The Challenges in Introducing Regulated Heroin Treatment

Professor Ambros Uchtenhagen

Chair, Addiction and Public Health Research Foundation, Switzerland

"We (the Swiss) are a pretty conservative nation, but when it comes to finding out what is best for our people, we do not want to get lessons from other people; we want to find out for ourselves."

Ambros Uchtenhagen

Professor Ambros Uchtenhagen shared a brief history of the problems encountered after introducing innovative regulated heroin treatment, and detailed their solutions. He described the seven systematic steps they took, starting with the challenge (Switzerland's intolerable situation regarding heroin use), moving through scientific trials and routine treatment, and ending with a heroin prescription regime.

THE REAL CHALLENGES: STEPS TO A SOLUTION

Before the policy changes described here, the situation in Switzerland regarding heroin use had become intolerable, and the rather conservative policies were absolutely unable to cope with it. The main public health concerns were: increasing prevalence of HIV seropositivity in drug injectors, which was in fact the highest in all of Europe at the time; increasing incidence of new heroin users, as it was very attractive for young people to start; and increasing mortality and morbidity in injectors. There were also public order concerns, such as increasing drug-related delinquency and nuisances from open drug scenes, which attracted media attention from all over the globe.

The situation demanded new objectives, as the (quite repressive) old drug policy could not cope with the situation. Swiss police were chasing injectors from one quarter to the next, and the regime threatened doctors who wanted to provide patients with syringes and needles, and turned off public water supplies so that injectors couldn't use public toilets get safe water for their injections. The policy was absurd, and almost criminal.

The new objectives were formulated as seven steps:
1. Undercutting a policy unable to deal with the heroin situation
2. Finding a compromise between public health needs and legal conditions

3. Overcoming internal and external opposition
4. Monitoring and evaluating goal attainment
5. Refuting major concerns
6. Meeting the economic arguments
7. Moving from research to routine practice

The first step was to set up new objectives from a public health perspective: 1) to optimise the health coverage of opiate injectors by offering alternatives to those who failed in traditional treatments (e.g., methadone maintenance), since those treatments were rather restrictive and many injectors were out of treatment or had never been in treatment; 2) to reduce morbidity and mortality in injectors and to reduce HIV transmission at a population level, since many infections were transmitted to friends or partners of injectors; 3) to reduce trafficking and the number of out-of-treatment individuals populating the open drug scenes; and 4) to reduce heroin-related crime.

The second step was to find out how to reach these objectives. Coalitions were formed to combat the existing legal situation, including NGOs, health and social services, public services, police officers, and city and commune administrations. They formulated a pragmatic reinterpretation of narcotic law, meaning zero tolerance for public injecting and dealing, but tolerance for private use, as long as there was no nuisance for the neighbourhood.

Finding a compromise between political and scientific interests was a more difficult task, as the main cities were not interested in conducting scientific trials; they wanted to be relieved of their burning problems. Therefore, although an ideal policy would allow provision of heroin on a large scale, the reality of the situation only allowed for prescription of heroin for scientific purposes (i.e., as part of a study), which became the initial compromise between political and research interests. An initiative from Zurich City Council was the first to come forward with the idea of prescribing heroin to those who had failed in other treatments. The Federal Office of Public Health and the National Expert Committee on Drugs made preparatory steps, reviewing and evaluating similar international trials and developing concrete proposals on how it could be implemented in Switzerland. The Federal Office of Public Health under the direction of Thomas Zeltner and the federal government ultimately gave the green light to a framework for an overall new approach, the so-called 'four pillar drug policy,' which added harm reduction measures as a complimentary and equivalently important element to the already-established practices of prevention, treatment, and law enforcement. This was one of the very few research projects which needed review by the federal government and where the federal government set some of the conditions.

Regarding the third step (overcoming internal and external opposition), many groups were initially opposed to using heroin as a medical tool for substitution and maintenance, ranging from the political right wing to abstinence-oriented prevention and treatment organisations who thought it would jeopardise their work. Heroin-assisted treatment was denounced as an invitation to heroin use and a step toward heroin legalisation.

