Supplementary Data

Supplementary Table S1. Comparison of Public Sector HIV Clinics Across Gauteng and Mpumalanga, South Africa

	Gauteng					*Mpumalanga*	
	Themba Lethu Clinic Central JHB	*Alex North JHB*	*Leratong West JHB*	*Witkoppen North JHB*	*Edenvale East JHB*	*ACTS*	*Shongwe*
Demographics and clinical characteristics at ART initiation							
Initiated on ART, *n*	13,985	4,966	5,393	3,669	3,383	3,810	7,222
region	Urban	Periurban[a]	Periurban[a]	Urban	Periurban[a]	Rural[b]	Periurban[a]
Gender, male, *n*,%	5,163 (36.9%)	1,844 (37.1%)	1,949 (36.1%)	1,092 (29.8%)	1,289 (38.1%)	1,428 (37.5%)	2,457 (34.0%)
Age, median, IQR	36.0 (30.9–42.5)	36.5 (30.9–43.2)	35.8 (30.2–43.1)	35.1 (30.0–41.4)	35.8 (30.5–42.5)	36.9 (30.9–44.3)	35.6 (29.3–43.7)
Employed, *n*,%	6,418/13,985 (45.8%)	2,163/4,965 (43.6%)	1,211/5,393 (22.5%)	1,787/3,669 (48.7%)	1,401/3,368 (41.6%)	928/3,810 (24.4%)	1,413/7,222 (19.6%)
Body mass index (BMI; kg/m^2), median, IQR	21.5 (19.0–24.8)	21.8 (19.5–25.3)	21.3 (18.8–24.6)	23.5 (20.9–27.0)	22.5 (19.9–26.0)	20.9 (18.3–24.3)	21.9 (19.4–24.9)
CD4 count, cells/mm^3, median, IQR	92.0 (34.0–160.0)	109.5 (50.0–170.0)	103.0 (47.0–160.0)	130.0 (65.0–195.0)	97.0 (38.0–161.0)	90.0 (28.0–173.0)	130.0 (65.0–183.0)
Hemoglobin, g/dl, median, IQR	11.4 (9.9–12.9)	11.4 (10.0–12.8)	11.1 (9.6–12.5)	11.6 (10.3–12.8)	11.5 (10.0–12.8)	10.4 (8.9–11.8)	10.3 (8.9–11.6)
WHO stage III/IV, *n*,%	5,330/12,346 (43.2%)	1,281/2,471 (51.8%)	1,557/2,767 (56.3%)	720/1,732 (41.6%)	914/2,300 (39.7%)	2,222/3,153 (70.5%)	3,492/4,537 (77.0%)
Management of adolescent							
Patient identification	Referred from adult clinic	Patients identified according to age of presentation. Also transfer-in or referred from other institutions	Patients identified according to age and characteristics (i.e., school uniform)	Patients identified according to age. Transfer-in or referred from other institutions/ ANC screening	Identified by age: 10–13 years old are accompanied by caregivers; 13–18 years are self referrals	Patients identified according to age. Transfer-in or referred from other institutions	Patients identified according to age
Referred from pediatric to adult HIV care	No	Yes (due to pregnancy)	Yes	Yes	Yes	No	Yes
Patients initiated as adults	Yes	Yes/10–14 year olds are initiated in pediatric clinic	Yes	Yes	Yes	Yes	Yes
ARV drug or medical visits for adolescent	Seen once a month on an "adolescent day" for full assessment (medical visits, blood, and collect ARVs) and engage in social activities	1 day per week is dedicated for visits (i.e., Wednesday)	Visits are booked at 1–2 month intervals randomly for any day of the week	First medical visit date is after 2 weeks to 1 month. Stable patients booked at 2–3 month intervals	Visits are booked to coincide with the adolescent social support groups and usually after school hours	1 day per week is dedicated for visits (i.e., Wednesday)	1 day per week is dedicated for visits (i.e., Wednesday)

(*continued*)

Table S1. (Continued)

