

# Factsheet: Australian hep C snapshot



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## How many people in Australia have hep C?

At the end of 2014, there were an estimated 230,000 people in Australia living with chronic hepatitis C (hep C).

As recent as 2014, an estimated 5,400 new hep C infections occurred annually.

- around 89% of these new infections occur through blood-to-blood contact between people sharing equipment used for injecting illicit drugs
- around 7% occur among immigrants to Australia (through medical procedures and other transmission routes in their countries of origin)
- around 4% involve other blood-to-blood contact such as unsterile tattooing and body piercing.

In Australia, only a relatively small proportion of people remain un-diagnosed and unaware of their condition.

## How is hep C transmitted?

Hep C is transmitted via blood-to-blood contact. Around 82% of existing infections in Australia occurred as a result of people sharing equipment used to inject illicit drugs.

Around 11% of existing cases are believed to involve immigrants who contracted hep C in their countries of origin through unsterile medical procedures or other means.

Around 7% of existing cases involved people having blood transfusions or blood products prior to 1990 – when screening by Australian blood banks was introduced, or through other blood contact risk behaviours. These include unsterile tattooing and body piercing, transmission from mother to baby, unsterile skin penetration equipment including barbers' clippers and razors, needle stick injuries, possible blood-to-blood contact during sex and possible household transmission through shared toothbrushes or razors.

Prisoners are at particular risk of new infection or reinfection with hep C because rates of prevalence (existing infections) and incidence (new infections) within corrective services establishments are much higher than in the broader community.

## **What's the likely outcome of infection in Australia?**

Because chronic hep C doesn't always make people feel ill, many who have it may not consider it a serious condition – and may not take steps to reduce the chance of long term liver damage.

Of 100 people in Australia with chronic hep C infection who remain untreated (and after 20 years of infection):

- 45 would not develop serious liver damage
- 47 would develop progressive liver damage which may be only mild or moderate
- 7 would develop cirrhosis of the liver
- 1 would develop liver cancer or liver failure.

If the same group of 100 people were followed up for a further 20 years (40 years of infection in total):

- 30 would still have not developed serious liver damage
- 45 would have remained as having mild to moderate liver damage
- 20 would have developed cirrhosis of the liver
- 5 would have developed liver failure or liver cancer.

## **Hep C long term effects**

The above figures show that most people will not experience long term serious liver damage – but around one in four people with chronic hep C will eventually develop cirrhosis or liver failure/cancer.

Because of this, chronic hep C infection is currently the most common reason for liver transplantation in Australia and health economists have warned about the epidemic's long term health costs.

## **History**

In Australia, hep C has been transmitted widely via blood-to-blood contact since the early 1970s yet was only identified as a distinct virus in 1989. Prior to that it was known as 'non-A, non-B hepatitis'.

Needle and syringe programs were introduced in the mid-1980s. These programs have helped to contain Australia's hep C epidemic by increasing people's access to sterile injecting equipment and health promotion education.

## **Treatment**

As of 1 March 2016, treatment for hepatitis C – subsidised by the Australian government – includes direct acting antiviral treatments and pegylated interferon and ribavirin options.

From 1 March 2016, people with genotype 1 will have two treatment options. The first option is a course of Harvoni® direct acting antiviral pills, and the second option is a course of both Sovaldi®

and Daklinza® direct acting antiviral pills (taken together). These options offer a 95–97% success rate (chance of cure).

From 1 March 2016, people with genotype 2 will be offered a course of Sovaldi® and Ibavir® direct acting antiviral pills. This option offers a 93% success rate (chance of cure).

From 1 March 2016, people with genotype 3 will have two treatment options. The first option is a course of both Sovaldi® and Daklinza® direct acting antiviral pills, and the second option is a course of both Sovaldi® and Ibavir® direct acting antiviral pills (taken together). These options offer a 93–95% success rate (chance of cure).

Standard interferon-based combination treatment is available for people living with hep C genotypes 4, 5 & 6. This treatment involves a combination of two drugs: peginterferon (a weekly injection into the fat under the skin on the stomach) and ribavirin (pills taken twice a day). This option offers a 75% chance of cure.

## Personal and social costs

Because of the relatively recent identification of hep C, health care worker knowledge, including that of general practitioners, can be limited. Levels of discrimination and stigmatisation, from both health care workers and the general public, are high. Ignorance, and misplaced fear of infection, are potential causes for this discrimination. The fact that the risk behaviour that most commonly leads to hep C infection - injecting drug use - is an illegal behaviour, adds another level of stigmatisation for all those affected.

On initial testing, during ongoing monitoring and during treatment, levels of support for people affected by hep C often are inadequate. Personal costs, through reduced capacity to work (particularly during treatment) or relationship problems, or through discrimination and stigmatisation, are great.

