Policy Brief

HIV Projection in DKI Jakarta

Prepared by
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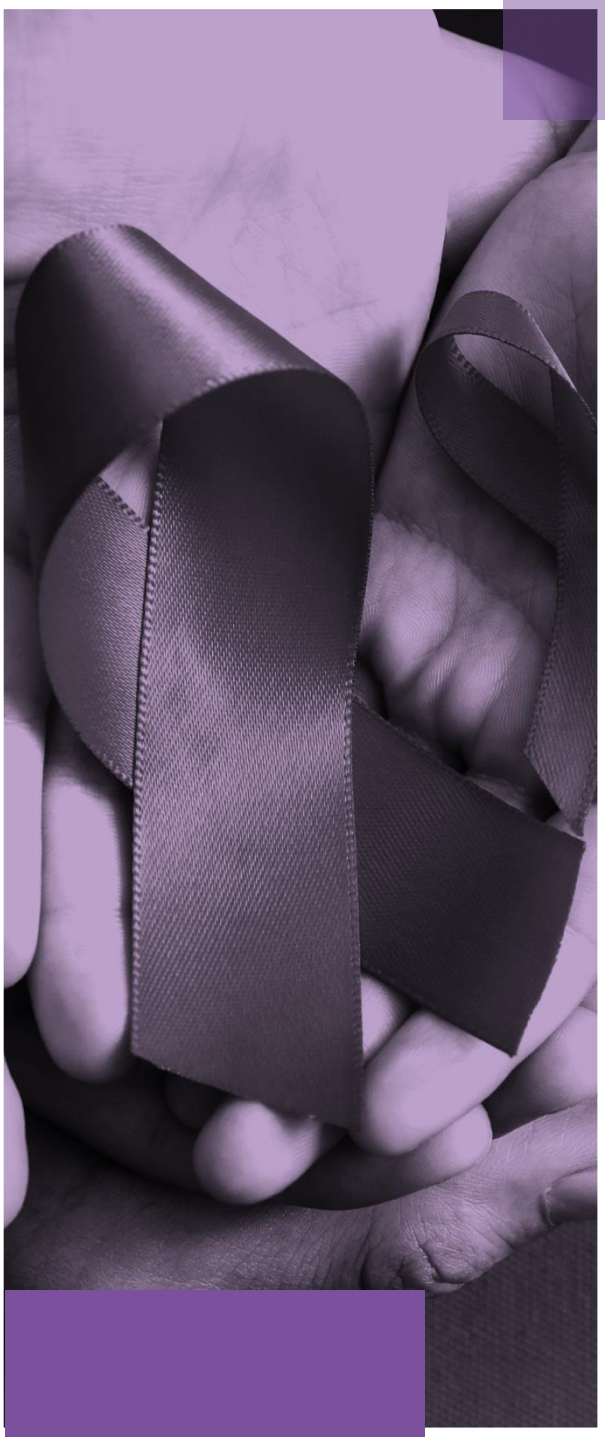


Background

As the capital of Indonesia, DKI Jakarta has the highest HIV prevalence in Indonesia (0,79% in 2020), and the number is four times higher than the national prevalence. It implies that HIV infection in DKI Jakarta is remains concentrated among the key population. According to national data, HIV prevalence among the men-sex-with-men group is highest compared to other groups (16%). Meanwhile, in DKI Jakarta, the highest HIV prevalence is among the IDU group (42,8%). Therefore, preventing and controlling the infection need targeted and strategic approaches. The HIV projection calculation by The AIDS Epidemic Modelling (AEM) is needed. It covers four aspects of information, which are target population, behavior and coverage program, epidemiology data, and unit cost.

Data Asumptions

Coverage of condom use		Cakupan among IDUs		ART coverage	
Parameter	%	Parameter	%	Parameter	%
FSW1	80,0	Needle sharing	40,0	Male	43,0
FSW2	80,0	OST	9,0	Female	28,0
MSM 1	73,1	NSP	37,0	Total	39,0
MSM 2	71,1				
Transgender	77,0				

