

## HEPATITIS C AND HIV: A GROWING THREAT TO UNIVERSAL ACCESS

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### Introduction

In 2005, G8 leaders promised that by 2010 Universal Access to HIV prevention, treatment, care and support would be widely available. Since then, much has been accomplished and over 2 million people are now on anti-retroviral treatment. However, as people with HIV live longer, opportunistic and related illnesses that threaten their health are exposed. Whilst Hepatitis C is an adjunctive rather than opportunistic disease, there is growing awareness that co-infection with the Hepatitis C virus (HCV) is an important issue in HIV prevention, treatment, care and support. Thus, for universal access to be fully realized, HIV/HCV co-infection must be addressed.

To date, research on the extent of HIV/HCV co-infection is scarce. This lack of research data is particularly profound in developing countries, where practical methods to address these dual threats are limited. What is known, however, is that many of those infected with HCV are also co-infected with HIV and dealing with its impact. This combination creates a terrible synergy. Co-infection can worsen the effects of both diseases. For example, if co-infected with HCV and HIV, the chances of developing liver disease are much higher and decisions around appropriate treatment for both diseases becomes far more complicated. It is clear that a comprehensive approach is essential. As such, HIV advocates and professionals must be educated about HIV/HCV co-infection and must address this dual challenge in their future efforts.

### Hepatitis C: An evolving conspirator in HIV

Until 1989 Hepatitis C, a viral infection that affects the liver, was referred to as 'non A, non B hepatitis'. The WHO estimates that 3% of the world's population (approx. 170 million people) is living with HCV. The medications used in HCV treatment, pegylated interferon and ribavirin, are costly and may need to be administered for up to a full year. Side effects often

make adherence to treatment challenging. The resulting liver disease caused by hepatitis is becoming a major cause of illness and death among those infected with HIV.

HCV is also the most common virus affecting the world's 16 million injection drug users (IDUs). It's estimated that close to 3 million IDUs are living with HIV and some studies indicate that over 90% of IDUs infected with HIV are also infected with HCV.

### *Transmission*

Although there are similarities between HCV and HIV transmission, there are differences in transmission efficiencies. Rates of transmission where recipients receive blood or blood products that are infected with HCV are close to 100%. HCV is very easily transmitted through sharing equipment used for injecting, smoking or snorting drugs (needles, syringes, pipes and straws) and exposure to injection-related paraphernalia, such as cotton, water, tourniquets, swabs and spoons ('cookers') can also result in transmission. Other objects that are easily contaminated with blood such as piercing and tattoo equipment and ink, razors, toothbrushes and unsterilized medical equipment, are also implicated in transmission.

Although HCV can be transmitted sexually and vertically (from mother to child), until recently these kinds of exposures were thought to be insignificant. However, recent research suggests that outbreaks of acute HCV among HIV-positive gay and bi-sexual men who have unprotected anal intercourse are related to sexual transmission.

Hepatitis C virus infection may remain asymptomatic for long periods of time, and liver damage that occurs during this period may eventually lead to chronic liver disease which may progress to liver failure. Due to the fact that 10 to 20 years can elapse between infection and the onset of liver disease, those who are HCV-positive may unknowingly be spreading the disease. In the instance of HIV/HCV co-infection, liver damage due

to HCV tends to occur faster than in HIV-negative people.

Although treatments are available, their effectiveness ranges from 40% to 80%, depending on the genotype (or strain) of HCV. It's important to note that these rates are for those who are dealing with HCV alone. Unfortunately, treatment success is reduced amongst those who are co-infected.

There is no vaccine to prevent HCV infection and researchers face formidable challenges in vaccine development because of the virus' propensity for mutation.

