

illuminating a Hidden Epidemic:

The Public Health Crisis of HIV/HCV Co-infection Among Injecting Drug Users (IDU) in Thailand

“It is incredibly ironic that we have dramatically altered the prognosis for HIV—a currently incurable disease—only to see co-infected people dying from complications of hepatitis C, a disease that we can cure.”

Tracy Swan¹

“I had been living with HIV for 15 years before I learned about hepatitis C, even though I injected drugs for many years. No one told me that this was a risk I should be aware of. We need to educate our community about HCV, and we need to educate our health care providers to provide appropriate information, screening, testing and treatment immediately.”

Thai IDU co-infected with HIV/HCV

Introduction

Over the past decade, people living with HIV/AIDS (PLWHA) in low and middle-income countries have gained greater access to antiretroviral treatment (ART), mainly due to treatment access campaigns waged by civil society advocates worldwide. The increase in access to ART has led to longer and better quality of life among PLWHA. As PLWHA live longer on ART, they are facing other chronic health problems, such as co-infection with hepatitis C virus (HCV). End-stage liver disease from HCV causes premature and unnecessary deaths among PLWHA, particularly among current and former injecting drug users (IDU), among whom HCV is highly prevalent. HCV disproportionately affects IDU because it is a blood-borne disease easily spread through shared injecting equipment. Moreover, IDU face numerous legal, social, and other barriers when trying to access health care and treatment, including denial of treatment, discriminatory treatment, and lack of confidentiality when receiving treatment.

The World Health Organization (WHO) estimates that three percent of the world’s population—or 180 million people—have been infected with hepatitis C; each year, three to four million more become infected.² In Southeast Asia, WHO estimates that 32.3 million people are infected with HCV.³ Moreover, as of 2008, almost five million of the world’s 33.4 million PLWHA live in Southeast Asia. It is also estimated that there are two to nine million IDU living in the Asia-Pacific Region, with an estimated 750,000 IDU who are living with HIV/AIDS.⁴ Unfortunately, there are few epidemiological studies on the prevalence of HIV and HCV co-infection in Asia.⁵

¹ Hepatitis C: New Treatments in the Pipeline. April 2008, pg 4.

² WHO, Hepatitis C Guide, 2009: <http://www.who.int/csr/disease/hepatitis/whocdscsrlyo2003/en/index.html>.

³ Ibid.

⁴ Walsh N, Higgs P, Crofts N. Recognition of hepatitis C virus co-infection in HIV-positive injecting drug users in Asia. J Acquir Immune Defic Syndr 2007;45(3):363-5.

⁵ WHO. HIV/AIDS Care and Treatment for People Who Inject Drugs in Asia and the Pacific: An Essential Practice Guide, 2008, pg 39.

However, these studies estimate a 60% to 90% rate of HCV co-infection among IDU living with HIV/AIDS in Asia.⁶

The statistics on HIV and HCV among IDU in Thailand are staggering:

- 610,000 Thais are living with HIV/AIDS,⁷ with at least 5-10% contracting HIV from injecting drugs
- At least half (50%) of injecting drug users in Thailand are living with HIV/AIDS⁸
- Up to 90% of injecting drug users in Thailand have contracted HCV⁹

These numbers most likely *underestimate* the severity of HIV and HCV among Thai IDU because of the lack of accurate data on IDU in Thailand and even fewer studies are assessing the prevalence of HCV co-infection.. Nevertheless, existing statistics are troubling in light of Thailand's universal health care system, which purports to provide healthcare for all without discrimination. The 2007 Thai Constitution supports this policy, by explicitly stating that Thais "shall enjoy an equal right to receive standard public health service, and the indigent shall have the right to receive free medical treatment from State's infirmary."¹⁰ Clearly, policies are not effectively addressing HIV/HCV co-infection, a rapidly growing epidemic that is needlessly killing many IDU (since HCV can be treated and, in some cases, cured). ***Moreover, lack of access to clean injecting equipment for Thai IDU is leading to higher rates of HIV and HCV infection.*** HIV/HCV co-infection among Thai IDU is a public health emergency being ignored by Thai policymakers.