Current HIV Condition in DKI Jakarta and Its Projection 2020-2030

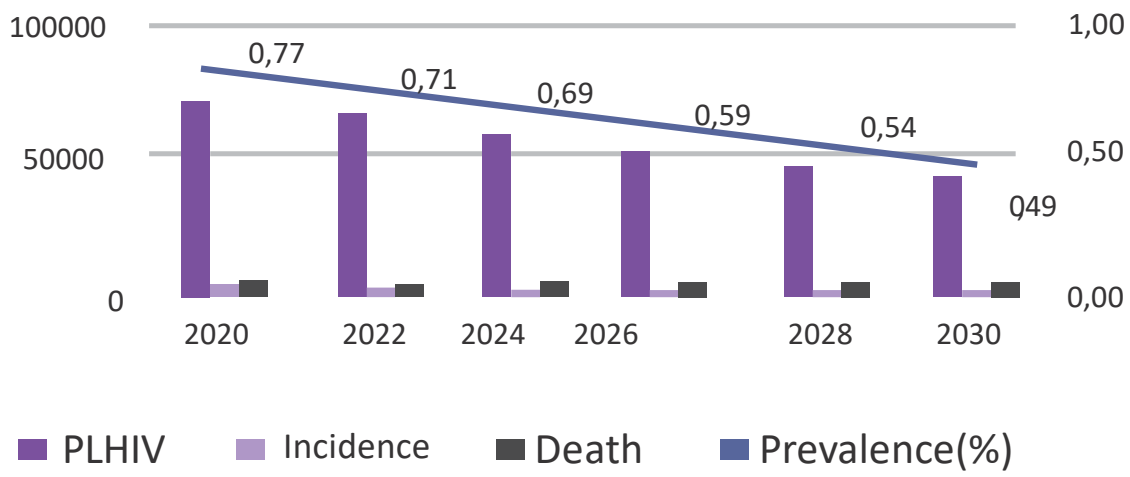
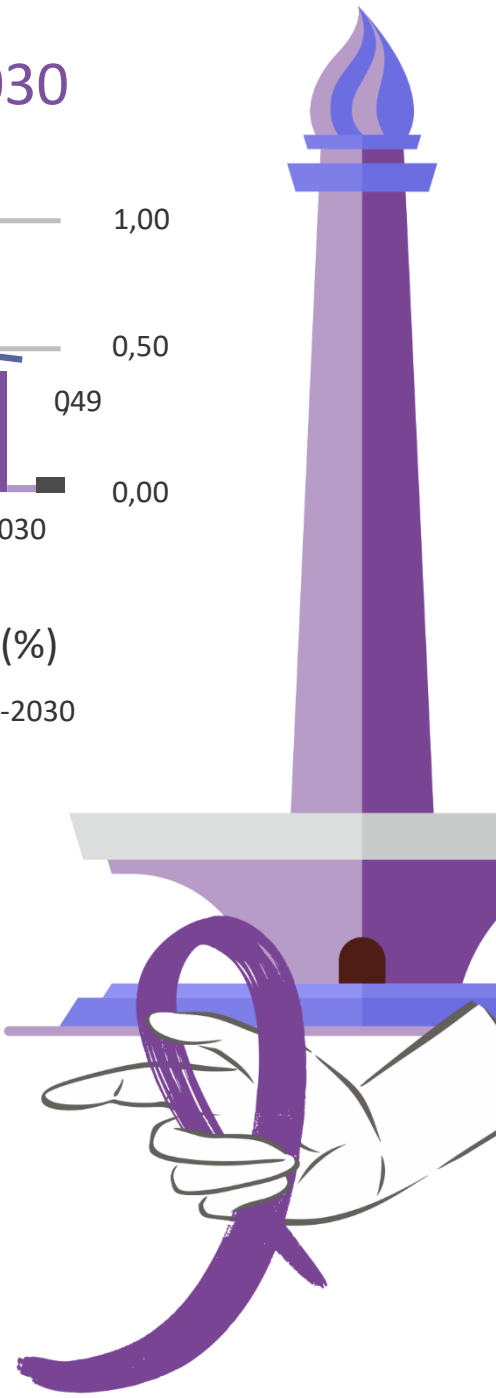
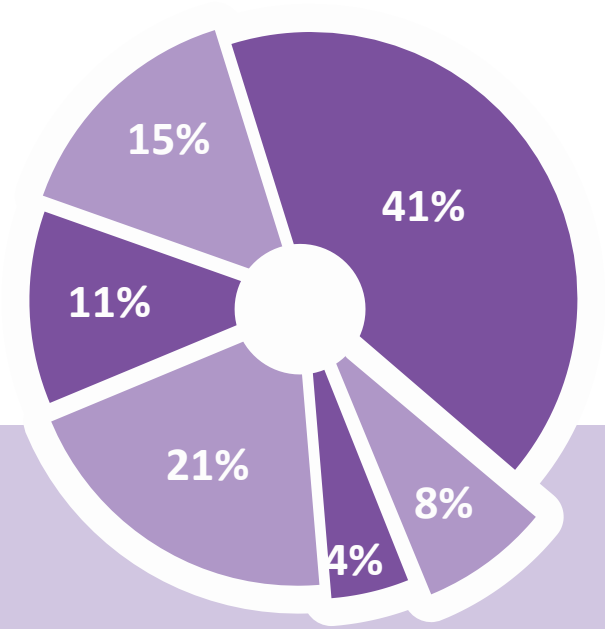


