An assessment of how effectively health systems monitor HIV-associated comorbidities, using current global and European frameworks

HIVOutcomes
BEYOND VIRAL SUPPRESSION

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BACKGROUND

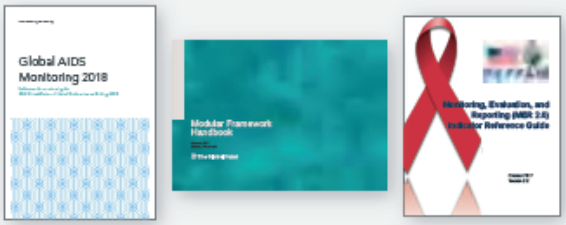
Today we have the tools to deliver effective long-term viral suppression of HIV. Data from continua of care show increasing proportions of people living with HIV (PLHIV) progressing to viral suppression in countries at all income levels. Yet alongside this progress, there is a growing burden of non-AIDS-defining comorbidities and related health concerns for PLHIV. Decisions about which elements of service coverage and which health outcomes countries monitor have important implications for how health systems focus their HIV responses. This study examines whether existing monitoring frameworks sufficiently enable European countries to observe and understand the comorbidities that impact on the health and well-being of PLHIV.

MATERIALS AND METHODS

Drawing on recent literature, we identified 15 non-AIDS-defining comorbidity areas that contribute to poor health in PLHIV globally *(Box 1)*.

Box 1. Non-AIDS-defining comorbidity areas

Bacterial and viral infections	Malignancies
Bacterial STIs	Malnutrition/wasting
Cardiovascular	Neurological
Digestive	Parasitic infections
Drug toxicities	Renal
Endocrine/metabolic	Respiratory
Haematological	Psychiatric
Liver (including HBV and HCV)	



Three researchers independently assessed the extent to which each comorbidity area was monitored with regard to: (1) service access; and (2) disease burden in four monitoring frameworks: Global AIDS Monitoring 2018 (UNAIDS); Modular Framework Handbook (The Global Fund); MER 2.0 Indicator Reference Guide (PEPFAR); and the 2018 Dublin Declaration Questionnaire (European Centre for Disease Prevention and Control). Researchers assigned grades of A when comorbidities were addressed comprehensively, B when comorbidities were addressed but not comprehensively, and C when comorbidities were not addressed. Discrepancies were resolved through consultation.

RESULTS

Over half (8/15) of the comorbidities were not mentioned in any of the four monitoring frameworks (malignancies, parasitic infections, and digestive, endocrine/metabolic, haematological, neurological, renal and respiratory diseases/disorders) *(Tables 1 and 2)*. Across the four frameworks, there were more grades of A or B for access to services (11) than for comorbidity burden (4), and neither MER 2.0 nor the Dublin Questionnaire included any indicators monitoring the comorbidity burden. The only item addressed comprehensively in Global AIDS Monitoring was comorbidity burden for drug toxicities. The only items addressed comprehensively in the Dublin Questionnaire were access to services for bacterial STIs, liver diseases and psychiatric disorders.

Table 1. Comorbidities addressed in four major monitoring frameworks

	Global AIDS Monitoring[1]		Global Fund Framework[2]		PEPFAR MER 2.0		Dublin Declaration Monitoring	
	Access to services monitored	Comorbidity burden monitored	Access to services monitored	Comorbidity burden monitored	Access to services monitored	Comorbidity burden monitored	Access to services monitored	Comorbidity burden monitored
Bacterial and viral infections (excluding bacterial STIs)	C	C	C	C	C	C	B[3]	C
Bacterial STIs (chlamydia, gonorrhea and syphilis)	B[4]	B[5]	C	B[6]	C	C	A	C
Cardiovascular	B	C	C	C	C	C	B	C
Drug toxicities	C	A	C	C	C	C	C	C
Liver (including HBV, HCV)	B[7]	B[7]	C	C	C	C	A	C
Malnutrition/wasting	B	C	C	C	C	C	B[8]	C
Psychiatric	B	C	C	C	C	C	A	C

A = addressed comprehensively
B = addressed but not comprehensively
C = not addressed

STIs = sexually transmitted infections, HBV = hepatitis B virus, HCV = hepatitis C virus

1. Indicators in National Commitments and Policy Instrument were included in screening. 2. Content related to core indicators was screened, but not content related to module descriptions. 3. Addresses hepatitis A and hepatitis B vaccination for men who have sex with men. 4. Addresses syphilis in pregnant women. 5. Addresses syphilis in pregnant women, sex workers and men who have sex with men. 6. Addresses syphilis. 7. Addresses only hepatitis B virus and hepatitis C virus. 8. Addresses smoking cessation, nutrition and weight management.

Table 2. Comorbidities not addressed in four major monitoring frameworks

	Global AIDS Monitoring[1]		Global Fund Framework[2]		PEPFAR MER 2.0		Dublin Declaration Monitoring	
	Access to services monitored	Comorbidity burden monitored	Access to services monitored	Comorbidity burden monitored	Access to services monitored	Comorbidity burden monitored	Access to services monitored	Comorbidity burden monitored
Digestive	C	C	C	C	C	C	C	C
Endocrine/metabolic	C	C	C	C	C	C	C	C
Haematological	C	C	C	C	C	C	C	C
Malignancies	C	C	C	C	C	C	C	C
Neurological	C	C	C	C	C	C	C	C
Parasitic infections (including malaria)	C	C	C[3]	C[3]	C	C	C	C
Renal	C	C	C	C	C	C	C	C
Respiratory	C	C	C	C	C	C	C	C

A = addressed comprehensively
B = addressed but not comprehensively
C = not addressed

1. Indicators in National Commitments and Policy Instrument were included in screening. 2. Content related to core indicators was screened, but not content related to module descriptions. 3. Malaria not addressed as an HIV comorbidity.

CONCLUSIONS

We found that major HIV monitoring frameworks fail to comprehensively address most non-AIDS-defining comorbidities, particularly chronic conditions associated with ageing. As the continuum of HIV care is reconceptualized to reflect long-term health and well-being, monitoring frameworks must be revised to include non-AIDS-defining comorbidities. This will encourage prevention, diagnosis and treatment of comorbidities, consequently improving long-term health outcomes and quality.

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