

the reality on needle exchanges

Their unsupportable claim

"...the net present value of (Needle & Syringe Programs) is \$5.85bn; that is, for every one dollar invested in NSPs (2000-2009), \$27 is returned in cost savings.

Return on Investment 2 p 8

What the science says

"evidence regarding the effect of needle and syringe exchange on HIV incidence is limited and **inconclusive.**"

"multiple studies show that (needle exchanges) do not reduce transmission of (Hepatitis C).

IOM Review, 2006 p 149

**Exposing the
false claims
made for
needle exchanges
in Australia**



unsupportable claims for Exchanges

The Federal Department of Health and Ageing has funded two reports assessing the financial savings accruing to Australians from the introduction of needle exchanges. These assessments focused on the costs to the community of HIV and Hepatitis C cases that were supposedly averted by needle exchange programs (NEPs).



RETURN ON INVESTMENT (2002)

This report used an 'ecological' study design, looking at journal studies of 103 cities with and without needle exchange, comparing HIV and Hepatitis C (HCV) prevalence rates in the cities with needle exchange against those without needle exchange. It found that:

- Cities with NEPs averaged 18.6% decreases in HIV, cities without NEPs had 8.1% increases
- 25,000 cases of HIV and 21,000 of HCV were calculated as averted by NEPs
- For the \$141 million investment in NSP from 1991-2000 there was a calculated saving of between \$2.4 and \$7.7 billion in treatment costs

RETURN ON INVESTMENT 2 (2009)

The second report projects probable numbers of HIV and HCV infections by calculating from surveyed drug user behavioural data and other Australian data on infection rates and mortality. It then costs the health treatment savings of the foregone virus transmissions. It found:

- 32,050 new cases of HIV and 96,667 new cases of HCV calculated as avoided due to NEPs between 2000 and 2009
- For the \$243 million investment in NSP from 2000-2009 there was a net saving of \$1.03 billion, which will increase to \$28.71 billion over the next 70 years to the year 2079



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Drug Free Australia is the peak organisation for organisations and family associations around Australia that seek the prevention of illicit drug use.

Drug Free Australia's vision is: Communities are well-informed about the harms of illicit drugs and empowered with anti-drug strategies.





what the science says

SERIOUS ERRORS IN THE WORLD HEALTH ORGANISATION REVIEW

The 'authoritative' 2004 review for the World Health Organisation (WHO) on the effectiveness of needle exchanges in reducing HIV transmission was written by Australian reviewers Wodak and Cooney. It has been considered by supporters to be the most definitive review to that date. However the WHO review contains easily identified and serious errors which when corrected nullify its claims of demonstrated effectiveness.

The WHO review found 11 journal studies on needle exchanges with sufficient scientific rigor to judge effectiveness, and had judged 6 of the studies to show a positive result for needle exchanges regarding reduced HIV transmission. Three returned a negative result (ie increases in HIV in needle exchange populations), and 2 were inconclusive.

Of the 6 studies judged positive, the 1993 Heimer et al study did not even measure HIV prevalence among IDUs but only in returned needles, which cannot be directly translated into a population. It was not eligible for inclusion. The 2000 study by Monterosso and co-workers was misclassified as positive for NEPs, despite being statistically non-significant and labelled inconclusive. The 1991 Ljungberg et al study had found HIV seroprevalence in Sweden's Lund, a city with needle exchange, to be maintained at -1% in contrast to 60% in Stockholm, but ignored the authors' own comment that incidence in Stockholm had been reduced to 1% by the time of the study without the implementation of needle exchanges. This study should likewise have been moved to the inconclusive table.

When corrected, the 11 studies yield 3 positive, 3 negative and 5 inconclusive. Yet two of the remaining three 'positive' studies use an ecological study design, which cannot possibly disentangle the effect of needle exchanges from other preventative measures customarily implemented at the same time. There is clearly no weight of scientific evidence demonstrating their effectiveness.

THE TRULY AUTHORITATIVE REPORT

In 2006 the prestigious US Institute of Medicine (IOM), with its extensive panel of 24 scientists, medical practitioners, and reviewers did a comprehensive review of the literature. Despite a history of being supportive of needle exchanges, they found that:

1. "evidence regarding the effect of needle and syringe exchange on HIV incidence is limited and **inconclusive**."
2. "ecological studies monitor populations rather than individuals, and therefore cannot establish causality" for NEPs
3. "multiple studies show that (needle exchanges) **do not** reduce transmission of (Hepatitis C).