Figure 1. Current HIV Condition in DKI Jakarta and Its Projection 2020-2030

In 2020, 77 of 10,000 population in DKI Jakarta has HIV infection, with number of cumulative PLHIV around 60.903. Meanwhile, the reported incidence in 2020 is 1,907 cases and number of death reach 2,877. Parameter of HIV transmission shows the declining trend until 2030 (prevalence, PLHIV and incidence), except for death parameter that is expected to be increasing until 2030.





41% Husband to wife
21% LSL
15% Sex workers
11% Needle sharing
8% Wife to husband
4% Casual partner

Figure 2.
Mode of transmission HIV/AIDS among general population in DKI Jakarta 2020

Around 41% of HIV incidence in 2020 is attributed to the husband-to-wife transmission. It assumes that the husband are the client of FSW. This particular group play the big role to transmit HIV to their spouse (as low risk female group). If they not get the appropriate intervention, then it will contribute to the increased HIV incidence among general population.

Pertaining the ART need, as shown at figure 3, in 2020, the gap between PLHIV who get ART and PLHIV who need ART is quite significant (37,848 cases). With the current focus on treatment program, the gap will be estimated narrowed in 2030 (22,964 cases).

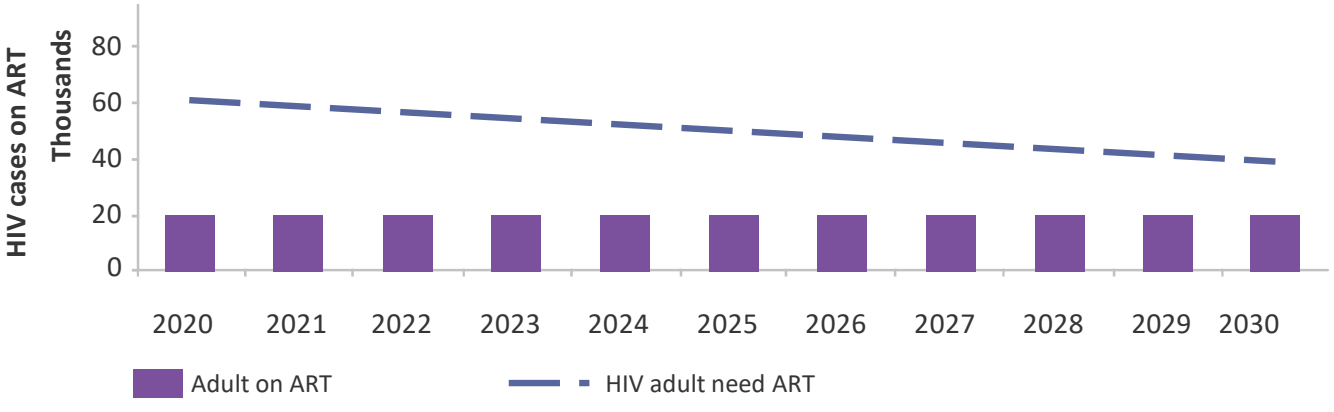


Figure 3. ART coverage in DKI Jakarta 2020

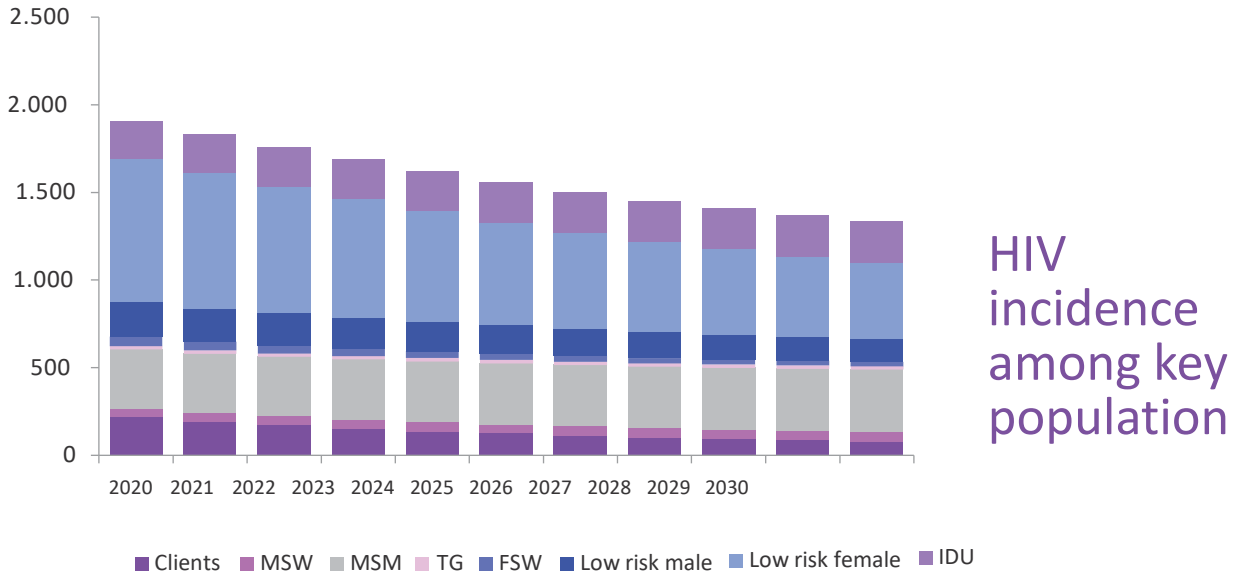
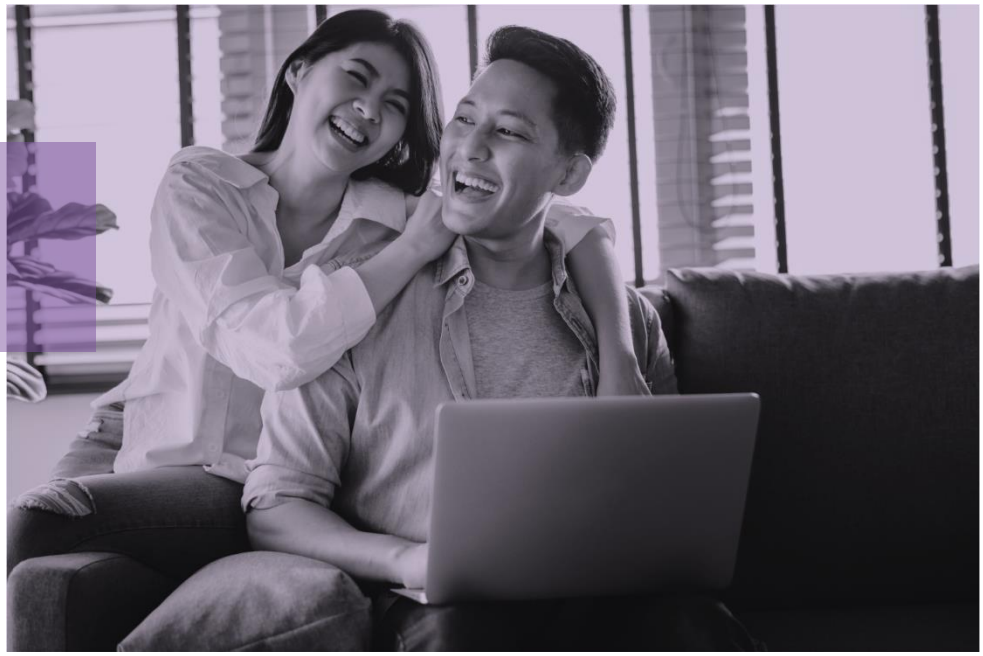


Figure 4. Trend of HIV incidence among key population in DKI Jakarta 2020-2030

Considering current HIV prevention and controlling efforts, the projection shows that number of incidence are significantly decreased among low-risk female and client groups. It is indicating that intervention program is remain targeted to FSW group. Low risk female (spouse of FSW client) and client are the group who is specifically related with the FSW and they are hardly to be reached. Once the HIV incidence among these group are decreased, it is indirectly implying the successful of the intervention among FSW group. However, among the IDU and LSL groups show the increased trend, that is showed that the intervention program among these groups need to be strengthened.