	Gauteng					*Mpumalanga*	
	Themba Lethu Clinic Central JHB	*Alex North JHB*	*Leratong West JHB*	*Witkoppen North JHB*	*Edenvale East JHB*	*ACTS*	*Shongwe*
Specialist consultants/ dedicated staff	Special Medical Officer, counselor and clerk	Clinic has a multidisciplinary approach (dedicated team: pediatric specialist, social worker, pharmacy, dietician, and referral for psychology services). Adolescents 10–17 years are NOT seen in the adult clinic like the other sites in this study	Well experienced Medical Officers. Dietician, social worker, and counselor. Pediatrician consulted by telephone. No HIV infectious disease specialist	Dietician, psychologist, HIV infectious specialist, counselor, and on-site social worker support	Pediatric specialist consultant and on-site social worker	HIV infectious disease specialist; a nurse practitioner; 3 pediatric counselors; occupational therapist; social worker	Pediatrician consultant. Dietician, psychologist, and social workers are always available
Incentives	A meal is provided to them on the "adolescent day." Special social/ educational activities (crafts)	Food parcels are given to those who need it	OVC program provides cell phones, sanitary towels, etc.	Adolescent support group hosted once a month—with refreshments. Food parcels if there is a need	None	Feeding program—bowl of soup and fruit on visit day. Memory box	None
How are adolescents treated differently?	Adolescents meet on a special day. Special social/ educational activities are arranged and a meal is provided to them	Visits booked on an "adolescent day." Support groups, individual counseling, and social worker involvement	Adolescent (orphans and nonorphans) attend sessions with educational and clinical psychologist in the OVC program	One-on-one session with counselor, adolescent support group hosted once a month, psychologist is available for unresolved issues	Clinic visits after school hours that coincide with the adolescent social support group meeting—led by on-site social worker	Visits booked on an "adolescent day." Specialist counselors are available	One-on-one session with counselor. Visits booked on an "adolescent day."
Initiating ART regimens prescribed	DoH first-line—mainly TDF/3TC/EFV	DoH first-line	DoH first-line—usually d4T/ 3TC/EFV	DoH first-line—usually d4T/ 3TC/EFV (Regimen 1A)	DoH first-line—usually d4T/ 3TC/EFV	DoH first-line—usually d4T/3TC /EFV (Regimen 1A)	DoH first-line—usually d4T/ 3TC/EFV (Regimen 1A)

(*continued*)

Table S1. (Continued)

	Gauteng					*Mpumalanga*	
	Themba Lethu Clinic Central JHB	*Alex North JHB*	*Leratong West JHB*	*Witkoppen North JHB*	*Edenvale East JHB*	*ACTS*	*Shongwe*
Handling of regimen	Patients previously on d4T are moved to TDF if they are suppressed (for ease of dosing) or switched to Regimen 2	Changes to the second line are often based on genotyping (if available). Lamivudine (3TC) monotherapy is used as a holding strategy in consultation with a specialist in certain cases of viral failure		TDF not prescribed for children less than 18 years. Children over the weight of 40 kg are provided adult dosages	Patients switched to adult dosages based on weight	Children over the weight of 40 kg are provided adult dosages	1A, however, prefers to prescribe the medication once a day for adherence
Switch from pediatric to adult regimens	Adolescents are on adult regimens	Most patients are kept on ABC/ 3TC/EFV until 18 years of age. Switched due to d4T toxicity	Most adolescents are on adult regimens	TDF not prescribed to children less than 18 years. Children over the weight of 40 kg are provided adult dosages	Switched due to d4T toxicity. Switch is based on weight and not age	Switch is based on weight and not age	Dosages are based on the weight of the patient
Information on disclosure of HIV status to adolescent recorded	No	Yes	Yes	Yes	Yes	Yes	Yes
Other adolescent health care services provided	Male circumcision	Cervical screening available and referral for male circumcision	Male circumcision	Cervical screening available and referral for male circumcision	Social support group		Male circumcision
HIV transmission—perinatal or behavioral	Not specifically stated	Not specifically stated	Not specifically stated	Not specifically stated	Not specifically stated	Not specifically stated (assessed by history, parental status, history of abuse)	Assessed by time on antiretroviral therapy

[a]Periurban areas can be described as those immediately adjoining urban areas, localized outside formal urban boundaries and urban jurisdictions, that are in a process of urbanization and that therefore progressively assume many of the characteristics of urban areas.

[b]Rural areas are settled places outside towns and cities; their inhabitants generally live in villages, on farms, and in other isolated houses.

AR, antiretroviral; DoH, Department of Health; ART, antiretroviral therapy; IQR, interquartile range.