There was also opposition from the outside. The International Narcotics Control Board (INCB) had to allow morphine to be imported for the production of prescribed heroin, which they only did grudgingly (although they made no factual objection). The UN's Commission on Narcotic Drugs (CND) was also very concerned and asked the World

Health Organisation (WHO) to set up an expert committee to examine the risks and tolerability of the Swiss steps to be taken. The WHO complied and established an international independent committee to monitor Swiss heroin-assisted treatment from the very beginning until the evaluation of the final report.

Negative reactions also came from neighbouring countries, especially France and Germany. France stopped providing Switzerland with heroin when its source became public knowledge, and Germany (both the government and the public) came out strongly not only against heroin-assisted treatment, but against harm reduction of any kind, including large-scale methadone maintenance. However, the Swiss, despite being a fairly conservative nation, did not want to get lessons from others about what is best for their people; they wanted to find out for themselves.

Conclusions of the WHO independent expert group confirmed the positive outcomes of the Swiss experiment, showing health improvements, lowered crime, and fewer HIV infections. They also recommended that additional randomised trials be conducted, since the Swiss study left open to what extent heroin prescription vs. the auxiliary care had contributed to the results. One of the countries that took up these recommendations is the UK.

The next step was monitoring and evaluating the outcomes. Although scientific evidence can be limited, nothing can happen without it, so the Federal Office of Public Health established a very good monitoring system. On the patient level, the findings showed satisfactory recruitment and retention in the treatment – a very satisfactory result, as nobody had known before whether heroin-addicted individuals would really want to come in for multiple injections per day under controlled conditions. Regarding safety, there was not a single death from prescribed heroin among thousands of patients. The monitored outcomes also showed a significant reduction in delinquency, reduced drug use after discharge, improved health, and improved social status. At six-year follow-up, even patients who had left the programme still showed significant improvements.

At the population level, the outcomes showed no diversion of heroin to the illegal markets (due to the well-controlled conditions), reduced overdose mortality, a highly significant reduction of HIV seropositivity among drug injectors, and more than 50% reduction in overdose deaths.

The six year follow up data (Figures 33-36[1]) show a clear reduction of regular heroin use among those still in treatment, but also significant reductions after leaving treatment.

[1] Sources: Federal Office of Public Health 2009, Federal Office Police 2008.

