

## Scaling up opioid dependence treatment in low- and middle-income settings

Zunyou Wu<sup>a</sup> & Nicolas Clark<sup>b</sup>

Opioids (i.e. opium, heroin and prescription pain relievers) rank third in the world among drug classes in terms of the number of users. Opioid dependence has a worldwide prevalence that ranges from 0.6 to 0.8% and opioid consumption and the demand for treatment for dependence are highest in Europe and Asia.<sup>1</sup> Opioid users are at particularly high risk of death from overdose. Those who inject opioids also face the risk of infection with the human immunodeficiency virus (HIV) and the hepatitis C virus (HCV) as a result of unsafe injecting behaviour.<sup>2,3</sup> In this issue, Mathers et al. present the results of a meta-analysis of mortality rates among 67 cohorts of people who injected illicit drugs, including 14 from low- and middle-income countries. Their results clearly show higher rates of death in low- and middle-income country cohorts and in HIV-positive people who use opioids, as well as during off-treatment periods.<sup>4</sup> There is good evidence that opioid agonist maintenance treatment can greatly reduce harm by preventing HIV and HCV infection<sup>5</sup> and reducing the risk of death from these infections and drug overdose.<sup>6</sup> Thus, strategies for scaling up opioid agonist maintenance treatment in low- and middle-income countries should be prioritized.

### Shifting from punishment to treatment

Because opioid dependence has historically been attributed to low moral character and lack of willpower, many countries have tackled the problem through punitive measures such as incarceration and detoxification or rehabilitation in compulsory treatment centres.<sup>7</sup> Evidence from a wide range of research disciplines has since advanced our understanding of the pathophysiology of opioid dependence. Because we now know that it

produces long-term changes in the brain's neural circuits and follows a relapsing, remitting course that makes abstinence very difficult to achieve,<sup>7</sup> many countries have shifted away from punishment and moved towards the medical treatment of people dependent on opioids. However, punitive approaches are still prevalent, particularly in low- and middle-income countries in Asia. As a result, various international organizations have denounced human rights violations and drawn attention to the health risks and lack of efficacy of these punitive strategies.<sup>8</sup> The benefits of different approaches are still being debated,<sup>9-11</sup> but continued movement towards therapeutic rather than punitive measures is clearly essential for the epidemic of opioid dependence to be successfully controlled.

### Expanding integrated, comprehensive services

According to guidelines issued by the World Health Organization (WHO), best practice in the "psychosocially-assisted pharmacological treatment" of opioid dependence consists of methadone maintenance treatment, combined with one or more of a broad range of ancillary support services, such as counselling or contingency management.<sup>7</sup> Despite methadone's proven effectiveness and affordability, methadone maintenance treatment is still unavailable in many low- and middle-income countries where it is desperately needed.<sup>12</sup> Thus, expansion of treatment coverage to include more of the world's opioid users should be prioritized. Although methadone is the recommended drug, other options, such as buprenorphine (an opioid agonist) for maintenance and naltrexone (an opioid antagonist) for relapse prevention, should be made available to meet the individual needs of a higher fraction of the people who use opioids.<sup>7</sup> In

addition, psychosocial support is critical to recovery because opioid dependence results in complex cognitive, behavioural and psychological dysfunction, including depression, anxiety and post-traumatic stress disorder.<sup>7</sup> Similarly, since HIV and HCV infections and tuberculosis are common among people who use opioids, a growing body of evidence suggests that integrated care services for disease management will improve outcomes in a variety of settings,<sup>7</sup> including China, as discussed by Zhao et al.<sup>6</sup> Thus, the expansion of psychosocial services and infectious disease care services and their co-location and integration with treatment for opioid dependence should be strongly encouraged. The rapidly growing epidemic of dependence on prescription opioids is largely confined to the United States of America but is predicted to spread to other high-income countries and to low- and middle-income countries as well.<sup>13</sup> By anticipating the problem and being prepared to tackle it through effective treatment solutions, low- and middle-income countries will gain an important advantage in their fight against the epidemic of opioid dependence. In this issue, Gowing et al.<sup>14</sup> underscore that good documentation and data collection are also critical for promoting and implementing these strategies in low- and middle-income countries.

