A recent comprehensive review of the literature found that the answer to both these questions is unequivocally – YES.

The review by the Treatment Research Institute showed that the use of these medications for the treatment of opioid use disorder is both clinically and cost effective.

CLINICAL EFFECTIVENESS

Methadone: Methadone, the most thoroughly researched medication, blocks the “high” of taking opioids, suppresses withdrawal symptoms and curbs cravings.

Methadone has been clinically proven to reduce opioid use more than (1) no treatment, (2) outpatient treatment without medication, (3) outpatient treatment with placebo medication, and (4) detoxification only. Additionally, methadone has proven to reduce several opioid use related health problems, including HIV/AIDS and is associated with decreased use of more intensive medical services, such as utilization of Emergency Department and inpatient hospital services.
Opioid use disorders in the United States have reached epidemic levels. Since 1990, there has been exponential growth in opioid-related hospitalizations, overdoses, and deaths. Medications for the treatment of opioid use disorder have proven to be both clinically and cost-effective, but are seriously underutilized despite epidemic growth in the number and severity of opioid-related deaths. Better physician training and more facilitative policies for medication for the treatment of opioid use disorder could reduce mortality with substantial cost savings.

**Buprenorphine**: Buprenorphine and methadone have similar track records of success for treating opioid use disorder. Like methadone, buprenorphine also blocks the "high" of taking opioids, suppresses withdrawal symptoms and curbs cravings.

Buprenorphine treatment provides two key benefits over methadone: there is less risk of overdose from buprenorphine, and it can be prescribed in a physician’s office rather than through a specialized treatment center.

**Naltrexone**: The newest of the three medications, naltrexone, can be taken orally (daily) or extended release injection (monthly). Like methadone and buprenorphine, naltrexone binds to opioid receptors in the brain, blocking a patient’s ability to get "high" from opioids. Unlike methadone or buprenorphine, however, naltrexone does not produce euphoria even when not given at adequate dose; it has no withdrawal symptoms or abuse potential. Naltrexone is also approved by the FDA as a treatment for alcohol use disorder. While naltrexone’s effectiveness is clear, its oral version has low retention rates, and its depot injection is the most expensive of the opioid use disorder medications.

Further, no studies of injectable naltrexone’s cost effectiveness have yet been performed.

**COST EFFECTIVENESS**

Research has shown that methadone and buprenorphine are both cost-effective interventions for the treatment of opioid use disorder; compared to other opioid treatment interventions, these medications result in greater improvements at a lower overall cost as well as reduced medical costs related to reductions in hospital inpatient and emergency department visits.

**Methadone**: The most thoroughly researched drug for opioid use disorder. Various studies have shown clinically and statistically significant reductions in opioid misuse and opioid use-related incidence of infectious diseases and crimes with averted costs ranging from two to four times the costs of methadone per year. A 2008 study showed that reductions in robbery alone justified the costs associated with outpatient methadone treatment (Basu et al., 2008). However, it must be stressed that cost-offsets for methadone pertain to its use for longer term maintenance therapy, as it does not have long-term benefit when used for detoxification only.

**Naltrexone**: Due to its relatively recent FDA approval (2010), extended release, injectable naltrexone is the least studied of the three medications. Oral naltrexone is inexpensive, but high patient attrition rates are common. Injectable naltrexone, on the other hand, shows promise in cost-analysis studies, but no cost-effectiveness studies have been conducted yet. Injectable naltrexone is also the most expensive of these medications, at approximately $700 per monthly dose.