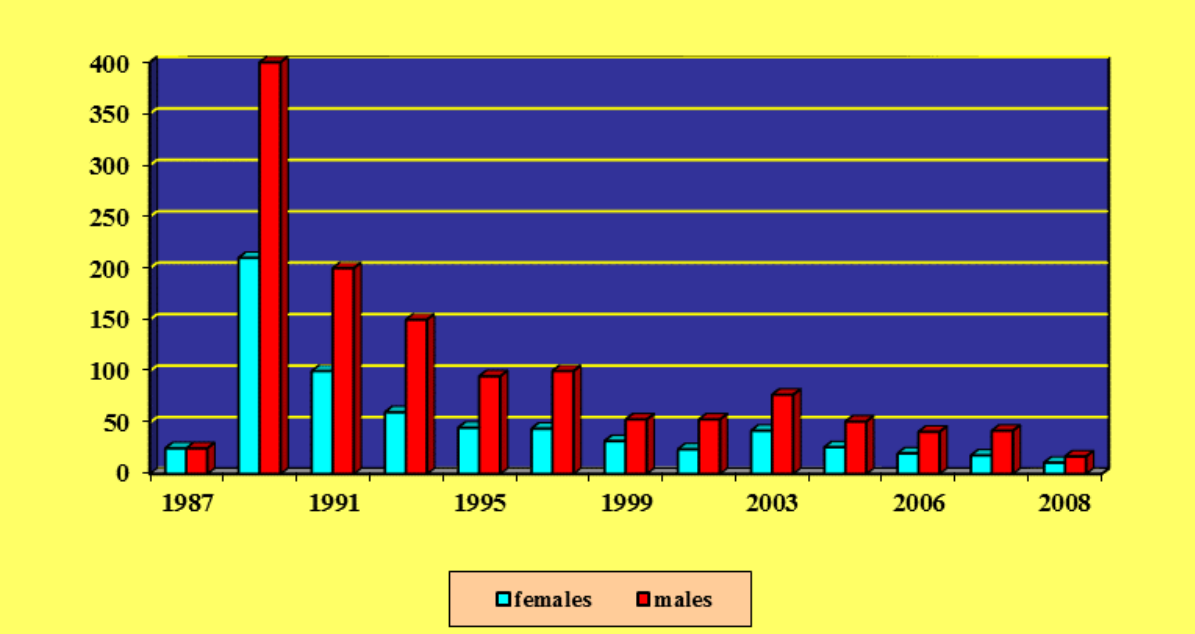

Figure 1. HIV cases in injection drug users.

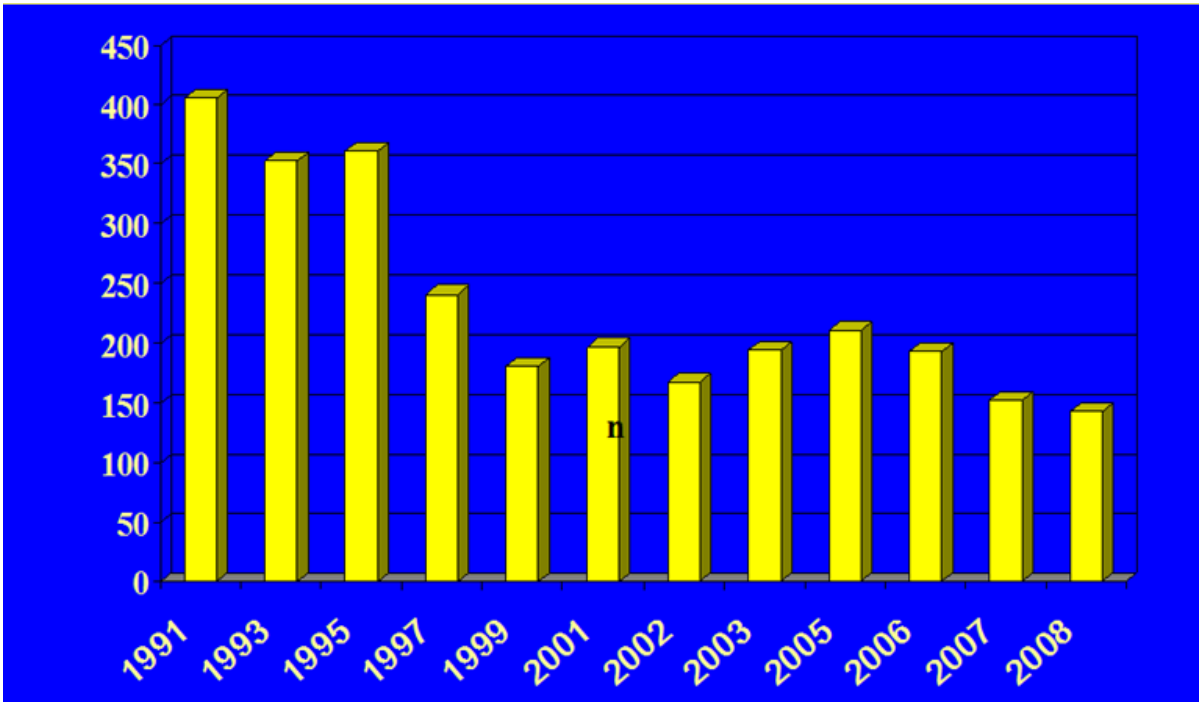

Figure 2. Overdose deaths.

