

# Sustaining HIV/AIDS Treatment Services: Estimating the Health Insurance Liability for Treatment of HIV/AIDS in Vietnam (2015-2020)

Vietnam's HIV/AIDS response is mainly financed by external sources, with 73% of spending on HIV funded by international donors for the period 2008-2010. As donor funding is expected to decline over the coming years, it is critical for the Government of Vietnam (GVN) to identify viable solutions for sustaining HIV/AIDS activities. The Decision No 1899/QĐ-TTg, dated October 16, 2013, of the Prime Minister to approve the Sustainable Financing Options Project for HIV/AIDS prevention and control for the period 2013-2020 has identified funding HIV/AIDS services through social health insurance (SHI) as one of the key strategies to ensure long term sustainability of HIV/AIDS treatment services. The Model to Estimate Health Insurance Liability for Treatment of HIV/AIDS in Vietnam provides financial forecasts on the amounts of funding needed from SHI and other sources for HIV/AIDS treatment.

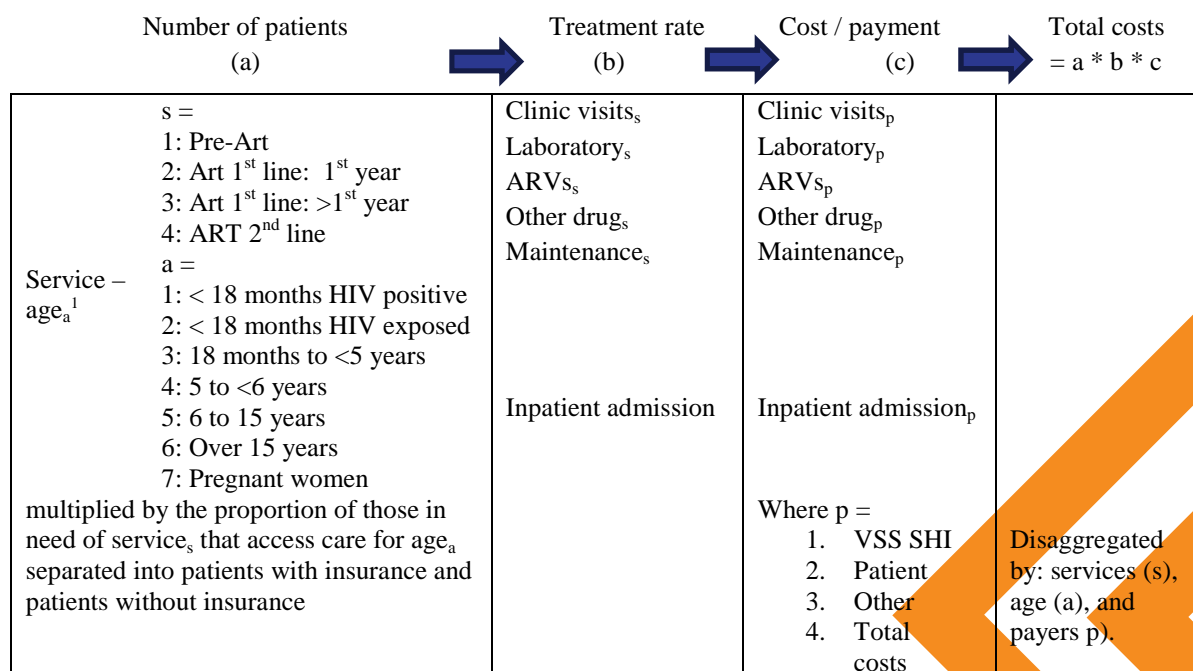
## The objectives of the model are to:

- ▶ Estimate the liability of the national health insurance scheme for supporting the treatment of people living with HIV/AIDS.
- ▶ Establish a methodology that can be adapted in the future as more data become available.
- ▶ Recommend package of HIV/AIDS treatment services to be paid through VSS SHI

## Approach

The model, developed in Microsoft Excel, determines total insurance liability using the following formula:

[People in need of services x accessing rate x insurance coverage] x [number of services x price of service] x [1 – patient copayment rate]



