



AIDS 2018

Quantifying the Impact of Reduced Investments in Integrated HIV Care Delivery In Belgium



PEC 330

(Dis)investments have significant and lasting (negative) impact on epidemic and budgetS.J.Vermeersch¹, R. Demeester², S. Callens³, S. De Wit⁴, L. Annemans⁵

Context and objectives

In Belgium, **AIDS Reference Centers (ARC)** deliver patient-centered, **integrated HIV care**, leveraging state of the art knowledge and expertise to provide multidisciplinary patient management.

We developed an **integrated value-centered framework^a** to help drive value-driven financing approaches. The **quantification of ARC value drivers** is a key framework component. The present study **quantifies the impact of disinvestments in ARC**.

Methods

We leveraged the **published BELHIVPREV model^b** to assess the **health and budget impact** and **return on investment (ROI)** in ARC for **5 of the 10 key value drivers** identified in the ARC value framework:

1 Prevent new infections

2 Reduce the number of undiagnosed

3 Link to care: visiting a healthcare provider after a positive diagnosis

4 Retain in care: having viral load measured at least once per year

5 Achieve and maintain virological control: viral load < 200 copies/ml

6 Support quality of life

7 Manage and reduce comorbidities

8 Maintain sexual and reproductive health

9 Perform data collection

10 Drive and execute research

Included in our analysis

^a See poster/abstract PED566 – *A framework for value-based financing of integrated care for persons living with HIV*

^b Detailed model description in *Vermeersch et al. Acta Clin Belg 73 (1),54-67*

We simulated **4 scenario's** for 2020, which were further extrapolated to 2030: (i) **current effort**; (ii) **reduced effort**; (iii) **additional effort**; (iv) **additional effort + reinforced outreach**:

	Current effort	Reduced effort	Additional effort	Additional effort + reinforced outreach
Undiagnosed	11%	12%	10%	8%
Treated	94%	92%	97%	97%
Viral load < 200 c/ml	96%	94%	98%	98%
Linked to care	98,2%	95%	99%	99%
Retained in care	97,9%	97%	99%	99%
PrEP (patients)	1 500	1 000	2 633	2 633

Model scenarios were based on hypothetical, yet realistic, expert estimated parameter settings.

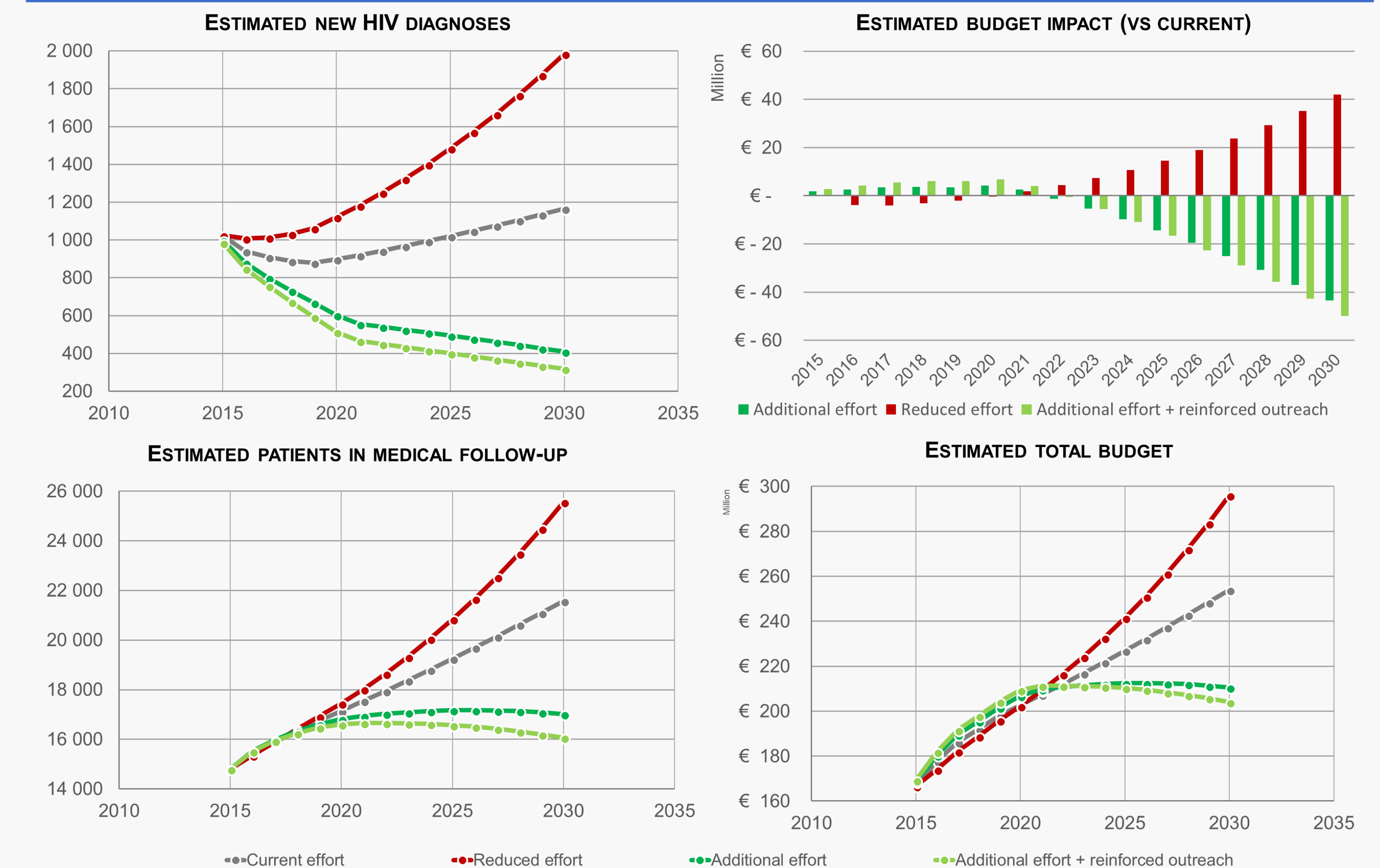
Cumulative costs were generated from 2015 to 2030 and assumed:

| **3M€/year investment** (+60% of total Belgian ARC costs) in the 'additional effort' scenario.

| **2,2M€/year disinvestment** (-43% of total Belgian ARC costs) in the 'reduced effort' scenario.

For the 'additional' and 'reduced' effort scenarios the **ROI** was calculated as the ratio of (cumulative budget impact – cumulative investment cost) over (cumulative investment cost).

Results



	Current effort	Reduced effort	Additional effort	Additional effort + reinforced outreach	RETURN ON INVESTMENT	COST OF NON-INVESTMENT
New diagnoses 2020 (patients)	899	1 121	603	513	2,4	-4,0
New diagnoses 2030 (patients)	1 165	1 985	410	319		
Annual budget 2020 (euro)	203 M€	202 M€	207 M€	209 M€	Every € invested results in 2,4 € saved by 2030	Every € saved results in 4,0 € lost by 2030
Annual budget 2030 (euro)	254 M€	296 M€	211 M€	204 M€		

Conclusions

Investing in integrated care remains critical in managing HIV disease and budget impact. Reducing ARC budgets leads to **significant and lasting impact on the epidemic and healthcare budget expenditure**.

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