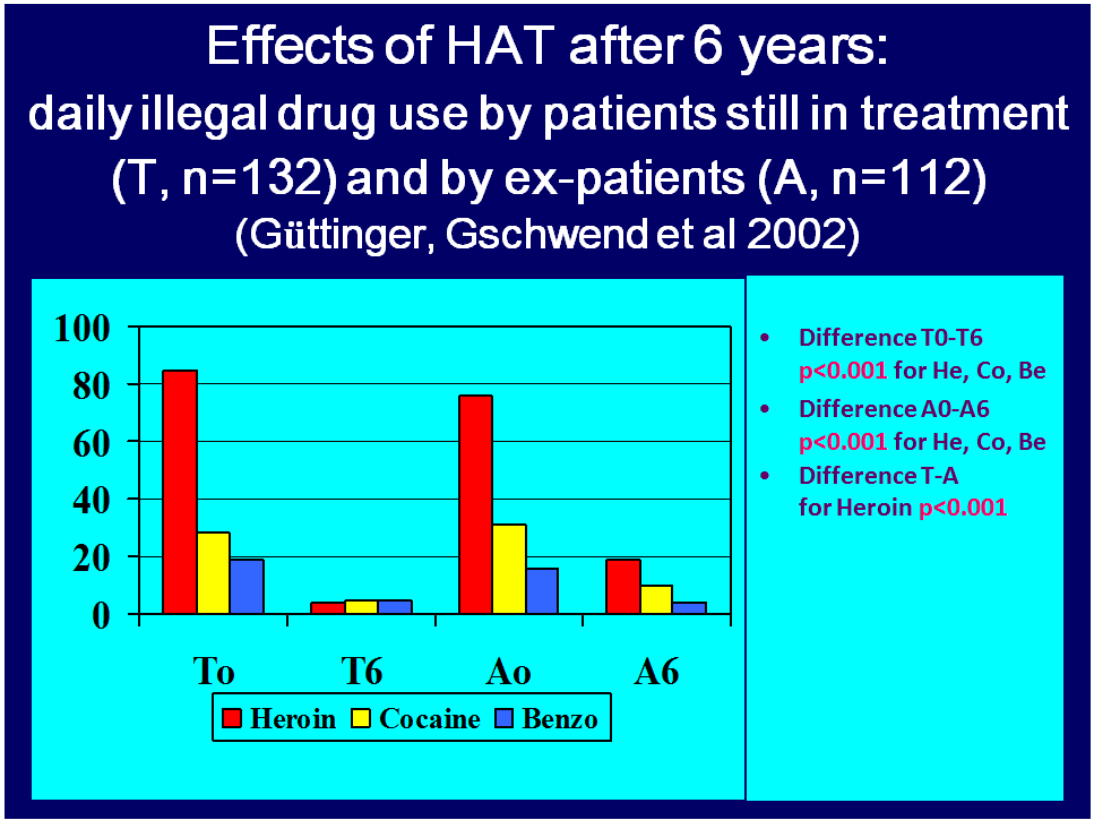

Figure 3. Effects of heroin-assisted treatment after 6 years: Daily illegal drug use by patients still in treatment and ex-patients.