Intervention strategies with some scenarios

DKI Jakarta is one of priority provinces for the 90-90-90 fast tract program, i.e. 90% of people living with HIV know their status, 90% of those who know their status start ART, 90% of PLHIV who are on treatment achieve suppression the virus, that is expected to be achieved by 2030. With the large burden of HIV in DKI Jakarta today, efforts to accelerate the fast tract are needed to be achieved in faster time. Considering that all this time support for program implementation has come partly from GF, it is also necessary to consider a scenario if GF support is no longer available.

Baseline Scenario

The scenario that assumed that the packages of interventions in 2020 being implemented, intervention coverage and effectiveness would remain constant until 2030. This is a “business as usual” scenario

Fast Track 2024 Scenario

This scenario assumes that the response to HIV/ AIDS will be scaled up in terms of coverage and effectiveness (90-90-90) in 2024

Fast Track 2027 Scenario

This scenario assumes that the response to HIV/ AIDS will be scaled up in terms of coverage and effectiveness (90-90-90) in 2027

No GF-CSO Support Scenario

Government fund the HIV program independently without any support from CSOs and coverage of community outreach is 40%.

From these four scenarios, acceleration of fast tract 2024 and 2027 scenario will affect to significant decreased of HIV incidence. On fast tract 2024 scenario, the incidence will be estimated declined as 55.9% in 2024 (1,070 new cases) and 71.9% in 2030 (551 new cases). By implementing fast tract 2027 scenario, in 2024 dan 2030 will be decremental incidence as 45.4% and 71.9%. The opposite result is estimated when no GF-CSO support is implemented. In 2024, it is projected the increased incidence around 16.6% from 2020 and six year later (in 2030) the increased incidence is around 2.6%.