LESS BENEFIT IN NEEDLE EXCHANGE

A revealing 2003 study by Amundsen et al. compared HIV transmission amongst intravenous drug users (IDUs) in Norway, Denmark and Sweden and found that Sweden and Norway, with higher levels of HIV counselling and testing, had significantly lower incidence rates of HIV amongst IDUs than Denmark where there was legal access to needles and syringes and a lower level of HIV counselling and testing. This suggests that interventions accompanying needle exchanges may be more effective than the needle exchanges themselves.

The 1991 Ljungberg et al. study implies the same. It found that Stockholm, Sweden, had an HIV epidemic with 60% of injecting drug users HIV positive, yet in a matter of years had decreased HIV transmission to 1% without the implementation of needle exchange. This lends support to the notion that preventative interventions, such as Australia's Grim Reaper media blitz and associated preventative strategies, may be more effective.



conjuring \$billions from nothing

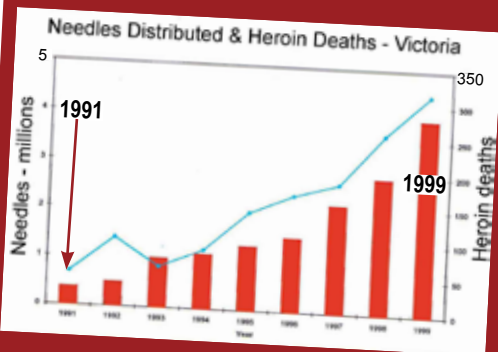
How do two government-funded Return on Investment reports conjure up so many billions of dollars of savings if the authoritative reviews of the evidence finds no demonstrable HIV and Hep C prevention benefit from needle exchanges?

The 2002 ROI report erroneously assumed that needle exchanges were responsible for ALL preventative interventions implemented when an epidemic is recognised. The 2009 ROI report relies foundationally on self-reported behaviours of injecting drug users, far less reliable than scientific studies which measure blood-borne virus incidence in specific populations.

When it is considered that the Hep C prevalence amongst Australian intravenous drug users (65%) is no different to the expected rates worldwide (50-70% as quoted by Australian needle exchange proponent, Dr Ian Webster), there is no immediately evident advantage for needle exchanges.

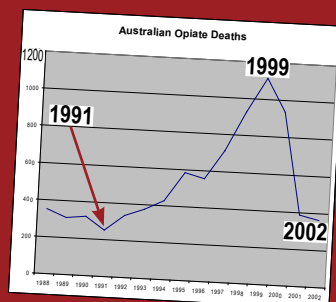
HARM REDUCTION OR PREVENTION?

Harm reduction is defined by the International Harm Reduction Association as aiming to reduce the harms associated with illegal drugs rather than focusing on the prevention of drug use itself.



The chart (left) shows the correspondence between overdose deaths (blue) in Victoria as needle exchanges (red) were expanded along with methadone treatment places. Similar increases in drug fatalities were seen in all Australian States.

The chart (right) shows the effect on overdose deaths once the Federal Government's 1998 Tough on Drugs strategy began adding funding for prevention, rehab and increased policing overseas.



The harm reduction approach to illicit drug use was first introduced in 1969 with the first methadone programs. Needle exchanges were commenced in 1985 and funded nationally in 1991. Sharp increases in heroin fatalities were only reversed once a prevention emphasis was added to Australia's drug policy.

The founder of Australian needle exchanges, Dr Alex Wodak, expressed alarm in a 1997 Medical Journal of Australia article where the apparent ineffectiveness of needle exchanges in preventing Hep C led him to propose a new Grim Reaper campaign to target its spread (which of course suggests that the Grim Reaper media campaign may have been reason for the low HIV levels in Australia, not needle exchanges). A 1997 article by Nick Crofts et al. titled "The force of numbers: why hepatitis C is spreading among Australian injecting drug users while HIV is not" clearly states that needle exchanges were not preventing Hep C.

The ROI's billions of dollars purportedly saved by Australians is simply conjuring something from nothing - a clever, modern alchemy... but illusion.

References

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