**HIV and HCV Co-infection**

As noted above, HCV/HIV co-infection compromises immunity, making HCV more likely to be transmitted and more difficult to treat. While there is no proof that people with HCV are more susceptible to HIV infection, it is clear that AIDS is complicated by the liver symptoms associated with HCV. Treatment presents additional challenges as many anti-retroviral drugs are cleared from the body by the liver. Depression is another complication of HCV treatment and adds an extra burden for those living with HIV who are already dealing with HIV-related psychosocial and economic challenges.

The following table highlights information relating to both mono and co infection characteristics:

<b>Acute infection and early symptoms</b>	
Some people infected with HCV experience a brief period (1-2 weeks) of early symptoms: fever, fatigue, loss of appetite, abdominal pain, nausea, vomiting, and jaundice. Because the initial symptoms of HCV infection are similar to other viral infections, HCV, like HIV often goes undetected.	
<b>Mono-infected with HCV</b>	<b>Co-infected with HIV and HCV</b>
<b>Chronic disease</b>	
About 20% of mono-infected patients will recover from HCV without treatment. Those who receive treatment can usually clear the virus if medication is taken	In co-infected patients, spontaneous viral clearance and clearance with treatment occur less frequently.

consistently and correctly.	
<b>Fibrosis (mild liver scarring)</b>	
About 80% of mono-infected patients with go on to develop chronic infection. Of those, 60% to 80% will develop scarring in the liver (fibrosis) and over time, will develop symptoms such as depression and fatigue.	Co-infected patients with chronic infection are more likely to develop fibrosis or other symptoms than mono-infected patients.
<b>Cirrhosis</b>	
From 20% to 30% of mono-infected patients with chronic infection develop cirrhosis (liver scarring) from 15 to 50 years after infection.	Co-infected patients are more than twice as likely as mono-infected patients to develop cirrhosis, and they may develop it much more rapidly – in as few as 10 years after infection.
<b>Liver Cancer and Hepatic Decompensation (loss of liver function)</b>	
1% to 5% of people with cirrhosis develop liver cancer. People with cirrhosis are also at risk for hepatic decompensation.	Co-infected patients may be at greater risk for liver cancer than mono-infected patients. Their risk is six times greater for hepatic decompensation, and their life expectancy after decompensation develops is significantly shorter.

*Adapted from Swan, 2006*

**Stigmatization**

Stigma surrounding people infected with HCV and HIV/HCV is acute. In Russia, Eastern Europe, Asia, North Africa and Latin America, both co-infected people and people who inject drugs are marginalized and denied services. Stigma related to HIV is further complicated by prevalent negative attitudes towards drug users. Among HIV groups, people who inject drugs and HCV infected persons have been excluded. In developed countries, women who use drugs have been found to be particularly vulnerable and powerless. They are more likely to come “second on the needle” and less able to negotiate safer drug use or safer sex practices that would protect them from HIV or HCV infection.

Until recently, many health providers were reluctant to treat HCV in people who continue to use drugs. Harm

reduction, the most effective tool in limiting transmission, faces political opposition in some parts of Canada, the United States and Europe. It has now been demonstrated that people who inject drugs are just as likely to adhere to treatment as anyone else, especially when provided with holistic and supportive healthcare. International guidelines, as well as human rights principles, promote their right to treatment.

Co-infected people need access to prevention, treatment and care including psychosocial and economic support. A better understanding of harm reduction services could help to address stigma. HIV communities need to learn about HCV and must embrace those who are affected.

**Harm Reduction is...** policies, programs and projects which aim to reduce the health, social and economic harms associated with the use of psychoactive substances (or drugs). It is an evidence-based and cost-effective approach – bringing benefits to the individual, community and society. Harm reduction programs are open to outcomes other than abstinence or cessation of use. Harm reduction programs typically include:

- Needle and syringe exchange programs (NSP)
- Opiate substitution therapy (OST)
- Exchange programs for other drug items (eg crack pipes)
- Comprehensive HIV prevention and treatment programs
- Psycho-social and economic support for people who use drugs

*Adapted from the International Harm Reduction Association and the Canadian Centre on Substance Abuse*

### How is HIV/HCV affecting developing countries and those in transition?

Current data about co-infection in the developing world is inadequate. A limited number of reviews provide some information about mono-infection in the general population and among people who use drugs. The following sections give a regional overview of HCV infection and HCV/HIV co-infection prevalences.