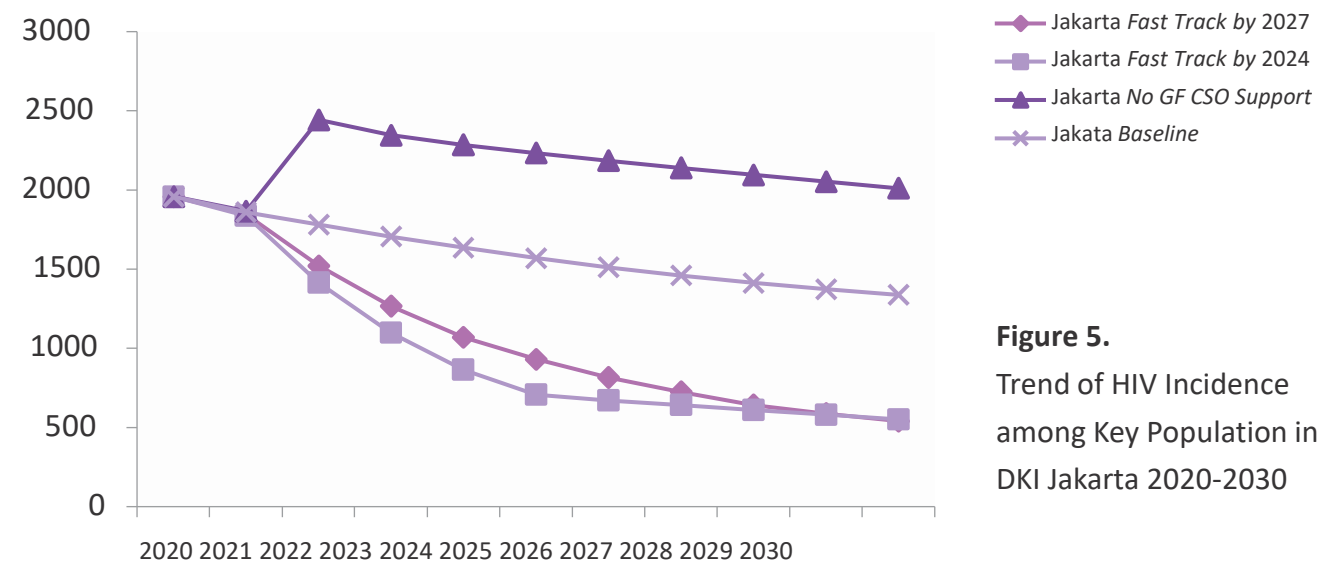


Figure 5.
Trend of HIV Incidence among Key Population in DKI Jakarta 2020-2030

Total Death and Number of Infection Averted

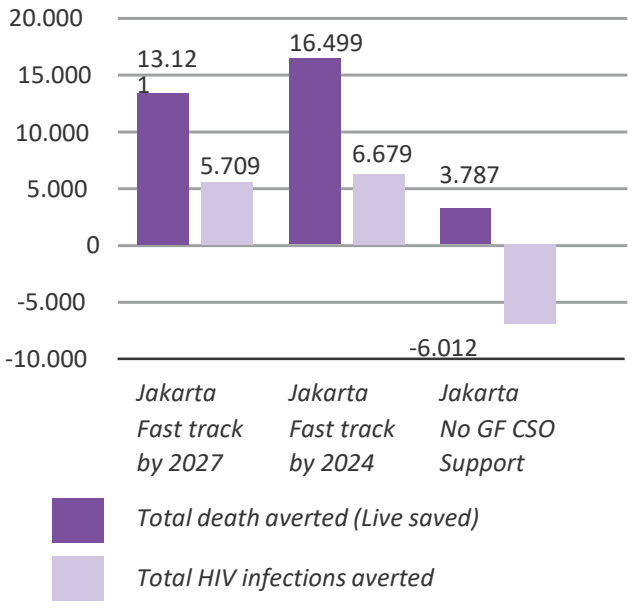


Figure 6.
Number of death and HIV incidence averted according to several scenarios

The highest cumulative number of incidence and number of death averted in 2020-2030 is among *fast track* 2024 scenario, which are 6,679 new cases and 16,499 death. Among scenario no GF-CSO support, there is will be increased number of incidence as 6.012 cases and decreased number of death as 3.787 in 2030 (see figure 6).

The implementation of the scenarios above will certainly have financing consequences. According to AEM impact analysis, the fast tract 2024 acceleration requires the highest cost for both the prevention and treatment components. An additional cost of 89% is required from the current program cost (baseline) or approximately USD163 million until 2030. Meanwhile for fast tract 2027 scenario, the additional cost needed is USD126 million for 10 years (2020-2030).

