CARDIOVASCULAR HEALTH

A program of Resolve to Save Lives
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HIV-HYPERTENSION SERVICES INTEGRATION

Surviving with HIV; dying from hypertension

- Survival in people living with HIV (PLHIV) in Sub-Saharan African countries has improved markedly in the past decade, largely due to rapid scale-up of antiretroviral therapy (ART).
- This aging population is at higher risk of cardiovascular disease (CVD) than HIV-negative adults, owing to higher prevalence of traditional CVD risk factors, side-effects of some ART medications, and HIV-related chronic inflammation.[1-7]
- Higher CVD risk persists even in PLHIV on ART with suppressed viral load.
- About 6 million PLHIV in Sub-Saharan Africa (25%) are estimated to have co-morbid hypertension; evidence suggests that less than 25% receive hypertension treatment.
- Treating PLHIV for hypertension could prevent at least 600,000 CVD events and 87,000 CVD deaths over the next 10 years.[8]

Translating successes from HIV control to hypertension

Resolve to Save Lives supports ongoing pilot projects focused on developing and testing models of HIV-hypertension services in four countries, with 10,276 PLHIV enrolled to date. All projects employ differentiated service delivery (DSD) models for HIV and hypertension management in stable patients — including facility fast-track, facility group, and community medication refill models. The projects have demonstrated that HIV control can be maintained to a high standard while delivering hypertension services based on the World Health Organization's HEARTS technical package.

Table: Summary outcomes of Resolve to Save Lives-supported HIV + Hypertension projects

Project	Among PLHIV engaged in HIV care and with stable viral suppression						
	Description	Screened for HTN	HTN diagnosed	Initiated on HTN treatment	HTN Controlled	Retained in HTN care	HTN + virally suppressed
Makere Joint AIDS Program (MJAP) *Uganda*	One large clinic in Mulago, Eastern Uganda	15,953	3,874	1,133	72% (21m)	96% (21m)	98% (21m)
ITECH *India*	20 facilities in Mumbai	36,392	8,604	6,535	40% (10m)	97% (10m)	94% (10m)
PATH *Kenya*	Three pilot facilities in two counties in Western Kenya: Kisumu and Nyamira	3,193	681	106	21% (6m)	96% (6m)	97% (6m)
FHI 360 *Nigeria*	30 health care facilities in Akwa Ibom state	50,472	2,511	2,502	87.5% (9m)	92% (9m)	98% (9m)

Pilot evidence generated in Uganda MJAP program was integral in the country adopting HTN services as part of PEPFAR COP21 and led to a U.S. NHLBI-funded scale up project (PULESA-Uganda; NHLBI UG3HL154501).

The future of HIV survival is hypertension control

As life expectancy for PLHIV continues to increase, hypertension will likely to become the leading risk factor for premature mortality. Preventing and treating hypertension is simply part of ensuring long, healthy lives for all PLHIV. Now is the time to scale up HIV-hypertension integration to sustain the population health impact of PEPFAR, and to use the PEPFAR platform to help partner countries develop person-centered treatment for other conditions as PLHIV age.

Five steps to HIV-hypertension service integration

1. **Expand scope of HIV programmes** to offer high quality services for management of hypertension and other non-communicable diseases (NCDs), including diabetes

2. **Opportunistically screen for hypertension and diabetes among all adult PLHIV**
   - Measure blood pressure of all adult PLHIV at every visit to a health facility using a validated digital automated blood pressure monitor by a trained staff person, with confirmatory blood pressure measurement on a second occasion in those with initial blood pressure ≥140/90 mmHg
   - Screen all eligible PLHIV for diabetes annually using random point-of-care fingerstick glucose, with confirmatory fasting glucose testing on a second occasion in those with initial random glucose ≥200mg/dl

3. **Implement standard hypertension and diabetes treatment protocols in primary care**
   - Train healthcare workers/ART service providers on hypertension management using a simple, **standard hypertension protocol** starting with either a single drug or two-drug combination recommended by WHO
   - Train NCD management team on using a simple, standard diabetes treatment protocol starting with standard oral anti-diabetes agents
   - Initiate people with existing CVD and people age ≥40 years old without CVD but with diabetes on **lipid-lowering treatment** with atorvastatin 20 mg
   - Follow up patients with controlled blood pressure or blood sugar within DSD mechanisms

4. **Ensure access to essential medicines**
   - Ensure an adequate supply of protocol medicines
   - Ideally provide medicines to PLHIV free of charge
   - Ensure 90-day refills, fast-track refills, and/or community refills for stably controlled patients (if all conditions are controlled)
   - Leverage existing PEPFAR-Global Fund commodity pipeline to procure low cost hypertension and diabetes medicines

5. **Track patient outcomes and program performance using an information system**
   - Establish **standard hypertension and diabetes indicators** for patient and program monitoring
   - Implement a fast, simple **digital information system** that optimizes health worker efficiency (e.g., Simple app, DHIS2 hypertension control package)
   - Mainstream hypertension/diabetes program performance data review and use into existing mechanisms at site and above site levels

References

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SIX STEP GUIDE TO SCALING UP A HYPERTENSION PROGRAM

TOOLKIT

linkscommunity.org/toolkit/hypertension-six-steps