A NSW government-funded inquiry into hep C related discrimination was undertaken by the Anti-Discrimination Board of NSW in 2001. Its report, C-CHANGE, notes that hep C is a highly stigmatised condition and that discrimination against people with hep C is rife, particularly in health care settings.

## Economic costs of infection

Economic studies estimate both the direct and indirect costs of hep C. Direct costs are those associated with action taken to tackle specific aspects of the disease, and include research, prevention, diagnosis, treatment and palliation. Indirect costs are related to loss of workplace production resulting from premature death and ill health.

Needle and syringe programs (NSPs) have been shown to be effective in reducing hep C prevalence rates in people new to drug injecting. The Return on Investment 2 Report estimated that, for every one dollar invested in NSPs, more than four dollars were returned (additional to the investment) in direct healthcare cost-savings in the short-term (ten years). When indirect costs were added (including productivity gains/losses), for every dollar spent on NSPs between 2000 and 2009, \$27 was returned in savings. NSPs are an incredibly cost-effective public health intervention.

NSPs are also effective in terms of human outcomes. It has been estimated that NSPs prevented 96,667 new hep C infections (from 2000 to 2009).

## Government responses

In November 1998 the Standing Committee on Social Issues tabled its report Hepatitis C: The Neglected Epidemic in the NSW Legislative Council, following its public inquiry. It found unanimously that hep C is a disease that was largely neglected by decision makers, health planners, the media, health care workers and the community in general. It found that there was no overarching policy to guide and direct the control, treatment and prevention of hep C. It found that the impact of hep C is enormous. The social impact of the disease is “profound and touches every facet of life.”

The Federal government maintains a hep C strategy (most recently, 2014-2017) and funds one-off and ongoing research, education and prevention projects through various Commonwealth/State funding mechanisms.

The NSW State government maintains hep C strategies (most recently, 2014-2020) and a NSP policy (2013). Considerable funding enhancements were allocated by NSW Health during 2009/10, and these increases have been sustained. These have enabled increased and improved service delivery across NSW – specifically in regard to hep C treatment services.

Key challenges include ensuring that sufficient ongoing funding from Federal and State and Territory governments is applied to meet identified needs, and that evidence based approaches to drug policy and law reform are considered in order to make a significant impact on reducing hep C transmission. Under our current national harm minimisation drug policy, only 3% of government expenditure on drugs is for harm reduction programs, and the vast majority is spent on law enforcement and customs (56%), prevention education (23%) and drug treatment/rehab (17%).

## Also see

<sup>1</sup> Batey R, Bensoussan A, et. al. Preliminary report of a randomized, double-blind placebo-controlled trial of a Chinese herbal medicine preparation CH-100 in the treatment of chronic hepatitis C. *Journal of Gastroenterology and Hepatology* March 1998; 13(3):244–247.

<sup>2</sup> Salmond S, George J, et. al. Hep573 study of complementary medicine for chronic hepatitis C. *Journal of Clinical Virology* 2006; 36:S134-S135.

*Review of Hepatitis C Treatment & Care Services*, NSW Health Department, 2008.

*NSW Hepatitis C Strategy*, NSW Health Department, 2007.

*NSW Hepatitis C Strategy Environmental Scan*, NSW Health Department, 2007.

*Hepatitis C Virus Projections Working Group: Estimates and Projections of the Hepatitis C Virus Epidemic in Australia 2006*, Ministerial Advisory Committee on AIDS, Sexual Health and Hepatitis (Hepatitis C Sub-Committee), October 2006.

*HIV/AIDS, viral hepatitis and sexually transmissible infections in Australia: 2012 Annual Surveillance Report*, The Kirby Institute, 2013.

*What is Australia's 'Drug Budget'? The policy mix of illicit drug-related government spending in Australia*, Moore, TJ. Monograph No. 01: DPMP Monograph Series, Turning Point Alcohol and Drug Centre, 2005.

*Return on Investment 2: evaluating the cost-effectiveness of needle and syringe programs in Australia*, Commonwealth Department of Health and Ageing, 2009.

*C-CHANGE, Report of the enquiry into hepatitis C-related discrimination*, Anti-Discrimination Board of NSW, November 2001.

*Estimates and Projections of the Hepatitis C Epidemic in NSW*, National Centre in HIV Epidemiology and Clinical Research and AIDS and Infectious Diseases Branch, NSW Health Department. Draft: August 1999.

Economic analyses relating to hepatitis C, Alan Shiell (Chapter 7: 83-96) in *Hepatitis C: a review of Australia's response*, prepared by David Lowe and Ruth Cotton for the Commonwealth Department of Health and Aged Care, January 1999.

*Hepatitis C: The Neglected Epidemic, Inquiry into hepatitis C in New South Wales*. Parliament of NSW Legislative Council Standing Committee on Social Issues, November 1998.

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**This factsheet was developed by Hepatitis NSW. It was reviewed by the Hepatitis NSW Medical and Research Advisory Panel.**

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