IDU-HIV programs

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Interventions included in this evidence brief are:

1. IDU-HIV: outreach
2. IDU-HIV: needle exchange
3. IDU-HIV: opioid substitution therapy*

Description of condition and intervention

In many countries, injectable drug users are the driving force behind HIV/AIDS epidemics. Due to a variety of causes, these vulnerable groups have limited access to HIV prevention and treatment programs. A variety of interventions aimed towards IDUs could be beneficial in preventing HIV transmission and treatment. Outreach programs, needle exchange programs, and opioid replacement therapy are all examples of this.

International guidelines

Organization	Indications/recommendations	Applicability in LIC & Lower MIC settings

Intervention attributes

Type of interventions & Delivery platform

Table 1: Type of interventions & delivery platform

Intervention	Type	Delivery platform
IDU-HIV: outreach	Prevention	Community
IDU-HIV: needle exchange	Prevention	Health centre
IDU-HIV: opioid substitution therapy*	Prevention	Health centre

Equity

In addition to considerations like cost-effectiveness and health systems factors, dimensions of equity can be relevant for priority setting. The opportunity for a long and healthy life varies according to the severity of a health condition that individuals might have, so there are inequities in individuals' opportunities for long and healthy lives based on the health conditions they face. Metrics used to estimate the severity of illness at an individual level can be used to help prioritize those with less opportunity for lifetime health. FairChoices: DCP Analytics Tool uses Health adjusted age of death (HAAD), which is a metric that estimates the number of years lived from birth to death, discounting years lived with disability. A high HAAD thus represents a disease less severe in terms of lifetime health loss, while a low HAAD represents a disease that is severe on average, causing early death or a long period of severe disability. It is also possible to estimate the distribution of HAAD across individuals with a health condition. FairChoices shows for each intervention an average HAAD value of the conditions that are affected by respective interventions that have health effects. Additionally, a plot shows HAAD values for around 290 conditions (Johansson KA et al 2020).

Time dependence
Low level of urgency. Treatment outcomes not highly affected by some days of delay.

Population in need of interventions

Table 2: Population in need of interventions

Intervention	Treated population		Affected population	
	Treated age	Treated fraction	Affected age	Affected fraction
1. IDU-HIV: outreach	15 to 99 years	Proportion of HIV due to IDU in Sub-Saharan Africa=0.03	15 to 99 years	Proportion of HIV due to IDU in Sub-Saharan Africa=0.03
2. IDU-HIV: needle exchange	15 to 99 years	Proportion of HIV due to IDU in Sub-Saharan Africa=0.03	15 to 99 years	Proportion of HIV due to IDU in Sub-Saharan Africa=0.03
3. IDU-HIV: opioid substitution therapy*	*Effects and costs associated with provision of this intervention are considered in management of addiction disorders in mental health cluster.			

Disease state addressed

The included interventions target HIV/AIDS.

Intervention effect and safety

Table 3: Effect and safety of interventions for IDU-HIV programs

Effect of intervention		Certainty of evidence
Incidence	70% reduction in HIV incidence in attendees of a needle-exchange program (Vlahov, Junge 1998)	Cohort study

FairChoices
DCP Analytic Tool

Model assumptions

Table 4: Summary of model parameters and values used in FairChoices – DCP Analytical Tool

Category	Model parameter	Notes
Intervention	IDU-HIV: outreach IDU-HIV: needle exchange IDU-HIV: opioid substitution therapy*	
Cost calculation		
Treated population	See Table 2	Epidemiological data from Global Burden of Disease Study 2019
Effect calculation		
Affected population	See Table 2	
Affected fraction	See Table 2	
Comparison	No intervention	

Incidence reduction of HIV
  IDU-HIV: outreach
  IDU-HIV: needle exchange
  IDU-HIV: opioid substitution therapy*
	0.7
	0.7
		Assumed same as for needle exchange program

Intervention cost

The provision of harm reduction services, i.e., safe injection equipment and opioid substitution therapy, to people who inject drugs is estimated to be $6.64 per person-year in specified population in 2016 USD in low-income countries (Guinness L et al 2009).

References

Vlahov, Junge 1998: Vlahov D, Junge B. The role of needle exchange programs in HIV prevention. Public Health Rep. 1998 Jun;113 Suppl 1(Suppl 1):75-80. PMID: 9722812; PMCID: PMC1307729.

EVIDENCE BRIEF

IDU-HIV programs

(DCP4 ID: HIVSTI04-01,02,03)
Cluster: HIVSTI

FairChoices
DCP Analytic Tool

Johansson KA, Coates MM, Økland JM, Tsuchiya A, Bukhman G, Norheim OF, Haaland Ø. Health by disease categories. Distributional Cost-Effectiveness Analysis: Quantifying Health Equity Impacts and Trade-Offs. 2020 Sep 30:105.

Guinness L et al 2009: Guinness L, Vickerman P, Quayyum Z, Foss A, Watts C, Rodericks A, Azim T, Jana S, Kumaranayake L. The cost-effectiveness of consistent and early intervention of harm reduction for injecting drug users in Bangladesh. Addiction. 2010 Feb;105(2):319-28. doi: 10.1111/j.1360-0443.2009.02755.x. Epub 2009 Nov 18. PMID: 19922513.

Appendix

Literature Review for effectiveness & safety

This literature search is an example of Level 1 search for intervention inputs taken from DCP3 or generated in an ad hoc manner (e.g., quick google search found one study of cervical cancer screening cost-effectiveness that was used to create an effectiveness parameter for that intervention).

Level of evidence of efficacy studies:

1. low (expert opinions, case series, reports, low-quality case control studies)

2. moderate (high quality case control studies, low quality cohort studies)

3. high (high quality cohort studies, individual RCTs)

4. very high (multiple RCTs, metaanalysis, systematic review, clinical practice guidelines)