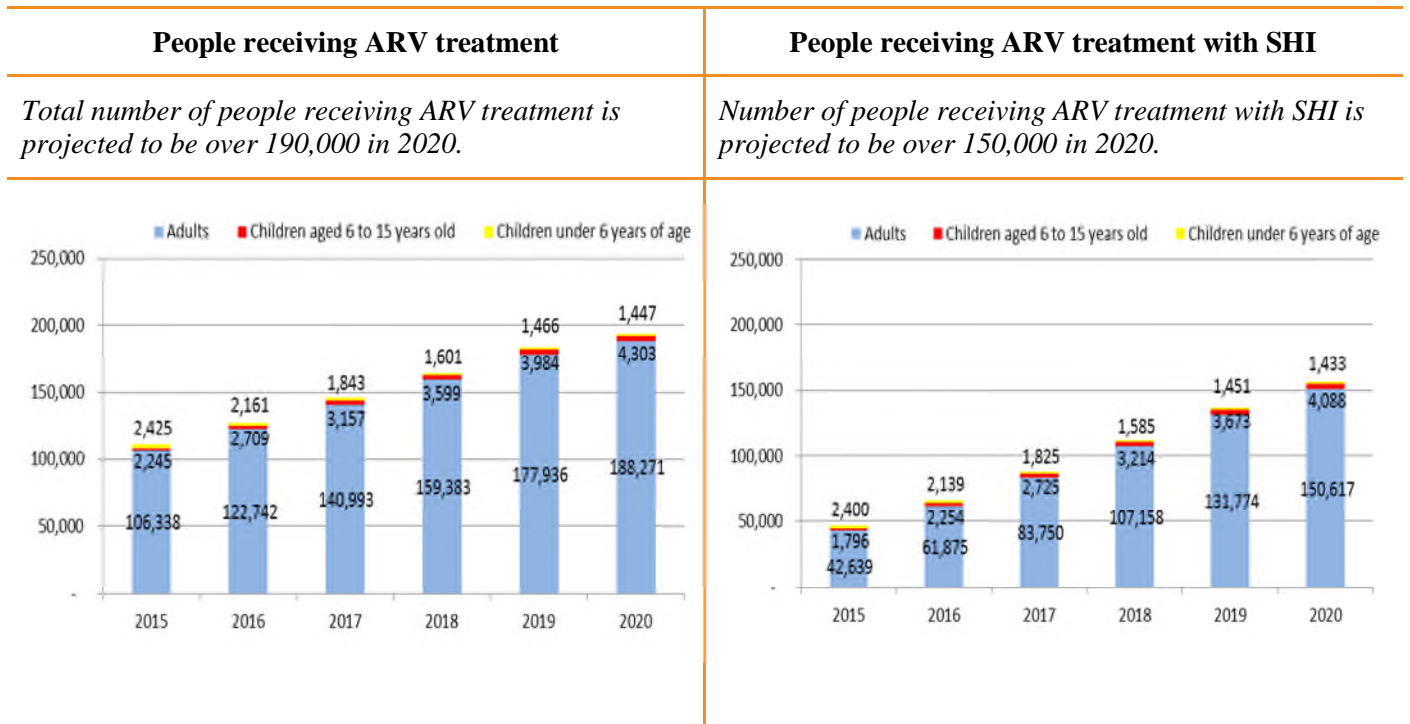
<sup>1</sup> The full report lists details for all seven age groups. For clarity of presentation, this brief has combined results into three age groups.