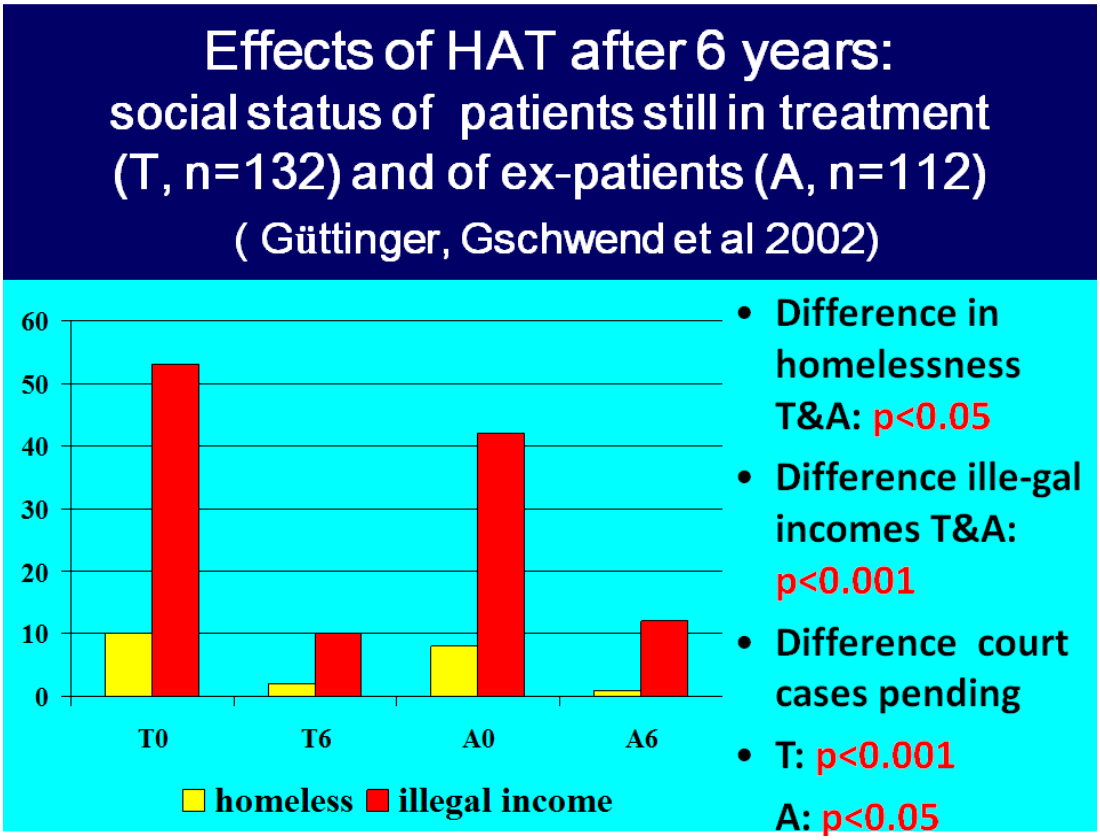

Figure 4. Effects of heroin-assisted treatment after 6 years: Social status of patients still in treatment and ex-patients.

The fifth step involved refuting major concerns. The new policy as a whole was considered to be a wrong signal, inviting increased incidence of heroin use, and heroin-assisted treatment was considered a 'trap,' that is, patients would never be able to leave the programme. Other concerns included that it would destroy other treatment approaches, especially abstinence-oriented residential therapy, and that it would absorb human and financial resources that could be used in a better way.

Instead, the data showed that the incidence of new heroin use dropped significantly (Figure 37) – effectively (and unexpectedly) to the level of the late 70s. The average duration of heroin-assisted treatment was just under 3 years, after which patients moved on to other forms of treatment (including drug-free treatment), refuting the idea that people would be there for a lifetime (Figure 38). Regarding effects on other treatments, utilisation of heroin-assisted treatment was about the same as drug-free residential treatment, meaning that the latter had not been replaced. However, the major therapeutic answer for heroin addiction still is methadone and buprenorphine maintenance (Figure 39).

