S 5 – Full One-Way Sensitivity Analyses Results

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable Name** | **Base Value** | **Low Input** | **High Input** | **Lower Bound(cost/user)** |  **Lower bound total heroin cost(in millions)** | **Lower Bound % of Base Case** | **Higher Bound(cost/user)** | **Higher bound total heroin cost(in millions)** | **Upper Bound % of Base Case** |
| Number of heroin users | 1,008,000[1, 2] | 324,000[2] | 1,500,000[3] | $50,799.14 | $16,458.92 | 32.14% | $50,799.14 | $76,198.71 | 148.81% |
| Cost of HCV Treatment | $81,633.51[4] | $18,976.95[5] | $101,380.00[4] | $43,268.70 | $43,614.85 | 85.18% | $53,172.39 | $53,597.77 | 104.67% |
| Cost of incarceration | $23,681.71[6] | $15,872.80[7] | $65,299.89[7] | $47,865.92 | $48,248.85 | 94.23% | $57,672.89 | $58,134.27 | 113.53% |
| Proportion of users in Prison | 0.1984[1, 2] | 0.1984[1, 2] | 0.36[1] | $50,798.76 | $51,205.15 | 100.00% | $55,562.32 | $56,006.82 | 109.38% |
| Lost productivity by incarcerated user | $28,885.46[8] | $28,885.46[8] | $44,622.10[8] | $50,799.14 | $51,205.53 | 100.00% | $53,899.02 | $54,330.21 | 106.10% |
| Lost productivity by non-incarcerated users outside of prison | $4,910.53[8, 9] | $4,910.53[8, 9] | $7,585.76[8, 9] | $50,799.14 | $51,205.53 | 100.00% | $52,927.76 | $53,351.18 | 104.19% |
| Cost of HIV Treatment | $23,681.71[10] | $18,520.02[11] | $54,903.49[11] | $50,605.08 | $51,009.92 | 99.62% | $51,972.95 | $52,388.74 | 102.31% |
| Ratio of incarcerated to non-incarcerated users treated for health condition | 1.00 | 0.75^ | 1.25^ | $50,168.83 | $50,570.18 | 98.76% | $51,429.44 | $51,840.88 | 101.24% |
| Proportion of non-incarcerated users with HIV  | 0.07[12] | 0.07[12] | 0.224[13] | $50,799.14 | $51,205.53 | 100.00% | $51,744.27 | $52,158.23 | 101.86% |
| Proportion of non-incarcerated users treated for heroin use disorder | 0.110[14] | 0.110[14] | 0.197[15] | $50,799.14 | $51,205.53 | 100.00% | $51,429.41 | $51,840.85 | 101.24% |
| Cost of Neonatal Abstinence Syndrome treatment | $68,856.48[16] | $54,230.37[17] | $96,419.71[16] | $50,582.67 | $50,987.33 | 99.57% | $51,207.07 | $51,616.73 | 100.80% |
| Cost of heroin use disorder treatment | $9,187.08[9] | $3,986.06[18] | $9,187.08[9] | $50,195.04 | $50,596.60 | 98.81% | $50,799.14 | $51,205.53 | 100.00% |
| Proportion of non-incarcerated users treated for HIV | 0.305[19] | 0.305[19] | 0.408[20] | $50,799.14 | $51,205.53 | 100.00% | $50,936.00 | $51,343.49 | 100.27% |
| Lost productivity by dead user | $28,885.46[8] | $28,885.46[8] | $44,622.10[8] | $50,799.14 | $51,205.53 | 100.00% | $50,914.61 | $51,321.93 | 100.23% |
| Proportion of incarcerated users treated for HIV | 0.333[21] | 0.333[21] | 0.408[20] | $50,799.14 | $51,205.53 | 100.00% | $50,908.38 | $51,315.65 | 100.22% |
| Proportion of incarcerated users treated for use disorder | 0.141[22] | 0.141[22] | 0.17[23] | $50,799.14 | $51,205.53 | 100.00% | $50,851.93 | $51,258.74 | 100.10% |
| Proportion of non-incarcerated users treated for HBV | 0.14[24] | 0.14[24] | 0.17[24] | $50,799.14 | $51,205.53 | 100.00% | $50,848.32 | $51,255.11 | 100.10% |
| Risk of dying while non-incarcerated and on use disorder treatment  | 0.0023[25] | 0.0023[25] | 0.016[26, 27] | $50,799.14 | $51,205.53 | 100.00% | $50,830.79 | $51,237.44 | 100.06% |
| Cost of treatment for Tuberculosis | $545.15[28] | $545.15[28] | $1,681.37[28] | $50,799.14 | $51,205.53 | 100.00% | $50,819.76 | $51,226.32 | 100.04% |
| Proportion of incarcerated users receiving HBV treatment  | 0.14[24] | 0.14[24] | 0.17[24] | $50,799.14 | $51,205.53 | 100.00% | $50,807.84 | $51,214.30 | 100.02% |
| Risk of dying while incarcerated and on use disorder treatment  | 0.0023[25] | 0.0023[25] | 0.016[26, 27] | $50,799.14 | $51,205.53 | 100.00% | $50,799.99 | $51,206.39 | 100.00% |
| Probability of having TB given patient is HIV-positive while incarcerated | 0.16[29] | 0.16[29] | 0.3[30] | $50,799.14 | $51,205.53 | 100.00% | $50,799.37 | $51,205.76 | 100.00% |
| Probability of having TB given patient is HIV-positive while non-incarcerated | 0.16[29] | 0.16[29] | 0.3[30] | $50,799.14 | $51,205.53 | 100.00% | $50,799.36 | $51,205.75 | 100.00% |

^Assumption

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