HIV/AIDS care and follow-up on a national scale in low resource settings: experience of the Niger Initiative on Antiretroviral Access (INAARV), Niger

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Background

Scaling up of HAART in Niger began in 2004 at a national level through the Niger Initiative on Antiretroviral Access (INAARV), with technical support from the NGO SOLTHIS.
INAARV provides free ARV access, biological and immunological monitoring, and centralized data collection.

All HIV/AIDS patients:
- are followed-up in public health systems : 5 ARV centers in Niamey, 8 in the regions
- receive standardized care following national guidelines.

Methods

The Nigerien national database is made of five local databases (Diffa, Maradi, Niamey, Tahoua, Zinder).
Patients' clinical files data, as recorded by physicians at each follow-up visit, are recorded in the software Fuchia® (Epicentre).
This evaluation of the national database includes all adult patients (15 years) who initiated HAART between October 2004 and March 2008.

While all inclusion and initiation statistics are computed for the complete cohort, follow-up statistics only take into account patients with ≥1 follow-up visit.
For Kaplan-Meyer computation, we also drop transferred patients (n=64). Computation is made with statistical software R.

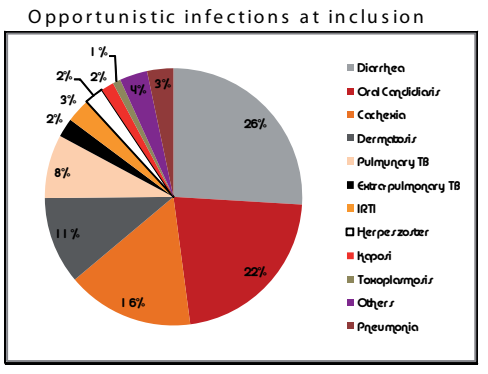
Results

Whole national cohort: **3668 patients;** adults patients who initiated ART: **2995**

Patients characteristics at inclusion

Sex	Female	1577 (53%)
Age (yrs)	Median [IQR]	35,2 [29,2-41,2]
CD4 (cell/mm³)	Median [IQR] (n=2429)	128 [56-214]
BMI (Kg/m²)	Median [IQR] (n=1557)	18,59 [16,3-21,4] (32%severe malnourished)
OMS staging	n (%)	Median CD4 [IQR]
I-II	902 (38)	189 [105 - 299]
III	1200 (50)	104 [46 - 180]
IV	277 (12)	1 [28 – 157]

Opportunistic infections at inclusion



ARV at inclusion

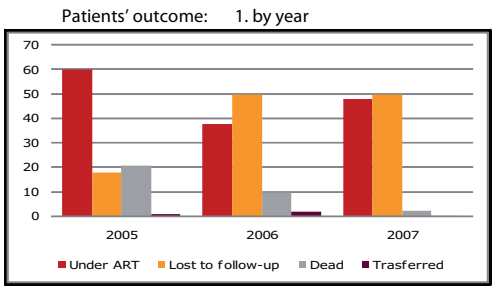
2NRTI/1NNRTI	2822 (94%)	2NRTI/1IP	74 (2.4%)	2NRTI/1IP/r	4 (0.1%)
				3NRTI	5 (0.2%)
				Others	90 (3%)

2NRTI/1NNRTI
=> mainly d4TorAZT/3TC/NVP
2NRTI/1IPr
=> mainly d4T orAZT/3TC/IDVr

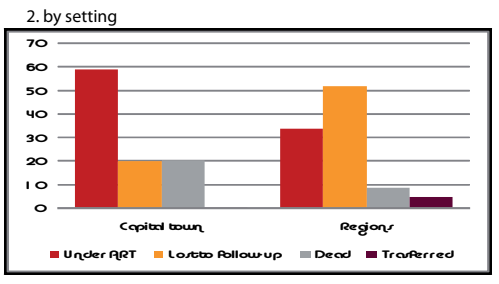
Adults patients on ART with ≥ 1 follow-up visit : **2606**

Median follow-up time : **12,9 months** [4,3 - 22,5]

Patients' outcome: 1. by year

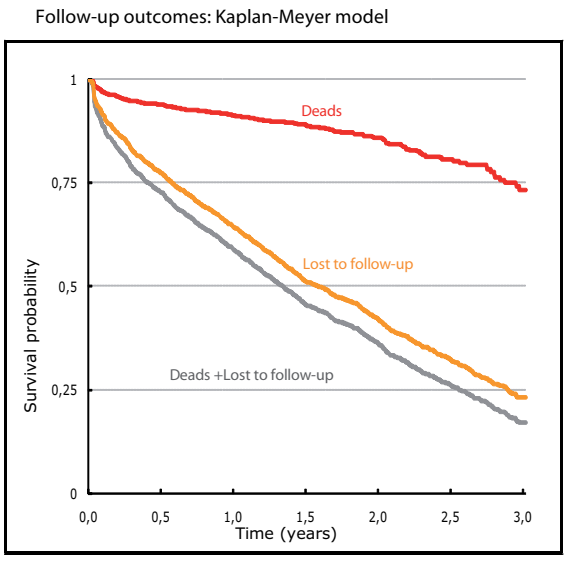


2. by setting



Lost to follow-up are overestimated due to increased issues in data collection and follow-up in the regions

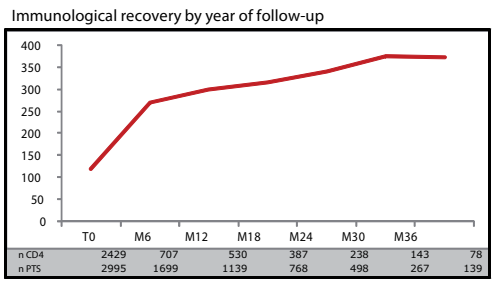
Follow-up outcomes: Kaplan-Meyer model



Opportunistic infections during follow-up
770 patients with ≥ 1 OI after HAART

	n	Median time after ART [IQR]
Pulmonary TB	98	2,2 [1.0 - 3.9]
Extra-pulmonary TB	31	1,97 [1.1 - 3.8]

Immunological recovery by year of follow-up



Virological outcome

Median time of viral load testing
17,1 months [10,1 – 28,7]

Undetectable (< 400 cp)	Low viremia (400-1000 cp)	Detectable (> 1000 cp)
85 (74%)	10 (9%)	20 (17%)

Patients with detectable viral load (n=20):
- 6 are on 2nd line ART (30%)
- 6 are still on 1st line ART (30%)
- 8 are lost to follow-up (40%)

Conclusion(s)

Implementation of HAART with nationally standardized criteria in a public health approach is achievable in low income countries. Many efforts needs to be done in the areas of clinical and immunological follow-up.

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