A Randomized Controlled Trial of Monetary Incentives vs. Outreach to Enhance Adherence to the Hepatitis B Vaccine Series among Injection Drug Users


Although hepatitis B virus (HBV) infection has been preventable since the development of the hepatitis B vaccine in 1982, over 80% of injection drug users (IDUs) have markers of prior hepatitis B infection. Only 5 to 10% have been immunized. Poor adherence among IDUs is cited as the main deterrent to starting the vaccine series in this population. Among IDUs, barriers to vaccine adherence include lack of access to care, competing needs, poor relationships with health care providers, and lack of education or information. In the United States, concerns about adherence have resulted in IDUs neither being offered multidose vaccines, such as the hepatitis B vaccine, nor enrolled in Phase III trials of HIV candidate vaccines.

Through a randomized controlled trial, we compared the effectiveness of monetary incentives vs. outreach to improve IDUs’ adherence to the three-dose hepatitis B vaccine. In 1998 to 1999, we recruited HBV-susceptible IDUs from San Francisco streets. Eligible participants received their first dose of vaccine and were randomized to either receive monthly monetary incentives (n = 48) or maintain weekly contact with an outreach worker (n = 48) during the 6-month vaccine series. We found that all three doses of vaccine were received by 33 (69%) of IDUs in the monetary incentive arm and 11 (23%) in the outreach arm (odds ratio = 13.8; 95% confidence interval, 2.9, 128; P < 0.0001). In a multivariate model, receiving monetary incentives was independently associated with vaccine completion (AOR = 10.3; 95% CI =3.7, 29.0).

Among IDUs, monetary incentives were superior to outreach in achieving adherence to the multidose hepatitis B vaccine series. Monetary incentives may be adapted to future multidose candidate HIV vaccine trials in IDUs. It would be prudent for health departments to implement monetary incentive-based HBV vaccination campaigns with IDUs.

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