The purpose of this policy paper is to offer a concise introduction to issues faced by Thai PWLHA co-infected with HCV, specifically focusing on people who inject drugs, to be used for education and advocacy campaigns. The first part of this paper will provide a medical overview of HCV. The second section describes the standard treatment options for HCV and the availability of treatment for IDU in Thailand. The third part of this paper discusses the unique barriers Thais co-infected with HIV and HCV encounter when seeking treatment in Thailand. The fourth section explores how treating HCV/HIV co-infection is sound economic policy that should be instituted immediately by Thai policymakers. Finally, this paper will conclude by offering recommendations for policymakers to follow to successfully reverse this raging epidemic.

I. Medical Nature of HCV

HCV is a blood-borne infection transmitted when infected blood from one person enters another person's bloodstream through any type of contact. The hepatitis C virus is smaller than HIV and, unlike HIV, can live outside the body for a long period of time, making it ten times more

⁶ [Ibid.](#)

⁷ WHO/UNAIDS Epidemiological Fact Sheet on HIV and AIDS, Thailand, 2008 update, http://apps.who.int/globalatlas/predefinedReports/EFS2008/full/EFS2008_TH.pdf.

⁸ [Ibid.](#)

⁹ International Harm Reduction Association, pg 4-5.

¹⁰ Thai Constitution (2007), Part 9, Section 51, <http://www.asianlii.org/th/legis/const/2007/>.

infectious than HIV. The most common mode of HCV transmission in Thailand is by injecting drugs with shared equipment.¹¹ Thus, an estimated 90% of Thai IDU are infected with HCV.

The hepatitis C virus lives in blood and liver cells. HCV does not directly damage the liver; rather, the immune response to the virus causes scarring over time by walling off infected cells. Over time, liver scarring can worsen; serious damage impedes the liver's capacity to perform normal activities, such as filtering out bodily waste, metabolizing drugs, and regulating other crucial biological functions. The liver damage caused by HCV may take years, or even decades to develop.

There are two phases of HCV infection—acute and chronic. The acute phase of HCV infection lasts from the time a person is initially infected up to six months after infection. During the acute phase, approximately 45% of HIV-negative people and up to 20% of individuals living with HIV/AIDS are cured because their immune system successfully clears hepatitis C. However, these people remain at risk for reinfection, since clearing HCV does not provide immunity. The majority of individuals who do not clear HCV naturally progress to the chronic phase of HCV infection, meaning that HCV becomes a lifelong infection unless treated successfully.

Symptoms are rare during the acute phase of HCV, making it difficult to diagnose. Like HIV, people living with chronic HCV can experience no or few symptoms for years or even decades, while others experience non-specific symptoms such as depression and forgetfulness.

HCV is the world's leading cause of liver disease. A majority of people living with HCV eventually develop some liver damage. Some people have mild-to-moderate liver scarring (called fibrosis), while about a quarter end up with serious liver scarring (called cirrhosis). People with cirrhosis are at risk for complications from HCV such as liver cancer and liver failure.

HIV can have a deleterious effect on hepatitis C from acute infection onward. PLWHA have compromised immune systems, and are less likely to clear the hepatitis C virus during the acute phase than people who are HIV-negative. HCV progresses more rapidly in PLWHA, and increases the risk for serious liver damage. In fact, end-stage liver disease is a growing cause of death among PLWHA. In turn HCV complicates a PLWHA's treatment for HIV because it can triple the risk of ART-associated liver toxicity.

II. Treatment for HCV

A. Standard of Care and Treatment Options

The standard procedure for testing for HCV is a two-part process. First, a person is tested for antibodies to the hepatitis C virus (HCV antibody test.) A positive result means that a person has been infected with hepatitis C, but it cannot determine whether the person is chronically infected. People who have cleared the virus remain antibody-positive, so another test is needed to confirm or rule out chronic HCV. This is called a viral load test (or HCV RNA). If the hepatitis C virus is detected in a person's bloodstream, it usually means that he or she is chronically infected.

¹¹ Recent studies have shown an increasing rate of sexually transmitted HCV among men who have sex with men.

Additional tests, such as liver enzyme levels, are used to monitor people with HCV. Genotypic testing is essential to determine duration of HCV treatment, which ranges from 3 to 12 months. There are at least six genotypes (different genetic versions) of the hepatitis C virus, but genotypes 1, 3 and 6 are the most common in Thailand..¹² People with genotype 3 usually require only six months of treatment, but treatment may be longer for co-infected people

HCV is a curable disease. The current standard of care is a three to twelve month course of treatment with a combination of two drugs— pegylated interferon (PEG-IFN) and ribavirin (RBV). Ribavirin is a pill that must be taken twice daily, while pegylated interferon is an injection given once a week. Ribavirin by itself is not effective to treat HCV, but becomes effective when used in combination with pegylated interferon. Interferon stimulates the immune system to fight viruses, and pegylation simply is a small molecule added to interferon, which makes it more effective by keeping it in the bloodstream longer. Patients undergoing this treatment often experience side effects, including flu-like symptoms (such as weakness and fatigue, appetite loss, aches and pains), anemia, depression, and anxiety.