## Results

### Estimated number of people living with HIV/AIDS, accessing treatment, and on insurance

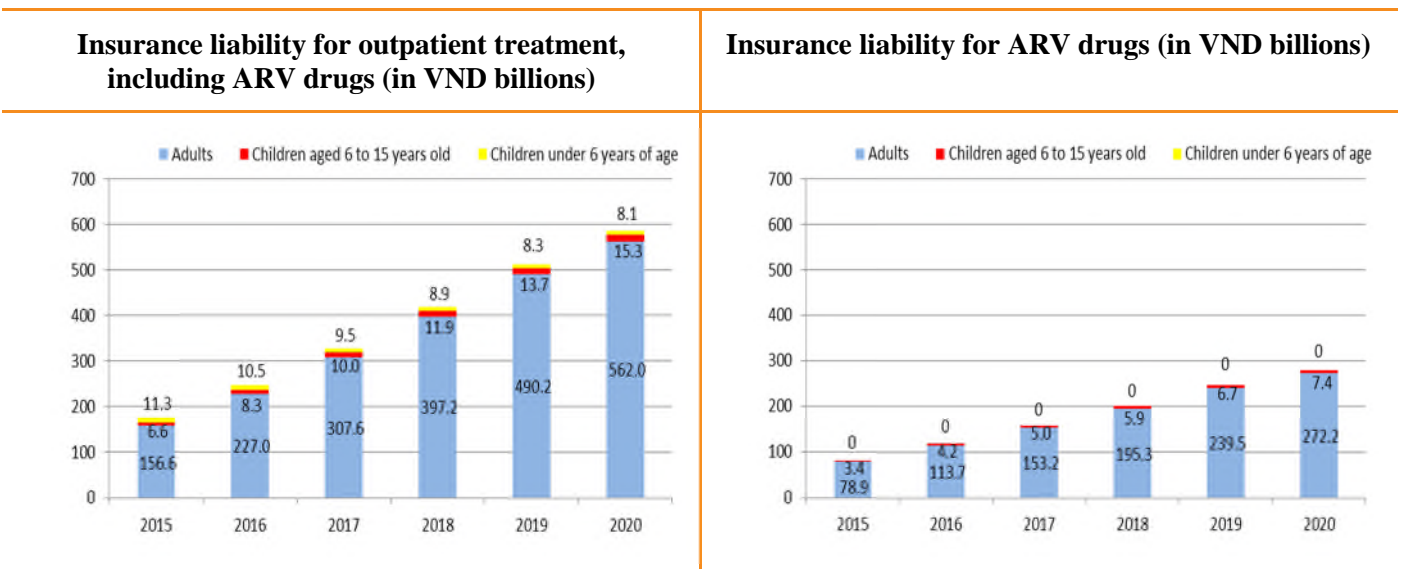
The number of people accessing HIV treatment, taken from the VAAC’s estimation and projection for the period of 2015-2020, are, in 2015, 111,000, of which about 47,000 are projected to be enrolled in the VSS SHI scheme. By 2020, the VSS SHI scheme is projected to cover about 155,000

people accessing HIV treatment, representing about 80 percent of people seeking HIV treatment. If the insurance is assumed to cover 95 percent of people over the age of 6 accessing HIV treatment in 2020, then the number of people covered in the VSS SHI scheme is projected at over 185,000 people accessing HIV treatment.



### Estimated insurance liability (VND billions)

With health insurance coverage from increasing from 40 percent in 2015 to 80 in 2020, SHI liability for both outpatient and inpatient treatment in 2015 is expected to be about 267 billion, increasing to VND 813 billion by 2020 (inpatient liability not shown). Outpatient examinations/laboratory and ARV drugs together account for 94% of outpatient treatment liability.



**Do assumptions affect the results?**

*Copayment: Average patient copayment of 20% (low cost) or 10% (high cost) – depends on what percentage of people are classified as exempt from copayments.*

*Price of first line ARVs: 20% more than current prices and 30% lower than current prices.*

*Results: In 2020, the range of liability based on the scenarios assessed ranges from VND 728 billion to VND 974 billion, a range of VND 246 billion.*

**Total cost by source of finance**

Source of financing	Year / Amount Paid (VND Billions)					
	2015	2016	2017	2018	2019	2020
State Budget / other sources	139	170	201	234	269	305
Social Health Insurance	267	365	474	593	714	813
Patients with SHI*	62	87	115	145	175	200
Patients without SHI	449	418	385	346	302	246
<b>Total</b>	<b>917</b>	<b>1039</b>	<b>1175</b>	<b>1318</b>	<b>1460</b>	<b>1564</b>

\*Assumes patients with SHI incur 20 percent copayment rate.