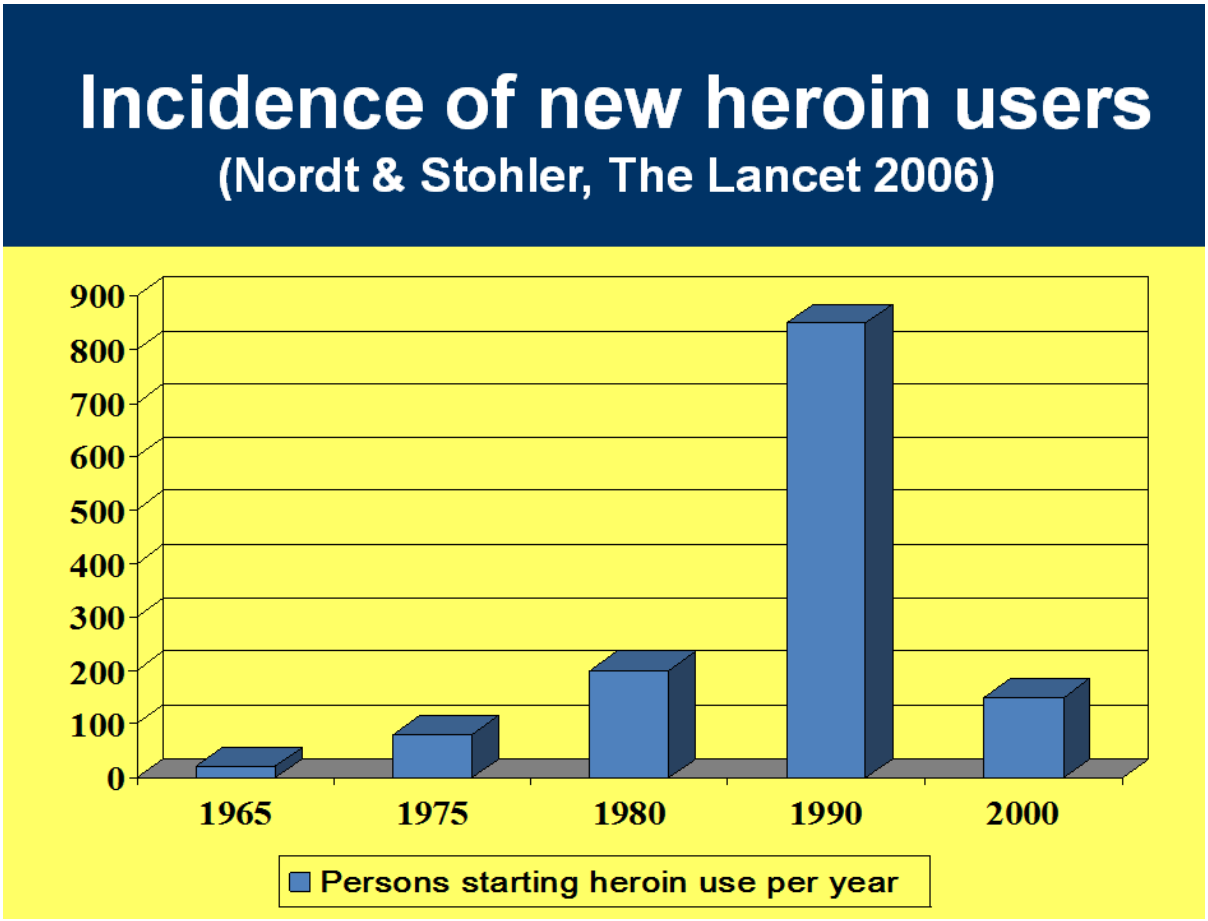

Figure 5. Incidence of new heroin users.

Exits from HAT CH 2000-2011										
Reasons for leaving HAT	2000 & 2001		2002 - 2004		2005 - 2007		2008 & 2009		2010 & 2011	
	N	%	N	%	N	%	N	%	N	%
Opiate replacement therapy	84	33.7	68	36.2	181	45.5	133	49.8	109	45.2
Other treatment	6	2.4	0	0.0	20	5.0	15	5.6	28	11.6
Drug-free therapy	41	16.5	32	17.0	58	14.6	30	11.2	23	9.5
Health reasons	22	8.8	8	4.3	36	9.0	38	14.2	33	13.7
Excluded	52	20.9	43	22.9	74	18.6	24	9.0	32	13.3
Other reasons	44	17.7	37	19.7	29	7.3	27	10.1	16	6.6
Total	249	100.0	188	100.0	398	100.0	267	100.0	241	100.0
Missing data	11		27		32		15		19	

Figure 6 (Table 5). Exits from heroin-assisted treatment, 2000-2011.