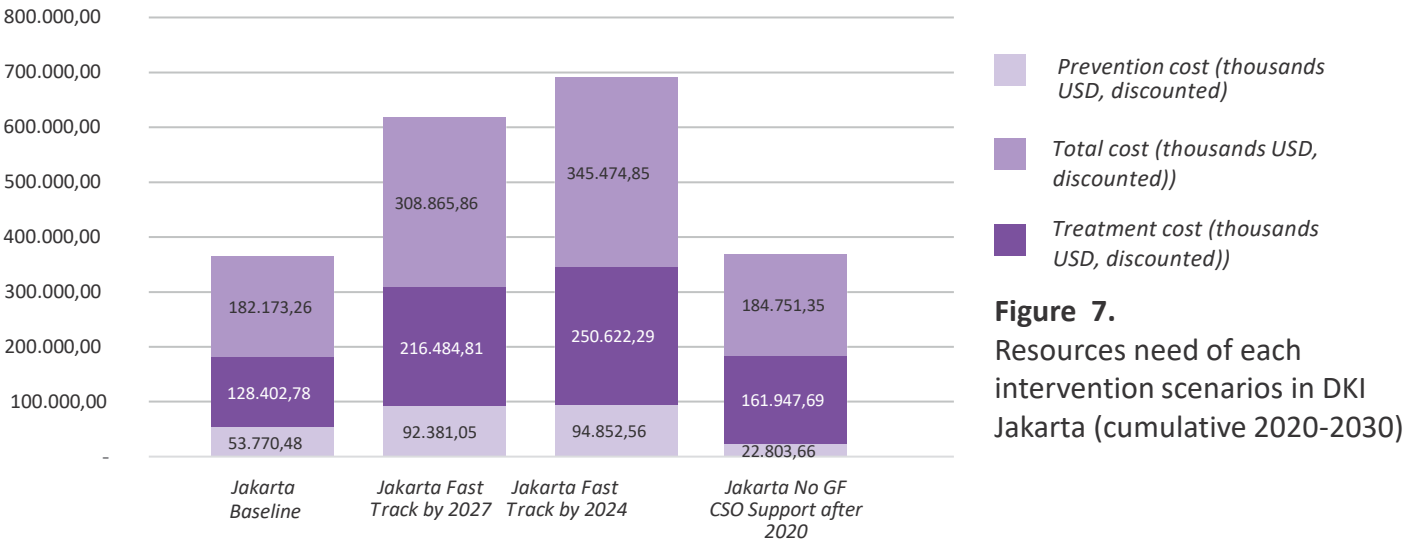


Figure 7.
Resources need of each intervention scenarios in DKI Jakarta (cumulative 2020-2030)

On fast track 2024 scenario, cost for infection averted in 2020-2030 is USD9,898 and it slightly higher compare to cost at fast tract 2027 scenario USD9,656. When no GF-CSO support scenario is implemented, cost needed per infection averted will be estimated USD681. Cumulative cost for death averted in 2020-2030 within both fast tract scenario 2024 and 2027 is above USD22,000. As showed in figure 8, cost per infection averted in no GF-CSO support scenario is negative. It means that there saving around USD429 for every death averted.

Cost benefit analysis reveals return of investment (RoI) is higher than the cost invested. The RoI on *fast track* 2024 and 2027 scenario is dan US$2,8 billion and US$2,3 billion and it implies every 1 dollar invested will return as USD18.56 and US19.02 in 2030.

Meanwhile, with the no GF-CSO support scenario, in general there will be lost around USD32.7 million or USD11.72 per USD1 spent.

Cost per infection and death averted

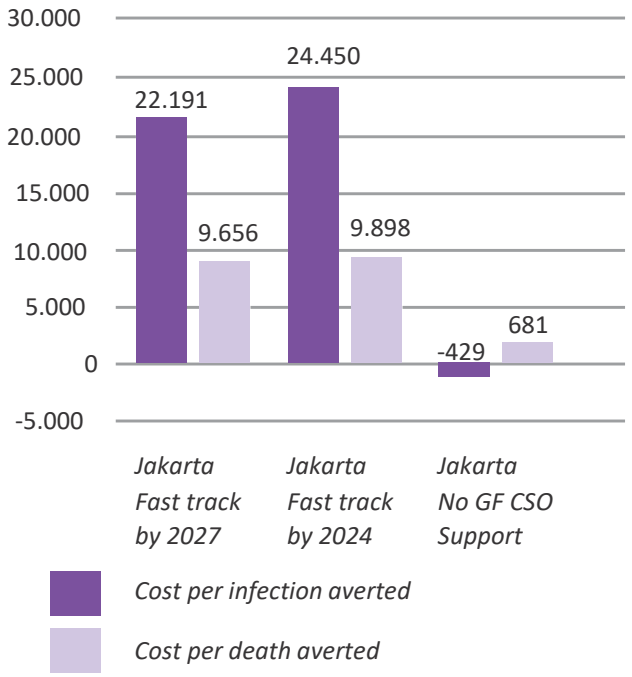


Figure 8.
Cost per infection and number of death averted according 3 scenarios

Tabel 1. *Return of Investment 3 Scenarios*

	Jakarta Fast Track by 2027	*Jakarta Fast Track by 2024*	*Jakarta No GF CSO Support after 2020*
Future treatment cost saved (thousand USD, discounted)	60,281.80	70,520.52	-63477.28
One dollar of investment up to 2030 will return (USD)	19.02	18.56	-11.72
Return of investment (absolute, thousand USD)	2,282,959.26	2,867,271.62	-32796.44

Summary

- Jakarta is a fast tract city and to achieve 90-90-90 target, it requires more investment but return of investment is huge. Scenario fast tract 2024 show the best result on:
  - New infection averted is 6,679
  - Total death averted 16,499
  - RoI USD 2,867 billion and every dollar spent will return USD18,6
- The earlier investment yield the better result. Scenario fast tract 2024 shows the better result than scenario fast tract 2027
- The scenario no CSO support yields the worst outcome. It implies that the 90-90-90 target will be difficult to achieve without CSO support. With this scenario, the RoI may get negative (USD -32 million)

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