Module 11 - Cost of implementation of scenarios for "HIV"

Scenario 1: Testing (one VCT) for most-at-risk people, check-up (two viral loads and CD4 counts) for all HIV-positive people, ARV treatment (line 1 or 2) for those who are HIV-positive in need of treatment

Assumptions:

- Target group = most-at-risk people, HIV-positive among them;
- Take-up rate (progressive coverage of the target group) = 20 per cent in 2014, 40 per cent in 2015, 60 per cent in 2016, 80 per cent in 2017, and 100 per cent as of 2018;
- Administrative cost = 10 per cent;
- Benefit per head:

Table 1: Cost of tests and treatments included in the benefit package of scenario 1

Test or treatment	Unit cost in COD	Benefit package
Per head cost of VCT (if result is positive)	573	1 per year
Per head cost of VCT (if result is negative)	191	
Per head cost of CD4	570	2 per year
Per head cost of viral load	2,849	
Annual cost of ARV line 1	13,125	This indicates annual cost of treatment
Annual cost of ARV line 2	157,500	

Results:
According to the calculations in the RAP model, providing a HIV-package for most-at-risk people is expected to cost 0.03 per cent of GDP or 0.16 per cent of Government expenditures in 2020.

Scenario 2: HIV testing (one VCT) and MTCT prevention, syphilis testing, and antibiotic treatment for all pregnant women

Assumptions:

- Target group = all pregnant women, including those infected with HIV and syphilis;
- Take-up rate (progressive coverage of the target group) = 20 per cent in 2014, 40 per cent in 2015, 60 per cent in 2016, 80 per cent in 2017, and 100 per cent as of 2018;
- Administrative cost = 10 per cent;
- Benefit per head:

Table 2: Cost of tests and treatments included in the benefit package of scenario 2

Test or treatment	Unit cost in COD	Benefit package
Per head cost of VCT (if result is positive)	573	1 per pregnancy
Per head cost of VCT (if result is negative)	191	
Per head cost of MTCT prevention	21 832	1 per pregnancy
Per head cost of syphilis test (for positive results)	84	1 per pregnancy
Per head cost of syphilis test (for negative results)	7	
Per head cost of antibiotic treatment	67	

Results:
According to the calculations in the RAP model, providing an HIV and syphilis package for pregnant women is expected to cost 0.002 per cent of GDP or 0.009 per cent of Government expenditures in 2020.

Scenario 3: VCT twice per year for sexually active population, check-up (two viral loads and CD4 counts) for all HIV-positive people, ARV treatment for those who are HIV-positive in need of treatment, including transportation costs

Assumptions:

- Target group = sexually active people, HIV-positive among them;
- Take-up rate (progressive coverage of the target group) = 20 per cent in 2014, 40 per cent in 2015, 60 per cent in 2016, 80 per cent in 2017, and 100 per cent as of 2018;
- Administrative cost = 10 per cent;
- Benefit per head:

Table 3: Cost of tests and treatments included in the benefit package of scenario 3

Test or treatment	Unit cost in COD	Benefit package
Per head cost of VCT (if result is positive)	573	2 per year
Per head cost of VCT (if result is negative)	191	
Per head cost of CD4	570	2 per year
Per head cost of viral load	2 849	
Annual cost of ARV line 1	13 125	This indicates annual cost of treatment
Annual cost of ARV line 2	157 500	
Transportation allowance	100	2 per year for VCT, 2 per year for CD4 and viral load, 2 per year for ARV

Results:
According to the calculations in the RAP model, providing an HIV-package for sexually active people is expected to cost 0.23 per cent of GDP or 1.22 per cent of Government expenditures in 2020.

Closing the SPF gap for HIV and syphilis in Coresia would cost between 0.03 per cent and 0.23 per cent of GDP in 2020, where 0.03 per cent is the cost of the combination of scenarios 1 and 2, and 0.23 is the cost of the combination of scenarios 2 and 3.

Table 4: Results of the costing exercise for HIV and syphilis

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Scenario 1: Testing (one VCT) for most-at-risk people, check-up (two viral loads and CD4 counts) for all HIV positive people, ARV treatment (line 1 or line 2) for those who are HIV positive and in need of treatment										
Cost of scenario 1 (COD million)	0	0	0	535	1 227	2 117	3 251	4 687	5 413	6 261
Cost as % of GDP	0.00	0.00	0.00	0.00	0.01	0.01	0.02	0.03	0.03	0.03
Cost as % of Government expenditure	0.00	0.00	0.00	0.02	0.04	0.07	0.10	0.13	0.14	0.16
Scenario 2: HIV testing (one VCT) and MTCT prevention, syphilis testing, and antibiotic treatment for all pregnant women										
Cost of scenario 2 (COD million)	0	0	0	57	118	185	257	333	346	359
Cost as % of GDP	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.002	0.002	0.002
Cost as % of Government expenditure	0.000	0.000	0.000	0.002	0.004	0.006	0.008	0.010	0.009	0.009
Scenario 3: VCT twice per year for sexually active population, check-up (two viral loads and CD4 counts) for all HIV positive people, ARV treatment for those who are HIV positive and in need of treatment, including transportation costs										
Cost of scenario 3 (COD million)	0	0	0	7 283	15 298	24 119	33 827	44 514	46 903	49 471
Cost as % of GDP	0.00	0.00	0.00	0.06	0.11	0.16	0.20	0.25	0.24	0.23
Cost as % of Government expenditure	0.00	0.00	0.00	0.28	0.55	0.81	1.05	1.28	1.25	1.22