Low- and middle-income countries generally lack the resources to quickly implement and scale up treatment for opioid dependence. They need to make a strong political and financial commitment to do so now. Scaling up treatment today can save millions of lives and billions of dollars that are being lost to opioid dependence every year. ■

### References

Available at: <http://www.who.int/bulletin/volumes/91/2/12-110783>

<sup>a</sup> National Center for AIDS/STD Control and Prevention, Chinese Center for Disease Control and Prevention, 155 Changbai Road, Changping District, Beijing, 102206, China.

<sup>b</sup> Department of Mental Health and Substance Abuse, World Health Organization, Geneva, Switzerland.  
Correspondence to Zunyou Wu (e-mail: wuzunyou@chinaaids.cn).

## References

1. *World drug report 2012*. Vienna: United Nations Office on Drugs and Crime; 2012. Available from: <http://www.unodc.org/unodc/en/data-and-analysis/WDR-2012.html> [accessed 8 January 2013].
2. Degenhardt L, Hall W. Extent of illicit drug use and dependence, and their contribution to the global burden of disease. *Lancet* 2012;379:55–70. doi:10.1016/S0140-6736(11)61138-0 PMID:22225671
3. Degenhardt L, Bucello C, Mathers B, Briegleb C, Ali H, Hickman M et al. Mortality among regular or dependent users of heroin and other opioids: a systematic review and meta-analysis of cohort studies. *Addiction* 2011;106:32–51. doi:10.1111/j.1360-0443.2010.03140.x PMID:21054613
4. Mathers BM, Degenhardt L, Bucello C, Lemon J, Wiessing L, Hickman M. Mortality among people who inject drugs: a systematic review and meta-analysis. *Bull World Health Organ* 2013;91:102–123.
5. MacArthur G, Minozzi S, Martin N, Vickerman P, Deren S, Bruneau J et al. Opiate substitution treatment and HIV transmission in people who inject drugs: systematic review and meta-analysis. *BMJ* 2012;345:e5945. doi:10.1136/bmj.e5945 PMID:23038795
6. Zhao Y, Shia CX, McGoogana JM, Rou K, Zhang F, Wu Z. Methadone maintenance treatment and mortality in HIV-positive people who inject opioids in China. *Bull World Health Organ* 2013;91:93–101.
7. *Guidelines for the psychosocially assisted pharmacological treatment of opioid dependence*. Geneva: World Health Organization; 2009. Available from: <http://www.who.int/hiv/pub/idu/opioid> [accessed 8 January 2013].
8. *Joint statement: compulsory drug detention and rehabilitation centers*. Bangkok: International Labour Organisation, Office of the High Commissioner for Human Rights, United Nations Development Programme, United Nations Educational, Scientific and Cultural Organisation, United Nations Population Fund, United Nations High Commissioner for Refugees, United Nations Children's Fund, United Nations Office on Drugs and Crime, United Nations Entity for Gender Equality and the Empowerment of Women, World Food Programme, World Health Organization & Joint United Nations Programme on HIV/AIDS; 2012.
9. Wu Z. Arguments in favour of compulsory treatment of opioid dependence. *Bull World Health Organ* 2013;91:142–145.
10. Hall W, Carter A. Advocates need to show compulsory treatment of opioid dependence is effective, safe and ethical. *Bull World Health Organ* 2013;91: 146.
11. Clark N, Busse A, Gerra G. Voluntary treatment, not detention, in the management of opioid dependence. *Bull World Health Organ* 2013;91:146–147.
12. Mathers BM, Degenhardt L, Ali H, Wiessing L, Hickman M, Mattick RP et al. 2009 Reference Group to the UN on HIV and Injecting Drug Use. HIV prevention, treatment, and care services for people who inject drugs: a systematic review of global, regional, and national coverage. *Lancet* 2010;375:1014–28. doi:10.1016/S0140-6736(10)60232-2 PMID:20189638
13. Holmes D. Prescription drug addiction: the treatment challenge. *Lancet* 2012;379:17–8. doi:10.1016/S0140-6736(12)60007-5 PMID:22232799
14. Gowing LR, Hickman M, Degenhardt L. Mitigating the risk of HIV infection with opioid substitution treatment. *Bull World Health Organ* 2013;91:148–149.