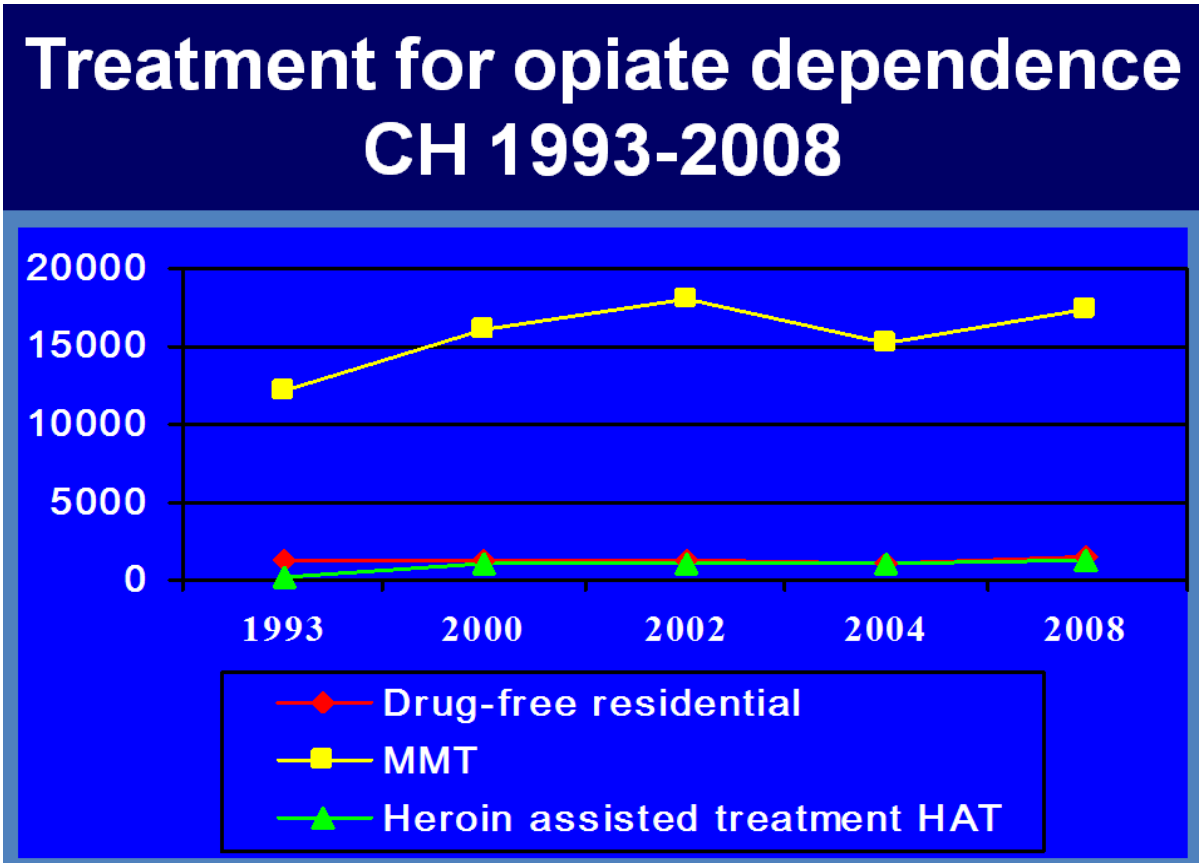

Figure 7. Treatment for opiate dependence, 1993-2008.

Concerning the economic costs and benefits of the new policy (Step 6), the benefits amounted to nearly twice the costs (Figure 40). During the 3-year study, the main costs were from staff, as running clinics with multiple supervised injections per day and providing a comprehensive assessment and treatment programme is very staff-intensive. The main benefits came from reductions in delinquency, law enforcement costs, and hospitalisation costs. Per patient per year, the cost was calculated to be roughly 20,000 Swiss Francs. The amount and cost of diamorphine used for treatment (246 kg diamorphine are produced or imported and almost half of it in the form of tablets and not injections) was also a surprise result – it was not expected that oral heroin would have such a good acceptance with patients, replacing injections at an increasing rate.