**South and East Asia:** The HCV prevalence rate for South-East Asia as a whole was reported as 2.15% in a 1999 review by the WHO. A recent global review of HCV among IDUs reported rates as high as 90% in Indonesia, India, Thailand, Viet Nam and Bangladesh. HIV/HCV co-infection rates were also extremely high in China (99.3%) and Chang Mai, Thailand (100%). Injection drug use in these regions is increasing. Harm reduction, at least in theory, is becoming more accepted. In practice, however, only 3% of people who inject drugs in South Asia and 8% in East Asia currently have access to harm reduction and many countries – Thailand, Viet Nam and Indonesia among them – continue to criminalize drug use.

**Eurasia:** The countries of Central and Eastern Europe and Central Asia experienced the fastest growing HIV epidemic globally, after a rapid rise in drug use in the 1990s. HCV was of less concern, with rates of only 2% in 1999. Rates of HCV infection, as well as HIV/HCV co-infection, are now consistently between 50% and 90% among IDUs in almost all countries in this region. End-stage liver disease has become a major cause of mortality in Eurasia. Over two million people inject drugs in Russia, which likely has more co-infected people than any other country, particularly among the prison population. Harm reduction supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria has been successful in the Ukraine, and countries with membership in the European Union have also promoted the approach. Many people, however, lack access to harm reduction, in particular, prisoners, street youth and sex workers.

**Latin America and the Caribbean:** While overall HCV prevalence in these regions was estimated at less than 2% in 1999, rates of 30% to over 70% among people who inject drugs have recently been reported in Brazil, Argentina and Mexico. Co-infection with HIV is over 90% in Puerto Rico, and over 80% in Argentina and Brazil. Only five Latin American countries and very few Caribbean countries have harm reduction programs. Drug use is criminalized in many countries and prisoners are often denied access to condoms.

**North Africa and the Middle East:** While HCV prevalence was low in 1999, more recent studies from North Africa and the Middle East now show HCV

infection rates of 50% to 60%. HCV prevalence among people who inject drugs in Iran is reported as being as high as 80% and HIV/HCV co-infection as high as 87%. Drug use, as well as opposition to drug use, is on the rise and drug related offenses bring severe penalties. While Iran and seven other countries have adopted and put into place harm reduction pilot projects, the number of people reached remains insufficient to stop the spread of co-infection.

**Sub-Saharan Africa:** In 1999, sub-Saharan Africa had the highest global prevalence of HCV infection among the general population; over 5% of Africans were estimated to be HCV-infected. There is limited data as to how HCV is spread in Africa, but it is assumed that health service acquired (nosocomial) infection, and transmission through non-sterile tattooing, circumcision and female genital mutilation (FGM) equipment are underlying factors. There is also little data on injection drug use in Africa, but if injection drug use does grow, it could fuel a serious HIV/HCV epidemic in countries that already have high HIV prevalence.

South Africa, Mauritius, Kenya, Nigeria and Tanzania are reporting increased numbers of IDUs. In one study, Kenya was reported to have HCV rates of over 40% among people who inject drugs. Only Mauritius and South Africa have harm reduction programs. There is no information available on HIV/HCV co-infection, but some better-resourced HIV treatment programs have begun to screen for HCV.

### Preventing HCV/HIV from undermining progress

It is imperative that HCV prevention strategies be intensified, particularly among those living with or affected by HIV. While data may not be conclusive, there is enough evidence to merit immediate action. International guidelines on best practices with respect to HIV/HCV already exist but political will and resources are lacking.

