographics?
- More research on specific populations with high transmission rate, e.g. young females why so high?
- Research on how to reach young males for prevention messages – usually not included in health care system;
- Determine the HCV and HIV prevention needs of youth;
- Barrier to testing and treatment for particular groups of people (e.g. youth; street-involved youth; IDUs; people who smoke crack; women; aboriginal women and men);
- (Canadian/Regional), Research and Surveillance: HIV & HCV risk behaviours among aboriginal people who use drugs – (IDU and smoke crack);
- What is the incidence of HCV transmission via non-injection drug use? How do we effectively control for poly drug use among people who use drugs? Would this be ecologically valid?
- What are the specific prevention needs and resources for isolated and/or Northern Canadian communities? (National);
- More research on transmission risk of HCV other than the risk of drug use;
- How effective is treatment compliance on reserve versus off reserve?
- Increased research to identify cultural barriers to treatment success. Increased involvement of local/cultural community leaders?
- How does community perception affect a person's use of drugs in the Aboriginal community?
- Observational cohort study – follow-up of patients infected with Hepatitis C to determine health outcomes and impact of treatment.

9. Testing:

- What interventions (if any) will increase testing of high risk populations for Hep C? Will increased testing improve outcomes?
- Develop better testing to help distinguish acute versus chronic infections.

10. Treatment:

- Cost of treatment vs. long term cost of management without treatment (both patient and others the person infects);
- Research: Tighter PCR Perimeters (<15) is “0”; Med side effects;
- Develop better treatments to increase uptake of treatment and success of treatment;
- What are the barriers to and challenges of accessing HCV treatment in Canada? (by province);
- What are the factors that can predict a successful course of treatment? (All factors – biomedical, support factors, other, etc.);
- Evaluate who is affected; who receives and outcome of receiving treatment, e.g. identity of IUDs
- Access to treatment; treatment uptake at a population level (National Survey);
- Can we get more research on outcomes of liver transplants specifically in HIV/HCV co-infected individuals?

11. Surveillance:

- Can we obtain evidence (hard data) on HCV infections among new comers to Canada?
- Better data on acute infections and how to reach marginalized populations with treatment if needed;
- Create consistency across Canada in how HCV is reported and counted in Canada;
- What are the best indicators to use in understanding prevalence and incidence around the world?
- Research (International): Compiling epidemiological and virological evidence on the oral transmission of HCV (e.g. sharing crack pipes);
- Research co-infections with HCV and HIV, HBV, STIs;
- Epidemiological studies (geographic distribution, origin, risk factors) on viral Hepatitis C prevalence;
- To determine age gender specific population-bases infection/incidence rates of Hep C;
- National level: Prevalence rate of HCV at the national level;
- We need more accurate HCV incidence and prevalence estimates globally (WHO estimates are 1999);
- Having a more united (province to province) system of reporting incidence and transmission rate; reporting in the same way;
- Surveillance: [Support] blood donor referral to diagnosis, counseling and treatment programs and use pertinent information in surveillance systems (Blood donors who are deferred because of risk behaviours and of positive screening at donation);
- Mapping ‘opportunities missed’ in HCV and people who were diagnosed late;
- Better data is needed on spontaneous clearance rates of HCV in aboriginal populations;
- Routine and high quality surveillance on at risk factors for HCV.

B. PARTNERSHIPS

1. Elements for Tool Box:

- Global – Increase in technology access to reliable Internet resources;
- How best to harness the lessons you're learning and ensure they're disseminated beyond those directly involved?
- Twinning: Template for checklist where twins can identify all areas of things that they hope to get out of the twinning process;
- Examples of successful MOUs (Memorandums of Understanding) between organizations (containing checklist of issues);
- Culturally sensitive training manuals;
- Guides/manuals on Do's and Don'ts of successful partnerships (what works/what does not).

2. 1st Steps in ESTA Partnership:

- Development of a work plan that can be auctioned – objectives and goals;
- Guidance/Mechanism to manage operational aspects (e.g. bank accounts, etc.)
- Upfront agreement on and measurable expected outcomes;
- Partnerships: development of a viral Hepatitis group at a local level involving: clinicians, health care professionals, researchers, MoH, Canadian Liver Foundation, annual workshop, develop protocol and steering committee, seek funding.

3. Accessing a Partner:

- A database (or even just a list) of interested organizations, what they have to offer and what they would like;
- Partnership/Twinning: list of places wanting to twin; a list of places that have been determined as appropriate to twin;
- Have a national Canadian database that each Canadian health care worker can access;
- Twin with peer groups to develop peer groups in Pakistan;
- Twinning: need for a central centre: 1) places who need help can register; 2) established programs to look and see if they can help thus leads to twinning;
- Database of potential partners to assist with choosing a partnership.