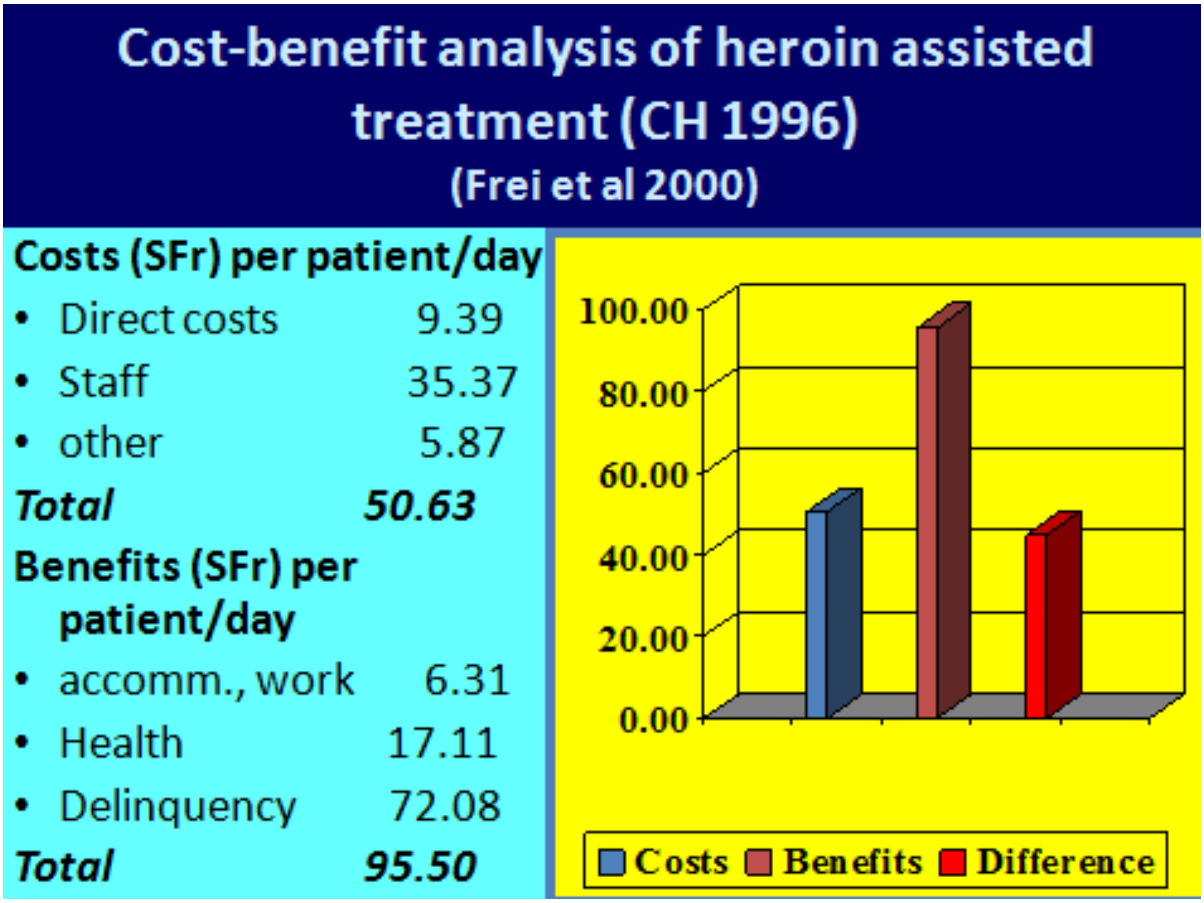

Figure 8. Cost-benefit analysis of heroin assisted treatment (CH 1996).

As a final step, the study moved on to become routine treatment. This involved: registration of heroin as a medicine for chronic opiate addiction (2001); funding of this treatment by health insurance by 80%, the rest coming from health and social welfare; producing an excellent 'best practice handbook' for staff and health authorities, publically available on the website of the federal office; continued education of staff at 23 clinics; adaptation of regimes to changing needs of patients, especially dual diagnosis patients and cocaine use; continued monitoring and evaluation; and research projects and publications to make transparent the whole process and the outcomes of the process.