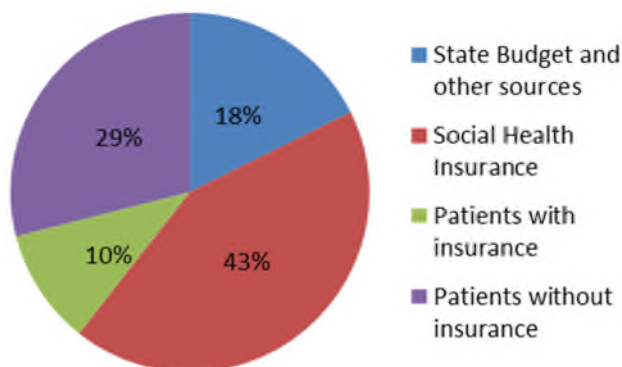
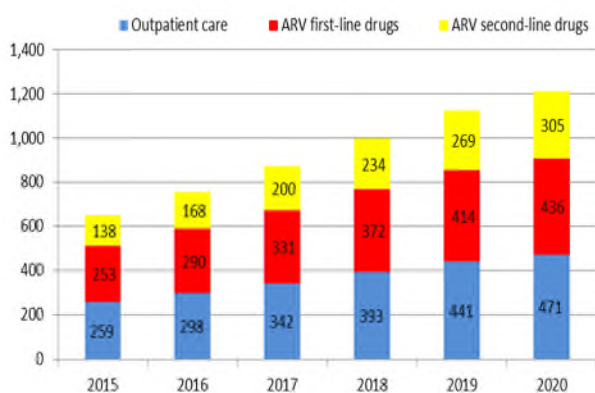
**Estimated total costs (VND billions)**

**Total cost of all HIV/AIDS treatment services (VND billions)**

*The total costs of HIV treatment (from all payers) are projected to be VND 919 billion in 2015, increasing to VND 1,566 billion in 2020, including inpatient care (which is not shown below).*

**Who will pay? (average across 2015 to 2020)**

*Health insurance represents the plurality of payments across all 6 years, but is the highest percentage of all payments 2020 (at 52%) when insurance coverage is assumed to be the highest among all years.*



### Recommended package of HIV/AIDS treatment services

The recommended package of HIV/AIDS treatment services along with the estimated number of services per patient per year according to age cohort and HIV/AIDS treatment component is presented in the following table.

Treatment component	Non-pregnant and >5 years of age				Children < 5	Newly diagnosed pregnant	Exposed children <18 months**
	Pre-Art	ART 1 <sup>st</sup> line (first year)	ART 1 <sup>st</sup> line (after first year)	ART 2 <sup>nd</sup> line	ART 2 <sup>nd</sup> line	ART 1 <sup>st</sup> line (first year)	
Examination	12	12	12	12	12	6	18
Laboratory work							
Blood cell count		2	2	2	2	2	
HbsAg	1	1	1		1	1	
Anti-HCV	1	1				1	
Hemoglobin		1.3	0.3				
Creatinine in blood		1	1.4	1.4		1	
ALT		1.6	0.6	0.6	1	1	
CD4*	2	1.9	1.9	1.9	1	1	
Viral Load*		0.1	0.1	0.1	1	1	
DNA-PCR							1
Elisa							1
TB INH Maintenance	0.7	0.7				0.47	
Cotrimoxazole Therapy	365	365	365	365	365	180	540
ARV		12	12	12	12	6	
3TC/ZDV/NVP		3.6	3.6			1.8	
3TC/TDF/EFV		8.4	8.4			4.2	
3TC/TDF/LPV/r				12	12		
OI OPC treatment	1	1	1	1	1	0.5	

\*Subject to change over time as viral load testing is assumed to become more available in the future.

\*\*Numbers represent recommendations for the first 18 months of life; in the model these are converted to annual costs.

Major Assumptions	Major Limitations
<ol style="list-style-type: none"> <li>HIV/AIDS treatment facilities are eligible to provide HIV examination and treatment services through SHI.</li> <li>Legal framework for the payment of HIV/AIDS treatment through SHI is available and effective.</li> <li>Procurement of antiretroviral drugs with SHI funds has been developed and is in place.</li> </ol>	<ol style="list-style-type: none"> <li>Data on important parameters were not available, including current enrollment in SHI, poverty status, rates of accessing inpatient care by people living with HIV/AIDS, and the full costs of treatment services (including salaries, medical equipment and overhead). Results reflect current health insurance payment rates from three provinces.</li> <li>Cost and liability will change in the future as treatment protocols change (e.g., increased viral load monitoring, different thresholds for starting anti-retroviral therapy).</li> </ol>

## Recommendations

- Collect critical missing or incomplete data including insurance enrolment, poverty status, and full costs of treatment services.
- To the extent possible, track data on important variables over time to update and improve the model to understand social health insurances' liability vis-à-vis HIV/AIDS treatment. Understanding this liability will help ensure proper resource mobilization for HIV/AIDS treatment.

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