4. Principles Guiding Framework for Partnerships:

- How do we engage the remote Aboriginal population in urban-based programs? – Compatible models, culturally effective, success/failures;
- Identifying key sociopolitical differences between twin environments;
- Define the expectations of accountability for each partner;
- A team with multiple leaders/partners needs ONE project coordinator to keep everyone on task/give status reports, etc;
- Peer engagement at all stages;
- Twinning Project: with key decision makers, ministers and at-risk populations;

- Partnership Tool Box: Common interest – risk-benefit, global views to the issue and interest, such as blood safety and CTO transplant and medical devices cross contamination; Integrated system to guard HCV;
- Mutual relationship: each partner evaluates and acknowledges their own and one another's strengths and improvements. Work towards empowerment by teaching and learning. Can be continually assessed via discussions, reflections, evaluations (written).

5. Activities for Partnerships:

- Partnerships with halfway houses and HCV education support groups;
- How do you start a prison outreach program in my area?
- Developing multi-agency partnerships in serving most vulnerable populations, e.g. prisons;
- Twinning: Twinning may be beneficial within one country too, e.g. NGO specialized in inmate issue could advise/twin with NGO that has a clientele of formerly incarcerated;
- Twinning: Successful program in an AIDS Service Org in one part of country sharing knowledge on resources, policy lobby etc with another ASO in other places in Canada. Could work with other community based ORG's working in similar fields;
- Partnership/Twinning; Community based train the trainer models involving experts and NGOs, which can engage and outreach stakeholders community and research across the country;
- Partnerships: Research bodies with ethnic community on research and Hep C (models, funding, and dissemination);
- Twinning specialties: Are there opportunities to explore between a group that is interested in Blood Safety and a group that seeks to reduce transmission in IDU. Global as well as within a country;
- Partnership: Tool box for HCV Prevention: Collaborate with other programs; e.g. Hemovigilance system to monitor HCV spread through transfusion. Successfully hemovigilance systems in some countries may be useful for others to use as tool;
- Twinning: HCV awareness campaigns with Canadian Nursing Association. Canadian Association of Social Workers?
- Twinning: Opportunities for mentorship and modeling from established advocacy rights organizations e.g. PIVOT – legal advocacy group in DTES Vancouver and establishments of a similar organization in another region;
- To address law enforcement issues that contribute to vulnerability to HCV among drug using populations;
- Twinning: Partnerships between surveillance study and local/regional and community to community driven needs that can be addressed with data collection (Ottawa model).
- Concerted efforts to establish peer to peer relationships for support and guidance and train the trainer initiatives;
- How to train and support physicians in providing HCV treatment and MMT treatment;
- Partnerships: Between sex and worker rights and advocacy groups, e.g. power to STELLA (Quebec, Montreal, Ottawa) and other sex worker groups nationally and globally;

- Partnership between hospital based Hep C programs and community based programs so as to share updates, best practices, and guidelines.

C. TRAINING

1. **Social Marketing:**

- Awareness to those infected on how they can minimize risk of transfer to household;
- Public Messaging, general population regarding harm reduction – drug use as health issue.
- Reducing stigma and increasing access;
- Civil society and NGOs on issues pertaining to risk factors for HCV infections and competencies for peer support to blood donors who are found to be HCV positive at time of blood donation;
- Education campaign for the general population on Hep C and how the disease is transmittal and the large treatments involved;
- Prevention: increase mental health support;
- Increase funds to campaign/advertise HCV;
- Gayway: “How do you know what you know” poster campaign for prevention;
- Training: Broader scale HCV prevention messages (e.g. Australia – “don’t share a bloody thing” campaign for all audiences.

2. **Peer to Peer Training:**

- Empowering Pts. In countries that reuse needles while new, sterile needles are available, there should be an awareness campaign to educate clients about the risks association with it; and encourage clients to ask their healthcare provider if the needle they are about to use on them is new/sterile. Via bathroom graffiti, posting flyers in hospitals and MD offices, etc;
- Patient-led HCV education and awareness for GPs (and other healthcare workers);
- Peers engage with public health unit to train IDU’s on transmission from sex and IDU on HCV;
- Educate family doctors on HCV transmission;
- Peer led training and awareness in high schools to teachers and students about IDU and HCV crack use;
- Training activity in prevention and awareness;
- Peer group education training related to prevention and Hepatitis C treatment;
- Develop peer groups to promote prevention activities.