Response to treatment depends on several factors, particularly HCV genotype. Overall, HCV treatment is successful for approximately 50% of cases. Response rates are highest in people with genotypes 2 and 3--more than 70% are cured. However, HCV treatment is less effective for patients co-infected with HIV. Treatment outcomes can be predicted by a hepatitis C viral load test after three months of treatment, so not everyone will require a complete course of treatment.

Currently, there are generic forms of ribavirin available. However, the two versions of pegylated interferon currently available are still under patent by two pharmaceutical companies Roche (brand name Pegasys), and Schering-Plough¹³ (brand name PegIntron). Due to these patents, hepatitis C treatment is very expensive, usually costing around \$30,000 USD for a 48-week course of treatment. Thus, most health care systems are unable to provide or refuse to offer treatment to a majority of HCV patients.

Currently, pharmaceutical companies worldwide are developing more than twenty experimental HCV drugs.¹⁴ These new drugs aim to eradicate HCV and are in, or getting ready to enter clinical trials. However, pegylated interferon and ribavirin may still be required with the new drugs, keeping HCV treatment prohibitively expensive.

B. Treatment Availability in Thailand

Even though Thailand has a universal healthcare system, it fails to provide adequate access to screening for, and diagnosis and treatment of HCV. Currently, HCV antibody tests in Thailand costs 200-300 baht (6-9 USD).¹⁵ The two-drug combination therapy of pegylated interferon and

¹² Verachai V, Phutiprawan T, Theamboonlers A, et al. Prevalence and genotypes of hepatitis C virus infection among drug addicts and blood donors in Thailand. *Southeast Asian J Trop Med Public Health* 2002;33(4):849-51.

¹³ [In 2009, the pharmaceutical company Merck bought Schering-Plough.](#)

¹⁴ See Swan, Tracy. Hepatitis C: New Treatments in the Pipeline, April 2008, for a more detailed, in-depth discussion of these pipeline HCV treatments.

¹⁵ [Conversion rate as of February 10, 2010, 1 USD=33.17 Thai Baht, XE currency converter](#)
[http://www.xe.com/ucc/.](http://www.xe.com/ucc/)

ribavirin costs 591,263 baht (17,828 USD) for a 48-week course.¹⁶ Moreover, the administration and monitoring cost for such a 48-week course is 503,693 baht (15,187.49 USD).¹⁷ Thus, the total cost for a 48-week course of pegylated interferon and ribavirin in Thailand is 1,094,956 baht (33,015.49 USD).¹⁸ Furthermore, pegylated interferon and ribavirin are not on the Thai National Essential Drugs List, meaning this treatment is not included in the Thai universal coverage scheme. Therefore, as in most other low and middle-income countries, the cost of treatment of HCV with pegylated interferon and ribavirin is very high and out of reach for most patients.

III. Barriers Faced by Thai IDU Who Are Co-Infected with HIV and HCV

Even if HCV screening, diagnostics and treatment were available in Thailand, Thai IDU co-infected with HIV and HCV would face many barriers when accessing healthcare. The social stigma around drug use pervades many aspects of Thai society, creating huge barriers that Thai IDU face when seeking health care and treatment. One of the biggest barriers in the healthcare setting is the prejudice and lack of experience among medical service providers, which leads to limited and inadequate care.¹⁹ For example, many Thai doctors would refuse treatment to IDU because they think that IDU cannot adhere to treatment regimens because of their past and/or current drug use. However, having a history of substance use or current use does not predict lack of adherence to medical treatment.²⁰ In fact, there is no evidence to support this assumption. Studies show that active IDU can adhere to treatment regimens as effectively as non-users.²¹ Moreover, treatment adherence among IDU increases when they have access to other health and social services (harm reduction support, mental health care, etc).²² Prejudiced or under-educated health care providers also think that illegal drug use decreases effectiveness of treatments. However, most studies indicate that HCV treatment outcomes among active IDU are similar to those of non-users.²³ Therefore, treating Thai IDU should not be seen as an impossibility, but as a challenge that can be met through educating medical staff and providing support for patients.