The importance of harm reduction among IDU populations cannot be underestimated in preventing HCV. The WHO, UNAIDS and UNODC now include needle exchange programs and opiate substitution

therapy as best practices in HIV, STI and tuberculosis prevention, treatment and care among people who use drugs. However, there are still very few countries where harm reduction has reached enough people to actually interrupt transmission among people who inject drugs. For example, Russia, with an estimated two million drug users, has only 69 needle exchange sites. Opiate substitution therapy is prohibited and pilot harm reduction programs seldom reach beyond select urban areas. Africa has almost no harm reduction programs.

There is an urgent need for health planners, managers and community workers to learn about drug use, the rights of drug users, and harm reduction. Harm reduction needs to be incorporated into public health programs to increase accessibility. In many countries, drug use continues to be criminalized and forces already marginalized people who inject drugs underground and limits the likelihood that they will seek information or services for HCV or HIV. Prison populations are particularly bereft in respect to access to harm reduction and HIV/HCV services. In Russia, 600 out of every 100,000 people are incarcerated, yet Russian prisons offer very few harm reduction or HIV prevention services. This situation is mirrored in most prisons in the developing world.

An integral part of harm reduction is comprehensive HIV prevention information and services. To prevent HIV/HCV, these programs need to reach vulnerable people. In addition to offering information about safe sex, programs need to stress safe tattooing and circumcision, especially in countries where these are traditional practices. We know that women who use drugs, street-involved persons and people who live on societies' margins in the developing world are more likely to use drugs and/or become co-infected. Programs need to make special efforts to reach these groups, a difficult task in those countries which already have a large burden of HIV and where capacity to take HIV prevention to mainstream antenatal clinics presents enormous challenges.

In 2006, the WHO reported that close to 25% of countries inadequately screen and protect blood for transfusion. Serious blood shortages and the lack of a reliable donor base also contribute to an increased risk of transfusion-transmitted HCV and HIV. HIV programs

have greatly improved blood services in many countries, particularly in Africa; this needs to continue. Health systems must be improved to ensure that health workers have the supplies, training and support they need to maintain Universal Precautions for Infection Control and keep medical supplies and injection equipment infection-free.

### ***Treatment for HCV is part of Universal Access***

According to UNAIDS and the WHO, screening and treatment for HCV is best practiced within an HIV treatment, care and support framework. UNODC has set targets for Universal Access for IDUs, which include a target for HCV and HIV treatments among IDUs. In reality, treatment for HCV probably occurs in few countries outside of the developed world due, in part, to treatment costs. Even where HCV screening occurs, there is reluctance on the part of providers to treat people who use drugs. Abstinence is often a prerequisite for care.

While it has been proven that people who inject drugs are just as likely to adhere to treatment as any other group, many health workers continue to withhold treatment from drug users. In much of Africa, HCV is not a priority and the challenges of treating co-infected cases are not being met. The challenges surrounding HCV treatment – cost, side effects, access, interactions with anti-retrovirals – need to be overcome. Research on how to simplify treatment protocols for co-infection is urgently needed.

## Conclusion

Co-infection with HCV is now a major factor in HIV, sharply increasing the prevalence of liver disease among those with AIDS. The HIV/HCV co-infection epidemic is growing but to date, the response in developing countries and those in transition is limited. As always prevention is key to arresting transmission. Harm reduction is crucial but, though proven effective, faces political and some health system opposition. The situation is further complicated by attitudes towards drug use. This needs to be overcome and harm reduction expanded to include more people. In addition, health systems need to be supported to prevent blood borne transmission and provide HCV treatment, regardless of cost.

Lessons learned from the success of HIV treatment can be applied to HCV. Stigma towards people who inject drugs and those infected with HCV needs to be challenged. HCV presents an opportunity both to address an emerging co-conspirator in HIV and to demonstrate how the HIV community can adopt inclusive programs and policies and promote the rights of marginalized populations.

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