3. **Youth Training:**

- Awareness in schools/youth, re: risks of contracting Hep B/Hep C/HIV;
- Training for youth leaders to provide peer support to at-risk youth;
- Training for youth peer education programming; topics: Hep C prevention, awareness, reducing stigma. Programming would utilize social media;
- Make students working in HCV field be in contact with HCV infected populations/peoples to have these students have an experience about what are the different faces of HCV infected persons’ life;

- Make students work with HCV infected persons.
- 4. Discrimination and Stigma:**
- Reducing stigma and discrimination around HCV and harm reductions interventions with First Nations leadership;
 - Stigma around HCV in HCW populations;
 - How do we engage those diagnosed with HCV in raising awareness amongst their community while combating/addressing the issue of stigma;
 - “Women into Healing Project” For female prisoners in BC; CBR project on awareness and prevention.
- 5. TOT Special Groups:**
- Best practice in delivering HCV prevention with native youth population.
- 6. Educate Special Populations:**
- Develop training models/best practices that involve ethnocultural communities with different language/materials, experts;
 - Awareness/education delivery methods that work best for different Ethnocultural/newcomer communities in Canada;
 - Training for health and social service providers who work with Ethnocultural/immigrant populations (e.g. specific pockets);
 - Training Activities: Awareness communication in immigrant groups (Canada);
 - Appropriate education of clients when there is a language barrier for a client so that they are fully informed about Hep C and treatment.
- 7. Policy Influence:**
- Inform government and policy makers;
 - How to influence public policy (e.g. how to talk about drug policy and harm reduction), www.frameworks.com.
- 8. Sensitivity:**
- Hep C 101 with front line workers dealing with the high risk;
 - Train the Trainer programs;
 - Evaluation of training to the local practitioners in raising awareness and prevention of Hepatitis C;
 - Increase front line community caregivers (MO, RN, etc.) training regarding HCV (anti HCV positive versus HCV RNA positive) and what this means;
 - Increase information for staff in large medical centers to myths regarding HCV and therefore increase potential for education of general population;

- Training Activity: training of clinical practitioners related to knowledge assessment and treatment of Hep C in order to increase awareness and treatment uptake and reduce the burden of disease;
 - Training about addiction, drug use, and harm reductions for medical health professionals;
 - Education for social service providers on HCV and why it matters to them and their clients;
 - Better training for police on harm reduction, addictions, and mental health;
 - Harm reduction and addictions training for police;
 - Teaching therapeutic non-judgmental communication for health care professionals and community volunteers;
 - “Sensitivity” training for mainstream (i.e. non-HCV) health professionals.
- 9. Training Health Care Providers, First Responders, and other Social Service Providers:**
- Education for med students about HIV and HCV harm reduction effectiveness and value;
 - Train nurses in prevention strategies;
 - Training and education for rural/remote health care providers regarding provision of care to HCV, HIV, HCV/HIV;
 - Information, sensibilisation, and education on viral Hepatitis C transmission;
 - Train tattoo artists on safer practices in their profession;
 - Training for Doctors about treatment and care for drug users and their needs;
 - Training in addictions issues for health care providers: use, abuse, harm reductions, local trends;
 - Training for all physicians on narcotic prescribing not just making the prescribed names unavailable.
- 10. Screening and Testing:**
- Professional training for physicians in awareness of HCV risks and need for testing;
 - Training activity: train physicians and screen for infection and offer Hep A & B vaccines for at risk populations;
 - Need for training of primary care MDs, nurse practitioners, etc regarding asking risks, tests, and interpretation of tests;
 - Need to update all physicians in full Hep C testing, need for full work up to assess level of damage to liver and resulting need for treatment;
 - Awareness for Hepatitis C screening and promote methods of decreasing infection.
- 11. Technical:**
- Encourage health care providers to follow through and PCR testing, etc;
 - Training for local public health units around effective enhanced surveillance;
 - “How to read a paper” – Training for clinical staff on how to read a report/evaluation and see if it is applicable;
 - Need: training on basic Hep C lab tests and results and follow-up for primary care physicians.

12. Harm Reduction and Safe Practices:

- Harm reduction programs implementation training in rural Aboriginal communities; e.g. how to get programs started/going in communities where there might be resistance to harm reduction;
- Training for best practices harm reduction service providers – more than just needles;
- Awareness training to politicians/law makers/policy makers on the economic costs of treating HCV versus the economic savings of HCV prevention through Harm Reduction programs including in prison environments;
- How do we change/educate Aboriginal attitudes about harm reduction;
- Overdose prevention training for people who use drugs (e.g. MARCAN), what barriers exist re: fear of police and unnecessary loss of life;
- Safer drug use 101: peer to peer;
- Safer drug use (injection and inhalation) for users:
- Training to professional blood donors to donate safe blood;
- Training traditional healers in safe practices;
- Health care professional training regarding addictions.

13. Political Training Kit:

- Training politicians to “see what’s on the ground” and respond accordingly;
- Mobilize the NGO in the high epidemic countries through proper tools/algorithm the benefit is safe country and safe world;
- Understanding, using and communicating evidence – for researchers, voluntary sector, patient organizations, etc (for government/systematic or people affected ‘Up’ or ‘Down’ by HCV).