IV. Screening and Treating HCV Is Sound Economic Policy

Access to treatment and healthcare is a right enshrined in the Thai Constitution; but it is a right being abrogated by Thai policymakers when it comes to treating Thai IDU co-infected with HIV/HCV. One of the major arguments against treating HCV is that the combination pegylated interferon and ribavirin treatment is too expensive. However, in the long-term, it is more costly

¹⁶ Piratvisuth T, Pramoolsinsap C, Chutaputti A, et al. (abstract 871) Cost-effectiveness analysis of peginterferon alfa-2a (40 KD) plus ribavirin versus no treatment in patients with chronic hepatitis C (CHC), genotype 1 from a payer perspective in Thailand. 60th annual meeting of the American Association for the Study of Liver Diseases, Boston MA, USA. October 30th-November 3rd, 2009.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Taylor, Lynn. Delivering Care to Injecting Drug Users Co-infected with HIV and Hepatitis C Virus. Clinical Infectious Diseases 2005, 40: S355-61.

²⁰ Ibid.

²¹ Hoover, Jeff. Shining a Light on a Hidden Epidemic: Why and how civil society advocates can support the expansion of Hepatitis C treatment in Eastern Europe and Central Asia. August 2009: Open Society Institute, Public Health Program, pg 28.

²² Ibid.

²³ Ibid.

(both economically and in terms of patient quality of life) to *not* treat HCV in Thailand. The main economic benefit to treating people with HCV is that it lowers the cost and amount of medical care need for IDU with HCV, including expensive treatment for severe liver disease. Moreover, successfully treating Thais with HCV prevents new infections, since people who have been cured cannot transmit HCV to others.

Two recent studies clearly illustrate that it is cost-effective in Thailand to treat people with HCV with pegylated interferon and ribavirin.²⁴ Researchers reported that HCV treatment increased life expectancy; moreover, treatment is cost-effective for genotypes 1, 2, and 3. In particular, treating Thai HCV (genotype 2/3) patients (versus no treatment) was associated with a lifetime cost savings of 556,862 baht (16,784 USD). Therefore, it is not only the Thai government's constitutional and moral duty to provide adequate treatment for Thai HCV patients, but it is also in its economic interest to do so.

IV. Policy Recommendations

In order to successfully tackle the challenges faced by Thai IDU who are co-infected with HIV and HCV, policymakers should:

- Immediately scale up evidence-based harm reduction programs that promote access to clean injecting equipment/sterile syringes, which prevent new HCV infection,
- Increase support for Thai civil society involvement in HCV awareness campaigns through promotion of capacity building and education of advocates, patients, healthcare providers, and policymakers,
- Provide universal access to free testing for HCV and offer follow-up diagnostic tests on a routine basis to IDU who test positive for HIV,
- Provide national level data collection on HCV incidence and prevalence among Thais living with HIV/AIDS,
- Include pegylated interferon and ribavirin on WHO and Thai Essential Medicines Lists,
- Develop Thai-language national guidelines based on international best practices for HCV treatment and care,
- Increase political support for the Thai Government Pharmaceutical Organization (GPO) to produce generic versions of pegylated interferon and ribavirin, and
- Increase political support for Thai government officials to exercise legal, TRIPS flexibilities (such as compulsory licenses and parallel importation) to gain access to cheaper HCV treatment.

²⁴ Piratvisuth T, et al. (abstract 871) Cost-effectiveness analysis of peginterferon alfa-2a (40 KD) plus ribavirin versus no treatment in patients with chronic hepatitis C (CHC), genotype 1 from a payer perspective in Thailand. 60th annual meeting of the American Association for the Study of Liver Diseases, Boston MA, USA, October 30th-November 3rd, 2009. And Thongsawat S, Piratvisuth T, Pramoolsinsap C, et al. (abstract 852) Peginterferon alfa-2a (40KD) plus ribavirin is dominant with large cost-savings versus no treatment in patients with chronic hepatitis C (CHC), genotype 2/3: A cost-effectiveness analysis from the Thai payer perspective. 60th annual meeting of the American Association for the Study of Liver Diseases, Boston MA, USA, October 30th-November 3rd, 2009.

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